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MESSAGE FROM THE CONFERENCE CHAIRMAN

The 19th International Conference on African Entrepreneurship and Small Business Development (ICAESB) is a conference that has been held consistently for the last 20 years except for a year when it was postponed for a number of reasons. The ICAESB is an annual conference organized by the University of Dar es Salaam Business School (UDBS) that provides a unique international forum and an opportunity for researchers, policy makers, and business practitioners to exchange views, share experiences, and disseminate research findings and practical lessons in the areas of small and medium enterprises (SMEs) and entrepreneurship development in Africa and beyond. The conference is organized with the understanding that the growth of SMEs in domestic, regional and global markets is inevitable. The growth of SMEs in an increasingly globalizing world has thus compelled the Business School to come up with the main theme of “*African Entrepreneurship within Global settings*” for its 19th ICAESB. In tandem with the main conference theme, we received research papers on the following sub-themes: SMEs and Industrialization, Inclusive Growth, SMEs in Tourism, Oil and Gas and Mining sectors, Social Entrepreneurship, Information and Communication, Technology and Inclusive Development, SMEs’ Internationalization. Others are Entrepreneurship & 17 SDGs, Human Resource Management in SMEs, and Cross-cutting Issues like HIV/AIDS, Gender, and Governance. The Guest of Honor who graced the official opening of the conference on 15th August 2019 is Prof. William A.L. Anangisye, the Vice Chancellor of the University of Dar-es-Salaam. To colour the conference, the organizers invited four (4) keynote speakers to address the conference on practical experiences and policy issues. These speakers and the organization they represent in blankets are John Ulanga (TMEA), Ibrahim Mshindo (DSE), Mirumbe Mseti (PWC) and Dr. Hilderbrand Shayo (TIB). In addition, invited to the conference are alumni of the Business School who have gone out and excelled in their business pursuits. These were invited to share their experience and challenges they face in their fields. Presentations from the alumni inspired many delegates and opened eyes to a plethora of opportunities available in the environment to create business and generate employments. Five alumni shared their business experiences and successes. These were Dr. Juliana Wilbard, from RECCA Investment, Dr. Issa Seif Salim from Zanzibar Overseas Co. Ltd, Sengoka Natujwa from STEMO Company Ltd, Dr. Tobias Swai, from EMTECH Foundation Ltd/ Feedpro EMAX Ltd and Maida Waziri from Ibra Africa Ltd.

While forty nine (49) academic papers were received, this proceeding samples a collection of 25 papers from the conference. It is imperative to also note that this year’s conference coincided with the 40th anniversary celebrations of the University of Dar-es-salaam Business School (Formerly the Faculty of Commerce and Management which was established in 1979).

Let me end my message by expressing my heartfelt appreciation to all authors of the papers and those who made this conference a success. We highly appreciate your support and confidence that you have placed in the University of Dar es Salaam Business School. I wish you all the best.

Prof. Ulingeta O.L. Mbamba

Chairman- ICAESB 2019

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Consumer Welfare Effect of Export Ban: Moderating Role of the Domestic Markets Locations

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Abstract

This paper examines consumer welfare effects of maize export bans in Tanzania. It attempts to test the relevance of the core policy objective of the export bans and establishes whether export bans have homogeneous effect to consumers in the implementing country. We consider locational differences of Tanzania domestic markets in respect to the major export markets, East African Community (EAC) countries. The analysis focuses on consumer welfare effects of export ban to consumers in regions bordering EAC countries (EAC border regions) and regions that are at least 500 kilometers from any nearest EAC country border (peripheral regions). Using a combination of computational and estimation techniques, we show that export ban of maize led to average welfare loss of 6.5 per cent for EAC border regions and welfare gain of 13.3 per cent for peripheral regions. The findings are however not statistically significant. We further show and provide possible explanation for domestic markets where the consumer welfare effects are different from the peers. Regional level analysis indicated significant variations in consumer welfare effects within and between regional groupings. Despite the stated limitations, the findings presented in the paper challenge the rationale of export ban policy and show the heterogeneity effect of the policy in Tanzania which can partly be explained by the fragmentation of the domestic market. The difference of export ban effects displayed by two groups of regions suggests for a need to improve the frameworks modeling the effects of export ban. Practically, the difference in effect suggests targeted policy interventions that are location specific.

Keywords: *Consumer welfare, export ban, Tanzania, border regions, maize*

Introduction

As a member of the East African Community (EAC)¹ and the Southern African Development Cooperation (SADC)², Tanzania committed to eliminate all forms of barriers, including non-tariff barriers in support of promoting trade among the member states. However, Tanzania has regularly imposed export bans on maize for security reason and protecting consumers against adverse domestic price movements (Diao & Kennedy, 2016). Maize is consumed by approximately 80 per cent of Tanzanians across the country (Saidia, Chilagane, Alexander, & Janet, 2010) and provides about 60 per cent of caloric intake and over 35 per cent of protein content (DTMA, 2014). Producers and some policymakers are against export ban measures because they deny producers' right to get higher prices in export markets (Kagira, 2011). The view that export bans benefit consumers remains debatable. Export bans may have short-term benefits for consumers (Aragie, Pauw, & Pernechele, 2018; Diao & Kennedy, 2016). They seem to discourage economic efficiency that is inherent in international trade (Clapp, 2017) and tend to promote subsistence agriculture (Aragie et al., 2018), thus less compatible with long-term development goals.

¹ Article 13 of the Protocol on the Establishment of the East African Community Customs Union

² Article 6 of the Protocol on Trade in the Southern African Development Community (SADC) region

The government of Tanzania anticipated no exports would be made during the implementation of export ban measures. There are however evidence that exports take place regardless of the presence of export bans MAFAP (2013). The total export volume may be low in the presence of export ban due to absence of formal exports. For example, 2.4 per cent of maize produced in Tanzania was exported in 2007 when there was no export ban, while 2.2 per cent was exported in 2004 to 2005 when an export ban was in place (Barreiro-Hurle, 2012). Furthermore, Makame (2013) show that the export ban was associated with increased informal cross-border trade. Informal cross-border trade seems to be a common feature in developing countries, such as Tanzania (Aragie et al., 2018; Porteous, 2017). The provided facts raise doubt as to whether the export ban policy meets its intended objectives. In particular, it is worth exploring whether consumer, the main target beneficiaries, benefit from export ban and that is the case for consumers all over the country.

Exports account for a limited proportion of maize production in Tanzania, seemingly part of the surplus. In 2009/2010, annual maize consumption was estimated at 3 million tons, compared with production of approximately 4.7 million tons (data from Ministry of Agriculture, Food Security and Cooperatives). The surplus maize is mainly exported to African countries, with occasional exports to Asian countries such as Bangladesh, Yemen, China, and Oman. About 80 per cent of Tanzania maize exports go to EAC countries³ and most of them are transported via roads (Karugia et al., 2009). Occasionally, Tanzania imports maize to address deficit, which faces some regions in Tanzania, partly due to fragmentation of the domestic markets. However, Tanzania is a net maize exporter (Diao & Kennedy, 2016) and the fourth largest producer of maize in Africa (VIB, 2017). Export bans were expected to improve distribution of maize within the country thereby availing maize to consumers throughout the country at lower prices (Aragie et al., 2018). The reality may differ from expectations. For example, export bans have sometimes found to cause price increase (Liefert, Westcott, & Wainio, 2012). Export bans are therefore likely to affect consumers in all regions in Tanzania, although the effect may be different depending on integration to EAC markets.

There are some attempts to empirically examine welfare effect of export ban. The available literature show mixed findings with regard to the effects of export bans on consumers in Africa. Some authors (Diao, Kennedy, Mabiso, & Pradesha, 2013; Kagira, 2011) find that the effect is positive, even though marginal. Diao et al. (2013) examined the welfare effect of the export ban in Tanzania, but did not capture the heterogeneity of the country's different regions, which are not uniformly integrated into the global markets. In examining the effect of cereals export ban, Woldie and Siddig (2009) find no evidence that export bans benefit consumers. Diao and Kennedy (2016) did consider heterogeneity of domestic markets and found export bans to have some benefits to poor urban households and negative effect to poor rural households. They also show that export ban reduces returns to rural household. Nonetheless, Diao and Kennedy (2016) focused on the impact of export ban on producers and traders, but explored welfare effect differences across regions in Tanzania.

Estimation using statistics from International Trade Center (ITC) database show that EAC countries accounts for more than 80 percent of Tanzania maize exports and most of maize are transported via roads (Karugia et al., 2009). Dabalén and Paul (2014) find that consumers suffered a welfare loss following the introduction of the export ban in Tanzania. However, Dabalén and Paul (2014) argue that north and north-west are the only parts of Tanzania that export maize to the EAC, and consequently, the only regions that can be affected by an export ban. Our view, however, is that all regions in Tanzania may be affected by an export ban, and that it is the degree of impact that differs across regions. The location of the domestic market/region is likely to affect price transmission and hence the welfare effect of an export ban on consumers. Border regions are expected to be more sensitive to policy change, as they are more integrated into the regional market than their counterparts.

This paper examines whether export ban improves consumer welfare and if the effect is uniform across regions in Tanzania. In answering the questions, we start by estimating the effect of export ban on transmission from international to domestic prices while considering the location of the domestic

markets. Computed coefficients are then used in computing consumer welfare effect. The paper contributes to knowledge by proposing consideration of the location of local markets in modeling welfare effect of export ban. Practically, the study challenge on the relevance and generality of the export ban policy in Tanzania, and developing countries with similar context.

The paper is organized as follows: in the next section I review literature on the key concepts, consumer welfare and export ban. In the third section, I present the approaches of computing consumer welfare effect including models for estimating coefficients for computation of consumer welfare. This is followed by results and analysis and discussion section. Concluding remarks are presented in the last section.

Literature Review

Consumer welfare

Subscribing to economic perspective of welfare, OECD (1993) define consumer welfare as the benefits derived from the consumption of goods or services. Practically, consumer welfare is often measured through consumer surplus. It refers to the benefits derived from the difference between what the consumer is willing to pay for the good or service and what he or she actually pays (Burghouwt, 2016). It is worth noting that households may be producers and consumers of the same crops. Household may therefore gain or lose from productions (producer welfare) and or consumptions (consumer welfare). This study examines consumer welfare effect, where households may entail consumer welfare gain or loss depending on the price movement, where they have welfare gain if they pay less than the price they are willing for a given crop. The magnitude of welfare effect depends on the expenditure share. According to Deaton (1989) and supported by Calvo (2014), a well-performing proxy of household consumer welfare is the logarithm of per capita consumption. The per capita consumption provides more accurate data than self-reported income, and households tend to smooth consumption over time. Consumption per capita is computed based on total household consumption and adult equivalent size of households.

Export ban

Export bans, which are part of export prohibition measures,⁴ refers to restrictions to the quantity of goods exported to a specific country or countries by the government of the exporting country for reasons such as a shortage of goods in the domestic market, regulating domestic prices, avoiding antidumping measures or for political reasons (United Nations, 2013). Often, food security concerns and protecting consumers against international market price (excessive)volatility⁵ are the main reasons for countries controlling exports including through export bans (Anania, 2013; Liefert et al., 2012). Export bans do not necessarily cause price stability or decrease – in 2006 to 2008, export bans were blamed to cause increase in world prices of staple foods (Liefert et al., 2012). This is often the case if the country has a world market power (large country) in the crop. Export ban measures are classified as market-distorting measures, thus less desirable. Both net exporters and net importers may restrict exports for one or several reasons (Anania, 2013). A well-functioning market will rectify food shortages and excessive price volatility at less cost – without export ban measures (Anania, 2013). WTO through GATT 1947 Article XI restricts imposition of export ban measures, except in specific situation including, temporal prohibition for food security reasons (WTO, 2002). Furthermore, EAC Customs Union protocol through Article 22, though not specific to exports, limit member states from restricting free movement of goods, except for case affecting application of security laws and regulations; the control of arms, ammunition and other military equipment or items; the protection of human life, the environment and natural resources, public safety, public health or public morality; and the protection of animals and plants. Tanzania is also a signatory of G8 cooperation framework to support the New Alliance for Food Security and Nutrition in Africa (NAFSN) launched in May 2012,⁶ which among others require transparency of the trade policy. Thus, as a member of WTO and EAC as well as signatory of NAFSN, Tanzania were expected promote exports within and beyond the region.

Nonetheless, Tanzania government has several times banned exportation of maize to insulate consumers against price increase expected in case of shortages of maize in the country. Between February 2002 and June 2014, Tanzania had four rounds of export bans – from July 2003 to January 2006, August to December 2006, January 2008 to October 2010, and May to October 2011. The Department of National Food Security in the Ministry of Agriculture, Food Security and Cooperatives (MOAFC) imposed export ban measures for the government of Tanzania. Recognizing the adverse effects of export ban, Tanzania made the commitment to abolish export ban measures at the G8 Summit in the United States in 2012 following the bilateral consultations between the President of Tanzania and President of Kenya (Makame, 2013). Despite the commitment to abolish the export bans, the government banned export of maize in June 2017 and lifted it in November 2018. Furthermore, the government of Tanzania controls the export of maize through compulsory export clearance with the Ministry of Agriculture, Food Security and Cooperatives. Porteous (2017) cite export bans as the most commonly used and severe policy instruments in export restrictions. Although their use may be justified, export ban are viewed by some researchers as costly and dangerous instruments (Clapp, 2017).⁷ Implementing countries seems to get a net overall welfare loss from the export bans (Liefert et al., 2012).

Export ban and consumer welfare

Kagira (2011) descriptively showed export ban to have no effect on the price of maize in the domestic market. Six months after Tanzania banning exports in 2011, the price of 100 kg of maize was virtually unchanged, with a decline of only 0.05 per cent over the period of four months - from Tsh. 42,265 in May 2011 to Tsh. 42,246 in August 2011. The export ban was not sufficient to generate a price reduction because of infrastructural challenges. Tanzanian markets are highly fragmented thereby causing price differences across regions of the country. Export bans are expected to cause decline in domestic price and increase in international price for large open implementing country (Abbott, 2011). They potentially have no effect when the implementing countries is small (Mitra & Josling, 2009).

Woldie and Siddig (2009) use the standard Global Trade Analysis Project (GTAP) model and the GTAP Africa database to simulate the impact of an export ban on all grain products in Ethiopia on food price stabilization and household welfare. Their results show that the price is likely to decline, but that the policy has a negative effect on overall welfare, with a loss of approximately US\$148 million. The reason is because the export ban is likely to lead to a reduction in household income and consumption expenditure, and consequently to a decline in GDP. The export ban is therefore found not to be the best policy option to stabilize food prices.

Using non-parametric techniques, Calvo (2014) establishes the welfare impact of export restrictions on wheat in Argentina and finds that poor households would be more affected than rich households by the removal of export restrictions and subsidies. She concludes that the welfare gains of export restrictions in Argentina were limited to poor households and that the small gains generated additional costs for the government in the form of subsidies and lost tax revenue. Her results raise doubts as to whether export restrictions were the appropriate instruments to achieve welfare goals in Argentina. In light of this research, it is therefore important to establish the welfare effect of the export ban in Tanzania, as relationships between trade and poverty tend to be country-specific.

Using a dynamic general equilibrium model, Diao et al. (2013) find that the maize export ban marginally affected the domestic price in Tanzania. It negatively affected the rural poor, particularly in maize-producing regions, due to reduced return on labour and land. Diao et al. (2013) simulate this export ban using data from the 2007 Household Budget Survey. The same data are also used in this paper but we also consider the location of the domestic market in reference to East Africa to which a large proportion of maize is exported. Diao and Kennedy (2016) used computable general equilibrium model to examine the impact of export ban in Tanzania, where they find the ban to results into low decline of prices, mainly benefiting urban household (net consumers), while hurting rural households (net producers). Dabalén and Paul (2014) evaluate the price effect of the export ban on maize in 13

markets of Tanzania and Kenya. The six markets in Tanzania are Arusha, Dodoma, Singida, Mwanza, Shinyanga, and Tanga. The authors consider both the wholesale price (a proxy of the producer price) and the retail price (a proxy of the consumer price) for the period from January 2006 to February 2014. They find a drop in the wholesale price and a rise in the retail price in Tanzania, indicating a potential welfare loss to both consumers and producers. Their analysis is based on the assumption that the maize exported to Kenya comes from the northern provinces of Tanzania. However, we assume that the maize exported to East Africa may originate from any other region in Tanzania, including regions further from the EAC border. The wholesale price is also not a suitable proxy for the producer price because it incorporates costs beyond farm gate prices, such as transportation costs. Further, Porteous (2017) argue that there is little difference between wholesale price and retail prices in East and Southern Africa. Thus, producer and consumer analysis using wholesale and retail prices may be unreal.

Porteous (2017) examine the effect of export bans on prices in five East and Southern African countries and found no statistically significant effect of export on prices. The gains that consumers get are lower than what farmers lose. He argued export ban to divert trade from the formal to informal sector, which in turn destabilizes the prices, contrary to the thinking of most policy makers. Porteous (2017) argument that maize are exported to nearest country may not be real as most maize are exported to EAC countries. We witness trucks moving from the south to northern Tanzania and statistics prove that. It is just recent that DRC is among key export markets of maize from Tanzania.

Aragie et al. (2018) is not an exception to the mentioned studies. They examine economy-wide effect of export ban and find export ban to have short-term benefits mainly to urban non-poor. The policies are found to have negative effect in long-run, in that, they discourage production and agricultural transformation. The poor farmers and consumption levels were adversely affected.

Methods

The paper adopts a nonparametric approach to compute the welfare effect of export ban. It makes use of secondary data from national and international data sources. We use three equations in answering the research question of this paper. We compute the consumer welfare effects using the first equation applying coefficients estimated in the second equation. The second equation estimates the effect of export ban for specific regions in the two groups, EAC border and peripheral regions. The third equation estimates differences, if any, on international to domestic price transmission between EAC border regions and peripheral regions.⁸ Practically, estimations started with model (3), followed by model (2), and finally mode (1).

We compute the consumer welfare effect using equation (1), run for each region individually.

$$\text{Consumer welfare effects}_i = \% \Delta \text{PriceMaize}_i * \text{Cereal_Share}_i, \quad (1)$$

Where $\% \Delta \text{PriceMaize} = -(\lambda_3 + \lambda_2 * \% \text{ increase in international price})$. λ_3 and λ_2 are estimated in equation (2), where λ_3 captures the none moderated effect of export ban while λ_2 captures the moderated effect of export ban on international to domestic price transmission. Increase in international price is the average monthly increase in the international price during the period with the export ban that was estimated to be 1.53 per cent. A negative value of $\% \Delta \text{PriceMaize}$ means that the export ban led to a smaller increase in the domestic price, hence benefitting consumers. Cereal_Share is computed as a share of purchased cereals in total household consumption expenditure based on 2007 Household Budget Survey (HBS) data. Households in Tanzania allocate at least half of their total expenditure to food and 11 per cent to purchased cereals. The share of purchased cereals in total expenditure in EAC border regions is higher than peripheral regions.⁹

The HBS 2007 provides disaggregated data on consumption expenditure at the household level that include bread and cereals. The data on cereals do not go into crop-specific details, whereas maize accounts for 70 percent of annual cereals production in Tanzania (FEWS NET, 2018). Most of the

cereals produced in Tanzania are domestically consumed. For example, the 2009/2010 data from the Ministry of Agricultural, Food Security, and Cooperatives shows at least 64 percent of maize is consumed domestically. We thus take cereals consumption in HBS 2007 as proxy of maize consumption in Tanzania. The HBS 2007 included data for 21 regions in Tanzania mainland.

Domestic and international prices of maize facilitated estimation of the price changes, a key input in the computation of welfare effect. The international prices were downloaded from the Food Price Monitoring and Analysis Tool (Food and Agriculture Organization of the United Nations (FAO), 2015). Domestic prices for maize were accessed from the Ministry of Industry and Trade, Tanzania. They were consistently available for 18 regions including six EAC border regions (Kilimanjaro, Mwanza, Tanga, Arusha, Kagera, Mara), six peripheral regions (Mbeya, Mtwara, Rukwa, Ruvuma, Iringa, Lindi), and six regions that fall in between the two groups (Dodoma, Morogoro, Singida, Tabora, Shinyanga, and Dar es Salaam). Price data for three regions, that is, Kigoma, Manyara and Pwani, were missing for some years and or months. These regions and regions from Zanzibar were not part of the analysis in this paper. We will report results for EAC border and peripheral regions only.¹⁰

As noted earlier, computation of welfare effect linked to export bans was possible after establishing coefficients, λ_3 and λ_2 . We ran the ordinary least square (OLS) regression of the logarithm of domestic prices on the logarithm of international prices for each region. The model specification is provided in equation (2), where ldp_{imy} is the logarithm of the domestic price of maize in region i expressed in Tanzanian shillings in year y and month m . $lintp_{my}$ is the logarithm of the international price of maize expressed in Tanzanian shillings in year y and month m . International prices were converted to national currency using the official exchange rate obtained from the Bank of Tanzania.

$$ldp_{imy} = \lambda_0 + \lambda_1 * lintp_{my} + \lambda_2 lintp * ban_{my} + \lambda_3 * ban_{my} + \delta_y + \delta_m + \varepsilon_{my}. \quad (2)$$

The model includes the dummy variable for the export ban (ban), which takes a value of 1 if an export ban was observed during the period and 0 otherwise.¹¹ An interaction term between the logarithm of the international price and the dummy for the export ban is included in the model. We expect the coefficient of the interaction term to be negative, meaning that in the presence of an export ban, a rise in the international price is associated with a decrease in the domestic price. The coefficient on the export ban dummy is also expected to be negative, implying that the export ban is correlated with lower domestic prices and thus beneficial to consumers. The model also includes δ_y , which are yearly fixed effects designed to capture any year-specific factors that could affect price transmission, and monthly fixed effects (δ_m), which are designed to capture any seasonal effects affecting a particular market across the year. ε_{my} stands for the statistical error term.

Table 1 presents a summary of the average ratio of the domestic price to the international price for selected regions in Tanzania. Largely, consumers in EAC border regions pay more than their counterparts in peripheral regions for the same amount of maize. Often, consumers in the EAC border regions seemed to pay more than the average international price while consumers in the peripheral regions seemed to pay less than the average international price. Preliminary, there was no clear evidence that export bans were associated with better consumer prices in reference to international prices.

Table 1: Ratio of domestic to international prices of maize, 2002–2014

Duration	Selected EAC border regions				Selected Peripheral regions		
	Ban	Kilimanjaro	Mwanza	Tanga	Mbeya	Rukwa	Lindi
February 2002 - June 2003	No	77	76	80	81	77	88
July 2003 - January 2006	Yes	139	139	128	89	87	135
February - July 2006	No	137	147	133	100	84	113
August - December 2006	Yes	71	108	59	68	62	76
January - December 2007	No	62	84	62	54	53	80
January 2008 - October 2010	Yes	145	150	144	117	101	156
November 2010 - April 2011	No	106	134	125	105	87	129
May - October 2011	Yes	114	134	94	87	67	83
November 2011 - June 2014	No	135	154	127	115	98	134

Source: Author's calculations, based on data from the Ministry of Industry and Trade and the Food and Agriculture Organization of the United Nations.

All prices were tested for time series challenges before using them in analysis. Data were subjected to a unit root test where all prices were found not stationary but long-term trended. Tests were also done for potential spurious regression. All regressions were found not spurious, except for Mbeya, which is, however, insignificant, and Rukwa where the regression becomes non-spurious with the increase in lags. Consistently, inclusion of year-specific factors and seasonality in model specification produced higher values of *R-squared* than cases where the two factors were excluded in the model.

Theoretically, changes in international food prices should be reflected in domestic prices of maize. However, the extent of this transmission depends on transport and marketing costs, policy measures, local currency valuation, market structures, and the degree of processing of final consumer goods (FAO et al., 2011). Empirical studies indicate that the degree and speed of price transmission vary across countries and markets within these countries (FAO et al., 2011). In the absence of non-tariff measures, the movement of the domestic price of maize in a well-integrated market should follow the pattern of international prices of maize (Calvo, 2014). At present, maize exports in Tanzania are free of duties and taxes.

We use equation (3) to test the differences in degree of price transmission between EAC border regions and peripheral regions while controlling for yearly fixed effects, monthly fixed effects, and regional fixed effects. Price transmission is expected to be stronger in the EAC border regions.

$$\ln dp_{myi} = \lambda_0 + \lambda_1 \ln tp_{my} + \lambda_2 \text{EAC_Border}_i \ln tp_{my} + \lambda_3 \text{EAC_Border}_i \delta_y + \delta_m + \delta_i + \epsilon_{myi}, \quad (3)$$

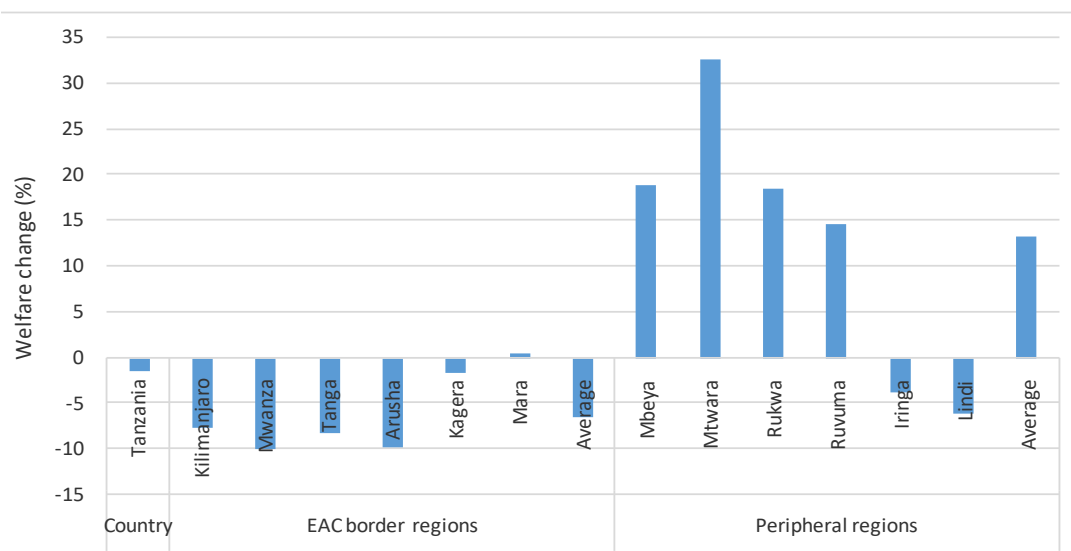
Where $\ln dp_{myi}$ stands for the natural logarithm of the domestic price for month m in year y in region i and $\ln tp_{my}$ is the natural logarithm of the international price in month m and year y . EAC_Border_i is a dummy variable that takes the value 1 in cases where the region borders the EAC and 0 otherwise. We include the interaction term between the natural logarithm of the international price and the dummy for the EAC border. We expect the coefficient of interaction term to be positive, implying that price

transmission is expected to be higher in border regions than peripheral regions. The model includes δ_y , yearly fixed effects to capture any year-specific factors that could affect price transmission, monthly fixed effect (δ_m) to capture any seasonal effect across the whole period and a regional fixed effect (δ_r) to capture any regional specific characteristics. ε_{mji} stands for the statistical error term.

Results and Analysis

Consumers in all EAC border regions except Mara experienced a welfare loss as a result of the export ban, with an average loss of 6.5 per cent. Consumers in Mara had a marginal gain of approximately 0.5 per cent as a result of the export ban. Consumers in peripheral regions except Iringa and Lindi gained as a result of the export ban, with an average welfare gain of 13.3 per cent. Tanzania, as a country lost from export ban of maize, with an average loss of 1.5 per cent.

Figure 1: Potential household welfare effect of export bans in EAC border and peripheral regions



Source: Author’s estimations, based on data from the 2007 Household Budget Survey.

Table 2 and 3 provide further evidence for explanation of the differences of welfare effects between EAC border regions and peripheral regions. They show price transmission regression results for EAC border regions and peripheral regions, respectively. The signs of the coefficient on the interaction term (λ_2) and the coefficient on the export ban dummy (λ_3) are consistently opposite, implying that the two effects counteract each other. To obtain the net effect on domestic prices, we multiply λ_2 with the average change in international prices during the months with an export ban (1.53 per cent) and add it to λ_3 . The aggregate coefficient ($\lambda_2 * 1.53 + \lambda_3$) is positive in all EAC border regions except Mara (see Table 2) and negative in all peripheral regions except Iringa and Lindi (see Table 3). This suggests that most consumers in EAC border regions lost from the export bans whereas most consumers in peripheral regions gained from the export bans. However, the coefficient on the interaction term (λ_2) is statistically significant in three regions including Mbeya (at 5 per cent), Rukwa (at 5 per cent), and Mtwara (at 10 per cent) while the coefficient on the export ban dummy (λ_3) is only statistically significant at the 5 per cent level in Rukwa and Mbeya.

Table 2: Pass-through from international to domestic prices for EAC border regions: 2002–2014

	Kilimanjaro	Mwanza	Tanga	Arusha	Kagera	Mara
lintp	0.09 (0.14)	0.27*** (0.10)	0.02 (0.19)	0.15 (0.13)	0.002 (0.13)	0.09 (0.09)
lintp*ban	-0.07 (0.09)	-0.07 (0.08)	-0.06 (0.13)	-0.08 (0.10)	-0.02 (0.11)	0.007 (0.07)
Ban	0.81 (0.94)	0.85 (0.77)	0.63 (1.29)	0.88 (1.00)	0.21 (1.06)	-0.05 (0.68)
Constant	8.89*** (1.31)	7.27*** (0.96)	9.55*** (1.79)	8.17*** (1.27)	9.79*** (1.24)	8.98*** (0.86)
R-squared	0.91	0.95	0.87	0.91	0.93	0.95
Observations	149	149	149	149	149	149
Aggregate coefficient [(λ_2 *1.53)+ λ_3]	0.70	0.74	0.54	0.76	0.18	-0.04

Source: Author's estimations, based on data from the Ministry of Industry and Trade and the Food and Agriculture Organization of the United Nations.

Note: Robust standard errors in parentheses. Dependent variable: logarithm of domestic prices of maize (for a given region/domestic market); *** p < 0.01

Table 3: Pass-through from international to domestic prices for peripheral regions: 2002–2014

	Mbeya	Mtwara	Rukwa	Ruvuma	Iringa	Lindi
lintp	0.09 (0.13)	-0.08 (0.19)	0.06 (0.18)	0.02 (0.19)	0.27* (0.16)	0.05 (0.15)
lintp*ban	0.20** (0.08)	0.23* (0.14)	0.21** (0.11)	0.18 (0.12)	-0.05 (0.09)	-0.05 (0.12)
Ban	-2.04** (0.78)	-2.32 (1.41)	-2.13** (1.05)	-1.80 (1.24)	0.53 (0.90)	0.53 (1.19)
Constant	8.70*** (1.21)	10.72 (1.84)	8.95*** (1.70)	9.22*** (1.88)	6.75*** (1.50)	9.49*** (1.52)
R-squared	0.93	0.85	0.88	0.83	0.89	0.89
Observations	149	149	149	149	149	149
Aggregate coefficient [(λ_2 *1.53)+ λ_3]	-1.73	-1.97	-1.81	-1.52	0.45	0.45

Source: Author's estimations, based on data from the Ministry of Industry and Trade and the Food and Agriculture Organization of the United Nations.

Note: Robust standard errors in parentheses. Dependent variable: logarithm of domestic prices of maize (for a given region/domestic market); *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 4 shows panel data results based on 18 regions price data for 149 months. It presents the effects of location of the domestic markets on the price transmission. The estimation model was stronger with the inclusion of the fixed effects. Results for models excluding fixed effects are not included in the table. They may be provided on request. As suggested by results (columns 2), the coefficient of the interaction term between the logarithm of the international price and the dummy for the EAC border region is positive, though insignificant. Alternatively, we used actual road distance (*dist*, in km) to the nearest EAC border region. We obtain consistent results, that is, the transmission from international to domestic prices is higher in regions that are closer to the EAC border, even though the relationship is not statistically significant (columns 3 in Table 4). These results provide little evidence regarding the assumption that price transmission is higher in regions bordering EAC countries.¹²

Table 4: Pass-through from international to domestic prices: 2002–2014

	(1)	(2)	(3)
	<i>ldp</i>	<i>ldp</i>	<i>ldp</i>
lintp	0.13*** (0.02)	0.13*** (0.03)	0.15*** (0.03)
lintp*EAC_border		0.008 (0.03)	
lintp*dist			-0.0001 (0.0001)
Regional fixed effects	Yes	Yes	Yes
Yearly fixed effects	Yes	Yes	Yes
Monthly fixed effects	Yes	Yes	Yes
Constant	9.48*** (0.25)	9.48*** (0.26)	9.48*** (0.27)
R-squared	0.81	0.82	0.79
Observations	2,682	2,682	2,682

Source: Author’s estimations, based on data from the Ministry of Industry and Trade and the Food and Agriculture Organization of the United Nations.

Note: Robust standard errors in parentheses. Dependent variable: logarithm of domestic prices of maize (for a given region/domestic market); *** $p < 0.01$.

Discussion

Although statistically insignificant, the analysis shows that consumers in most EAC border regions lose from export ban whereas consumers in many peripheral regions gain from the ban. One EAC border region and two peripheral regions display the nature of export ban effect different from their peers. The magnitude of effect of export ban varies within and between regional groupings. Overall, consumers in Tanzania lose from the export ban.

As postulated, the effect of export ban is not homogeneous. Further, it is not always beneficial as expected by policymakers. These findings collaborate those of Porteous (2017) who found export ban to have unexpected effects, partly because of prevalence of informal trade and the fact that sometimes

formal traders secure export permit through back doors. Export ban policies are ad-hoc in nature as such they destabilize prices rather than stabilizing them (Porteous, 2017). Export ban measures seem to benefit consumers who are less integrated to export markets. They seem to harm most consumers closer to export markets. These findings match those of Diao and Kennedy (2016) who however focused on the production side and find export ban to differently affect maize surplus and maize deficit regions. Similar to the argument in this study, (Diao & Kennedy, 2016) findings are grounded on the argument that domestic markets are fragmented. The findings in this paper extend those of Dabalén and Paul (2014) by showing the heterogeneity effect of export ban in developing countries. Contrary to Dabalén and Paul (2014) which considers only border regions, the current study covers both the border and peripheral regions, as export ban affect all regions albeit the differences.

Two peripheral regions, that is, Iringa and Lindi, and one EAC border region, Mara show results different from their peers. Iringa is relatively closer to EAC border compared to other peripheral regions, which could be the reason for it to suffer effect similar to EAC border regions. The consumer welfare loss for Iringa is however below the EAC border regional averages. Maize production is uncommon in Lindi. Diao and Kennedy (2016) classify Lindi as maize deficit region. The region sources maize from maize producing regions concentrated in the southern Highlands, Tanzania. Unfortunately, export ban of maize discourages distribution of maize in the country, which is likely to cause deficit and increase in price in Lindi. Consumers in Mara, one of the EAC border regions, marginally benefit from export ban. Partly, this could be explained by the fact that Mara is not the main exit gate for maize to EAC countries. There is no official large border in Mara for exportation to EAC countries. The common exit border for exports to EAC includes Holili, Mtukula, Kabanga, Rusumo, and Namanga. Ideally, Mara is less integrated in maize export market compared to other EAC border regions.

Tanzania domestic markets are not uniformly integrated in international market. Maize are mainly produced in peripheral regions, thus export ban means high supply and low prices for consumers. Prices in domestic markets do not differ much to offer incentives to suppliers transport a long distance within the domestic market. In the presence of export ban, traders are reluctant to buy maize from farmers causing deficit in non-producing regions and increase in prices. Although, smuggling is common during export ban and mostly affect the border regions, thereby implying a partial ban (Diao & Kennedy, 2016). This suggests the need to improve theoretical framework in examining effects of the ban.

Conclusion

Despite the regional and international commitments to eliminate all forms of trade barriers including non-tariff measures, Tanzania has regularly banned exportation of maize. Policymakers implement export ban measures to ensure adequate food supply in the domestic market at lower prices. The policies are expected to benefit the consumers in the domestic market.

I used non-parametric model to establish whether consumers benefit from the export ban and the homogeneity nature of the effect of the ban in the domestic markets in the Tanzania. In the analysis, I clustered Tanzania domestic markets into two groups of interest, EAC border regions and peripheral regions. Export ban affect consumers in all regions but differently. I show that export ban is not always beneficial to consumers. Consumers at EAC border regions lose from export ban whereas their counterparts at peripheral regions benefit from the ban. I also show variation of the effect of export across regions, within and between groups. The findings are however not statistically significant.

Despite the limitation stated above, the paper suggests inclusion of the location of the domestic markets in modeling welfare effect of export ban. Further, difference in the nature of effect of export bans suggests targeted interventions that are location specific. The paper contributes to the literature by interrogating the relevance of core objective of export ban policies – protecting consumers against international market prices fluctuation. Future studies could cover more than one crop as export ban announcement is usually comprehensive to include other cereals, although maize is usually the main

target. They may include comparative studies to show whether welfare effect of export ban is regional specific, product specific or both.

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What is it that characterizes vacationers' ewom motives? The quest for unbundling entertainment and information motives in brand-related social media sites

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Abstract

eWOM has increasingly become one of the sources of information relied on by vacationers to decide on where to go and where to stay. This article examines the influence of motivation on electronic word of mouth (eWOM) behavior among vacationers in Tanzania. Four motivation variables from motivational psychology literature and the Uses and Gratification Theory (*information, altruism, social integration and entertainment*) are examined along three eWOM dimensions, namely *giving, seeking and passing*. Data was collected at three airports using a structured questionnaire from 278 vacationers in Tanzania who had used social media for their trip and analyzed using structural equation modeling. The overall results indicate that vacationers' eWOM behaviors are positively related to entertainment motivation. Alongside entertainment, eWOM giving and seeking behaviors are positively related to information and social integration, respectively, and eWOM passing is positively related to altruistic motivation. Thus, the study concludes that, entertainment motivation is the main driver of social media eWOM behaviors, hence a deviation from the past research that associated people's participation in eWOM with information motives.

Keywords: *Motivation, Tourism related sites, Electronic word of mouth.*

Introduction

The growing usefulness of electronic word of mouth (eWOM) on social media among vacationers cannot be overstated. Existing literature indicates that, vacationers increasingly rely on eWOM on social media platforms to determine their travel plans, such as the destination, accommodation, and activities relative to their needs and budgets (Gretzel, Yoo, & Purifoy, 2007; M. Jeong & Jeon, 2008; Litvin et al., 2008; Yoo & Gretzel, 2011). eWOM refers to "any positive or negative statement made by potential, actual, or former customers about a product or company which is made available to multitude of people and institutions via the Internet" (Hennig-Thurau et al., 2004: p. 37). Such eWOM has gained an upper-hand in tourism where products are rich in experience qualities, and are difficult for users to evaluate before consumption, thus they are perceived as high risk purchases (Litvin et al., 2008). Vacationers increasingly rely on eWOM from experienced vacationers as credible first-hand information based on the assumption that, the source is organic and free from company influence (Meiners et al., 2010; Brown et al., 2007; Chu & Kim, 2011). In fact, it is evident that eWOM, which influences purchase behavior, is an invaluable tourism marketing tool, which has captured heightened attention from both practitioners and scholars.

Since its emergence in marketing, research on eWOM has mainly delved on its conceptualization and effect on business performance (Chu & Kim, 2011; Munar & Jacobsen, 2013). This research

has produced adequate evidence that eWOM is beneficial to business performance. However, a new stream of research on the generation factors of eWOM has emerged (Hennig-Thurau et al., 2004; Dolan et al., 2016). Research interest in eWOM generating factors has been triggered by what appears as under-provision of eWOM on social media platforms due to the anonymity and voluntary nature of its generation (King et al., 2014). Besides, eWOM constitutes a public good whose consumption does not necessarily consider those who produce it, thus leading to many free riders other than content contributors (Dellarocas, 2003). Evidence from previous studies indicates that, inequalities in participation by users on eWOM platforms which follow the well-known “90-9-1” rule (Nielsen, 2006). This implies that about 90% of the users are lurkers who only consume eWOM, with 9% of the users contributing from time to time, and a paltry 1% of the users actively contributing content. However, eWOM platforms’ potentials stem from honesty, unbiased and up-to-date feedback from experienced consumers, who serve as sources of information that prospective buyers can utilize for making decisions. In the tourism industry, the sharing of travel experiences by experienced travelers is invaluable in the provision of crucial information that others can use in planning for their travels. Thus, there is a need to design strategies which ensure that experienced vacationers use eWOM enrich tourism brand-related sites for them to serve as fertile platforms for travel information related to destinations and other tourism products.

Studies on eWOM motivations have taken divergent streams. As a result, understanding eWOM generation factors has remained fragmented with no convergence yet in sight. Though social media features enable users to transmit and retransmit eWOM through forwarding, the existing studies have focused on either transmission or retransmission independently. In other words, there is no single study that has enthusiastically examined both as a single concept since such behaviors can be elicited by a single person while on a social media platform. Thus, to capture a full picture of possible behaviors of social media users, all these sharing behaviors should be examined in a single study. For instance, some scholars have examined motivations for eWOM passing behavior (Ho & Dempsey, 2009); others have examined motivations for eWOM seeking (Schindler & Eickart, 2003) and a handful have examined motives behind eWOM giving (Hennig-Thurau et al., 2004; Sun et al., 2006; Dellarocas & Narayan 2007). The findings of these studies have contributed to the understanding of the motives for eWOM; however, understanding the interdependence of individual’s eWOM behaviours (*seeking, giving and passing*) relative to their motivations remains inaccessible (Shao, 2009). Since these behaviours can be performed by users of social media in a single interaction, it would be useful to find out which user motives are related to such behaviors. Besides, although the existing brand-related social media sites differ from the general social networking sites in terms of levels interaction, involvement, and feeling more of a member than a participant, many of the studies have focused on the general social media sites (Cheung et al., 2008). Such differences, however, may suggest different motivations for their use. Thus, the existing literature lacks empirical insights into the influence of individuals’ motives on their eWOM behaviors related to brand-related social media sites (Shao, 2009; Dessrt et al., 2015). This raises this question:

RQ: What motivates eWOM sharing behaviors on tourism-related social media sites?

To answer this research question, a research framework was developed based on motivational psychology literature (Langens & Schmalt, 2008), and the Uses and Gratification Theory (Katz & Foulkes, 1962). Based on extant literature and the nature of the online environment associated with brand-related social media sites, four key motivations (information, altruism, social integration and entertainment) were identified and tested using empirical data from international vacationers in Tanzania against eWOM behaviors (seeking, giving and passing). Overall, it is imperative to understand both why vacationers contribute (give or pass along) eWOM in tourism related sites and why prospective vacationers consume (seek) eWOM from the same platforms for a holistic and coherent understanding of the drivers of particular tourism-related sites’ dynamics among the actors.

The study findings contribute to the understanding of why users of tourism-related sites seek, share and give eWOM on these sites. This study, therefore, provides a composite picture of the interdependence of user motives in relation to these three eWOM behaviors (seeking, giving and passing).

Practically, providing insights into why vacationers use eWOM and why they share their experiences anonymously and voluntarily in tourism-related sites is of immense value to tourism marketers’

crafting of digital marketing strategies. Indeed, marketers can be better placed to know what kind of appeals they should focus on to generate useful eWOM for uptake by prospective users (Chevalier & Mayzlin 2006; Hu, Pavlou, & Zhang, 2009) in the case of eWOM by capitalizing on addressing altruistic, entertainment and information motivations of vacations in the brand sites.

The subsequent section presents a literature review on the theoretical underpinnings of motivation and eWOM in social media and the asserted relationship. Finally, a theoretical model and propositions are presented.

Theoretical Background

According to the Uses and Gratification Theory (UGT), individuals actively seek out and use specific media to satisfy particular needs (Katz & Foulkes, 1962). In this regard, individuals play an active role in media choice, as they actively search for, identify with and employ media to satiate specific needs (Ku, Chu, & Tseng, 2013). UGT provides a user- (or customer-) level view of media use drives. Studies using UGT have revealed several motivations for engaging with the general social media sites and eWOM communication, in particular, which includes information exchange, social interaction, relationship building, pleasure-seeking and entertainment, self-image enhancement and the need for self-expression, altruism and self-actualization (Ellison, Steinfield, & Lampe, 2009; Shao, 2009). Therefore, certain individual motivations appear to drive the users' desire to use tourism-related sites and their different eWOM behaviors of seeking, giving and passing on content.

Whereas previous studies applying UGT to predict motives behind social media use delved mostly in the general social media sites such as facebook, twitter and instagram (Leung & Zhang, 2016; Doty & Dworkin, 2014; Pornsakulvanich & Dumrong Siri, 2013), this study extends the application of the theory to brand-related social media sites. Usually, brand-related sites that are of "more membership" and high involvement may attract different motivations for their use with different weights (Henning-Thurau et al., 2004). However, more research is needed to investigate the motivational forces of eWOM behaviors in tourism-related social media sites for advancing knowledge and for practical application.

eWOM Behaviors on Social Media Sites

The importance of social media information sharing behaviors as well as interactions among consumers on business performance has received considerable attention in academia and business (Breazeale, 2009). In this regard, opportunities for a new forms of communication technology known as Web 2.0 or social media (Gretzel, Kang, & Lee, 2008) offer interactive properties which have transformed consumers from passive information recipients to active content generators (Dolan, Conduit, Fahy, & Goodman, 2016). Users engage in eWOM by generating and sharing personal or product-related content in the form of text, pictures, or videos via social media (Dessart et al., 2015). Social media sites do not only provide an avenue for articulating own opinions and experiences but also offer an opportunity for consumers to interact with fellow consumers and share product-related knowledge and experience.

These information sharing and interactions constitute eWOM communication behaviors (Henning-Thurau et al., 2004). Although social media features allow for consumer interactions and information sharing to occur in multiple ways, prior research has only considered specific manifestations of such behaviors, such as writing product reviews (Henning-Thurau et al., 2004), blogging (Pan et al., 2007; Ekdale et al., 2010), tweeting (Henning-Thurau et al., 2015; Jansen et al., 2009), or forwarding emails (Chiu et al., 2007; Phelps et al., 2004). In fact, scholars conceptually discuss the wide scope of eWOM communications and advocate for broadening of the concept (Libai et al., 2010), yet research field lacks a full integration of the scope and various forms of eWOM interactions.

The eWOM sharing behavior in transmitting information in online platforms has received attention among scholars (Hinz et al., 2011; Kozinets et al., 2010), Katz and Lazarsfeld (1955, 2006) to account for the roles of the originator of an idea and the transmitter, who passes it on to others. However, information sharing behaviors on social media does not end with the initial transmission as there is a possibility of retransmission behavior over and above those of the traditional WOM of giving and seeking. Retransmission of eWOM—or simply eWOM passing—has recently received heightened attention, following the features of social media which support multi-way interactions and information

sharing among consumers (De Bruyn & Lilien, 2008; Hinz et al., 2011). Initial transmission involves content creation by individuals with direct experience with the product under discussion over which they share their own opinion with others (Stephen & Lehmann, 2009, p. 5). Those who forward the eWOM are individuals without direct experience with the product but have heard from others. They disseminate and amplify the information reach by passing on another person's opinion (Stephen & Lehmann, 2009, p. 5). The recent understanding of the multiple roles an individual can perform while on social media sites has elevated the scope of eWOM behaviors into opinion seeking, giving and passing (Stephen et al., 2012). An individual can perform all these three behaviors simultaneously, hence the triple aspects *eWOM seeking, giving and passing* behaviors, which constitute a holistic eWOM. Scholars at different times have called for the broadening of the eWOM scope to get a coherent understanding of the full concept (Libai et al., 2010; Chu & Kim, 2011). Thus, eWOM is operationalized in this article as *eWOM seeking, giving and passing*. This is important theoretically as it enhances the understanding of the full scope of the eWOM concept alongside its generation factors in the context of brand-related sites. Practically, aggregating the eWOM concept by including eWOM passing broadens the reach of and enhances marketing communication. Indeed, how many people are reached by marketing communication is one of the important parameters for its effectiveness, which implies that eWOM passing is one of the important ways through which content in social media is amplified to enhance its reach and become contagious.

Motivations for eWOM

As elucidated earlier, both general and brand-related social media sites empower consumers to engage in information sharing (eWOM) anonymously and voluntarily. This phenomenon has resulted in under-reporting bias on online platforms as those who consume eWOM do it at no cost (Chevalier & Mayzlin 2006; Hu, Pavlou, and Zhang 2009). Ensuring a balanced and informative feedback that benefits all the stakeholders and, more importantly, eliciting honest feedback in tourism-related sites require understanding the factors that are important to consumers seeking eWOM in a bid to find better ways of enhancing the helpful of eWOM and management of under-reporting bias (King et al., 2014). Although understanding eWOM generation factors is crucial, empirical findings remain relatively scarce (Breazeale, 2009; Stephen & Lehmann, 2009; Dolan et al, 2016). Several studies have been separately carried out on eWOM giving, seeking and passing in general social media sites as well as a few on brand related sites.

Motivations for eWOM giving behavior in social media identified by previous studies include self-enhancement (De Angelis et al., 2012; Wojnicki & Godes, 2008), innovativeness (Sun et al., 2006), individuation (Ho & Dempsey 2010), and altruism (Dellarocas & Narayan, 2007; Hennig-Thurau et al., 2004). Several other scholars (e.g. Hennig-Thurau et al., 2004; Dholakia et al., 2004; Stoćkl et al., 2007) suggest that individuals share their product-related experiences and opinions (eWOM) in social media for social bonding, inclusion, maintaining interpersonal interconnectivity, social benefits and community forum participation. In the context of hospitality and tourism, altruism is significant in creating motivation for posting eWOM on consumer opinion sites, including travel (Bronner & de Hoog, 2011) and dining (Jeong & Jang, 2011) experiences. Additionally, enjoyment was identified as an important motive for eWOM contributions in the context of travel (Wang & Fesenmaier, 2004). In addition, post-trip sharing of information often constitutes one of the joys of travel (Litvin et al., 2007).

Similarly, motivations for eWOM seeking behavior in social media have been established in previous studies. For instance, consumers seek eWOM to reduce search and evaluation efforts (e.g., Dabholkar, 2006; Goldsmith & Horovitz, 2006) in both pre- and post-purchase evaluations (Bronner & de Hoog, 2010; Hennig-Thurau & Walsh, 2003); reduce risk (Bettman & Park, 1980; Kim, Mattila, & Baloglu 2011); and to find social assurance/reassurance (Bailey, 2005). Additionally, they seek eWOM as an informational input for specific purchase decisions (Schindler & Bickart, 2003), and as relevance and empathy generation (Bickart & Schindler 2001; Rabjohn, Cheung, & Lee 2008). Kim, Choi and Kim (2013) in their study identified four kinds of motivations—self-expression, commenting, community forum participation, and information-seeking—as primary reasons for using SNSs for travel-related information-seeking behavior among college students. In the context of tourism and hospitality, social integration serves as a driver for opinion seeking (Bronner & de Hoog, 2011; Cheung & Lee, 2012). According to Maser and Weiermair (1998), in the tourism and hospitality context, seeking information

can be treated as one of the most important factors influencing and determining travel behavior. Generally, previous literature reveals that, consumers seek eWOM not only during the evaluation stage of the decision-making process but also when there is not even a recognized need for a product (Mangold, Miller, & Brockway, 1999). Many times, eWOM consumption may be serendipitous and not goal-directed (Bailey, 2005; Goldsmith & Horovitz, 2006). This hints at other motivations for eWOM seeking beyond information motivation. Yet the same is aggravated by the fact that the reliability on information needs identified years and years ago may no longer be wholly relevant to today's knowledge society (Elly & Silayo, 2013).

In spite of the suggestions for broadening the eWOM concept being echoed in literature by scholars (Libai et al., 2010; Chu & Kim, 2011) and explosion of online information sharing through forwarding, some of the factors critical to the forwarding eWOM remain unknown to both academics and practitioners (Ho & Dempsey, 2010). According to Huang, Lin and Lin (2009), the key to spreading online electronic content successfully lies in an individual recipient's forwarding of the messages to others. But the motivation determining the recipient's intention to do so is not explicitly made known in literature. eWOM forwarding is recognized as one of the dimensions for eWOM concept which should be examined simultaneously with the other dimensions since they can be elicited simultaneously by an individual on social media sites. However, previous researches on motivations have principally examined the forwarding of electronic word-of-mouth independently without including the rest of components of eWOM, that is, seeking and giving (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004; Ho & Dempsey, 2010). Understanding the motivations for forwarding behaviours simultaneously with the counterpart eWOM behaviors (seeking and giving) provides understanding of the interdependence of motivations in relation to eWOM behaviors, thus constituting a core issue in the study of online eWOM behaviors. This article addresses this aspect by examining the influence of motivation (information, altruism, social integration and entertainment) on vacationers' eWOM behaviors (seeking, giving and passing) in tourism-related sites.

Hypothesis and Model Development

The information motivation covers several information-related media gratifications such as surveying relevant events and conditions taking place in someone's direct daily environment and in society; seeking advice and opinions; and reducing risk. Previous studies assert that information motivation is related with eWOM behaviors. Hennig-Thurau and Walsh (2003) found that reading customer reviews is partly driven by a need for information. Searching for and receiving information on a brand were found to constitute key gratifications of consumer participation in online brand communities (Muntinga et al., 2011; Raacke & Bonds- Raacke, 2008). Similarly, the desire to seek information directly from brands motivates consumers to use social media (Dholakia, Bagozzi, & Pearo, 2004; Lin & Lu, 2011; Park, Kee, & Valenzuela, 2009). From a tourism perspective, travelers search online WOM to decide on the destination, booking hotels, flights and restaurants and plan accordingly (Xiang & Gretzel, 2010). Based on previous studies which have identified information as a motivating factor for eWOM, it is proposed thusly:

H1: Vacationers' information motivation to engage with tourism social media sites positively influences (H1a) eWOM seeking (H1b), eWOM giving, and (H1c) eWOM passing

Social interaction motivation has been associated with eWOM behaviors in both general and brand-related social media sites. The integration and social interaction motivation covers various media gratifications that are related to other people such as gaining a sense of belonging; connecting with friends, family and society; seeking support/emotional support; and substituting real-life companionship. For instance, Alexandrov et al. (2013) and Kozinets et al. (2010) suggest that social interactions and community membership motives are important for WOM communication on the internet. Hennig-Thurau et al. (2004) argue that consumers post comments to receive social benefits from being part of a virtual community. In their study, they found that social benefits have the strongest influence on the users visiting these communities, as well as on the number of comments they elicit. Burton and Khammash (2010) acknowledge that the reader may initially passively engage in scanning eWOM messages, but may start sharing opinions after becoming acquainted with other users. Based on these studies identifying social integration as a motive behind eWOM, it was hypothesized:

H1B: Vacationers’ social interaction motivation to engage with tourism social media sites positively influences (H2a) eWOM seeking, (H2b) eWOM giving, and (H2c) eWOM passing.

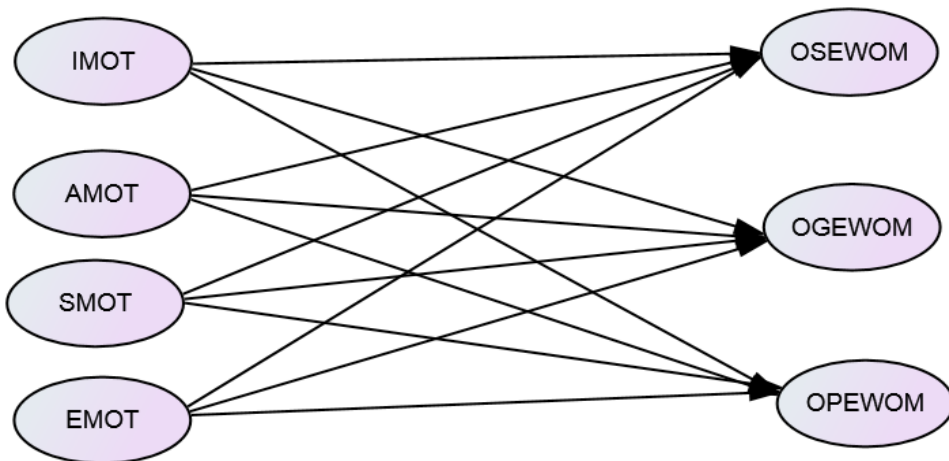
Altruism describes an individual’s desire “of doing something for others without anticipating any reward in return” (Sundaram et al., 1998, p. 529). According to Dichter (1966), some people have a desire to share or give something to others, or express they care by providing information to others. Similarly, in the current online environment, several authors have suggested that electronic word of mouth on Web-based opinion platforms could be driven by a concern for other consumers (Hennig-Thurau et al., 2004; Sundaram, Mitra, & Webster, 1998). Ho and Dempsey (2010) also found that altruism was a positive predictor of the electronic word of mouth seeking. Lee, Im and Taylor (2008) found that some consumers are motivated by a benevolent psychological need to share their information or knowledge with others. Munzel and Kunz (2014) suggest that altruism has to do with opinion transmission and retransmission in online review platforms. The account of these previous studies identifying altruism as a motive for eWOM led to hypothesizing thusly:

H3: Vacationers’ altruistic motivation to engage with tourism social media sites positively influences (H3a) eWOM seeking (H3b) eWOM giving and (H3c) eWOM passing.

Extant literature has extensively argued that, entertainment motivation is associated with the provision, sharing or consumption of WOM on social media sites. The entertainment motivation covers several media gratifications that are related to escaping or being diverted from problems or routine; emotional release or relief; relaxation; cultural or aesthetic enjoyment; passing time; and sexual arousal. Through the application of UGT, in the context of online brand communities, authors have demonstrated that consuming entertaining content is important in inducing participation (Raacke & Bonds-Raacke, 2008). Further studies indicate that entertainment is a relevant motivation for consuming user-generated content (Shao, 2009), participation in a virtual community (Sangwan, 2005), social networking site (Park et al., 2009) or uploading of content into social media sites (Courtois et al., 2009). Entertaining advertisements tend to cause users to consume, create or contribute to brand-related content online (Muntinga et al., 2011). Muntinga et al. (2011) found that entertainment motivation influence both eWOM seeking and giving. On this account, it was thus hypothesized:

H4: Vacationers’ entertainment motivation to engage with tourism social media sites positively influences (H4a) eWOM seeking (H4b) eWOM giving and (H4c) eWOM passing.

Figure 1: The Hypothesized Model of the Relationship between the Motivation Variables and eWOM



Methodology

The locus of this study was Tanzania and the population comprised vacationers in Tanzania who had used tourism brand-related social media sites before and/or during their trip. Data was collected using a structured questionnaire from a sample of 278 vacationers who had used tourism brand-related social media sites for their trip to Tanzania between November 2017 and February 2018. To ensure content validity of the research instruments, the vacationers were given a description and examples of what tourism brand-related social media sites refer to (e.g. trip advisor, hotel.com, Airbnb, and individual tourism firms' social media accounts). This description was to ensure that only those who used these particular sites filled out the questionnaire.

For screening purposes, two questions (one for using tourism social media sites during the trip and another for the purpose of travel) were asked prior to administering the questionnaires. This is because; the study targeted only vacationers who had used tourism-related sites before and/or during their trip. Data was collected at three airports (Abeid Aman Karume International Airport (AAKIA), Julius Nyerere International Airport (JNIA) and Kilimanjaro International Airport (KIA), which are strategic exit points for international tourists in Tanzania.

As there were no differences in characteristics among the vacationers exiting on different days of the week and times of the day, a cluster sampling method was used to draw cases for the study. First, the researcher randomly selected two days from the seven days of the week on which data collection took place. Second, based on the peak hours of the day for major international aircrafts, data collection was done twice a day from noon to 16:00hours and from 20:00 hours to midnight. Third, the researcher approached all the passengers at the departure lounge for international travelers and administered questionnaires with those who passed the screening test.

Measurements

A total of 23 measurement items were adopted from the literature 14 of which measured four motivation variables and 9 measured electronic word of mouth (eWOM). In all, 4 measurement items were adopted from Goldsmith and Horowitz (2006) to measure information motivation whereas 4 items for altruism motivation were adopted from Hennig-Thurau et al. (2004). Three items for social integration were adopted from Park et al. (2009) and Hein (2009) and three other items were adopted from Yoo and Gretzel (2008). All the items were measured using a 7-point Likert scale (1=strongly disagree to 7=strongly agree). Electronic word of mouth was measured using 9 items all adopted from Chu and Kim (2011) for all the three dimensions of eWOM: *eWOM passing, giving and seeking*. Each of the subscale of eWOM was measured using three (3) items on a 7-point Likert scale (1=strongly disagree to 7=strongly agree). Table 4 shows the statements used for the five constructs:

Table 1 Measurement Items

Scale Items	Source
Information Motivation	Chu & Kim, (2011) and Goldsmith & Horowitz, (2006)
<i>Imot1: I posted my trip experience on tourism-related site(s) because I expect to have access to contributions from other travelers</i>	
<i>Imot2: I wanted to consult others in choosing the right destination and a good tourism product package in tourism site(s)</i>	
<i>Imot3: I wanted to gather information about destinations and tourism products alternatives available from the tourism site(s)</i>	

***Imot4:** I wanted to hear about other members' trip experience on tourism site(s) to inform my choice*

Altruistic motivation

Henning-Thurau et al., (2004)

***Amot1:** I wanted to recommend to others on the tourism site about a company in support of their good services*

***Amot2:** I wanted to help others in tourism site with my own positive trip experiences*

***Amot3:** I shared my trip experience to give others on the tourism site an opportunity to choose good services*

***Amot4:** I shared my trip experience on tourism sites in order for the tour operator and/or destination to be successful*

Social motivation

Park et al., (2009)

***Smot1:** I used tourism site to share my trip experiences with friends and like-minded people*

***Smot2:** I used tourism sites to stay in touch with other members on the platform*

***Smot3:** I used tourism site to talk with other members on the platform on the trip experience*

Entertainment

Yoo & Gretzel, (2008)

***Emot1:** Posting communication in form of pictures, or videos about my trip experience on tourism sites is a fun activity on a supplier site*

***Emot2:** Posting (pictures, or videos) on tourism site about my trip experience gives an exciting and pleasant moment*

***Emot3:** I find review writing about my trip experience in tourism site an interesting activity*

eWOM seeking

Chu & Kim, (2011)

***Osewom1:** Before making this tourism trip, I asked my contacts on the social media site for advice.*

***Osewom2:** I got my contacts' opinions on the social media site before I chose this destination.*

***Osewom3:** I felt more comfortable choosing this destination when I got my contacts' opinions on the social media site*

eWOM giving

Chu & Kim, (2011)

Ogewom1: *I wrote reviews and/or posted pictures on tourism sites about my trip experience to share with other contacts.*

Ogewom2: *I posted videos and/or pictures on tourism sites about my trip experience*

Ogewom3: *I wrote comments, ratings and/or recommendations on tourism-related sites to influence others on the choice of destinations*

eWOM passing

Chu & Kim, (2011)

Opewom1: *I passed on information or opinion about destinations to the contacts on my “friends” list on the tourism related sites*

Opewom2: *I passed along to my other contacts, comments containing information or opinions about the destinations that I like.*

Opewom3: *When I receive destination-related information or opinion from a friend, I pass it on to my other contacts in tourism related sites.*

Analysis and results

The sample consisted of 48.2% male and 51.8% female with 60.8% of the respondents aged above 40 years. Statistics reveal that 60.4% of the respondents had a package tour whereas the remaining 39.6% came for a non-package tour. Regarding the experience in travel, for it 65.5% was their first-time visit whereas for 35.5% it was their repeat-visit to Tanzania as a destination. The respondents' sharing behavior dominated during trip-experience by 62.12% followed by pre trip experience (22%) and those who shared both during the pre-trip and the trip itself amounted to 15.88%. Previous studies, however, observed that, social media use was predominant either before the trip (Cox et al., 2009) or after the trip experience (Fotis et al., 2012). The respondents indicated usage of the following tourism-related sites: Trip Advisor (56.2%), Expedia (20.2%), Hotel.com (12.3%) and Airbnb (11.3%).

Confirmatory Factor Analysis

Structural equation modeling (SEM) was employed to test empirically the hypotheses developed from the literature review. A two-stage model building approach, as recommended by Anderson and Gerbing (1988) was employed. Using a sample of N=278 cases (Heir et al., 2010), the study used CFA to test the measurement model. Thus, CFA with 24 items representing 7 constructs (MOT, AMOT, SMOT, EMOT, SEWOM, GEWOM and PEWOM) was performed to verify the underlying factor structure. The result of the CFA showed a good fit ($\chi^2=351.888$; $df=209$; $\chi^2/df = 1.684$, GFI = 0.903, CFI = 0.982, TLI = 0.978, RMSEA = 0.050). The measurement's reliability was assessed by Cronbach's alpha. As Table 1 illustrates, the alpha values for the six constructs ranged from 0.8 to 0.94, all them exceeded the minimum requirement of 0.7, hence denoting acceptable internal consistency (Nunnally, 1978). Convergent validity was examined through composite reliability (CR) and the average variance extracted (AVE). Each construct had acceptable construct reliability, with the CR values ranging from 0.88 to 0.98, which was higher than the 0.7 threshold as Table 2 denotes:

Table 2: Results of Validity Test in Confirmatory Factor Analysis

	M	SD	SD SD	SL	TV
IMOT	4.66	1.28			
imot4				0.94	N/A
imot3				0.98	***
imot2				0.99	***
imot1				0.94	***
AMOT	5.56	0.93			
amot4				0.82	N/A
amot3				0.98	***
amot2				0.96	***
amot1				0.89	***
SMOT	5.13	1.18			
smot3				0.93	N/A
smot2				0.92	***
smot1				0.65	***
EMOT	5.16	1.1			
emot3				0.95	N/A
emot2				0.61	***
emot1				0.97	***
OSEWOM	4.31	1.42			
osewom3				0.99	N/A
osewom2				0.96	***
osewom1				0.99	***
OGEWOM	4.96	1.2			
ogewom3				0.98	N/A
ogewom2				0.91	***
ogewom1				0.87	***
OPEWOM	5.13	1.1			
opewom3				0.86	N/A
opewom2				0.81	***
opewom1				0.96	***

Note: $X^2=351.888$; $Df=209$; $X^2/df=1.684$; $GFI=0.903$; $TLI=0.978$; $CFI=0.982$ & $RMSEA=0.050$; SL=standardized loadings; M=Factor mean; SD=standard deviation and TV=t-values; OGEWOM=eWOM giving, IMOT=information, OPEWOM=eWOM passing, OSEWOM= eWOM seeking, EMOT= entertainment, SMOT= social integration and AMOT= altruism. The itemized abbreviations under each construct refer to measurement items falling under each specific construct as indicated in Table 1 .

On the account of the validity tests done, convergent validity was assured as all the AVE values ranged from 0.79 to 0.93, hence exceeding the 0.5 minimum requirements (Fornell & Larcker, 1981; Hair,

Anderson, Tatham, & William, 1998). Besides, all the measurement items had standardized factor loadings of 0.5 or above at a significance level of <0.001, which assured convergent validity. Finally, discriminant validity was assured by comparing squared root of AVE with the correlation between constructs (Fornell & Larcker, 1981). As the data in Table 2 demonstrates, the squared root of AVE for each construct was greater than the correlations between it and other constructs, which signals discriminant validity.

Table 3: Test Results of Discriminant Validity

	CR	AVE	GEWOM	MOT	PEWOM	SEWOM	EMOT	SMOT	AMOT
GEWOM	0.944	0.850	0.922						
MOT	0.980	0.926	0.248	0.962					
PEWOM	0.908	0.769	0.484	0.082	0.877				
SEWOM	0.985	0.955	0.391	0.087	0.438	0.977			
EMOT	0.888	0.734	0.270	0.145	0.529	0.399	0.857		
SMOT	0.880	0.714	0.166	-0.016	0.273	0.512	0.372	0.845	
AMOT	0.954	0.838	0.341	0.210	0.413	0.082	0.251	0.156	0.916

CR=composite reliability, AVE=average variance extracted, GEWOM=eWOM giving, MOT=information, PEWOM=eWOM passing, SEWOM= eWOM seeking, EMOT= entertainment, SMOT= social integration and AMOT= altruism. The bold diagonal figures are the square root of the variance extracted shared between the constructs and their measures. Off-diagonal figures are the correlations between constructs.

Results of the Structural Analysis

The structural analysis results’ path coefficients and the *t* values for the hypothesized relationships are as shown in Table 3. The overall model presents a good fit on all the indices ($\chi^2=429.639$; $df=212$; $\chi^2/df = 2.027$, GFI = 0.880, CFI = 0.972, TLI = 0.967, RMSEA = 0.061).

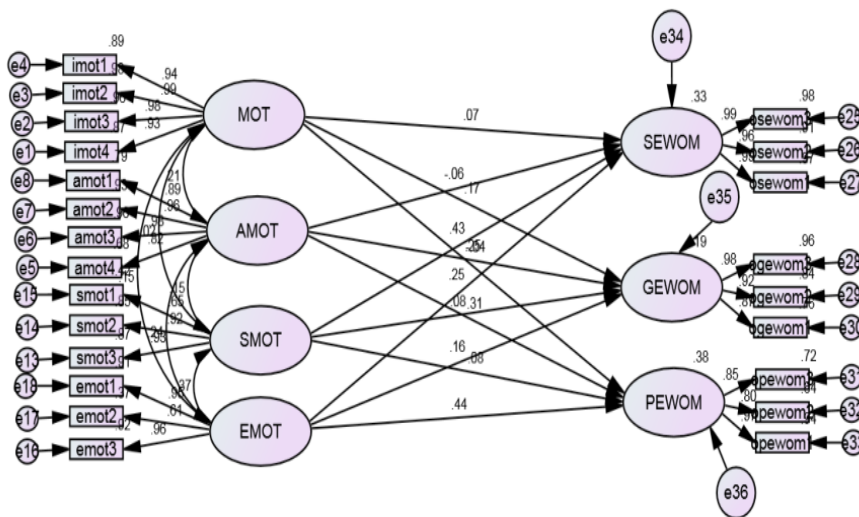


Figure 2: The Structural Model of the Relationship between Motivation and eWOM

The research hypotheses were tested using the path coefficients, critical ratios (t-values) and p-values. An examination of the structural path coefficients revealed that hypothesis one, two and three were partially supported whereas hypothesis four was fully supported (see Table 3). Findings indicate that information motivation has a positive and significant influence on vacationers' eWOM giving behavior. Additionally, social integration motivation has a positive and significant influence on vacationers' eWOM seeking behavior. Altruism was found to have a positive and significant influence vacationers' eWOM giving and passing behaviors whereas entertainment motivation revealed a positive and significant influence on vacationers' eWOM seeking, giving and passing behaviors. The path coefficient values show that social integration motivation was the strongest significant predictor of eWOM seeking behavior ($\beta=.432$, $p<0.001$) followed by entertainment motivation ($\beta=0.253$, $p<0.001$). Similarly, eWOM giving behavior is significantly influenced by altruism, entertainment and information motivation whereas social integration was found not to be a significant predictor. From the path coefficient values, altruism is the strongest predictor of eWOM giving behavior ($\beta=0.254$, $p<0.001$) followed by information motivation ($\beta=0.174$, $p<0.05$). eWOM passing behavior was found influenced by entertainment and altruistic motivation. More specifically, given the paths' coefficient values, entertainment motivation is the strongest predictor of eWOM passing behaviors ($\beta=0.437$, $p<0.001$) followed by altruism ($\beta=0.306$, $p<0.001$).

Table 3: Overall Structural Model Hypothesis Testing Results

Independent Variable	Dependent Variable		Beta Weight	P value	Results	R ²
eWOM (Opinion Seeking)	Information	H1(a)	0.069		Not Supported	0.33
	Social integration	H2(a)	0.432	<0.001	Supported	
	Altruism	H3(a)	-0.057		Not Supported	
	Entertainment	H4(a)	0.253	<0.001	Supported	
eWOM (Opinion Giving)	Information	H1(b)	0.174	<0.05	Supported	0.19
	Social integration	H2(b)	0.083	<0.05	Not Supported	
	Altruism	H3(b)	0.254	<0.001	Supported	
	Entertainment	H4(b)	0.165	<0.05	Supported	
eWOM (Opinion Passing)	Information	H1(c)	-0.043		Not Supported	0.38
	Social integration	H2(c)	0.077	<0.001	Not Supported	

Altruism	H3(c)	0.306	<0.001	Supported
Entertainment	H4(c)	0.437	<0.001	Supported

*Fit Statistics: $\chi^2=429.639$; $df=212$; $\chi^2/df = 2.027$, GFI = 0.880, CFI = 0.972, TLI = 0.967, RMSEA = 0.061; P value=Significance level; R²=Squared Regression Weights; eWOM=electronic word of mouth behavior.

Discussion and conclusion

Results generally reveal that, entertainment motivation is the main driver of vacationers' overall eWOM behaviors. The results are surprising when compared with previous research on eWOM where findings indicate that vacationers engage in eWOM behaviors primarily for *information* needs (Litvin et al., 2007; Gretzel et al., 2008; TIA, 2005). For instance, people that write product reviews (*eWOM giving*) often do so to yield conversations through which they may likely gain information (*eWOM seeking*) they need to fulfill their motive (Bronner & De Hoog, 2011) like making their decisions regarding where to go and where to stay (Litvin et al., 2007). Impliedly, vacationers or travelers engage in eWOM behaviors to satisfy their information motives. In the current study results, however, reveal that the *entertainment motivation* as the overriding motivation behind all the vacationers' eWOM *seeking, giving and passing* behaviors in tourism related sites. By entertainment motivation, it implies that needs such as enjoyment, hedonic relaxation and escapism needs. Previous research indicated that entertainment motivation was dominant mainly in the post-travel experience sharing (*eWOM giving*) on the premise that, many people simply enjoy sharing their travel experiences and expertise and such post-trip sharing can be one of the joys of travel (Litvin et al., 2007). In this case, *eWOM giving* behavior as manifested by sharing of travel experiences and expertise is part and parcel of the enjoyment a vacationer derives from the consumption of tourism products. However, this article's findings demonstrate that the joys of consumption of tourism products include the tourism information searching behaviors (*eWOM seeking*) and the experience sharing behaviors (*eWOM giving and passing*) performed by vacationers in tourism related sites. Similarly, Holbrook and Hirschman (1982) found that, brand-related WOM in tourism brand-related sites is used for hedonic recreation and entertainment reasons. Thus, entertainment motivation is positively related to the vacationers' eWOM seeking, giving and passing behaviors on tourism-related sites.

Alongside entertainment motivation, this article's results reveal other motivations in relation to the vacationers' eWOM behaviors. Social integration motivation is also related to vacationers' eWOM seeking behavior in tourism-related sites. Vacationers using tourism-related sites in search for eWOM, do so for the need for socializing and interaction with like-minded others on the social media platform. These results replicate the work of Munzel and Kunz (2014) who suggest that, social bonding motives are associated with consuming reviews on review sites. Users engaging in eWOM seeking other than the need for information on which to base their purchase decisions, do so for social gains including social bonding. Consistent with the existing literature, social integration involves bridging and bonding social capital. Bridging social capital plays an essential role in a wide range of information exchange and idea sharing (Granovetter, 1982) especially accessing diverse information and knowledge from external groups to personal networks (Pigg & Crank, 2004; Woolcock & Narayan, 2000). Chu (2009) suggests that social networking site users exhibiting a higher level of bridging social capital are more likely to seek advice from others. Based on social capital formation as an essence of social integration, the need to either bridge social capital by social media users may trigger them to seek eWOM. As review sites and (virtual) opinion platforms (e.g. tourism-related sites) are organized around customer opinions and experiences, and are mostly content-driven, they tend to focus less on social interactions and integration (Hennig-Thurau et al., 2004), which amounts to a weakness. After all, social integration needs and particularly the need for bridging social capital relates positively to the vacationers' eWOM seeking behaviors.

Consistent with previous studies (see, for example, Cheung & Lee, 2012; Hennig-Thurau et al., 2004), altruistic and information motivations were found to be positively related to eWOM giving behaviors. Opinion leadership (*eWOM giving*) is influenced by the desire to help other prospective vacationers with their good and fulfilling trip experiences or in support of a good destination, tour operator or hotel. Though there is no economic reward, the eWOM giving behavior is performed to enrich the platform with product experience and opinions which serve as recommendations and advice to other users without experience. Similarly, the finding that information motivation influences eWOM giving behaviors, lends support to Stephen and Lehmann (2009) who suggest that well-connected people, by virtue of having many associates, are exposed to (on average) more sources of information and, therefore, might serve as information “hubs”. As such, they enrich sources for getting new information (or validate the existing information), hence worth to talking to benefit from such invaluable information. Thus, it is suggested that information motivation and altruism positively influence the vacationers’ eWOM giving behaviors on tourism-related sites.

Apart from entertainment motivation, vacationers’ eWOM passing behavior is related positively to altruistic motivation. This finding is consistent with those of previous studies on the motivation for forwarding online content to other users such as Ho and Dempsey (2009), who found a positive relationship between altruism and eWOM passing intentions. Munzel and Kuz (2014) also corroborate these findings as they established that, altruism-related motives are positively related to eWOM retransmission (passing) in public opinion online environment. Thus, vacationers’ eWOM sharing behavior of passing the content on to others on tourism-related sites is driven by their altruistic needs.

Lack of support on the influence of information and altruistic motivations on vacationers’ eWOM seeking behavior on tourism brand-related social media sites is backed by explanation. Although this study captured the vacationers’ eWOM behaviors for the pre- and during- trip experiences, most of the respondents indicated their usage to have occurred during the trip. This is the moment when the vacationers were excited by the trip’s experiences and, probably, the use of the social media sites was then not necessarily for information search. At that time, they were making decisions on where to go or where to stay as they had already had their travel package or itineraries. Lack of support on the influence of altruism on opinion seeking behavior is not surprising since in most of the cases opinion seekers are always people who are less knowledgeable and may not have some information to help others or the company. This finding is consistent with what Hohanadel (2014) and Gunn (2015) who found that the hypothesized relationship between altruism and eWOM behavior in social networking sites was insignificant.

Theoretical and practical implication

Findings of this study contribute to the understanding of the interdependence of vacationers’ eWOM behaviors (*seeking, giving and passing*) in relation to their motivations. This contributes to the current understanding of the eWOM concept in social media by integrating eWOM *passing* into the traditional *seeking* and *giving* aspects of the concept and, empirically, examining their interrelationships with the vacationers’ motives. Practically, it provides useful insights into why vacationers use eWOM and why they share their experiences anonymously and voluntarily. As such, marketers need to know both why customers/vacationers provide and use eWOM, particularly when it comes to digital marketing strategy design and development especially for the service industry whereby eWOM is a vital input among buyers in their buying decision-making process. Although vacationers seek eWOM for entertainment and social integration needs, the provision or sharing of their travel experiences via eWOM has been determined to be for altruistic, entertainment and informational motives. Thus, understanding these dynamics is an important input for architecture and content design of websites, brand-related social media accounts for tourism firms and review sites to entice the participation of users.

The study also enlightens marketers interested in harnessing the value of eWOM platforms on ways for managing under-reporting by capitalizing on addressing altruistic, entertainment and information motivations of vacations on the brand sites which drive the generation of content on social media sites. Altruistic and entertainment content will bolster and amplify eWOM’s reach by enticing eWOM passing among vacationers using the tourism sites.

Practitioners have increasingly been showing interest in fostering favorable customer-to-customer communication (Hinz et al., 2011; Kumar et al., 2010; Ryu & Feick, 2007). Identifying motives behind

giving and passing on of eWOM on tourism sites is essentially a milestone towards effective use of social media so as to tap the opportunities stemming from increasing numbers of vacationers using social media for their travel planning.

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ICT usage in procurement practices

for successful health care supply chain management: A study of Uganda and Tanzania

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Abstract

Developing countries in Africa have numerous challenges in regard to health care supply chain management which include among others; cost management, quality and time management. Existing literature indicate that health care supply chain are complex because customers and patients need to have accurate and adequate medical supplies. Other scholars cite that the health sector particularly public entities have numerous challenges in procurement procedures like sourcing, storing and distributing medical drugs. Although there are efforts to integrate and coordinate the health care supply chain in Uganda and Tanzania, there are still challenges which affect performance of the health care supply chain and this is what motivates this research. Therefore, to add literature to the phenomenon of health care supply chain management, this paper examines the influence of ICT Usage in procurement practices for successful health care supply chain management using Ugandan and Tanzanian public health as a case study. Unit of analysis is referral hospitals. Descriptive statistics and Partial Least Squares Structural Equation Modelling (PLS-SEM) assisted with SmartPLS 3 are used for analysis. The outcome from the study provides implications on health care supply chain management.

Keywords: *ICT usage, procurement, health care, supply chain management, Uganda, Tanzania*

Introduction

Health care supply chains are more complex than the rest of the supply chains in Africa simply because the needs of the customers and patients have to be met accurately, and particularly the adequate medical supplies (Lysons, 2006). Most developing countries in Africa have had numerous challenges in regard to health care supply chain management, in a bid to exploit their potentials with regard to cost management, quality, and time management hence leading to high mortality rates (Li, Ragu and Rao, 2006). Effective health care supply chains do emphasize a shift from a narrow cost reduction perspective to a more integrated and coordinated supply chain that is responsive to customer needs (Elmuti, Houry, Omar and Ahmed, 2013). However, reality is that most public entities in African countries tend to have a lot of bureaucracies in their systems and also lack the willingness, capability and understanding to operate effectively in such supply chains hence affecting the service levels (Irwan, Suparno and Iwan, 2015).

In other Africa countries, Pule (2014) argues that in East Africa, the health care supply chains do face copious challenges most of which emanate from poor procurement procedures, poor information flows and poor delivery systems despite their efforts to integrate and coordinate their chain through establishment of relevant authorities in their countries. For instance, Public Procurement and Disposal of Public Assets in Uganda (PPDA), public Procurement and Regulatory Authority (PPRA) in both Tanzania and Kenya and Rwanda Public Procurement Authority (RPPA). In addition, Maniam, Halimah and Hazman (2006) noted that some governments have moved to use Information Communication Technology (ICT) in order to streamline the procurement process within the public sector. Uganda in particular, faces a multitude of challenges in its health care sector of which most of them do stem from the procurement procedures like poor sourcing procedures and bullwhip effect that can affect information flows (Inderfurth, Sadrieh and Voigt, 2013). Efficient and effective health care supply chains require supply chain members to ensure agility and flexibility in their operations in order to

fulfill stakeholder's ever changing requirements (Kanyoma & Khomba, 2013).

Although there are efforts to integrate and coordinate the health care supply chain in Uganda and Tanzania, there are still challenges which affect performance of the health care supply chain and this is what motivates this research. Therefore, to add literature to the phenomenon of health care supply chain management, this paper examines the influence of ICT Usage in procurement practices for successful health care supply chain management. Specifically, this study analyses the relationship between information technology and performance of health care supply chain management.

Literature review

Definitions of Key Concepts

ICT in Procurement

Procurement is defined as the function which is responsible for acquiring materials needed by operations (Bailey & Fancis, 2008). ICT can be used in procurement in activities such as selecting suppliers, purchasing, negotiating, agreeing with terms, monitoring the supplier performance among others (Kalakota & Robison, 1999). ICTs stand for information and communication technologies and are defined, for the purpose of this primer, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephones (Blurton, 2002). Other scholars have emphasized that use of ICT in procurement leads to improved operational performance (Rodovilsky & Hedge, 2004). Moraru (2016) defined ICT but from an academic performance point of view. In this study, ICT in procurement refers to ICT usage in procurement practices. Furthermore, in this study, ICT usage in procurement refers to the use of electronic means in pressing and receiving orders of drugs instantly and subsequently administering to the right patients in the referral hospitals.

Health Care Supply Chain Management

According to Chopra & Meindl (2007), supply chain management deals with different categories of flows which are flows of goods, flows of information and flows of funds within and among supply chain partners in order to satisfy consumer needs in the most efficient way. Supply chain management is controlling the information, materials, services and money through any activity in a way that promotes the quality of an organization's operations (Ashcroft, 2006). The connection of health care and supply chain management is noted in the study by Beier (1995). Beier mentioned that the application of supply chain management practices in the health care sector not only relates to physical goods like drugs, pharmaceuticals, medical devices and health aids but also to the flow of patients (Beier, 1995). For purposes of this paper, health care supply chain management is a concept that refers to the management of information flow, goods and services in referral hospitals.

Theoretical literature review

The theory selected for this study is the Unified Theory of Acceptance and Use of Technology (UTAUT) developed in 2003 by Venkatesh, Morris, Davis and Davis. UTAUT assumes the individual's internal schema of beliefs (Venkatesh, Morris, Davis and Davis, 2003; Venkatesh, Thong and Xu, 2012, 2016). A number of scholars have applied UTAUT to investigate various issues such as success in e-government services, meta analysis, health, ICT adoption, (Attuquayeflo & Addo, 2014; Williams, Rana and Dwivedi, 2015; Dwivedi, Rana, Chen & Williams, 2017; Kang, 2017; Khatun, Palas & Ray, 2017; Al-Swidi & Faeq, 2019) For instance, Khatun et al (2017) applied UTAUT to investigate cloud-based mHealth service for primary care and found that there were insignificant results between performance expectancy and behavioral intention. However, the study found that there was a significant effect between facilitating conditions and behavioral intention.

The reason for the choice of this theory is that UTAUT emphasizes technology usage. Furthermore, UTAUT theorizes that an individual's behavioral intention to use a technology is influenced by performance expectancy, effort expectancy, social influence, and facilitating conditions. For this study, performance expectancy and effort expectancy usability and benefits respectively will be analysed in predicting the relationship between ICT usage in procurement practices and health care supply chain management with specific objective that argues that there is a significant relationship between information technology usage and performance of health care supply chain management.

Empirical literature review

Studies on health care encompass various aspects by various scholars (de Vries & Huijsman, 2011; Al-Saa'da, Taleb, Abdallat, Al-Mahasneh, Nimer and Al-Weshah, 2013; Khatun et al, 2019). A study by Khatun et al (2019) conducted in Australia was concerned with health care from the perspective of cloud-based mHealth service for primary care. The results of the study after applying structural equation model analysis revealed that facilitation conditions influenced behavioral intentions ($p=0.02$) whereas performance expectancy ($p=0.14$) and effort expectancy (0.97) were not significant. Other results from the descriptive analysis revealed that most respondents gave higher scores on technical issues particularly for sound (92.2%), video quality (88.6%) and interaction with the doctor (89.8%). Based on these results and the use of UTAUT, the concluded that end-users' intentions to use MyOnlineClinic system were influenced by factors such as hardware and information technology (Khatun et al, 2017). This study examines information technology in relation to performance of health care supply chain management among the staff in referral hospitals.

On procurement level, Daoud and Ibrahim (2018) investigated e-procurement usage and the interest was on how the role of power moderated factors affecting e-procurement. The study was carried out in Jordan and motivated by limited literature on e-procurement utilization among firms. The result of the study revealed that there is an association between technological advancement and e-procurement usage (Daoud & Ibrahim, 2018). In India, Mathur, Gupta, Meena & Dangayach (2018) examined supply chain practices, effectiveness of supply chain performance and organizational performance in Indian healthcare industries. The findings indicated that efficient supply chain performance plays a major role in organizational performance in the context of Indian healthcare industries due to interrelationship between supply chain management practices and supply chain performance (Mathur et al., 2018).

Masele and Kagoya (2018) also explored health from the perspective of academic safety and health (ASH) among PhD students in Uganda and Tanzania. By applying descriptive statistics and regression analysis, the findings revealed that environment and ergonomic devices positively influence safety and health risks and the paper recommended that institutions should that computer use is supplied with comfortable facilities.

Motivated by the study of Mathur et al. (2018) and existing challenges in health care as well as limited literature, this paper examines the influence of ICT Usage in procurement practices for successful health care supply chain management in the context of Tanzania and Uganda. Specifically, this study analyses the relationship between information technology and performance of health care supply chain management.

Conceptual Framework

The conceptual framework in Figure 1 shows the hypothesis **H1**: There is a positive relationship between information technology and performance of health care supply chain management.

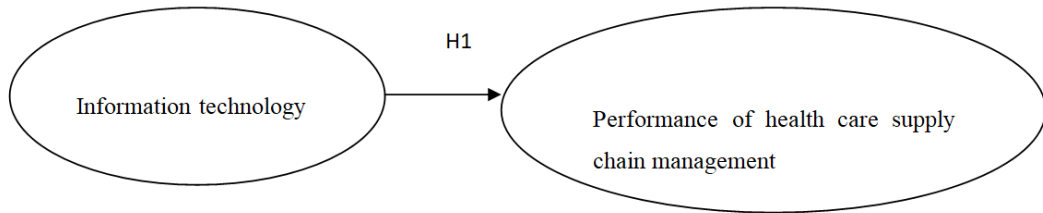


Figure 1: Conceptual Framework. Source: Compiled from Literature

Methodology

Quantitative approach was utilized to source information about ICT Usage in procurement practices for successful health care supply chain management using Ugandan and Tanzanian public health as a case study. Unit of analysis is staff and procurement managers of referral hospitals using purposive sampling. Semi-structures questionnaires with measurement items for the tested variables of information technology and performance of health care supply chain management were handed to a sample size of 40 respondents. The measurement items for information technology were adopted from Mwai (2013) while the measurement items for performance of health care supply chain management were adapted from Mathur et al (2018). The composite reliability indicated for information technology (0.91) and for performance on health care supply chain management (0.78). In Uganda the data was collected from 3 referral hospitals. The data from Tanzania is still on-going since this is a work-in-progress so only findings from Uganda are presented in this paper. Data collected from respondents in Uganda is subjected to descriptive statistics assisted with SPSS version 20 and Partial Least Squares Structural Equation Modelling (PLS-SEM) assisted with SmartPLS 3.

Findings and discussion

Table 1 indicates that majority of the respondents from Uganda were males (52.5%), between 36 to 45 years old aged (52.5%), have university education (100%) and married (42.5%). This suggests that most of the respondents were educated married males between 36 to 45 years old.

Table 1: Respondents Demographic Information

		Frequencies	Uganda
Age Groups	18-25	5	12.5%
	26-45	5	12.5%
	36-45	21	52.5%
	46 years and above	9	22.5%
Gender	Male	21	52.5%
	Female	19	47.5%

Marital Status	Single	9	22.5%
	Married	17	42.5%
	Divorced	6	15%
	Widowed	8	20%
Education	University	100%	100%

Source: Field data (2019)

The PLS SEM analysis using bootstrapping in predicting the significance of the relationship between information technology and performance of health care supply chain management is shown in Figure 1 for Uganda. The results in Figure 1 show that the T-value (1.59) is below 1.96 and therefore, information technology is not significant in relation to performance of health care supply management. Although the within T values were above 1.96 for reflector paths of each construct but the T value connecting the constructs of information technology (IT) to Performance of health care supply management (Per) is below 1.96 hence no significant relationship.

In Figure 2, the p value (p=0.11) further shows that the relationship between IT and Per is not significant at significance level of 0.05. Although the within P values were significant with 0.00 values for reflector paths of each construct but the P value connecting the constructs of information technology (IT) to Performance of health care supply management (Per) is above the significance of 0.05 hence no significant relationship. This suggests that transactions conducted by suppliers can be viewed via an interface in SPMS (Info11), a database of prequalified suppliers exists (Info12), and the procurement process is by and large computerized with very little manual processes (Info13) are not indicators of information technology that predict performance of health care supply chain management in terms of higher performance expectation for savings from health care supply chain management (Per 24) and the need to integrate health care supply chain management data with hospital data using ICTs tracking systems (Per 25).

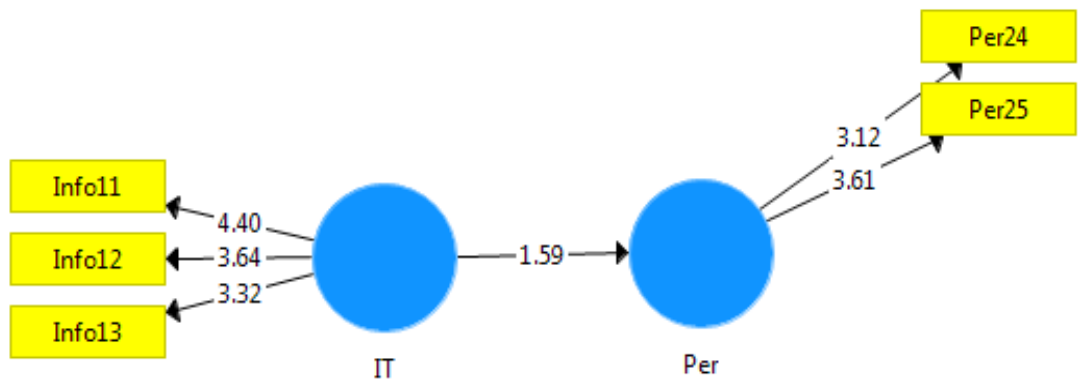


Figure 1: T values- Information Technology (IT) on Performance of healthcare supply chain management (Per) for Uganda

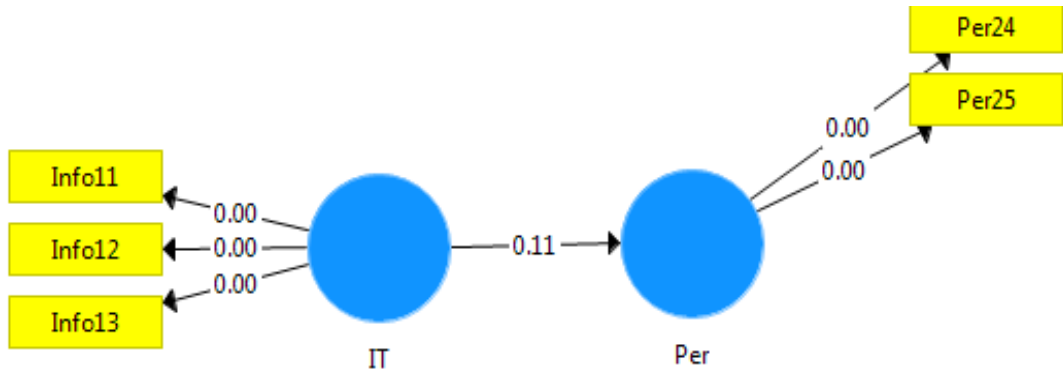


Figure 2: *P* values- Information Technology (IT) and Performance of healthcare supply chain management (Per) for Uganda

Before bootstrapping, other items were dropped due to low loadings. Collinearity values for the retained items which are Info11 (2.947), Info12 (2.567), Info13 (1.883), Per24 (1.077) and Per25 (1.077) indicated Variance Inflation Factor (VIF) < 4 or (VIF) < 5 and this is acceptable according to Hair, Black, Babin and Anderson (2010) and Ringle, Wende and Becker (2015) respectively. The insignificant results do not support the UTAUT theory for information technology in predicting performance of healthcare supply chain management in the context of Uganda. The results of this study are contrary to previous research by Khatun et al (2017) carried out in Jordan and Daoud and Ibrahim (2018) conducted in Australia which found information technology to be significant. The differences in results could be attributed to geographical location of the countries and preferences for information technology.

Conclusion and limitations

In examining the influence of ICT Usage in procurement practices for successful health care supply chain management and specifically the relationship between information technology and performance of health care supply chain management in Uganda, the results for Uganda based on preliminary data revealed insignificance. The insignificant outcome implies that transactions conducted by suppliers can be viewed via an interface in SPMS, a database of prequalified suppliers exists, and the procurement process is by and large computerized with very little manual processes as indicators of information technology do not predict performance of health care supply chain management in terms of higher performance expectation for savings from health care supply chain management and the need to integrate health care supply chain management data with hospital data using ICTs tracking systems.

Implications and recommendations

The theoretical implications are that the insignificant results do not support the UTAUT theory for information technology in predicting performance of health care supply chain management in the context of Uganda. Based on the outcome of this study, the recommendations are for policy makers and practitioners in the health care sector to consider that even though information technology is trendy around the world but ICT usage in procurement practices measured using information technology is not dependent on performance of health care supply chain management in the context of Ugandan referral hospitals. The indicators that did not predict performance of health care supply chain management are transactions conducted by suppliers can be viewed via an interface in SPMS, a database of prequalified suppliers exists, and the procurement process is by and large computerized with very little manual processes. Future research can consider a large sample as well as explore a qualitative approach to examine ICT usage in procurement practices and health care supply chain management.

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User Participation Approach to Key Attributes of E-Government Implementation in Developing Countries: A Case of Tanzania

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Abstract

Various nations universally have begun utilizing ICTs in the bid to involve citizens in electronic participation which brings about numerous benefits. Conversely, these benefits are witnessed are mainly witnessed in Developed Countries. It is worth noting that although various scholars have reconnoitered numerous factors impacting e-government implementation, less have examined the influence of user participation and top management support in successful implementation of e-government in Least Developed Countries like Tanzania. In a bid to cement this knowledge gap, this paper aimed at assessing key success factors for e-government implementation in developing countries precisely Tanzania from a user participation perspective. Explicitly, it assessed e-government success using user participation, top management support, ICT infrastructure and IS attributes. Data was gathered from the top officials and users of e-government services from e-government departments' staff who mostly involved with e-government projects and thus having technocrats with relevant data regarding the study. Collected data was analyzed using Partial Least Squares Structural Equation Modeling (PLS SEM) with the aid of SmartPLS 3. Findings indicate that users' attributes and top management support were significantly related to e-government implementation success while Information and Communication Technology infrastructure attributes and Information System attributes were not supportive. These results have practical implications on the governments of developing countries with similar characteristics like Tanzania, future academia, top management officials, Information System service providers, as they forge ways through the recommendations provided in the paper to improve user e-participation levels to achieve successful e-government implementation.

Keywords: *User participation, E-government Implementation, Top Management Support*

Introduction

E-government development has been reported as stimulating business process change, increasing internal efficiency of service delivery to reduce public spending, improving levels of information sharing and interoperation, improving innovation and competitiveness, enhancing social inclusion, greater transparency and accountability, greater proximity to citizens, and 24/7 e- service delivery (UN E-Government Survey, 2018; Scholl, 2001). E-Government is a global trend, with many countries actively pursuing e-government strategies as it aids in a key to e-project success via high quality user interaction with the government, acting as one shop centre of e-services and deleting logs in the digital road (European e-Government Action Plan, 2016-2020) and reaping benefits jotted above, evident in MDCs leading in e-government implementation like Denmark, Singapore, Netherlands and Korea and Africa like Tanzania, Uganda are lip frogging (UN E-government survey, 2018).

In democracies, citizens being the end users are presumed to be important stakeholders in that they are able to participate either direct or indirectly through elected representatives in the formation, adoption and implementation of the laws and policies that affect them. Public participation thus is a fundamental part of the e-government relationship in democracies (Bryson *et al.*, 2013; Jacobs, 2014). However, despite real-world advances in e-Government implementation, active user participation is lagging

(Joseph, 2015; Bryson *et al.*, 2013; Kagoya, Maiga & Jani, 2018). User participation in E-government in developing countries is seen as a means of successful e- government implementation, via proper use of user attributes, IS and ICT infrastructure attributes. It also aids to strengthen the performance of government and public administration for economic and social development in a given nation (Joseph, 2015, Kagoya *et al.*, 2018). According to literature reviewed, less has been done to examine the key factors for successful e-government implementation in developing Countries and scanty (less zero by time the study was conducted) from the user participation point of view, while considering top management as an important variable in Tanzanian context. This huge digital divide has hindered the realization of the potential benefits perhaps due to the complexity of the technology involved, ineffective public administration (Peter, 2016; ITU, 2014; Abdelghaffar, 2012). Others challenges are; limited capacity, and poorly-trained personnel, inadequate top management support, constraints imposed by providers' capacity, and the limited uptake of e-government by citizens and their less active participation in e-government projects in the developing countries, Tanzania inclusive (Sichone & Mbamba, 2017; Nabafu & Maiga, 2012; Schuppan, 2009). More so, these challenges of digitization are often overlooked when it comes to e-government implementation (Mutula, 2013).

Despite user participation becoming a routine part of government policy-making, there is nonetheless a growing sense that most LDC governments are unresponsive or not representative of many segments of the public or perhaps even the majority (Jacobs, 2014). Racial minorities and the poor continue to feel disciplined by policies in which they are central stakeholders and which are superficially intended to empower them (Fording, Richard, Joe., & Sanford., 2011; Alexander, 2012; Moynihan *et al.* 2015). In this study, top management support was incorporated in user participation study for e-government implementation due to the key role it plays in e-government implementation projects and yet prior studies have ignored it (Muller & Skau, 2015, UNCTAD, 2013). In line with the above, Mihret and Yismaw (2007) echoed that “no matter the expertise and experience, working tools and staff an organization may have, without top management support, its key activities cannot be robust.

This paper employed three theories; namely; stakeholder theory being the main one, UTAUT and IS success theory, where by each complemented the other in explaining the variables in this study. The stakeholder theory, being the primary theory of this study, is backed by Svendsen (1998) who contended that the case for competitive edge as an outcome of effective stakeholder engagement: as paradoxical as it sounds, one way to succeed in a highly competitive globalised economy is to co-operate with users of the e-government project and in most case are the citizens. Barki and Hartwick (1994) suggest that mere user participation implies but not limited to: the behaviors, assignments, and activities that users or their representatives perform during the ISD process.

This study dealt with active participation in e-government projects, out of which, users can be motivated to accept and trust the systems while dealing electronically thus resulting to successful implementation of e-projects (Venkatesh *et al.*, 2012). The central claims for an integrated approach to stakeholder engagement, arguably Centre primarily on benefits to the organization essentially on the view that incorporating stakeholder views in decision-making processes, enhance organizational performance and commitment (Bergmans, Elam, Kos, Polic, Simmons, Sundqvist & Walls, 2007). UTAUT and IS success theories supplemented the stake holder theory since it not sufficient enough to explain all the variables especially the ICT and IS related variables which can be explained well respectively.

More so, many researchers over the globe such as Joseph (2015), Elkadi (2013), Ziemba, Papaj, & Zelazny (2013), Al-Naimat *et al.*(2013), Wang and Hou (2010), Boddy and Buschanan (1986), as well as Heeks (2002, 2003, 2006), undertook a number of empirical studies in regard to, but not limited to e-government theories, principles, and frameworks. Their studies mainly focused on macro level Government to Government (G2G) and paid little attention to micro-level (G2C), where user directly participate in government projects using ICT (e-participation) to get e-services (Alexander, 2012, 2003). Correspondingly, some authors reveal that, for successful implementation of e-government, user participation is one of the key success factors which must not be ignored (Mutula, 2013; Nabafu

& Maiga, 2012, Wood-Harper *et al.* 2004), hence, the need to reduce this gap by proposing a model for user participation in successful e-government implementation in Tanzania. Therefore, this study aimed at examining the role of user participation in e-government implementation in Tanzania through the use of quantitative method and PLS SEM used for data analysis as it was suitable for this data given the small sample size and its prediction capabilities, among other benefits (Ringle *et al.*, 2012, 2015; Hair *et al.*, 2010, 2017).

Literature review

E-government

This is a new interesting term with no permanent definition but it simply refers to the utilization of ICTs by the government to deliver services to the citizens, business and government departments (United Nations, 2018). Similarly, United Nations (termed it as a government) defined e-government as a government that make use of ICT to alter its internal and external business relationship (UNDESA, 2016). In this study, e-government refers to the ability of the nation to incorporate ICTs in its daily operational activities without interruptions throughout the year while dealing with citizens, businesses and government itself so as to reap the overwhelming benefits

User participation

This is a term used synonymously with user involvement in information systems. It refers to the behaviors and activities that users (active participation) or their representatives (passive participation) perform in the system development process (Barki & Hartwick, 1994; Doll & Torkzadeh, 2004). Quite a number of authors reveal that user participation attributes like education, ICT skills, ease of use, experience, attitude; are vital in emerging issues like e-government implementation (Al-Athmay, 2013; Abdelghaffar & Magdy, 2012 & Ifinedo & Singh, 2011). In this study, user participation in successful e-government implementation refers to users/citizens at the lower level having a maximum degree of power (or control) which guarantees them to directly and actively participate in e-government implementation, be in full charge of e-government implementation policy and managerial aspects, and be able to negotiate the conditions under which the government may change them, all, with aim of achieving successful implementation of e- government in Tanzania and Uganda

Top management support

Top management support refers to the degree to which senior management understands the importance of the IS function and the extent to which it is involved in IS activities and is translates the policy (formulated by the board-of-directors) into goals, objectives, and strategies, and projects a shared-vision of the future (Chad, 2015). Support from the top leaders in any country is vital for any e-project and can facilitate user participation in terms of funds, donations, budget allocations for e-services, ICT infrastructures to name it and this is supported by literature below: E-government projects necessitate, proper resource mobilization, appropriate financial management, efficient budget allocation, efficient record management, all of which, cannot be obtained without top management support (Mutula, 2012; Nabafu & Maiga, 2012; Al-Rashid, 2010; Esteves & Joseph, 2008). For e-government projects which are large, complex, multi-phases and expensive, their implementation success and sustenance need support from not only smart but effective top leadership and management. To achieve this, top managers give credit, nurture creativity and support team members in taking calculative risks (Erin, 2018).

Empirical literature

The use of ICT has several challenges such as how users and the community at large participate in using such services. United Nations (2016) indicates some advancement in the use of ICT in most countries; however, there are differences between and among countries due to encountered challenges. The challenges are caused by inequality and inaccessibility to technology. Tanzania is among the

counties facing ICT challenges. Mwantimwa (2019) and Magayane, Mokua, & Lanrong (2016) indicate that Tanzania experiences problems in usability, security, access, infrastructure, personal initiatives as well as characteristics and cost in using established electronic services. Furthermore, e-government baseline study shows that there is low level of applying ICT services in Tanzanian public sectors. The low level usage can be attributed to how users read and understand the language of internet (United Republic of Tanzania, 2016). In addition, Lupilya (2015) while exploring status, opportunities and challenges for e-government transformation in Tanzania, found several hindrances for e-government success which were grouped in - reluctant towards accountability and transparency; misconception of innovation and technology; as well as the problems related to reliability of technology itself. Similarly, to supplement these strategies, Tanzania envisaged being a role model user of IT to promote governance (United Republic of Tanzania, 2012a). Several websites (for example www.wananchi.go.tz) have been developed for citizens to participate in governance (Saebø, 2012). However, even with such developments, unsuccessful IT implementations have been reported (Mutula & Olasina, 2014; United Nations, 2016).

Additionally, prior literature assert that some government officials chiefly the old people described by one CIO as-Born Before Computers (BBC) in Tanzania, like those in other developing countries such as Uganda, fancy traditional face-to-face contact rather than electronic means, implying that they suffer from technophobia. These findings suggest the existence of a cultural barrier and resistance to change; and also confirm findings that Tanzanians preferred paper work rather than electronic ones (Saebø, 2012). E-government implementation where users directly participate in, intensify control of e-project systems via some actors, thus concentrating power and ownership among the users (Saebø, 2012, while citing Schuppan, 2009). Related to this, Guenduez *et al.* (2017) contends that one of the requirements for smart e-government among others are participants, technology, data, processes, product, and services which should be integrated comprehensively.

Similarly, Masele (2019), in his study in e-business adoption in SMEs in Tanzania, found out that, if a firm is to adopt ICTs, the technology behind it has to be easy to use since it is intended for the users, which inculcate an individual/user's self-efficacy to use Green eBusiness, drivers that influence Intention to Use. More so, the presence of facilitating conditions were seen to vital as they motivate the new adopters, while, the existence of Coercive Pressure is important in order to reinforce the "green" behaviors related to use of IT and eBusiness in general. Masele's study is in support of facilitating conditions which come from top management support and user participation where they can easily participate if the technology implemented is ease to use which emanates from self-efficacy.

Theoretical literature

Stake holder Theory: researchers have defined the concept of stakeholder differently with their own perspectives depending on different views of their roles. For instance, stakeholders have been defined as groups of constituents who have a legitimate claim on the firm (Hill & Jones, 1992), participants in corporate affairs (Ackoff, 1974), those that will be directly impacted by the decisions (Friends & Hickling, 1987), and those who hold a stake about the decisions made by the organization (Eden & van D H., 1993; Wagner, 1993).

It should be recalled that stakeholder theory the primary theory supporting user attributes and top management attributes as stakeholders in successful e-government implementation. It is in line with Mumford (1983), one of the early researchers in supporting the active involvement of end-users as a component of effective information systems development and implementation, using essentially the stakeholder concept in this domain. It has been suggested that end users (citizens) in addition to managers are very crucial towards successful system implementation like e-government, hence, the reason to why this study used stakeholder theory which will help in establishing the role of user participation in successful e-government implementation in Tanzania.

IS Success Models

The IS success models (such as those of DeLone & McLean, 1992; 2003) seek to provide a deeper understanding of IS success by identifying the relationship among the six critical dimensions of success along which IS are commonly assessed. The IS success dimensions cover information quality, system quality, service quality, system usage intentions, user satisfaction, and net system benefits (Urbach & Müller, 2012; Delone & McLean, 2003, 2016). Researchers, such as Peter *et al.* (2008) use the model to understand these model's dimensions. The model for IS success is interpreted as follows: a system can be evaluated in terms of system, information and service quality; these features affect the subsequent use or intention to use and user satisfaction. By using the systems, users derive certain benefits. The net benefit will then influence user satisfaction and the further use (user participation) of the IS. Bharati and Chaudhury (2006) used the theory to study product customization on the web; Seen *et al.* (2007) evaluated IS acceptance and success and Chae (2007) examined the IT value. Other researchers who used the theory include Urbach *et al.* (2008) as well as Trkman and Trkman (2009).

UTAUT is remarked as a reflection of an individual's internal schema of beliefs (Brown *et al.*, 2010). It has been cited in scientific papers and is considered as one of the powerful theories in contemporary IS research. It was developed by Venkatesh, Morris, Davis and Davis (2003) who examined eight competing models of technology acceptance to formulate a unified model that mixes elements from the models. The models are: Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), motivation model, Theory of Planned Behavior (TPB), TAM/TPB combined PC utilization model, innovation diffusion theory and social cognitive theory. This theory (UTAUT) was developed to modify TAM model and to provoke some of the limitations of using multiple models posed by researchers. UTAUT theorizes that an individual's behavioral intention to use a technology is influenced by performance expectancy, effort expectancy, social influence, and facilitating conditions (Carter & Weerakkody, 2008; Venkatesh *et al.*, 2008; 2003). AlAwadhi and Moris (2008) used UTAUT to explore factors that determine the adoption of e-government services in Kuwait as one of the developing countries. Yang and Lee (2007) studied ICT adoption and they stress that critical factors of adoption differ from country to country. Abdelghaffar and Magdy (2012) are also among the proponents to the theory. ICT adoption form basis on user participation of e-government activities. Variables identified in the three theories (Stakeholders', UTAUT and IS Success) form basis in understanding the study under review because most of the study items were interpreted from the elements of these theories.

Despite the fact that preceding literature accentuated (stressed) and some acclaimed factors for e-government implementation (Muthoni & Mkhonto, 2019; Nilssen, 2018; Sichone & Mbamba, 2017; Al-Naimat *et al.*, 2013; Guenduez, *et al.*, 2018; Kagoya *et al.*, 2018)' very few have mentioned about the user participation approach. For instance Kagoya *et al.*, 2018 under took a study on e-readiness assessment framework for Uganda and recommended that citizen participation in e-government project should be supported by the government to improve the level of e-readiness among the Ugandan citizens. Limited literature on ICT in relation to PhD studies and the continued challenges to ascertain the real contextual based E-government implementation success factors in Developing Countries motivates this paper to examine user participation approach to E-Government implementation in Developing Countries like Tanzania. Also basing on the fact that countries vary significantly in the level of economic, social, political, cultural aspects, technological and infrastructure level, e-government level, e-participation level and human resource development, there is need to establish key factors for individual countries than just copying and pasting those applied in most developed countries without editing and this explains the massive failure of such e-projects implemented in LDCS to date. More so, in order to reduce this vacuum, this paper is supported by stakeholders' theory where users and top managers who are part of the stakeholders in the e-government projects, coupled with UTAUT theory which reflects on individual belief to participate in e-government implementation. The literature reviewed was a foundation for the hypotheses in this paper which include: H_1 : *User attributes influence successful e-government implementation*; H_2 : *IS attributes influence successful e-government implementation*; H_3 : *ICT infrastructure related attributes influence successful e-government implementation*; and H_4 : *Top management User participation influence successful e-government implementation*.

Research methodology

Research design

The study used a cross-sectional questionnaire survey in a five point Likert scale to gather data from users of electronic services (staff) from e-government departments in the Ministry of Finance who were conveniently and purposively sampled. The cross-sectional survey has been found to be robust for effects of relationship studies in previous information systems studies such as Teo *et al.* (2003), Liang *et al.* (2007), and Wolf *et al.* (2009). A cross-sectional study is appropriate when the overall objective is to establish whether significant relations exist among variables under study. The choice of the aforesaid Ministry is that her respondents are exercising government electronic operations (United Republic of Tanzania, 2014). Thus, Dar es Salaam city in was included. Prior information to this city was obtained to know respondents who were using the systems for their inclusion in the study. The survey tool covered questions related to the user participation (including their attributes, IS attributes as well as ICT infrastructure that can affect usage); top management support; and e-government implementation success. The construct validity of the scale was tested to measure variables that are theoretically being measured. To ensure this, the study employed questions used in previous research, though modified to fit the context of the current study. Variable items are shown in Appendix 1; these items were adapted from Fan and Yan (2015). Adopting the questions ensures more efficiency for validity and reliability (Kessy, 2010) than developing new questions, provided that the researcher can still collect the data needed to answer research questions and meet the objectives (Saunders *et al.*, 2009). Reason being that the questionnaire is already tested for validity. The variables used were drawn from theories and empirical studies related to the study's problem. The study was able to gather 51 questionnaires out of 150 which were distributed to the Tanzanian respondents and were analyzed using partial least squares structural equation modeling (PLS-SEM), with the aid of SmartPLS 3 to form user participation model to capture the relationship among variables.

Data analysis involved descriptive, discriminant validity, convergent validity and composite reliability tests (Hair *et al.*, 2017). After being satisfied with preliminary tests, factor analysis was run to confirm the study variables (Yong & Pearce, 2013). PLS-SEM is a single systematic statistical technique for testing and estimating causal relationships amongst latent variables (Sarstedt *et al.*, 2018).

PLS- SEM was preferred for this study since its more suitable for explanatory research and shares the modest distributional and sample size requirements of ordinary least squares regression (Chin, 2010). Further, PLS-SEM has been extensively applied in information systems research. In a study on the use of PLS-SEM in Management Information Systems Quarterly (MISQ), out of the 109 SEM based articles published from 1999 through to 2011, 65 (60 percent) of the articles applied PLS-SEM (Ringle, Sarstedt, & Straub, 2012). Lastly, PLS-SEM was preferred as no assumptions are made for variables distribution while ensuring optimal prediction accuracy (Chin, 1998). PLS is useful if the research model is complex having a large number of variables' indicators, moderators and small samples (Hair *et al.*, 2010, Ringle *et al.*, 2015). Furthermore, PLS is said to be robust against multicollinearity problems (Cassel *et al.*, 2000).

Findings

Table 1: Significance testing results of the PLS-SEM (UPEGI) model path coefficients

	Path Coefficients- Mean,STDEV, T-Values, P-Values				
Path model	Original Sample (O)	Sample Mean (M)	(STDEV)	T Value(O/ STDEV)	P V
ICT -> EG	-0.022	-0.014	0.173	0.126	0.9
ISA -> EG	0.045	0.066	0.14	0.324	0.746
TMS -> EG	0.469	0.455	0.173	2.712	*0.007
UA -> EG	0.391	0.374	0.167	2.34	*0.02

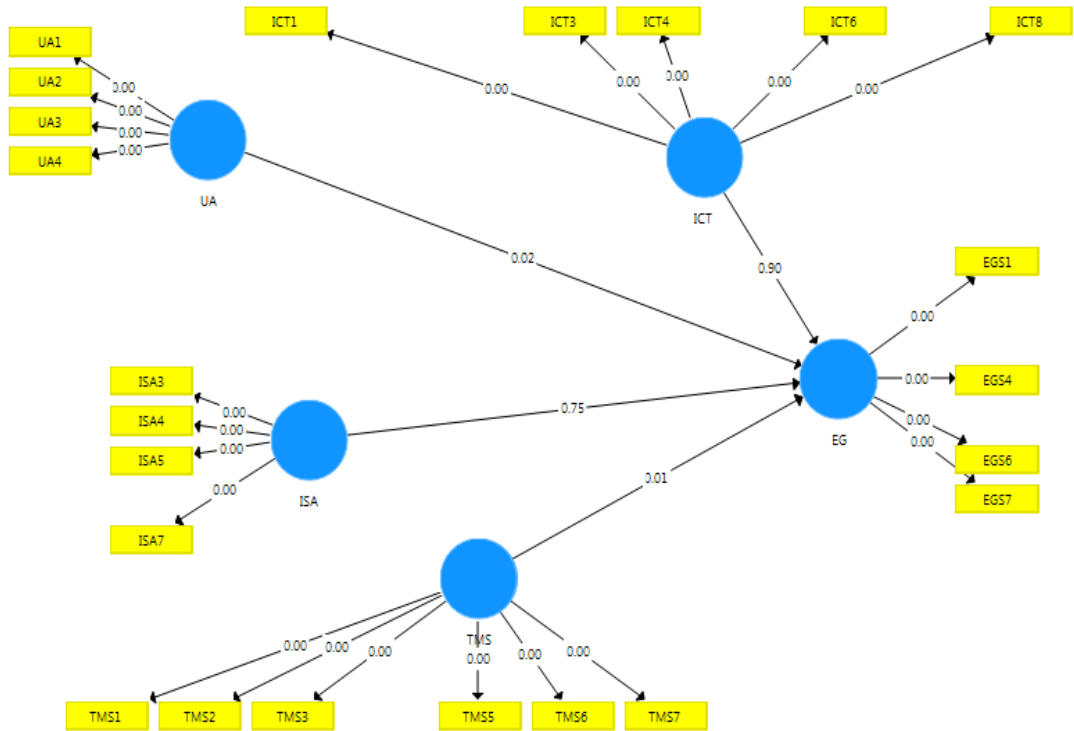
Source: Field data 2019 attained using SmartPLS3.0

Testing results of H_1 , H_4 (significant) and H_2 & H_3 (insignificant)

From the above table the results indicate that only two variables are significant (UA & TMS), hence implying that there is a significant positive relationship (UA -> EG) between user attributes and E-government implementation (PV= **0.02**), thus in compliance with H_1 : *User attributes positively influence successful e-government implementation in Tanzania. Correspondingly*, there is a significant positive relationship (TMS -> EG) between Top management support (TMS) and E-government implementation (PV= 0.007) which conforms to H_4 : *Top management User participation has positive influence on successful e-government implementation in Tanzania*. Conversely, path models of two first two variable in the table above (ICT -> EG and ISA -> EG) are insignificant hence contradicting with H_3 : *ICT infrastructure related attributes influence successful e-government implementation; and can be re stated as H_3 : ICT infrastructure related attributes has negative influence on successful e-government implementation in Tanzanian context.*

Lastly, results in Table 1 show that the T-value for user attributes (UA=2.34) and Top Management Support (TMS=2.712) were above 1.96 and therefore, user attributes and Top Management Support sessions are significant key success factors in *successful e-government implementation in Tanzanian context*.

Figure 1: The User Participation E-Government Implementation (UPEGI) Model for Tanzania (Smart PLS results of the reflective-formative main effect UPEGI model)



Source: Data field computations using SmartPLS 3 (researchers' contribution, 2019)

Hypotheses testing results after bootstrapping formulating the UPEGI model

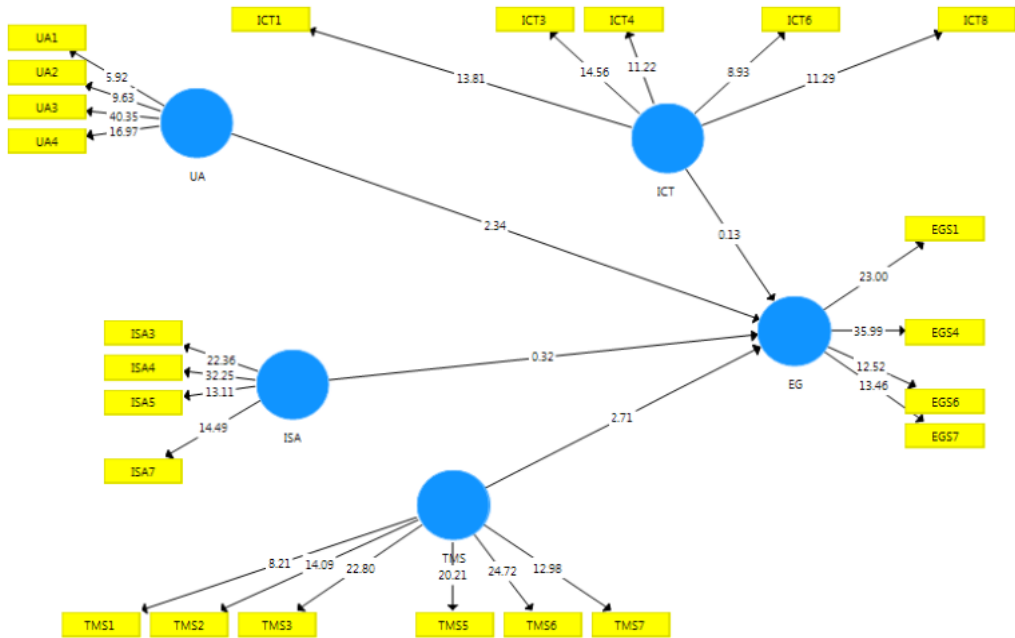
Figure 1 provides the results for variables' relationships in the UPEGI model. Findings indicate that the relationships of e-government success to ICT and ISA are not significant ($p = 0.90$, $p = 0.75$), implying that ICT infrastructure and IS attributes do not influence success in e-government. The findings show further that the relationships of e-government success to TMS and UA are significant ($p = 0.01$, $p = 0.02$), that is, top management support and user participation influence success in E-Government.

It should be recalled that before addressing the study objectives by hypotheses testing; the study assessed data validity and reliability, as well as performing different tests such as confirming indicators' outer loadings and collinearity statistics.

Inner model path coefficient sizes and significance (Inner loading results)

Results from Fig 2 showing the inner model suggests that TMS has the strongest effect on EGI (2.71), followed by UA (2.34), ISA with (0.32) and lastly ICT infrastructure/ICTI (0.13). The hypothesized path relationship between UA and EGI is statistically significant and the hypothesized path relationship between TMS and EGI is statistically significant. Nevertheless, the hypothesized path relationship between (ISA and EGI) and that of (ICTI and EGI) are low statistically significant. This is because their standardized path coefficients (0.32 and 0.13) are slightly above the standardized 0.1. Thus we can conclude that: UA and TMS are equally high strong predictors of EGI, compared to ISA and ICTI in the Tanzanian Context.

Figure2 envisaging the Inner loading results



Source: Data field computations using SmartPLS 3 (researchers' contribution, 2019)

Outer Loadings results

Findings for outer loadings are presented in Table 2. Outer loadings represent the absolute contribution of an indicator to the definition of its latent variable (Garson, 2016). The manifest variables with outer loading of 0.70 or higher are considered highly satisfactory, and items with loadings less than 0.40 – unacceptable; (Hair *et al.*, 2017; Hulland, 1999) suggests such items be dropped. This study aimed at obtaining best results by focusing items which were highly satisfactory. The study, therefore, dropped items ISA1, ISA2, ISA6 and ISA8 from the IS attribute construct; items TMS4, TMS8 and TMS9 from top management support; while items ICT2, ICT5, ICT7, ICT9 and ICT10 were removed from the ICT infrastructure construct to meet the suggested values.

Table 2: Outer loadings

ITEM CODE	EG	ICT	ISA	TMS	UA
EGS1	0.862				
EGS4	0.914				
EGS6	0.844				
EGS7	0.825				
ICT1		0.831			
ICT3		0.801			
ICT4		0.826			
ICT6		0.781			
ICT8		0.757			
ISA3			0.859		
ISA4			0.854		
ISA5			0.79		
ISA7			0.832		
TMS1				0.735	
TMS2				0.814	
TMS3				0.841	
TMS5				0.864	
TMS6				0.871	
TMS7				0.777	
UA1					0.785
UA2					0.828
UA3					0.917
UA4					0.895

Source: Data field computations using SmartPLS 3

Data validity and reliability

Internal consistence reliability

Table 3 indicates the results on validity and reliability measures using Cronbach’s alpha test, composite reliability and the average variance extracted and values depicted above, are larger than 0.6, so high levels of internal consistency reliability have been demonstrated among all three reflective latent variables. Findings on Cronbach’s alpha values were all in an acceptable level as they were above recommended threshold of 0.7, that is, above 0.85. Likewise, as shown in the table, computed AVE values and the composite reliability scores for the latent variables exceeded the suggested thresholds (Hair *et al.*, 2010). The composite reliability values were above the recommended 0.70 level and the computed AVE (Average Variance Extracted) values - above 0.6, confirming the convergent validity of the measurement model. Although, all these results confirm the internal consistency and reliability of data as asserted by Wong (2013), erstwhile (prior) literature has advocated for the use of Composite Reliability as a replacement of the habitual Cronbach’s alpha (Sarstedt, *et al.*, 2018; Hair *et al.*, 2017; Bagozzi & Yi, 1988). From Table 5, such values are shown to be larger than 0.6, so high levels of

internal consistency reliability have been demonstrated among all three reflective latent variables. In this paper, the aim of testing for convergent validity was to establish the degree to which blocks of indicators vehemently congregate/converge/unit in their representation of the given constructs they were meant to measure.

Table 3: Data Validity and Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
EG	0.884	0.89	0.92	0.742
ICT	0.859	0.863	0.899	0.639
ISA	0.855	0.86	0.901	0.696
TMS	0.901	0.904	0.924	0.67
UA	0.879	0.887	0.917	0.736

Source: Data field computations using SmartPLS 3

Discriminant Validity

A test for discriminant validity using Fornell Lacker criterion was conducted by assessing indicators' cross loadings (Table 4). The table presents constructs' factor loadings and cross loadings. The results indicate that each indicator loads higher on its own than on the other constructs; signifying the discriminant validity as each indicator is well correlated with the construct it is connected to (Wong, 2013). Precisely, it can be comprehended that all of the indicators in table above have individual indicator reliability values that are much larger than the minimum acceptable level of 0.4 and above the preferred level of 0.7. It be noted that the justification for performing discriminant validity was to measure the extent to which the constructs were distinct from one another by empirical standards (Chin, 2010).

Table 4: Discriminant Validity using Fornell-Lacker Criterion

			ISA	TMS	UA
EG	0.862				
ICT	0.626	0.8			
ISA	0.595	0.687	0.834		
TMS	0.679	0.761	0.754	0.818	
UA	0.632	0.666	0.539	0.492	0.858

Source: Data field computations using SmartPLS 3

Multicollinearity Assessment

Collinearity assessment (Table 5) was done by using the VIF values of the research model (Hair *et al.*, 2010). This assessment was needed to ensure assumptions for SEM are met for model fit and

further interpretation. The results for collinearity assessment indicate that the VIF values are within the acceptable range, that is, less than five, therefore, there is absence of collinearity problem. These results were obtained after omitting further items to attain the recommended thresholds. Three e-government success items (UA2, UA3 and UA5) and two user participation (UA5 as well as UA6) indicators were omitted.

Table 5: Collinearity Statistics

Item code	VIF
EGS1	2.556
EGS4	3.412
EGS6	2.273
EGS7	2.05
ICT1	2.241
ICT3	1.906
ICT4	2.214
ICT6	1.946
ICT8	1.522
ISA3	2.364
ISA4	2.477
ISA5	1.598
ISA7	2.151
TMS1	2.205
TMS2	2.355
TMS3	2.816
TMS5	2.873
TMS6	3.129
TMS7	2.815
UA1	1.786
UA2	2.194
UA3	3.367
UA4	2.754

Conclusion, implications, recommendations and limitations

This paper was intended to model key success factors for e-government implementation in Developing Countries precisely Tanzania. Specifically, to assess the influence of UA, ISA, ICTI, and TMS on E-government implementation in Tanzanian Context. In that quest, it reviewed empirical and theoretical literature on the e-government implementation from user participation. Three theories were used, two on technology adoption and IS success (UTAUT and IS success theory) and one on user attributes and top management support (stakeholder theory). The review literature managed to help set the founding base from which this study could execute its objectives by deriving variables which formed the developed model. E-government success is influenced by several factors and different authors have tried to research in this area using different contexts. This study assessed e-government success using user participation, top management support, ICT infrastructure and IS attributes. It was found that ICT infrastructure and IS attributes were insignificantly related to e-government implementation

success. Contrary to the previous studies (such as United Nations, 2014) which show the importance of these variables to e-government success; the study under review found peculiar results which might be subject to mandatory systems exercised by the government institutions in a studied area. Besides, the results could be caused by unawareness of system users as commented by United Republic of Tanzania (2016) and variations in time plus respondents (Kagoya *et al.*, 2018). Furthermore, the results indicated that top management support and user participation were significantly related to e-government implementation success. The results on significant relationship conform to the previous findings (Damian *et al.*, 2014; Mutula, 2013), suggesting that the success of e-government requires user participation in using e-government services. Besides, top managers play a significant role in e-government success especially enhancing efficient operations (Müller & Skau, 2015; Wirtz *et al.*, 2014).

This study has general implications. Firstly, the results indicate users' participation in electronic services as a key factor to the success of e-government implementation as advocated by the stakeholder theory. On the other hand, the results indicate ICT infrastructure and IS attributes are not supportive to the e-government success, implying that the arguments of the IS success theories are not helpful in this aspect. Nevertheless, the study found the importance of top management support in e-government activities, such as leadership, processes undertaken as well as support in facilities (measured by TMS5, TMS6 and TMS7). The arguments found on top management support are aligned with those of UTAUT especially the variable - facilitating conditions. For this aspect, the explanation of UTAUT (Venkatesh *et al.*, 2003) best fits the results of this study. Moreover, the measured items are valid and reliable for usage in future similar studies. More so, the e-government project managers in Tanzania can improve user participation levels in e-government implementation by understanding the relationships among User attributes (UA), on one hand and Top Management Support (TMS), Information System Attributes (ISA) and ICT Infrastructure Attributes (ICTI) on the other. Through a survey of the top government officials in the ministry of Finance and the subsequent structural equation modeling in SmartPLS, the important predictor factors that lead to successful e-government implementation are identified. In this research, key success factors to e-government implementation are found to be user attributes and top management support, with PVs of (0.02& 0.01) respectively and Tanzanian government should not overlook them.

The study suggests a number of recommendations. Assertively, more attention should be given to user participation by ensuring awareness of e-services, motivation so that the operators and all involved actors apply willingly the developed electronic systems. Thus, government officials in e-government projects as well as policy makers should focus to these users' concerns for proper involvement. These concerns were assessed as UA1, UA2, UA3 and UA3. that enjoyment and users' motivation for active participation should be coupled with appropriate top management support as users depend on the decisions made at the top management level in e-government projects and their support in all aspects related with e-government project (whether facilities or proper processes), not only from design to implementation but also after these phases for monitoring and evaluation purposes, which is vital in improving e-government projects for proper functioning to ensure their continuity and sustainability.

Finally, the study has its limitations. Considering the studied area, this research suggests the influence of ICT infrastructure and IS attributes to e-government implementation success be looked at in the future due to peculiar results which might be caused by low understanding of some areas of the studied research. Additionally, the scope of this study was limited to four variables (user participation, top management support, ICT infrastructure and IS attributes) that were assessed for e-government implementation success. Further studies can be done by identifying other variables (such as social influence left by this study from informed theories like UTAUT) relevant for e-government. This study used quantitative method; other studies may use qualitative or mixed methods to see whether there are similarities or differences in the findings obtained. This study was conducted in Tanzania; a similar study can be applied in other contexts with similar settings like Uganda with top management as a moderator between user participation and successful e-government implementation to compare and

contrast results which can be applied in other LDCs or emerging economies. Also this study used PLS SEM for data analysis given the small sample size and being one of the latest quantitative tool good in prediction of accuracy causal relationships (Sarstedt *et al.*, 2018; Hair, *et al.*, 2017), future studies may employ other data analysis methods.

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Appendix 1: Variables, Item codes and Descriptions

Variable	Item Code	Description
User Attributes(IV)	UA1	I am willing to interact with my government via e-services.
	UA2	I am experienced with online services.
	UA3	I am aware of e-government services.
	UA4	I enjoy participating in e- government implementation projects like paying online fees, taxes, water bills, electricity bills, etc.
	UA5	I am ready to actively participate in e-govt services
	UA6	My peer influence me to participate in e-government
IS Attributes(IV)	ISA1	The use of website services rarely appears system failure
	ISA2	The categorization of website information and functions are reasonable, you can quickly find the information and services you need
	ISA3	The information displayed in government electronic service sites is accurate
	ISA4	Images, videos and hyperlinks of the government websites are displayed properly
	ISA5	The guidance and instructions of the website is clear, easy to understand and operate
	ISA6	ICT experts give prompt replies to users’ inquiries

	ISA7	The information displayed in government electronic service site is appropriately detailed
	ISA8	The information displayed in government electronic service site is up to date
ICT Infrastructure attributes (IV)	ICT1	Internet connections are available
	ICT2	I experience few incidences of system down
	ICT3	Data secured against unauthorized access
	ICT4	I access and use internet in my daily work activities.
	ICT5	Power supply is stable.
	ICT6	I have access to personal computer.
	ICT7	ICT training provided when new technologies established
	ICT8	There are sufficient ICT infrastructure facilities (computer, hardware, software etc.)
	ICT9	I actively participate in the work of humanware like website/ system developers, system admin
	ICT10	IS service providers ask for my input and suggestions always

Top management support (IV)	TMS1	The government recommends the use of electronic services..
	TMS2	The government promotes the use of the internet for electronic services
	TMS3	Adequate budgets are set for ICT operations (such as ICT training).
	TMS4	Sufficient funds are allocated to support electronic services' projects.
	TMS5	IT processes are well defined to support government activities
	TMS6	Top management solicit for donations to aid e-projects implementation
	TM7	Top leadership provide free e-service awareness campaigns via free internet usage training to citizens
	TM8	There is free Wi-Fi in my city provided by top management
	TMS9	Top management provides support via free laptops, modems to users
E-govt Implementation (DV)	EGS1	Transparency in government is enhanced if I actively participate in e-government implementation.
	EGS2	There is increased efficiency in e-services if I actively participate in e-services
	EGS3	There is increased effectiveness in e-services if i actively participate in e-government implementation.
	EGS4	Active user participation ensures trust in government if i actively participate in e-government implementation.
	EGS5	My government becomes accountable if i actively participate in e-government implementation.
	EGS6	I feel a sense of ownership if i actively participate in e-government implementation
	EGS7	I am empowered if i actively participate in e-government implementation.

Analysis of e- logistic operations practices and performance of health care supply chain management in developing countries: A study of public referral hospitals in Uganda

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Abstract

This paper examined e-procurement logistic practices and health care supply chain management in the context of Ugandan public referral hospitals. The objective was to examine the relationship between logistics operations and performance of health care supply chain management. Quantitative approach was used in this paper. Semi-structured survey questionnaires were distributed to respondents in 3 regional public referral hospitals. Descriptive statistics and PLS-SEM assisted with SmartPLS 3 were used for data analysis. Findings show a significant relationship between logistics operations and performance of health care supply chain management ($p=0.000$). This study implies that central management of drugs, the order picking of drugs is given to the right patients for quality control, and there is a person to update stock daily are key in e-procurement -logistics operations in relation to performance of health care supply chain management. E-procurement through logistics operations is related to performance of health care supply chain management in terms of ICTs tracking systems and data transparency. There is a significant relationship between E-logistics operations and performance of health care supply chain management in the context of Ugandan public referral hospitals.

Keywords: *E-Logistic operation practices, health care supply chain management, regional public referral hospitals, Uganda.*

Introduction

In health care supply chain management, healthcare organizations have tried to seize the opportunity offered by Information Communication Technologies (ICTs) to move towards a new management based on the control of financial, administrative and medical aspects (Ageron, Benzidia, & Bourlakis, 2018). Similarly, Volland, Fugener, Schoenfelder and Brunner (2017) highlighted on the importance of the logistics function as a strategic place in management of hospitals. Shen, Shih, Chiang, and Lin (2007) commented that most studies have focused on trajectory of intra-site patients by proposing innovative practices to optimize circulation and safety of care units. Although literature exist on health care supply chain management (Lyson 2006; Li, Ragu, & Rao, 2006; Elmuti et al., 2013; Ngunyi, 2014; Mackintosh et al., 2018; Arora & Gigras, 2018), there is still limited studies on health care supply chain management and logistics operations particularly in Africa.

However, when it comes to Uganda referral public hospital matters of logistics operations, there are numerous missing links which have resulted to number of patients losing their lives due to inadequate drugs and some become expired before usage which calls for the need to a certain the real cause of problem and provide a tentative solution, hence motivating this study to be carried out to bridge the knowledge gap (Abaliwano et al, 2018). It is argued that predominantly, *“the people who handle these drugs are least aware of its effectiveness and impact that it could have if not ‘handled with care’.* *There is a large number of untrained staff who has little knowledge of the product. They may get confused with the packaging material. For example, using packaging for infectious samples with non-infectious specimens. There is lack of knowledge of the study sites. The transportation of medicines is subject to regulation, making the process more painful”* (WHO report, 2018)

Africa countries face challenges in health care supply chain management (Omanji & Moronge, 2018). One of the challenges identified by Pule (2014) is poor logistic operations in terms of improper

procurement procedures. In addition, Benzidia et al. (2016) cited that logistics culture is not adequately addressed in the strategic vision of hospitals. In view of literature from previous scholars citing challenges and need for more research in health care supply chain management.

It is asserted that in Uganda, hospitals epitomize a momentous percentage of health expenditures in Uganda which is estimated to be 26% of the entire health care annual expenditure (Mujasi, Eyob & Jaume, 2016). Therefore; proper logistic operations via e-procurement practices and health care supply management in the regional referral Ugandan hospitals, among others, will lead to not only internal efficiency and effectiveness but also to economic growth and development oozing from greater savings in terms of money and lives. This paper is motivated to research on e-procurement and health care supply chain management by specifically examining logistics operations and health care supply chain management in the context of Uganda regional referral hospitals using the UTAUT Theory.

Literature review

Definition of Key Concepts

Logistic operations

Logistic operations deal with the routine practices involving “planning, implementing, and controlling the efficient, effective flow and storage of goods, services, and related information from point of origin to the point of consumption for conforming to customer requirements” (Volland et al., 2017).

E-procurement logistic Practices

Procurement is an important logistic function (Yang, 2013). In addition, Innocent and Kalaskar (2016) define e-procurement as a process of procuring (purchasing/obtaining) required resources or services by making use of Information Communication Technology (ICT). In this paper, e-procurement logistic operation practices refer to activities undertaken by public referral hospitals to promote effective health care supply chain management using ICTs (electronic means) in pressing and receiving orders of drugs instantly and subsequently administering to the right patients in the referral hospitals.

Health Care Supply Chain Management

It should be recalled that the concept of Supply chain management is so vital since it maintains the multifaceted network affiliation amongst all stakeholders involved in the process of health supply chain such as, drug producers of raw material, health business partners, to delivery drugs and other health equipment, middle and retail partners and hospitals managers (WHO, 2019).

Chopra and Meindl (2007) and Ashcroft (2006) define the concept of health care supply chain management as controlling and flow of information; materials, services and money through any activity in a way that promotes the quality of an organization’s operations satisfy consumers’ needs. For purposes of this paper, health care supply chain management refers to the management of information flow, drugs and services in public referral hospitals in Uganda.

Theoretical background and literature review

Unified Theory of Acceptance and Use of Technology (UTAUT)

Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by Venkatesh, Morris, Davis and Davis (2003) with the assumption that individual’s internal schema of beliefs. UTAUT theory has been applied in research and scholars such as Khatun et al (2017) have utilized the UTAUT theory. The study by Khatun et al. (2017) was examined cloud-based mHealth service for primary care and revealed that the relationship between performance expectancy and behavioral intention is not significant. The selection of UTAUT theory in this paper was due to the assumption of UTAUT theory which states that an individual’s behavioral intention to use a technology is influenced by performance

expectancy, effort expectancy, social influence, and facilitating conditions. In this paper, performance expectancy and effort expectancy usability and benefits respectively are analysed to predict the relationship between e-procurement practices and health care supply chain management with the specific objective that argues that there is a significant relationship between logistics operations and performance of health care supply chain management.

Empirical literature review

Various studies have been conducted on health care supply chain management (Suleiman, 2015; Masheti, 2016; Mackintosh et al., 2018, Ageron et al., 2018). Recently Arora and Gigras carried out a study on the importance of supply chain management in health care of third world countries with the aim of finding vulnerabilities among departments and propose measures to reduce them. Arora and Gigras noted that integrating subsystems, streamlining workflow and use of technologies can be used to assist in the implementation of supply chain management to ensure accomplishments such as availability of medicine and product at right time and coordination on all departments.

In building further literature on health care supply chain management is a research by Suleiman (2015). Suleiman explored factors that influence adoption of e-procurement and value addition in Tanzania. By using descriptive statistics, the findings showed that e-procurement adoption from a compatibility characteristic is more difficult on side of upward stream while on complexity characteristics, the findings revealed that it was easy for internal employees to adopt e-procurement but difficult for supplier to adopt new systems due to lack of knowledge and cost of operations. Another study in Africa on health care supply chain management is by Masheti (2016). Masheti did a study in Kenya to investigate e-procurement practices and operational of pharmaceutical manufacturing firms in Nairobi. The application of descriptive statistics and regression analysis revealed that e-procurement enabled pharmaceutical manufacturing firms to improve order processing, reduce material lead time, decreased transaction costs, improved product/service quality and increased order placement. Further findings showed that e-planning, e-supplier selection, e-tendering and e-sourcing influenced operational performance of pharmaceutical manufacturing firms in Nairobi. Based on these findings, Masheti recommended that more investment should be directed to e-procurement in order to experience optimal benefits from e-procurement such as widening the scope of suppliers.

Other scholars argued on development linkages in the health sector in an effort to build more literature in understanding health care supply chain management. For instance, Mackintosh et al. (2018) conducted studies in East Africa with the aim to rethink the health sector procurement as development linkages in Kenya and Tanzania. Mackintosh and others used a quantitative approach and found that in the context of poor access to reliable medicines, extensive reliance on private medicines purchase, increased globalization of procurement systems, domestic linkages between health and industrial sectors have been weakened in the East Africa countries that were selected for the study. The results of the study by Mackintosh and others is in line with the previous study by Inderfurth, Sadrieh and Voigt (2013) which pointed out that Uganda's health care sector faces a multitude of challenges due to procurement procedures such as poor sourcing procedures and bullwhip effect that can affect information flows.

The reviewed literature indicates that health care supply chain management requires more research and in particular Uganda which still faces challenges in its health care sector in relation to logistics. Therefore, this paper examines health care supply chain management and e-procurement practices with the specific objective of examining the relationship between logistics operations and performance of health care supply chain management in the context of Ugandan public referral hospitals.

Conceptual Framework

The conceptual framework in Figure 1 shows the hypothesized relationship which stated as **H1**: There is a positive relationship between logistics operations and health care supply chain performance.

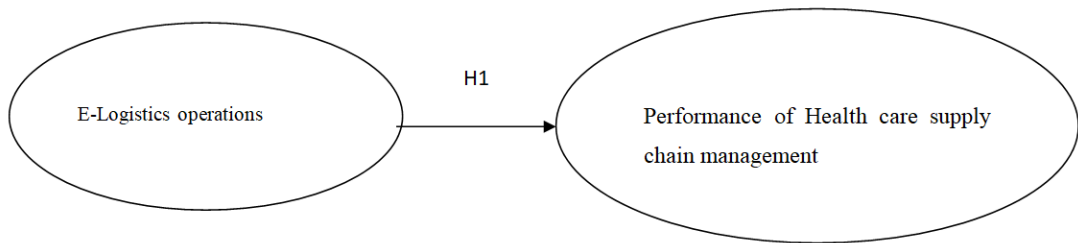


Figure 1: Conceptual Framework. Source: Compiled from Literature

Methodology

This study used a quantitative approach which considers a positivism and deductive philosophical orientations for purposes of testing the hypothesis stating that there is a significant relationship between logistics operations and performance of health care supply chain management. The area of study is Uganda. The staff and procurement managers of the selected public referral hospitals were the respondents in this study. Purposive sampling was used in order to obtain data from key informed respondents. Semi-structures questionnaires were used to amass data from a sample size of 40 respondents. The measurement items for logistics operations were adopted from Pinna, Carrus and Marras (2015) and the 9 statements were; There is frequent supply receipt of drugs at the hospital in a timely manner (Log15); There is bulk storage of drugs in the hospital (Log16); There is proper arrangement of drugs in the hospital (Log17); There is central management of drugs in the hospital (Log18); The order picking of drugs is at the right time (Log19); The order picking of drugs is given to the right patients for evaluation (Log20); The order picking of drugs is given to the right patients for quality control (Log21); There is stock replacement of drugs just in time in the hospital using logistic management information systems (Log22); There is a person to update stock daily (Log23).

On the other hand, the measurement items for performance of health care supply chain management were adapted from Mathur et al. (2018). The 7 statements for performance of health care supply chain management were; There is higher performance expectation for savings from health care supply chain management (Per24); There is need to integrate health care supply chain management data with hospital data using ICTs tracking systems (Per25); Hospitals should use data analytics to improve performance of health care supply chain management (Per26); Hospitals should use benchmarks to improve performance of health care supply chain management (Per27); Managers should reposition health care supply chain as a strategic function in hospitals (Per28); Managers should building trust with health care supply chain partners (Per29); Managers should improve data transparency across the health care supply chain management (Per30). The composite reliability indicated for logistics operations (0.92) and for performance on health care supply chain management (0.82). This study used descriptive statistics assisted with SPSS version 20 and Partial Least Squares Structural Equation Modeling (PLS-SEM) assisted with SmartPLS Version 3 to analyse data collected from the respondents. Given the small sample size and the high predictive power of PLS-SEM according to Ringle, Wende and Becker (2015) and Hair, Black, Babin and Anderson (2010), among others, were the main reason for the choice of SMART PLS3.

Findings and discussion

The demographic information of the sampled respondents is shown in Table 1. Findings indicate that majority of respondents were males (52.5%), between 36 to 45 years old aged (52.5%), have university education (100%), and married (42.5%). These results suggest that majority of respondents were educated married males between 36 to 45 years old.

Table 1: Respondents Demographic Information

		Frequencies	Percentage
Age Groups	18-25	5	12.5%
	26-45	5	12.5%
	36-45	21	52.5%
	46 years and above	9	22.5%
Gender	Male	21	52.5%
	Female	19	47.5%
Marital Status	Single	9	22.5%
	Married	17	42.5%
	Divorced	6	15%
	Widowed	8	20%
Education	University	100%	100%

Source: Field data (2019)

The inferential statistics using PLS SEM analysis through the bootstrapping technique revealed that there is significant relationship between logistics operations and performance of health care supply chain management ($p=0.000$). The findings in Figure 1 show that the T-value (2.82) is above 1.96 and therefore, logistics operations showed significant relationship to performance of health care supply management. In Figure 2, the p value ($p=0.01$) further indicates that the relationship between logistics operations (Log) and performance of health care supply management (Per) is significant. This suggests that (Log18, Log21 and Log23) are indicators of logistics operations that predict performance of health care supply chain management in terms of the need to integrate health care supply chain management data with hospital data using ICTs tracking systems (Per25), and managers should improve data transparency across the health care supply chain management (Per30).

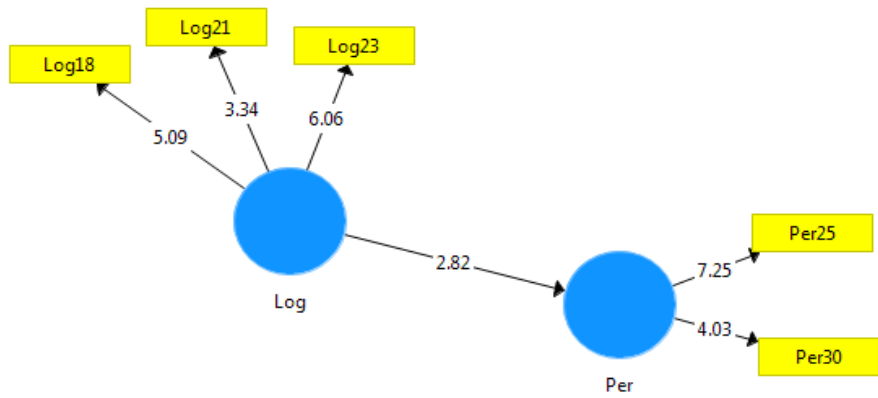


Figure 1: T values- E-logistics Operations (Log) on Performance of healthcare supply chain management (Per)

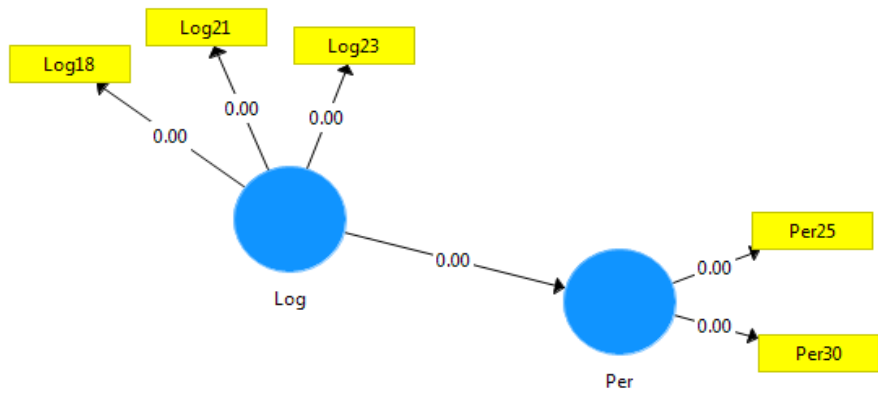


Figure 2: P values-E- logistics Operations (Log) and Performance of healthcare supply chain management (Per)

Collinearity values for the retained items which are Log18 (2.136), Log21 (2.209), Log23 (1.597), Per25 (1.251) and Per30 (1.251) indicated Variance Inflation Factor (VIF) < 4 or (VIF) < 5 and this is acceptable according to Hair et al. (2010) and Ringle et al. (2015) respectively. The significant results of the relationship between logistics operations and performance of health care supply chain management support the UTAUT theory hence logistics operations does predict performance of health care supply chain management in the context of Uganda public referral hospitals. This suggests that e-procurement practices using logistics operations can predict performance of health care supply chain management hence stakeholders in the health sector should consider e-procurement practices via logistics operations. The results of this study differ from Arora and Gigras (2018) because in the context of Uganda, the predictors of performance of health care supply chain management are “There is central management of drugs in the hospital”, “The order picking of drugs is given to the right patients for quality control” and “There is a person (full time staff) to update stock daily”. In addition, the results of this study are in line with Masheti (2016) which recommended for more investment in e-procurement so as to experience optimal benefits from e-procurement such as widening the scope of suppliers.

Conclusion, implications, recommendations and limitations

This paper specifically examined logistics operations and performance of health care supply chain management. This study can conclude that in examining e-procurement practices and health care supply chain management, there is a significant relationship between logistics operations and performance of health care supply chain management. The results of this study have a theoretical implication in the context of Uganda public referral hospital whereby the UTAUT theory can be applied to explain the relationship between logistics operations and performance of health care supply chain management. The outcome of this study guides the recommendations for policy makers and practitioners in the health care sector to consider the predictors of logistics operations which are “There is central management of drugs in the hospital”, “The order picking of drugs is given to the right patients for quality control” and “There is a person to update stock daily” in relation to performance of health care supply chain management. This study had limitations which were among others; small sample size and mainly quantitative approach. Therefore, future studies can explore further the relationship of logistics operations and health care supply chain management using larger sample size, qualitative approach or mixed method. In addition, the findings of this study were limited to Ugandan referral hospitals whose management requested us to keep the hospital names and confidential, hence ensuring ethical issues and therefore, findings should not be generalized to other countries with different settings, levels of economic, political development but rather a comparative study may be done by future researchers to see whether there are differences or similarities and reasons why they exist.

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The influence of Business Development Services (BDS) on Access to Finance of SMEs in Tanzania

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Abstract

The objective of this study was to examine the influence of BDS on access to finance of SMEs in Tanzania. The survey was done to SMEs supported by PASS to access finance. A sample of 152 SMEs were selected using simple random sampling from the list of 250 SMEs provided by PASS from Morogoro, Mbeya and Mwanza zonal offices. Questionnaires were distributed to SMEs and only 115 questionnaires returned. Data were analyzed using multiple linear regression. The results indicate that 8.5 percent of change on access to finance was explained by BDS on training, business linkages and guarantee. Training had a negative beta coefficient which implies that one unit increase in training lead a decrease in SMEs access to finance by 0.062. Other variables had positive beta coefficients which indicate that one unit increase of these variables lead to an increase in chance for SMEs access to finance. The study recommends that BDS providers should reconsider charges imposed on training, linkages and guarantees to enable SMEs access finance easily. The negative beta coefficient for training construct observed mean that the cost incurred by SMEs on training ruin the SMEs ability to access finance.

Keywords: *Business Development Services (BDS), Access to finance, SMEs*

Introduction

Access to finance is a major challenge to SMEs performance in most of the emerging and developing countries. Some studies have cited access to finance as the first or second obstacle that hinders SMEs performance (Gelb et al., 2007; Dinh et al., 2012). A key factor behind this problem is the existence of information asymmetry between lenders and borrowers (Triki, Gajigo, Kayizzi-mugerwa, & John, 2012). This encourages adverse selection and moral hazards.

Access to finance to SMEs is a critical issue to the development and growth of SMEs in the globe. This is fuelled by the role SMEs plays in economic development and employment creation (Ayyagari et al. 2016; Naude & Chiweshe 2017). According to its contribution, governments all over the globe have put in place different measures to enable SMEs access financial resources which are affordable, timely and adequate. These includes the formulation of policies in favor of SMEs and different programs that aims to reduce information asymmetry to relax access to finance constraint (Kehinde & Ashamu, 2014).

Business Development Services (BDS) support is one of the measure established to serve as information broker between SMEs and formal banks. BDS is regarded as the support that improves the performance, access to finance and ability to compete (Chimucheka & Rungani, 2007). Such services include infrastructure facilities, market access, procurement services, training, business linkage, and guarantee and technology development. IFC (2006) defines BDS as the non-financial services offered to entrepreneurs at various stages of their business needs and also provides information on where SMEs can get guarantee for the funding requirements.

Studies conducted to investigate the effectiveness of BDS on SMEs indicates that procurement services,

infrastructure facilities and market information are effective to improve SMEs performance (Okeyo, Gathungu, & K'Obonyo, 2013). However, according to Hallward-Driemeier and Aterido (2007) firms that have improved its access to financial services gain better benefits. And in the modern economics, Cecchetti and Kharroubi (2012) stresses that access to financial services are important to improve performance. Hence, there is a need for governments to improve BDS on access to financial services that will trigger firm's performance.

Although BDS has been widely explored, most of the studies concentrated on the effects of BDS on performance of SMEs(Ombi et al., 2018;Okeyo et al., 2013; Babajide, 2017; Mori, 2015). In top to that only BDS on infrastructure facilities, procurement services and market access were investigated and the results indicated that their joint effects of these three variables on performance of SMEs was greater than their individual effects (Okeyo et al., 2013). In surprise market access indicated that it had no effect on performance while infrastructure facilities and procurement services had positive and significant effects.

Other studies investigated training, business linkages and guarantee in isolation. For example a study by Abdullahi(2015) opined that training enhances small business owners management skills and competencies, in turn improves firm's performance. Furthermore, it argued that training on business management, entrepreneurship, financial management and business plan preparation enhances SMEs improve record keeping that ultimately reduces information asymmetries and transaction cost and makes easy to access finance. However, lack of long term relationship between lenders and borrowers as well as insufficient collateral becomes hurdles for SMEs to access finance as most of the lenders require credit history, financial statements and security assets of which most SMEs lack such information.

Therefore, training, business linkage and guarantees which are elements of BDS have been recognized as solution for SMEs access to finance. However, little have been done to find the effects of BDS on access to finance. OECD (2018) stresses that access to finance in an appropriate form is very important at all stages of business life cycle to enable them start up, develop and grow and make contribution to employment, growth and social inclusion. In additional, it is commented that BDS on training strengthen and provides integrated assistance in access to finance awareness, management and business development (Osana & Languitone, 2016).

Although BDS in training, business linkages and guarantees have been offered by different organizations both public and private, SMEs access to finance particularly in Tanzania is still very low. This is confirmed by Magembe (2017) who found that out of 2.7 million SMEs only 15% had an access to finance . Therefore, the study examined the effectiveness of BDS on training, business linkages and guarantee on access to finance from formal banks. The use of BDS has been envisaged that it reduces information asymmetries and transaction costs, hence improves SMEs access to finance. However, little has been done to investigate the joint effects of training, business linkages and guarantees on the access to finance. This is a serious problem to SMEs especially when it needs additional inflows of capital to support expansion and growth (Nieuwenhuizen & Groenewald, 2004).

Theoretical and empirical literature review

Small and Medium Enterprises (SMEs)

Small and Medium Enterprises (SMEs) definition differs from country to country and industry to industry. However, most of the definition base on the sales turnover, capital size or asset size and number of employees. Wangwe (1999) and Massawe (2003) argued that the definition of SMEs is slippery and has not been universally agreed upon. However, this study adopt the definition of SME according to Ngowi and Milanzi (2006) who argued that SMEs are into four categories based into government of Tanzania. These are Micro Enterprises which employee 1 to 4 persons and have capital size of up to five million Tanzanian shillings, Small Enterprises employing 5 to 49 persons and have a capital size between six million to 200 million Tanzanian shillings , Medium Enterprises with

employment of fifty to ninety nine persons with capital size of 201 million to 800 million Tanzanian shillings and Large Enterprises that employees one hundred people and above with a capital size of more than 800 million Tanzanian shillings.

Table 1: Categories of SMEs

Category of Enterprises	Number of Employees	Capital Invested (Tshs) in million	Turnover (Tshs) in million
Micro	1 to 4	up to 5.0	12
Small	5 to 49	5.1 to 200	150
Medium	50 to 100	201 to 800	300
Large	101 and above	Above 800	300

Source: URT, 2001

Business Development Service (BDS)

Business Development Service (BDS) is an array of activities that firms use in managing their operations to enhance efficiency, effectiveness and improve performance and competitiveness (Mcvay, 1999). It also facilitate access to markets, infrastructure facilities, introduce new technology, procurement services, improve management and technical skills, eliminate policy barriers and help SMEs access appropriate financing mechanism (Esim, 2000). Through its array of activities BDS links and guarantees SMEs to formal financing that considers SMEs not creditworthy to access finance. Therefore BDS activities some improves access to finance and others facilitate performance. Cohen &Sebstad (2005) substantiate that in order for BDS to succeed, it must facilitate access to finance that meet affordability, timelines and adequacy. Hence training, business linkages and guarantees are BDS variables that facilitate an access to finance and improve performance.

Access to Finance

Access to finance is defined as the ability of an individual to obtain financial services, including credit, deposit, payments, insurance, and other risk management services (Demirgüç-Kunt, A., Beck, T., & Honohan, 2008).World Bank (2008) define access to finance as an absence of price or non-price barriers in the use of financial services. This does not mean that all individuals and SMEs should be able to borrow unlimited amount at prime lending rates. This study has adopted a definition of access to finance that refers the availability of financial services at affordable, timely and adequate.

Theoretical review

Information asymmetry theory assumes that when two parties are making transactions, there is a situation where by one party is rich in information compared to the other. Thus, the difference on information held between the two parties causes imbalance of power and renders incorrect decision.

In the context of access to finance for SMEs, the two parties are lenders and borrowers. A lender provides funds to the borrowers. However, it is postulated that borrowers are more likely to hold more information compared to their counterparty. Borrowers may be aware about the risk associated with businesses they have apply for money, while lenders do not. The existence of information differences held by borrowers and lenders on the other hand leads to problem of moral hazards and adverse selection (Matthews & Thompson, 2008). This is because one party will take risks assuming that the final cost of that risk will be incurred by the other party and adverse selection occur when parties have imperfect information, this causes inefficiency related to the flow of funds from lenders to the borrowers.

In order to overcome these issues, lenders use different strategies specifically BDS providers who acts as the middle between lenders and borrowers. Through BDS providers lenders receives information about the SMEs and hence the risks for the loan disbursed in case of default is shared between lenders and BDS providers. Therefore, through the BDS support borrowers are trained, linked and guaranteed for the loan, hence making lenders to have easy task and cost for obtaining information about SMEs. The use of BDS providers leads access to finance to SMEs become affordable, timely and adequate because through this there is a reduction of information asymmetry and transaction costs.

In sub-Saharan Africa, information asymmetries between lenders and borrowers is the main hindrance to SME financing. This gap can be narrowed by BDS provider who provides support services such training, business linkages and guarantees to SMEs with insufficient collaterals. In addition, avenues should be explored for sharing of risks and reduction of perceived risks by banks by promoting sustainable guarantee funds to facilitate better access to financing by SMEs (Leffileur, 2009).

Empirical literature review

BDS and access to finance

There are a number of support services for SMEs all over the world designed by governments, including policy initiatives and support programmes for developing SMEs (Osana&Languitone, 2016). These programmes are designed to assist SMEs in realizing the nation's development goals that focus on poverty reduction, employment creation and industrialization process (Charbonneau &Menon, 2013).

A number of initiatives have been taken to support SMEs in different countries to access finance. This initiative in the USA is covered by the Small business acts, in Kenya by the Micro and Small business acts and in Tanzania by the SMEs development policy (Charbonneau &Menon, 2013). The government of Tanzania passed the SMEs Development Act of 1973 to encourage all established SMEs through creating an enabling environment to enable small businesses to thrive and enhance access to financing (URT, 2003). In Tanzania Private Agricultural Sector Support (PASS) a private organization established in year 2000 to provide BDS support to SMEs. Other organizations established to offer similar services includes African Guarantee Fund (AGF), African Trading Insurance (ATI) and United Nations Capital Development (UNCDF).

Literature suggest that BDS is primarily an activist function, seeking to address market failure by providing the information required (Brijlal, 2008). Therefore, training, advisory services, infrastructure facilities, business linkages and financial services solve the market imperfection, which justifies government intervention with the aim of supporting SMEs' access to finance. However, Park, Lim & Koo (2008) stresses that if SMEs are left without government intervention or donors support their growth and survival is jeopardized. Conversely, Green (2003) pointed out that there is no need for government intervention if the problem of asymmetric information and transaction costs are addressed and reduced. Hence the uncertainty surrounding repeat lending may be seen to be superior to government intervention.

Despite the existence of PASS as a market facilitation agency, SMEs still face some challenges, specifically of accessing and using debt financing to accelerate performance. This can be evidenced by Magembe(2017) who found that out of 2.7 million SMEs only 15% had an access to finance. Hence, a debate is in motion whether BDS support enhances access to finance or not. Therefore, there is a need to examine the effectiveness of BDS on training, business linkages and guarantees on access to finance for SMEs in Tanzania.

Training and access to finance

Training has been viewed as a means to acquire business management, financial management, entrepreneurship, and business plan preparation skills and knowledge for SMEs owners. According to English (2001) management training at large extent improves SMEs access to finance and

survival. Jackson (2004) pointed out that access to finance is not the only primary constraints to SMEs development but there is increasing recognition of non-financial constraints such as lack of management and business skills. A study by OECD (2002) found that management training has positive correlation on access to finance and performance of SMEs. The effects of training on access to finance is mixed some indicates positive and others have shown no effects. Therefore, based on this evidence a hypothesis was formulated:

H₁: Training has significant effects on the access to finance of SMEs in Tanzania.

Business linkages and access to finance

Business linkage has been seen is good, because allows and encourages specialization, cost minimization, efficiency and offers many opportunities for broadening benefits distribution. Grierson et al (2019) comment that business linkages help the contractual parties to meet their obligations in terms of quantity, quality, timelines and price. Further stresses that linkage is about equitable distribution of opportunities enhance efficiency and spread opportunities. Linkages between SMEs with financial institutions can improve access to finance (Boateng et al, 2017). However, little studies have investigated the influence of business linkages on access to finance of SMEs. Hence, based on this evidence the following hypothesis was formulated:

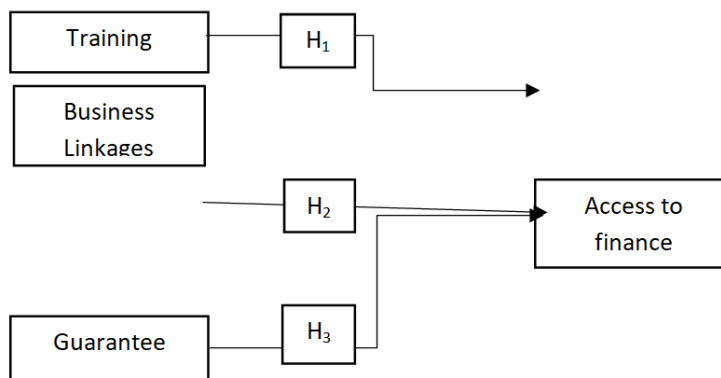
H₂: Business linkages have significant effects on the access to finance of SMEs in Tanzania.

Guarantee and access to finance

Credit guarantee schemes have become popular tool to increase access to finance for firms perceived to be underserved by financial intermediaries. Credit guarantee can lower the amount of collateral that borrowers need to pledge to receive loan because the guarantor effectively provides a substitute for collateral. However, Vogel and Adams (1997) commented that public credit guarantee can actually increase information problems by reducing lenders motives to carefully screen and monitor borrowers. Further it is argued that credit guarantee can allow riskier borrowers to receive a loan to obtain better lending conditions because the guarantors lower the risk faced by lenders. Besides the roles credit guarantee plays, SMEs in Tanzania have continued to face challenges on access to finance because out of 2.7 million SMEs on 15% have access to finance (Magembe, 2017). Hence, based on these arguments the following hypothesis was formulated:

H₃: Credit guarantee has significant effects on access to finance of SMEs in Tanzania.

Table2: Conceptual frame work



Research methodology

This study draws data from a survey of SMEs served by PASS in Tanzania. In all, 152 SMEs were randomly sampled from the list of 250 clients provided by PASS zonal offices from Morogoro, Mbeya and Mwanza. The sample involved SMEs which were supported by PASS to access finance from formal banks. To ensure the efficiency and effectiveness of data collection exercise, important information of the business owners were collected from PASS in a respective zonal office. Crucial information included mobile number, email address, name of the key owners, name of the business, and business location.

Questionnaires were distributed to respective respondents following the list received from PASS. Some were distributed in person by the researcher and requested respondents to fill out on the presence of the researcher as per Churchill (1999) while others were mailed based on the email address collected from PASS. This was preceded by call to inform the respondents that questionnaire was emailed to him and requested for assistance to fill and return. At the end out of 200 questionnaires distributed only 115 were returned completely filled. This formed a response rate of 76 percent. The 200 hundred questionnaires were distributed to take care of the non-respondents. However, the list of SMEs provided included some SMEs which had already closed and others had an outstanding loan. These persons were not responding to call phone and those who happened to pick their phone they didn't continue to cooperate once we identified ourselves that we were doing a research and their mobile number we got from PASS.

Variables used in the study

The study generally concerned with the influence of BDS on the access to finance to the SMEs. Therefore the critical variables of interest were BDS and access to finance. BDS was captured by training, business linkages and guarantee. These constructs were measured by different components using a likert scale from 1 strongly disagree and 5 strongly agree hence were continuous. The other critical variable is access to finance, this was presented by indicators such as affordability, timelines and adequacy also a likert scale was used. These variables were similar to those used in other studies (see for example Dyer & Ross, 2008; Wren & Storey, 2002; Otieno&Kiraka, 2009; Kessy&Temu, 2010; Vogel & Adams, 1997).

Given, the difficulties for collecting data on SMEs in the Tanzanian context, the variables that were easily identifiable and for which respondents were willing to share information were used in this research. These SMEs are privately owned; as such they are under no obligation to provide data on their operations. Hence, the choice of variables for this study took consideration on this matter.

The purpose of the study was to examine the influence of BDS on the access to finance of SMEs in Tanzania. Hence, descriptive statistics for demographic features and characteristics of the respondents was applied and multiple linear regression was employed to determine the effects of BDS on access to finance.

Validity and reliability of the constructs

In order to establish discriminant and convergent validity, an exploratory factor analysis (EFA) with varimax rotation was performed (Churchill, 1979; Buvick&Hauland, 2005). An individual items with high factor loadings loaded onto construct that corresponds to the conceptualised constructs. This implied the consistency of measures in capturing latent variables thus supporting the construct validity.

For independent constructs training, business linkages and guarantee after running EFT four components whose factor loading ranged between 0.50 and 0.904 were produced. Those loading below 0.50 were suppressed. Those items that loaded to component four were considered to be explaining different factor, hence were deleted. Others were cross loading also were deleted because it implied that it was explaining more than one factor. Hence, the factor loading of 18 items accounted for 73.2 percent of the total variance explained by the model. Kaiser –Meyer Olkin (KMO) measure of sampling

adequacy was 0.797 indicating that inter-item correlations were explained by common factors. While the Bartlett’s test of sphericity was highly significant at $X^2= 1562.522$, $df=153$, $p= 0.000$, supporting the analysability of data. Table 3 shows the factor loadings.

Table 3: Rotated Component Matrix

	Component			
	1	2	3	4
TRAINING				
is business management training important for your business to access to debt finance?	0.904			
is Entrepreneurship training important for your business to access debt finance	0.904			
is financial management training important to your business to access debt finance?	0.881			
is credit management training important to your business to access debt finance?	0.843			
is financial planning training important to your business to access debt finance?	0.824			
Is business plan preparation training important for your business to access debt finance?	0.817			
Is managerial skills important to your business to access debt finance?	0.791			
BUSINESS LINKAGES				
Is interaction with professional association facilitate access to debt financing?		0.84		
is membership to associations with firms of the same kind facilitate access to debt financing?		0.821		
is feasibility assessment facilitate access to debt financing?		0.786		
is information sharing and networking facilitate access to debt financing?		0.777		
Is interaction with formal financial Institutions facilitate access to debt financing?		0.775		
Is participation in trade faoir and business seminar facilitate access to debt financing?		0.774		
GUARANTEES				
is BDS providers/Government guarantee makes access to debt financing easily?			0.83	

Is BDS /Government agencies guarantee makes the access to debt financing at appropriate time?			0.81	
Is BDS /Government agencies guarantee makes business access adequate amount of finance?			0.76	
Is BDS/Government agencies guarantee makes the cost of loan processing be low?				0.873
is the loan access through guarantee by BDS providers/ Government agencies have lower interest rate?				0.829

	Component					
	1	2	3	4	5	6
AFFORDABILITY						
Is the loan amount applied base on the cost and benefis for the business ?	.796					
Is the loan approval relevent to the most important business risk exposure?	.753					
Does loan size approved is proportion to the business assets?	.721					
Is loan customized to the borrowers requirements?	.634					
TIMELINESS						
Does access to finance through PASS requires experts to prepare documents for application?		.809				
Does access to finance through PASS requires minimal documentation?		.757				
Do commercial banks have simple procedures to access finance?		.700				

ADEQUACY						
Does the repayment period of loan access through PASS reasonable?			.781			
Is the repayment rate of loan accessed through PASS affordable?			.755			
Are collateral assets not important while accessing finance through PASS?		.434	.574			
Is there clear and prompt mechanism to collect feedback on loan application and approval?				.830		

Does loan application review and approval are within required timeframe?				.764	
Are lenders (Banks) have clear procedures and time schedule for loan application and approval?				.670	
Is there other charges associated with access to finance through PASS?				.708	
Is interest rate charged for loan accessed through PASS affordable?			.553	.563	
Is loan size and maturity period of loan accessed through PASS sufficient?				-.557	
Is the screening cost for loan accessed through PASS low?					.882
Does loan amount banks approves subject to their discretion?	.401				.615
Are the other charges on access to finance are within your business means?Ability to pay					.473

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

- a. Rotation converged in 5 iterations.

An EFA for dependent factors for affordability, timely and adequacy was also run, the results indicated that Kaiser-Meyers Olkin (KMO) measures of sampling adequacy was 0.708 indicating that inter item correlations were explained by common factors(Buvik& Hoagland, 2005). Bartlett’s test of sphericity was highly significant at $X^2=791.849$, $df= 171$, $p=0.000$ supporting the analysis of data.

The EFT produced six factor solution whose factor loadings ranged between 0.401 and 0.882, all above 0.50 were criterion threshold (Hair et al., 2010). However, all items loading below 0.40 and those which were cross loading as well as those isolated were not considered for further analysis (Pallant, 2011). Thus, the factor loadings of the 19 items accounted for 66.66 percent of the total variance explained by the model. Table 4 shows factor loading on the rotated component matrix.

Table 4: Rotated Component Matrix

Rotation converged into 13 iterations

The Cronbach alpha that measures the internal consistence of measurement items in the latent construct ranged from 0.882 to 0.906, this was above the cut-off point of 0.5. The result indicate the reliability of data collection instrument (Pallant, 2011). Table5 indicates the KMO and Bartlett’s test.

Table 5: KMO and Bartlett’s Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.708
Bartlett’s Test of Sphericity	Approx. Chi-Square	791.849
	df	171
	Sig.	.000

Research results and discussion of the findings

Demographic features and characteristics of the respondents

The study found that 89 (77.4 percent) were male and 26 (22.6 percent) were female respondents. The higher percentages on male compared to their counterpart female may be due to the nature of businesses in agribusiness. The result coincide with that of Ishengoma (2018) who argued that in African families, males are more empowered and encouraged in financing their families, an attitude that triggers aggressiveness and boost risk taking behaviour. Also it was found that most of the respondents were owner managers 76(66.1 per cent) while employed Managers were 32 (27.8 per cent) and others were 7(6.15 per cent). Most of the SMEs were own managed and those who decide to establish these businesses are either have no other alternative or have retired from employment, therefore they decide to stand for their businesses and make decision that will speed up the performance. While the few who have employed managers may be they have other roles or they are still in employment.

In terms of relationship, more than a half of the respondents were married 103(89.6 per cent) and single were only 9(7.8 per cent) while others that were divorced, widow and widower were only 3(2.6 per cent). Age wise 50 (43.5 percent) were on the age group between 41 and 50, above 50 were 29 (25.2 percent), between 31 and 40 were 27 (23.5 percent) while below 30 were 9(7.8 percent). The more representation of respondents on age between 41 and 50 may be due to responsibilities they have in their families, hence they have to establish businesses so as to earn income and sustain their families.

In terms of education it was found that 56 (48.1 percent) were standard seven leavers, 24 (20.1 percent) were masters and above, 13 (11.3 percent) were form IV leaver, 11 (9.6 percent) had a degree level while 7 (6.1 percent) had a diploma level of education. All the respondents were engaged on agribusiness activities like farming, input supplies, animal fattening, fishing, piggery, horticulture, animal feeds, paddy and maize processing. Table 6 summarizes the findings of the study.

Table 6: Demographic Characteristics of Respondents

S/No.	Details	Category	Frequency	Percent
1	Sex	Male	89	77.4
		Female	26	22.6
		Total	115	100.0
2	Age	18 below	3	2.6
		18-30	6	5.2
		31-40	27	23.5
		41-50	50	43.5
		50 and above	29	25.2
		Total	115	100.0
3	Marital Status	Single	9	7.8
		Married	103	89.6
		Others	3	2.6
		Total	115	100

4	E d u c a t i o n a l L e v e l	Masters and Above	24	20.9
		Degree	11	9.6
		Diploma	7	6.1
		Certificate	2	1.7
		“A” Level Education	2	1.7
		“O” Level Education	13	11.3
		Primary School	56	48.7
		Total	115	100
S/No.	Details	Category	Frequency	Percent
6	C a t e g o r y r e s p o n d e n t s o f	<i>Owner Managers</i>	76	66.1
		<i>Managers/operator</i>	32	27.8
		<i>Others (Secretary)</i>	7	6.1
		Total	115	100

Source: Field Data 2018

Out of 115 businesses, 51(44.3 percent) were sole proprietorship businesses, 2 (1.7 percent) were partnership businesses, 54 (47.0 percent) were limited companies while 8(7.0 per cent) were community Based Organizations (CBOs).Most of the SMEs approached were engaged with different activities in agribusiness. The study identified that 52(45.2 percent) were food processors,10(8.7 percent) farming, 13(11.3 percent) oil extraction,4(3.5 percent) animal fattening, while 36(31.3percent) were engaged with different activities such as butchery, cane cutting and growing, piggery, transport, horticulture, input supplies, milk processing, coffee export, fishing and fruits processing.

One of the great contributions of SMEs is the creation of employment. In this study it was found that more than a half of SMEs employed people between 5 and 49, and 2(1.7 percent) employed people between 50-99 while above 100 and others were only 2(1.8 percent). The results purely indicates that Small and Medium Enterprises were overbearing in this study because more of the employment opportunities were found on the group of between 5 and 49 which is the major characteristics of Small and Medium Enterprises (SMEs) (URT, 2012).

In terms of experience, the aspect was ranked using an interval from year 1976 to 2015 with an interval of 10 years. The result indicate that more than a half which is 88 (76.5 percent) were established between year 2006 to 2015, 15 (13.0%) in between 1996 and 2005, 9(7.8 percent) 1986 and 1995 and 3(2.6 percent) between 1976 and 1985. In average respondents had a 12 years of experience in running business.

Furthermore it was found that 108 (93.9 percent) established their businesses using the own savings, 3(2.6 percent) using credit from financial Institutions, 2(1.7 percent) from family and friends, 2(1.8 percent) were financed by buyers. The result concur with that of Ishengoma (2018) who urged that SMEs are constrained with access to financial services as only 30 % have access to financial services and only 14% have a bank accounts.

Furthermore, the study explored the average annual turnover of the businesses surveyed. The results indicate that 59(51.3 percent) had a turnover of up to 70 million, 29(25.2 percent) had turnover between 70million and 500million, 18(15.7 percent) had more than 1 billion while only 9 (7.8 percent) had turnover of between 500 million to 1 billion. Table no 2 below indicate the characteristics of the SMEs.

Table 7: SMEs Characteristics

S/No.	Details	Category	Frequency	Percent
1	Geographical location(ZONAL OFFICE)	Morogoro	76	66
		Mbeya	28	24
		Mwanza	11	10
		Total	115	100
2	Business categories	Food processing	52	45.2
		Farming	10	8.7
		Oil Extraction	13	11.3
		Animal fattening	4	3.5
		Others	36	31.3
		Total	115	100
3	Ownership structure	sole proprietorship	51	44.3
		Partnership	2	1.7
		Limited Company	54	47.0
		CBOs	8	7.0
		Total	115	100
4	Establishment period (years)	1976-1985	3	2.6
		1986-1995	9	7.8
		1996-2005	15	13.0
		2006-2015	88	76.5
		Total	115	100.0
5	Employment Contribution	Between 5 and 49	111	96.5
		Between 50 and 99	2	1.7
		Above 100	2	1.7
		Total	115	100.0
6	Financing modalities of SMEs	Own savings	108	93.9
		Family and friends	2	1.7
		Credit from Banks	3	2.6
		Buyers financing	2	1.7
		Total	115	100
7	SMEs turnover	Below 70 million	59	51.3
		Between 70 and 500m	29	25.2
		Between 500m and 1Billion	9	7.8
		Above 1Billion	18	15.7
		Total	115	100

Source:Field Survey, (2018)

Test of Hypotheses

To test the research hypotheses, the following multiple linear regression models was estimated:

$$ACCF = b_0 + b_1TRN + b_2LNK + b_3GUAR + e.....(1)$$

However, there was a need to check for multicollinearity because when constructs are interacted there is the potential for multicollinearity (Hair et al., 2010; Pallant, 2011). This occurs when the interacted constructs becomes highly correlated and this may impair the findings of the study. According to correlation table for training, business linkages, guarantees and access to finance were fairly correlated and their correlation coefficients (r) were below the minimum threshold of 0.5. According to Kaizer (1974) correlation coefficients below 0.5 is a minimum and indicates a nonexistence of multicollinearity problem. Furthermore, in order to be confidence with none existence of multicollinearity problem we also calculated tolerance and value inflated factor (VIF). The results indicated that tolerance was above the minimum threshold of 0.20 and VIF was below 10 indicating nonexistence of multicollinearity problems (Andy field, 2009). Table 8 shows the correlation matrix, mean, standard deviation, tolerance and value inflated factor (VIF).

Table 8: Correlation Matrix, Descriptive Statistics and Collinearity Diagnostics

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Mean</u>	<u>S t d . Deviation</u>	<u>TOLERANCE</u>	<u>VIF</u>
<u>TRAINING</u>	1	.311**	.193*	.015	4.2944	.76119	0.59416	1.683
<u>LINKAGES</u>	.311**	1	.299**	.141	3.3552	1.05676	0.659025	1.517
<u>GUARANTEE</u>	.193*	.299**	1	.280**	2.6330	.94254	0.82464	1.213
<u>ACCF</u>	.015	.141	.280**	1	3.0919	.65240	0.862541	1.159

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The regression analysis and the overall goodness of fit for the model indicated that R²=0.085 as depicted in Table 9, suggesting that the model provides a sufficient description of the data. This R² Of 0.085 implies that 8.5% of changes in the access to finance is explained by training, business linkage and guarantee and 91.5% is explained by other factors. Furthermore the overall model fitness that is shown by the analysis of variance (ANOVA) indicated that BDS variables training, business linkage and guarantee are highly significant because F value was 3.452 and p-value is greater than 0.01 and conclude that not all group means are equal.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.292 ^a	.085	.061	.63232	.085	3.452	3	111	.019	1.724
a. Predictors: (Constant), GUARANTEE, TRAINING, LINKAGES										
b. Dependent Variable: ACCESS TO FINANCE										

Table 10: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.666	.360		7.400	.000	
	TRAINING	-.053	.082	-.062	-.644	.521	.892
	LINKAGES	.049	.061	.080	.808	.421	.844
	GUARANTEE	.186	.066	.268	2.801	.006	.900

a. Dependent Variable: ACCESS TO FINANCE

Test of Hypothesis

H₁ proposed a positive association between the level of training and access to finance. The empirical findings in this study are contradicting with the proposition ($b=-0.062$, $p>0.05$) and suggesting that training has a negative effect on access to finance. This implies that a unit increase in the training variable caused a decrease by 0.062 units of access to finance. The results suggest that may be training increases cost and renders the accessibility to finance for SMEs to become difficult.

H₂ proposed a positive relationship between business linkage and access to finance. The empirical findings of this study support this proposition because p value justify that it is positive and not significant ($b= 0.080$, $p>0.05$) and provides evidence that with business linkage SMEs can easily access finance from formal banks. The beta value implies that the increase of business linkage by one unit causes the access to finance to increase by 0.080 units.

H₃ proposed a positive association between guarantee and access to finance. The empirical findings of this study is positive and significant ($b=0.268$, $P<0.05$). The results show that the increase of guarantee by one unit causes the access to finance to increase by 0.268 units.

Discussion and implications

Training is a pillar for success in all issues pertaining to business operation and life in general. Through training small business owners acquire skills and knowledge of business management and also get awareness on how to finance business operation. According to Omolo (2015) the better status of training and development the higher performance of SMEs and ILO (2014) confessed that financial

trainings needs to go hand in hand with improved access to finance. Therefore training in business management should not be ignored but should be given a greater emphasizing because it has a great impact in the entire business operation and life in general.

The findings in this study are inconsistent with the predictions. This because, it was seen that training has a negative impact on access to finance. This may be the cost SMEs owners incurs on training drags their accessibility to finance. This can be evidenced by Brijlal (2008) cited Westhead and Storey (1996) who argued that most of small business owners prefer informal trainings, because formal training is unaffordable not only for the course fees but also the lost output while out of the job. The negative impact of training on access to finance may be poor attendance on training organized and the course costs charged. In the study it was found that only few people who attended trainings and these trainings were offered by other organization but not PASS.

The study further found that business linkage and guarantee have positive effects on access to finance. This concur with the proposed assumptions because as the linkage and guarantee increases more SMEs access finance from formal banks. This because linkage and guarantee reduces costs in terms of information search as the formal banks rely on the organizations that have provided link and guarantee. Atieno (2009) in his research in Kenya found that more than a half of the respondents had no interactions with formal banks because of the transaction costs. The reasons behind was that SMEs had no umbrella organizations that link them with Banks, hence banks charged them heavily in terms of interest, information search, repayment rates, follow up and recovery procedures in case of default.

In regard to empirical studies, it is concluded that training, linkage and guarantee provide an avenue through which SMEs can overcome some of their constraints and achieve goals that could otherwise would have been unattainable. The better access to information, skills and knowledge, network and interactions serves as cushions and thus enables SMEs access financial services to formal banks.

Conclusion

This study have fulfilled a gap that exist on empirical and contextual in attempts to gain more insight into BDS and access to finance relationship in the SMEs. Specifically, this study has highlighted the interplay of two theoretical paradigms which are information asymmetry and transaction costs theory. These theories have been little explored in SMEs and access to finance. Thus by extending these theories in SMEs and access to finance contributes to body of knowledge by bridging both empirical and contextual gaps.

BDS and access to finance relationship is an important way to ensure SMEs get financing from formal banks. Most of the SMEs owners may be are not aware on the requirements that need to be presented to banks at a time for applying finance. Hence through the BDS in training specifically business management, financial management and entrepreneurship owners become aware what they should take to banks. Such BDS gives them an awareness on information required hence bridges the information gap that SMEs owners was lacking. This further reduces the transaction costs that a borrower could incur due to seeking from expertise the necessary documentations for loan application. On similar way the formal banks also find easy to get information from SMEs owners who know requirements.

Due to lack of some requirements BDS providers' overcomesuch problems by making linkage and guarantee their financing from banks. Such linkage and guarantee covers for lack of long term relationship between lender and borrowers and the insufficient collateral assets for SMEs that requires financing. The all requires government intervention to ensure organizations that are providing such support do not impose high fees to the extent SMEs fail to meet.

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Audit committee influence on internal control effectiveness: What matters most?

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Abstract

This study aims at examining the influence of audit committee on internal control effectiveness using 193 cross-sectional observations – July, 2018 through February, 2019 from five Tanzanian social security funds. Specifically, it examines the combined and individual influences of AC characteristics; AC internal control specific oversight processes and management support to AC on internal control effectiveness and ultimately establishes what matters most amongst the three explanatory variables. Using OLS, overall results show that AC has significant influence on internal control effectiveness. In specific terms, results reveal that each of the three explanatory variables poses significant positive influence on internal control effectiveness, AC internal control specific oversight processes being the top most followed by management support and Ac characteristics respectively. Scholars, policy makers, audit committees and/or boards managers may use the findings of this study to inform their strategies to improve internal control oversight and consequently internal control effectiveness.

Keywords: *Tanzania, Audit committee, internal control effectiveness.*

Introduction

It is generally argued that in big corporations and public sector where the agency problems cannot be avoided, audit committee (AC) of the board plays significant role on enhancing the reporting entity's internal control effectiveness (COSO, 2004). This is emphasized further by ever increasing best practices, legislations and regulators across the globe (e.g., KPMG-ACI, 2016; Sarbanes-Oxley [SOX] Act, 2002; URT, Treadway Commission, 1987). Consistent with such emphasize, empirical literature on the relationship between AC and internal control effectiveness generally documents that AC contributes significantly towards internal control system effectiveness (Michelon, Bozzolan and Bretta, 2015; Rich and Zhang, 2014). Similar Results are reported by Krishnan (2005), Menon and Williams (1994), to mention some.

Though prior studies, such as above, provide remarkable contribution on AC vis-à-vis internal control effectiveness nexus, they suggest a conflicting point of views on what it takes for AC to contribute significantly towards internal control effectiveness. For example, a large number of them such as Michelin, et. al. (2015), Rich and Zhang (2014), DeZoort, Hermanson, Archambeault and Reed (2002) indicate that it is AC characteristics, particularly, independence; financial expertise and experience; size; and diligence that matter. Yet, a few of them indicate that AC characteristics alone cannot do unless coupled with internal control specific oversight processes (Beasley, Carcello, Hermanson, & Neal, 2009; Menon & Williams, 1994). On other hand, Mihret and Yismaw (2007) argue and support empirically that any internal audit function, impliedly AC function inclusive, cannot operate successfully without management support regardless of competent characteristics at its disposal. In particular, literature just referred recommends that management should provide necessary support including financial and non financial such as needed information, acceptance and implementation of recommendations, and timely feedback. This is further supported by Cohen and Sayag (2010).

Looking at above discussion in sum, there is suggestive evidence that though there may be varying degrees of influence, AC characteristics, internal control specific oversight processes and management

support to AC altogether matters in explaining the variance in control effectiveness. Nevertheless, studies prior to this one did not examine AC vis-à-vis internal control effectiveness by taking into account AC characteristics, internal control specific oversight processes and management support to AC at a time. Therefore, the debate about what matters most in explaining internal control effectiveness given AC oversight remained unresolved until when this study set out in attempt to find the answer. Therefore, the main objective of this study is to investigate AC influence on internal control effectiveness whilst establishing what matters most amongst AC characteristics, internal control specific oversight processes and management support to AC in fostering internal control effectiveness.

The current study findings reveal that AC characteristics, internal control specific oversight processes and management support to AC taken together has significant influence on internal control effectiveness; AC internal control specific oversight processes being the top most driver. Management support ranks second followed by AC characteristics. This means that although all three independent variables referred to, are critically important, internal control specific oversight processes matters most.

Contribution of this study to existing literature is that, it is the first study to provide evidence on the combined and individual influence of AC characteristics, internal control specific oversight processes and management support to AC on internal control effectiveness. None of prior studies reviewed examined AC vis-à-vis internal control effectiveness by taking into account such three explanatory variables at a time.

Findings of this study carry with them at least two implications that are worthy noting by scholars, practitioners and policy makers. First, is that if AC is to contribute significantly towards internal control effectiveness, attention should not only be given to AC characteristics as usual, but also, internal control specific oversight processes and management support. The second implication is that though of the three independent variables are important, most efforts or resources should be directed to internal control specific oversight processes among others in event of intervention to improve internal control effectiveness given AC oversight.

The rest of the paper flows as follows. Literature review on AC and internal control effectiveness leading to hypotheses development is presented in the next section. Thereafter, research methodology section follows suit. Analysis, presentation and interpretation of results are presented in section four. Discussion of results is presented in section five. Lastly, conclusions and implications are presented in section six.

Literature Review and Hypotheses Development

Internal Control Effectiveness

Effective internal control system can be referred to as a situation where by the entity's systematic set of policies; laws and regulations; operating processes; tasks; personnel behaviours; and other aspects deemed relevant altogether, enables the entity to achieve its ultimate goal (KPG_ACI, 2016; COSO, 2004). In light of this, it is worthwhile arguing that developing and maintaining an effective internal control provides reasonable assurance in achieving the entity's ultimate goal of wealth maximization (Dittmeier & Casati, 2014).

According to literature (Khlif & Samaha, 2016; Dittmeier & Casati, 2014), the indicative evidence that a particular internal control system operates effectively includes: maintenance of internal control system and sufficient deployment of financial, technical and human resources to support its implementation of at all levels of the entity. Also, there should be evidence that management at regular interval assesses the control system of effectiveness and identified weaknesses as well as new developments are taken care of made timely (Michelon, et. al., 2015; Dittmeier & Casati, 2014). Moreover, there should be evidence that and that all relevant laws, regulations, ethics and best practices are complied with as fully as possible (Hoitash, Hoitash & Bedard, 2009; COSO, 2004).

The responsibility to maintain effective internal control system primarily rests into the hands of management. Yet, in a principal-agent situation, which is always the case across many corporate and public sector entities, AC of the board is widely used to provide reasonable assurance that the entire internal control system operates effectively (Michelon, et. al, 2015; Krishnan, 2005). In particular, AC exercises independent oversight and reviews of the entire internal control system along with providing technical advices to ensure that management maintains effective internal control system (Krishnan, 2005; Menon & Williams, 1994). Literature suggests that rightly characterised AC coupled with substantive internal control specific oversight processes and management support is likely to enhance internal control effectiveness (Rich & Zhang 2014; Cohen & Sayag, 2010; Beasley, et. al., 2009).

AC Characteristics and Internal Control Effectiveness

AC characteristics can be defined as qualitative attributes that reflect AC's ability to execute its oversight and advisory responsibilities (DeZoort, et, al, 2002). There six widely recognized AC characteristics which include independence, financial or accounting expertise and experience, size, authority, resource and diligence (PWC, 2011; Gendron, Bedard & Cosselin, 2004). However, AC characteristics perceived to impact more on internal control effectiveness are independence, financial and/or accounting expertise and experience, size and diligence characteristics.

To show the importance of independence and diligent, literature posits that independent and diligent AC monitors internal controls and actions of managers closely and proactively (Krishnan, 2005; DeZoort, et. al, 2002). As such, it enables AC to stand a high chance of detecting material weaknesses, deterring managers fraudulent actions and thus taking corrective actions timely (Raghunandan & Rama, 2007; Krishnan, 2005). On the side of financial/accounting expertise and experience, it is argued that AC expertise and experience in financial/accounting enables AC members to conduct substantive review of the control system and provide appropriate technical advice (Berkman & Zuta, 2017; DeZoort & Salterio, 2001). In this regard, literature just cited recommends that any AC should have at least one financial expert and the rest of members should be financially literate. Coming to AC size, it is argued that relatively large size of independent AC, at least 3 or at most 5 members, is likely to execute its responsibilities effectively (Yatim, 2009; Gendron, et.al., 2004). In particular, authors just cited argue that large independent AC is likely to be more resourceful in terms of expertise(s), particularly financial expertise.

Several regulators have as well indicates a demand for AC characterised by independence, financial/accounting expertise, appropriate size and diligent if is to exercise effective oversight and advisory role. For example, the Sarbanes-Oxley Act of 2002 in USA and Tradeways Commission (1987) in UK among other things recommend that AC should be composed of members who are independent from the management team. The same legislations recommend that the number of AC members should be 3 to 5; least one of AC members should be an expert in finance/accounting and the rest must be financially literate; and AC should meet at least four times per annum. Same recommendations are made by Tanzania, Public Finance Act (PFA) No. 1 of 2001 Order No.30 and its Public Finance Regulation No. 30 of 2001 both as amended to all Tanzanian public entities (URT, 2001a, 2001b). Related to this is the Bank of Tanzania (BoT) Subsidiary Legislation No.33 of 2014, Regulation 7 to all financial banking and non-banking institutions, social security funds inclusive.

In line with the above theoretical arguments, empirical studies on AC vis-à-vis internal control effectiveness provide evidence that AC independence, financial expertise, size and diligence enhance internal control system effectiveness. Berkman & Zuta (2017) report that AC characterized with financial expertise as measured by proportion of members with financial expertise are negatively associated with negative events in Israel's listed firms. Invariably, there is a positive association between AC financial expertise and internal control effectiveness. Similary results are documented by Dewayanto, et. al.(2017) in Indonesia and Philippines. Further, Alzharani and Ajaaidi (2015) provide evidence that large size (3 to 5 members) and independent (as measured by proportion of independent members) AC has strong positive relationship with risk management/or control activities. Moreover,

Khelif and Samaha (2016) document that AC diligent as measured by number of meetings held (at least for times per annum) has significant positive impact on internal control quality. This is as well supported by Krishnan (2005) results.

Considering above theoretical predictions and empirical evidence collectively, it can be posited that AC characteristics as measured by independence, financial/accounting expertise, size and diligence enhances the internal control system effectiveness. Thus, the following hypothesis deserves to be tested:

H1: There is a positive relationship between AC characteristics and internal control effectiveness.

Internal Control Specific Oversight Process and Internal Control Effectiveness

Literature (KPMG_ACI, 2016; Dittmeier & Casati, 2014; PWC, 2011; COSO, 2004) suggests that for AC to oversee internal control effectively, it needs to adhere to oversight processes considered necessary for effective oversight of control alongside in to necessary characteristics. More explicitly, literature just cited suggests a relative consensus that AC should at minimum adhere to the following procedures - (i) review and ensure that management maintains an internal control system; (ii) review and determine whether management periodically assesses internal control adequacy, efficiency and effectiveness ; (iii); review and determine the adequacy and appropriate processes in place to periodically assess internal control system adequacy, efficiency and effectiveness; (iv) review and ensure that any material weaknesses or deficiencies identified are appropriately taken care of as timely as possible; and (v) provide relevant, technical advice to the management, wherever necessary, through the governing board.

Some regulators have often directed audit committees to adhere to similar procedures. This is probably aimed at encouraging AC to exercise substantive oversight of controls. For instance, Regulation 7 of the Bank of Tanzania (BoT) Subsidiary Legislation No.33 of 2014 imposes similar internal control oversight procedures to all of banking and non- banking financial institutions operating in Tanzania. This tallies with Gendron, et. al. (2004) and, Menon and Williams (1994) suggestion that without being active in doing what is supposed to be done, AC may not be effective. Therefore, AC that adheres to the minimum possible processes (processes) relevant for effective oversight of internal control is likely to be effective suggesting increased internal control effectiveness.

Prior studies that have attempted to examine the relationship between AC internal control specific and internal control effectiveness seem to be few as compared to those examining the same phenomenon using AC characteristics. However, all of those reviewed so far provide suggestive evidence that AC internal control specific oversight processes lead to improvement in internal control effectiveness. For example, Beasley, et. al.(2009) report that AC which conducts substantive review of internal control and risk management activities is effective as opposed to its

counterpart. Impliedly, AC that adheres to procedures considered relevant for effective internal control oversight significantly enhances internal control effectiveness as opposed to its counterpart. Similar findings are reported by Gendron, et. al. (2004) following in-depth interviews with AC members and key stakeholders from three Canadian public companies. In light of the above theoretical postulation empirical evidence, it following hypothesis worth testing:

H2: There is a positive relationship between AC internal control specific oversight processes and internal control effectiveness.

Management Support to AC and Internal Control Effectiveness

While AC characteristics and internal control specific oversight processes may play critical role assuring that AC contributes significantly towards internal control effectiveness, management support to AC should not be undermined. In practice, actual implementation of AC recommendations regarding internal control improvement as well as AC's access to necessary input resources such

as finance and information depend on the management's commitment or collaboration. (Mihret & Yismaw, 2007). This argument implies that management support to AC is inevitable in enhancing the contribution of AC to internal control effectiveness. Tanzania Public Finance Act and its Regulations of 2001 both as amended supports this argument by a requiring that the board from which AC members are drawn composed of the accounting officer (chief executive officer). The same legislation requires that secretariat of the board and/or AC should be formed amongst management team, preferably the head of legal services (corporate secretary). Such binding recommendations on the cooperation between AC and management suggest that AC support to AC an unavoidable for AC established with a view to foster entity's controls and transparency.

Prior studies dealing specifically with management support to AC vis-à-vis internal control effectiveness are hardly available thus far. However, there are a few ones which are closely related to. For instance, Beasley, et. al. (2005) report that there is a significant positive association between the extent of risk management system implementation, independent board and management involvement. Beasley, et al.(2005) uses support from the Chief Executive Officer (CEO) and Chief Finance Officer (CFO) as a proxy for management support to AC. As well, study Mihret and Yismaw (2007) document that internal audit, impliedly AC, effectiveness is partly enabled by management support expressed in terms of hiring adequate and right staff, reliable information, sufficient funding and implementation of recommendations. Similar findings are reported Cohen and Sayag (2010). Considering the foregoing arguments and empirical evidence in sum, it is thus expected that, the more the management support to AC, the more the more the contribution of AC to internal control effectiveness. This leads to formulation of the following hypothesis:

H3: There is a positive relationship between Management support to AC and Internal control effectiveness.

Though all of prior studies reviewed thus far have examined AC characteristics, internal control oversight processes and management support to AC, and control effectiveness on individual basis yet overall consideration suggests that they are mutually exclusive. On other hand, literature reviewed suggests further that although AC characteristics, internal control oversight processes and management support to AC taken together matters, they have varying degrees of importance. As such, establishing both combined and individual explanatory becomes inevitable as it reveals critical avenues where most of efforts or limited resources should be directed in event of intervention to improve effectiveness of AC in overseeing internal control. In this regard, the following set of hypotheses is formulated and tested:

H4: AC characteristics, internal control specific oversight processes and management support to AC taken together significantly influence internal control effectiveness.

H4a: AC characteristics have significant positive influence on internal control effectiveness.

Hb: AC internal control specific oversight processes have significant positive influence on internal control effectiveness.

Hc: Management support to AC has significant positive influence on influence internal control effectiveness.

Methodology

Population, Sample and Study Design

The design of this research is cross-sectional explanatory survey whereby the researcher was able to collect data from July in 2018 through February in 2019. Four variables consisting of one dependent variable, that is, internal control effectiveness and three independent variables - AC characteristics, AC internal control specific oversight processes and management support to AC are involved. Tanzanian government owned social security funds from the unit of analysis whereby AC members and AC key

stakeholders such as internal auditors, external auditors and chiefs of finance are the unit of inquiry. To enable generalization (Hair, Black, Babin, Anderson & Tatham, 2010; Neuman, 2005), simple random sampling technique has been used to select 210 respondents from a sample frame of 460 established a known total population of 460. The sample size of 210 was arrived at using Krejcie and Morgan (1970) sample size tabulation at 95% confidence interval.

Data Collection, Type and Sources

The study used a self-administered questionnaire whose scale ranged from strongly disagree (1) to strongly agree (5) to 210 respondents of interest consisting of AC members and other relevant AC key stakeholders as mentioned earlier on. The questionnaire intended to collect only primary data in form of perceptions of sampled respondents about variables investigated. Precisely, the questionnaire had five sections: the first one seeking information about a respondent's relevant profile information such as education qualifications and years of experience in working with audit committees as a member or key stakeholder. Second, third, fourth, and fifth sections had question items that probed primary information about AC characteristics, AC internal control specific oversight processes, management support to AC and internal control effectiveness respectively. Of all 210 questionnaires distributed, 93.8% (197) responses were received. Such highest response rate is explained by distribution of questionnaires in person, close physical and phone calls follow-ups for a period of eight months, that is, July, 2018 to February, 2019.

Operationalization and Measurement of Variables

Internal Control Effectiveness – It is the dependent variable of the study. It has been measured using respondents' perceptions on basis of five indicators adapted from Michelon, et. al. (2015), Dittmeier and Casati (2014), and COSO (2004). They include perceived indicative evidence that the reporting entity's management or personnel as a whole: (i) maintains an internal control system; (ii) deploys sufficient financial, technical and human resources to support its implementation of at all levels of the entity; (iii) regularly assesses the internal control system effectiveness; (iv) appropriately and timely addresses any identified material weaknesses and new developments; and (v) complies with all operational procedures, relevant laws, regulations, ethics and best practices.

AC characteristics- This one of the independent variables comprised of four dimensions namely independence, financial/accounting expertise, size, and diligence. Each of them has been measured separately using respondents' perceptions based on specific indicative evidence and subsequently summed up to make a whole. Independence has been measured using three indicators which include presence of more non-executive members, lack of members with personal relationship with the fund's management team; and lack of member's business interests in the fund other than serving as AC members (Berkman & Zuta, 2017; Alzharani and Ajaaidi; 2015). Financial/accounting expertise has been measured using two indicators, that is, presence of at least one AC member with expertise and experience in finance/accounting, and financial literacy to the rest of AC members (Berkman & Zuta, 2017; Dewayanto, et. al., 2017). Size has been measured using presence of at least 3 and at most 5 AC members; and size adequacy (Alzharani and Ajaaidi; 2015). Finally, diligence has been measured using the frequency of AC meetings; AC members remuneration; and AC performance evaluation (Khlif and Samaha, 2016; Krishnan (2005).

AC internal control specific oversight processes- This is another independent variable. It has been measured using respondents' perceptions based on five indicators adapted from KPMG-ACI (2016), Dittmeier and Casati (2014), and COSO (2004). They include evidence that AC: (i) ensures that management maintains an internal control system; (ii) reviews and determines whether management periodically assesses internal control adequacy, efficiency and effectiveness; (iii) reviews and determines the adequacy and appropriateness management procedures to periodically assess internal control system adequacy, efficiency and effectiveness of internal control; (iv) reviews and ensures management addresses timely and appropriately any material weaknesses or deficiencies or new developments identified; and (v)

provide relevant, technical advice to the management, wherever necessary, through the governing board.

Management support to AC – This is the last independent variable. It has been measured using respondents’ perceptions on basis of five indicators consistent adapted from Cohen and Sayag (2010) and Mihret and Yismaw (2007). They include, perceived indicative evidence that: (i) management accepts and honours timely information requests made by AC; (ii) management accepts and honours financial resources requests made by AC; (iii) management accepts and honours necessary input resources, other than finance and information, requested by AC; (iv) management accepts and implements timely all relevant recommendations made by AC; and (iv) management provides the AC with implementation feedback(s) as timely as possible.

Analysis, Presentation and Interpretation of Results

Before actual analysis, data cleaning was done following Pallant (2013) procedures. As a result, four cases were dropped on grounds of being incomplete to a large extent. Hence, 197 responses were reduced to 193 (197-4). Then, demographic variables’ descriptive statistics, frequencies in particular, were obtained. Of all 193 respondents making the final sample, more than 90 % had, as evidenced in Table 1, at least graduate level of education; education specialization; professional specialization; and experience in working with audit committees. Impliedly, their responses were reliable and valid.

Table 1 : Respondents’ Profiles Information Descriptive Statistics

Profile Category	Information Captured	Frequency	Percent
Sex	Male	126	65.3
	Female	67	34.7
Age-group	18-30 Years	24	12.4
	31-40 Years	80	41.5
	41-50 Years	68	35.2
	51-60 Years	21	10.9
Highest Education Level	Secondary School	2	1.0
	Ordinary Diploma	4	2.1
	Advanced Diploma	25	13.0
	Bachelor degree	73	37.8
	Masters degree	89	46.1
	Total	193	100.0

Education Specialization	Accounting	80	41.5
	Finance	42	21.8
	Business administration	41	21.2
	Economics	12	6.2
	Information Technology	13	6.7
	Law	5	2.6
Professional Qualifications	CPA-T	95	49.2
	ACCA	11	5.7
	CISA	4	2.1
	Advocate	5	2.6
	Total	115	59.6
	System	78	40.4
Position in the Organization	AC / BoDs member	13	6.7
	BoDs Member	8	4.7
	Management	55	28.5
	Internal auditor	53	27.5
	External auditor	27	14.0
	Accountant	36	18.7
	Total	193	100.0
Working experience as Audit Committee Member or Stakeholder	Less than a year	4	2.1
	1- 3 Years	62	32.1
	4-6 Years	56	29.0
	Above 6 Years	71	36.8

Source: Field Primary Data 2018/2019

After descriptive statistics of the respondents' demographic variables, descriptive statistics independent and one dependent variables were obtained yet preceded meeting the reliability condition which was assessed using Chronbach's alpha. As results indicate in Table 2, all four variables had mean score above 3.0 (neither disagree nor agree) with AC characteristics AC scoring highest (M = 4.0908). AC Internal control specific oversight processes (M= 4.0143) ranks second followed by management support to AC (M= 4.0129) and internal control effectiveness respectively internal control effectiveness (M= 4.0129) respectively. This means respondents generally perceived positively that all four variables prevail sufficiently, and that all of the three independent variables contribute towards internal control effectiveness. Also, results in Table 2 indicate that variations in responses from one respondent to another on a particular variable were generally low because all standard deviations are below 1 ranging from .42197 to .60139. Further to this, Table 2 results suggest that all four variables' data had reasonably normal distribution due to the fact that all of the four variables data points' skewness and kurtosis statistics are close to zero consistent with the rule of thumb put at fore by (Hair, et. al. 2010).

Table2: Independent and Dependent Variables Descriptive Statistics

Variables	Mean	SD.	Min.	Max.	Skewness	Kurtosis
AC characteristics	4.0908	.42197	2.97	5.00	.085	-.391
AC Internal Control Specific Oversight Processes	4.0143	.53406	2.29	5.00	-.389	-.017
Management Support to AC	4.0129	.60139	1.20	4.98	-.298	.186
Internal Control Effectiveness	4.0063	.59162	1.00	5.00	-.581	.329

N=193

Source: Field Primary Data 2018/2019

Next, the Pearson correlations of all independent and dependent variables were obtained. Table 3 presents Pearson correlation coefficients amongst all four variables along with reliability coefficients (Chronbach's alpha) in parentheses. It is revealed that all four variables were positive and significantly ($P \leq .001$) correlated. Yet, it should be noted that of all correlation coefficients amongst independent variables none of them is above .90 as the highest is .488, as evidenced in Table 3. This suggests that there was no multicollinearity problem amongst independent variables (Pallant, 2013; Hair, et. al, 2010). Moreover, Table 3 results reveal that all four variables' scales were reliable since each of them met the widely recognized rule of thumb of at least .70 Chronbach's alpha (Hair, et., al., 2010).

Table 3: Pearson Correlations and Reliabilities (Chronbach's alpha) in Parentheses

Variables	1	2	3	4
1. Internal Control Effectiveness	(.849)			
2. AC Characteristics	.482***	(.738)		
3. AC Internal Control Specific Oversight Processes	.467***	.418***	(.861)	
4. Management Support to AC	.458***	.488***	.374***	(.853)

N=193 *** $P \leq .001$ (two-tailed)*Source: Field Primary Data 2018/2019*

Then, tests of all four hypotheses of the study were performed. H1, H2 and H3 were tested using Pearson correlation coefficients. This is because all of them sought to establish relationships between independent variables and the dependent variable. H1: stated that there is a positive relationship between AC characteristics and internal control effectiveness. The positive correlation of .482 ($P \leq .001$) between them, as evidenced in Table 3, amount to sufficient evidence that H1 is supported. H2: stated that, there is a positive relationship between AC internal control specific oversight processes and internal control effectiveness. Results in Table 3 indicate a positive correlation coefficient of .467 ($P \leq .001$) between AC internal control specific oversight processes and internal control effectiveness. This provides enough evidence to conclude that H2 is supported. Moreover, H3: stated that, there is a positive relationship between management support to AC and internal control effectiveness. Positive

Pearson correlation coefficient of .458 ($P \leq .001$) between management support to AC and internal control effectiveness (Table 2) provides sufficient evidence that H3 is empirically supported.

Testing of fourth hypothesis (H4) and its corresponding sub hypotheses, that is, H4a, H4b and H4c was conducted using Multiple Ordinary Least Square (OLS) by regressing all three independent variables at once against the dependent variable. This was actually done after ensuring that fundamental multiple OLS regression assumptions such as multicollinearity and normality hold. This is evidenced skewness and kurtosis values; Pearson correlations coefficients amongst independent variables; and variance inflation factor ($VIF < 10$) and tolerance value ($TV > .10$) values presented in Tables 2, 3 and 4 respectively and corresponding rules of thumb (Pallant, 2013; Hair et. al., 2010).

H4: stated that AC characteristics, AC internal control specific oversight processes and management support to AC taken together significantly influence internal control effectiveness. The R^2 value of .361, F value of 34.001 with a probability value of less than .05 ($P < .001$) as results indicate in Table 4 provide evidence that the model is significantly valid and hence H4 is empirically supported. In particular, 36.1% of the variance in internal control effectiveness is collectively accounted for by AC characteristics, AC internal control specific oversight processes and management support to AC.

For H4a, H4b and H4c which in respective order state that : AC characteristics, AC internal control specific oversight processes and Management support to AC has significant positive influence on influence internal control effectiveness, results Table 4 show sufficient evidence that they are all supported. More explicitly, Table 4 results show that AC characteristics (coefficient = .231, $t = 3.270$, $P = .001$), AC internal control specific oversight processes (coefficient = .269, $t = 4.078$, $P = .000$) and management support to AC (coefficient = .258, $t = 3.597$, $P = .000$) individual influences on internal control effectiveness are significantly positive.

In terms of relative importance or ranking of individual explanatory powers, AC internal control specific oversight processes (H4b) leads (coefficient = .269, $t = 4.078$, $P = .000$). Management support to AC (H4c) ranks second (coefficient = .258, $t = 3.597$, $P = .000$) and AC characteristics (H4a) holds the bottom (coefficient = .231, $t = 3.270$, $P = .001$). Impliedly, a unit increase in AC internal control specific oversight processes brings about significantly higher increase in internal control effectiveness that what a unit increase in management support to AC and AC characteristics respectively can bring about.

Table 4: OLS Regression Results

Variables	Coefficient	t	P-Value	TV	VIF
AC characteristics	.231	3.270	.001	.687	1.449
AC Internal Control Specific Oversight Processes	.269	4.078	.000	.779	1.276
Management Support to AC	.258	3.597	.000	.717	1.388

Model Summary: $R^2 = .361$, Adj. $R^2 = .349$, $F = 34.001$, $P < .001$, $N = 193$

Dependent Variable: Internal control effectiveness, TV=Tolerance Value, VIF= Variance Inflation Factor

Source: Field Primary Data 2018/2019

Discussion of Results

The study set out to examine the influence of AC on internal control effectiveness. In particular, it set out to investigate the overall and individual influences of AC characteristics, AC internal control specific oversight processes and management support to AC on influencing internal control effectiveness with a view to establish what matters most amongst the three explanatory factors.

Results of this study show that there are positive relationships between AC characteristics, AC internal control specific oversight processes and management support to AC and internal control effectiveness. As well, results reveal that both combined and individual influences of AC characteristics, AC internal control specific oversight processes and management support to AC on influencing internal control effectiveness are significant. Further to this, the study provides evidence that it is the AC internal control specific oversight processes that matter most in explaining AC influence on internal control effectiveness (coefficient = .269, $t = 4.078$, $P = .000$). Management support to AC (coefficient = .258, $t = 3.597$, $P = .000$) and AC characteristics (coefficient = .231, $t = 3.270$, $P = .001$) follow suit respectively.

The study's evidence that AC characteristics pose significant positive influence on internal control effectiveness is in line with several prior studies results. For example, Berkman and Zuta (2017), Alzharani and Aljaaidi (2015), Khlif and Samaha (2016) among other things document that AC characterised by independence, financial/accounting expertise, appropriately large size and diligence improves internal control effectiveness. On the other hand, finding that AC internal control specific oversight processes have the most significant positive influence on internal control effectiveness mirrors Beasley, et. al. (2009) findings. Beasley and colleagues report that rightly characterised AC that adheres to responsibility specific (say internal control) oversight processes provides substantive oversight as opposed to the counterpart. Invariably, Beasley and colleagues suggest that internal control specific oversight processes are most important in enabling an independent AC to foster internal control effectiveness.

Furthermore, the finding that management support to AC has significant positive influence on internal control effectiveness is consistent with Cohen and Sayag (2010), and Mihret and Yismaw (2007) findings. The said findings provide suggestive evidence that management support to AC enables AC to oversee internal control effectively and ultimately improve internal control system effectiveness. Moreover, the overall finding that AC (characteristics, specific oversight processes and management support) of the board has significant influence on internal control effectiveness underscores the application of the agency theory. On basis of this theory, it is argued that independent AC can proactively and/or substantially oversee internal control activities and therefore provide reasonable assurance that internal control system as a whole operates effectively.

CONCLUSIONS AND IMPLICATIONS

The aim of this study is to examine the influence of AC on internal control effectiveness specifically unveiling what matters most in explaining internal control effectiveness given AC oversight. AC characteristics, AC internal control specific processes and management support to AC are study's explanatory variables. The study provides evidence that generally, AC significantly influence internal control effectiveness. In particular, it provides evidence that of the three explanatory variables pose significant positive influence, AC internal control specific oversight processes being the top most followed by management support and AC characteristics respectively. The study findings are in line with various prior studies (eg. Khlif & Samaha, 2016; Cohen & Sayag, 2010; Beasley, et. al., 2009) as well as the agency theory. Generally, the study provides evidence that AC is inevitable important in providing reasonable assurance that the entity's internal control system works effectively.

On the hand, this study suffers at least two limitations. First, it uses cross-sectional data and that data is limited to government owned and controlled social security funds operating in Tanzania. Because of this, generalization of the study results is limited to the period when investigation took place and not across a range of times. As such, it is possible that applicability of the findings of this study

might be limited to Tanzania, social security funds in particular. Future researchers should, therefore, investigate the phenomena across a range of period of time and contexts. Second, it uses cause-effect relationship analysis technique which solely depends on extant knowledge implying that it is likely to fail unveiling new insights particularly context specific ones. Hence, future studies should investigate the phenomenon using mixed research methods whose results are presumed to be much more robust as opposed to the mono method (Peng, Pinkham & Chen, 2009).

Despite above highlighted limitations, the study findings may have at least two implications worthy noting by scholars, policy makers, practitioners and scholars in endeavours to improve AC contrition towards internal control effectiveness among others. First, is that if AC is to contribute significantly towards internal control effectiveness among others, due attention should not only be given to AC characteristics, but also, to internal control specific oversight processes and management support. Second, in event of intervention aimed at improving AC effectiveness in overseeing internal control and other responsibilities, most efforts and/or should be directed to internal control or responsibility specific oversight processes among others.

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The Influence of Employees' Communication on The Practices of Occupational Health and Safety in Small Scale Mining Firms in Tanzania

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Abstract

This article is aimed at analyzing the influence of Employees' Communication (EC) on the practices of occupational health and safety in small scale mining firms. It presents insights that promote security, hardworking spirit and comfort of employees after they are secured. This, in return, has positive impact to the national development. The Structural Equation Modeling (SEM) was used to analyse the data collected from 297 small scale mining firms, test models and test all hypotheses on direct effect of safety training on the implementation of occupational health and safety. The results demonstrate that Employees' Communication (EC) has positive influence on the implementation of Organization Safety Support (OSS) and Proactive Hazard Control (PHC). These results imply that Employees' Communication should be enhanced in order to improve the implementation of health and safety at workplace.

Keywords: *Occupational Health and Safety, Management Practices, Employees' Communication.*

Introduction

The practices of occupational health and safety (OHS) are obligatory in most countries due to its essential role in promoting safety to all employees (Yusuf *et al*, 2012). It also contributes to the social, political and economic development. However, its implementation is still questionable to many working organizations especially in the third world nations because of the insufficient employee's communication which results into illness, injuries, accidents and death at workplace.

ILO (2014) posits that about 6300 employees are losing their life every day with an estimate of 2.3 million of fatalities occurring every year all over the world, following the poor implementation of OHS. It has been argued that organisations that ignore health and safety automatically affect their productivity due to employees' absenteeism, loss of goodwill from the customers and the whole community in general (Katsuro *et al*, 2010). The mining sector seems to be among the working industries associated with poor OHS due to many cases being reported; such as poor lighting, pitfalls, knocked by machine/tools and insufficient oxygen are evidences that miners are at high risks. For instance, Michelo (2009) states that at least 165 injuries and 20 fatalities were reported at Zambia Copper Mining. Generally, small scale mining employees are at high risk, especially in developing countries like Tanzania. Matters and deaths reported are probably caused by inadequacy of employee's communication which is part of management functions (Khdair & Wameedh, 2011). The small scale mining is reported to be among the most risky and dangerous occupations in Tanzania. This is due to a number of limitations including poor employees' communication which cause severe accidents that count for lives of individuals at workplace (Abdulla *et al*, 2009).

The way workers are protected and compensated, following injuries and other ailments associated with exposing the workforce to hazardous substances, is a major public concern that needs collective responsibility to stimulate all stakeholders to take acceptable measures and feel responsible to their workers. For example, in 2006, a miner was killed by falling loose rocks. In March 2007, the death of

three miners in Same district was attributed to collapsed pits. At Mererani in 2008, at least 65 miners drowned to death after floods swept through underground pits and tunnels (Maginga *et al*, 2013).

The literature on OSHA suggest that in order to protect employees from occupational accidents and create the safety culture, employees' communication is important and need to be emphasized so as to prevent accidents and injuries at the workplace (Vredenburg, 2002; Ali *et al*, 2009). The practice of employees' communication on OHS is contingent to priority since it depends on the managerial commitment to the matter. However, safety is significant to all human beings. Laursen and Foss (2013); Tan and Nasuridin (2011) Khdair and Wameedh (2013) and Demo *et al* (2012) conducted studies on OHS and identified an appropriate leadership style that considers employees' attitude and hiring practices as important elements of management practices for the safety culture. Other researchers like Desa *et al* (2013) listed rewards employees' involvement, employees' communication and management commitment as important elements towards improving working conditions of employees.

Basing on the findings of various studies on OHS, there are different views among researchers on the factors influencing health and safety in the organization. Therefore, this article used employees' communication as an important factor which influences OHS to an Organisation, an argument which has been supported by (Vecchio, 2007; Keffane, 2014; Keffane & Delhomme 2013).

The Tanzania government has done some efforts in view of this shortcoming as measures to protect its employees. The establishment of the Occupational Safety and Health Authority (OSHA) in 1997, endorsement of Occupational Health and Safety (OHS) Act No. 5 of 2003, establishment of Occupation Health and Safety Policy of 2009, the Compensation Act No 20 of 2008, the ratification of ILO Convention No. 170 of 1993 in 2014 about safety in the use of chemicals at work; aimed to enhance the best practices of health and safety at workplace.

Despite those measures, the mining industry in Tanzania is still hampered by injuries, accidents and deaths in mining workplaces. The literature shows that most of those accidents are associated with rock fall, fire explosions, and automobile equipment accidents, falls from higher heights, entrapment, flooding of underground workings and suffocation (Museru & Munthali, 2013). For example, in 2017 about 14 miners were trapped for four days (URT, 2017). Moreover, in 2015 at least 20 miners died and other six were trapped underground for 41 days before they were rescued at Bulyanhulu Gold mines (URT, 2017; Reuters, 2015).

However, the managers in charge of Health and Safety activities seem to be not able to control and reduce occurrences of death and accidents especially in small scale mining firms (Surienty, 2012; Mills & Lin, 2001). This was due to the persistence of occupational injuries, death, illness and accidents (Samage, 2014). The seriousness on enforcing employees' communication among the managers responsible for employees' safety issues is still questionable. There is lack of understanding on the role of employees' communication as one of internal factors for effective OHS in Tanzania. Therefore, there is a need to consider the influence of employees' communication on the implementation of OHS in small scale mining firms. Based on the aforementioned issues the literature did not consider the relationship between employees' communication and the implementation of Occupational Health and Safety in small scale mining firms. In response to that, this article analyzes the influence of employees' communication on the practices of OHS in Tanzania's small scale mining firms.

Literature Review

This article used the ERG theory proposed by Alderfer (1969) who expanded the Maslow's basic needs by refining five stages into three. These stages are existence needs, relatedness needs and growth needs. The theory is popular and predominantly clarifies different ideas on organisational management with new methods of considering human behaviour and attitude (Yang and Chen, 2011). It describes the significance of safety to the employees at workplaces. Thus, it tells more about maintaining safety to all employees in an organisation. This theory has been used to explain and contribute to the human behaviour which directly connects to the health and safety at workplace. Therefore, this theory is

significant and relevant to this article since it explains safety issues in the organisation. Basically, the theory insists safety to all employees regardless of their status (Caulton, 2012). Generally in ERG the existence needs addresses safety as among the human basic needs; considering prevention from fear, anxiety, threat, danger and tension in the workplace. That is to say, the employees in an organisation should enjoy the working environment that is free from threats or harm. With all these facts, ERG can play an important theoretical role in explaining the influence of employees' communication on the implementation of Occupational Health and Safety at workplace. Therefore this theory is relevant in this article since it explains the safety behaviour to the employees in an organization.

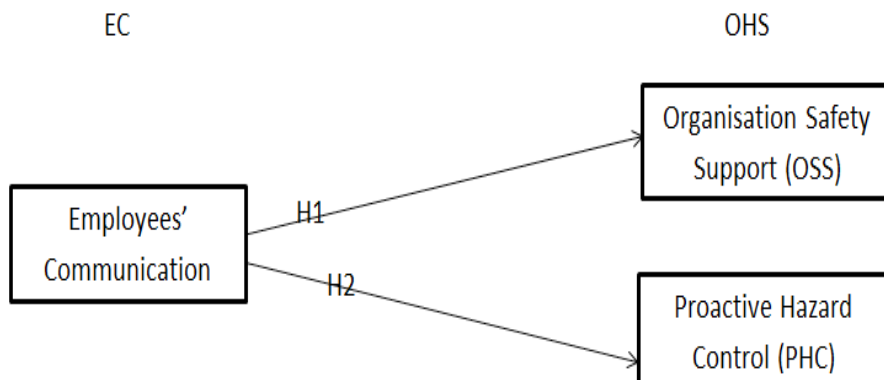
Employee's communication has an influence on the implementation of Occupational Health and Safety at Workplace, the reviewed literature done by Sembe & Ayuo (2017) maintains that communication and information sharing is a safety management practice that uses mechanisms to emphasize how to apply safety knowledge, increase awareness, and promote the importance of individual and interdependent safe work. Well designed and effective employees' communication, especially open communication on safety performance tends to stimulate the organisation performance. Yorio & Wachter (2014) suggest that organizations might use print media (e.g., posters, journals and newspapers) to increase cognitive awareness of safe work and emphasize its importance or facilitating holding formal meetings designed to verbally conveying information and exchanging ideas with the workforce. According to Mashia *et al* (2016) communication and information-sharing practices have been formally linked to safety performance and have been hypothesized to enhance both vertical and horizontal ties. Information sharing is characterized by mutual trust between parties where ideas surrounding the organizational safety programmes can be freely exchanged. Hence, the following hypotheses were developed:-

H₁: There is a positive relationship between employees' communication and implementation of organisational safety support at workplace.

H₂: There is a positive relationship between employees' communication and implementation of proactive hazard control at workplace.

Conceptual Framework

The conceptual framework below has been developed in order to show the relationship between independent and dependent variables. The independent variables have been featured by Employees' Communication (EC) while dependent variables have been featured by Organization Safety Support (OSS) to reduce hazards and Proactive Hazard Control (PHC) to maintain safety at workplace.



Methodology

This study applied the explanatory research design whereby information from respondents was collected through quantitative method of the study which provided the statistical generalization of findings (Mashia *et al*, 2016). This research design was selected because it enables the researcher to have greater control over the accuracy of findings. Data were collected from three regions namely Shinyanga, Arusha and Geita. These regions were selected because they are the dominant regions dealing with mining activities in Tanzania. Also these regions have been repeatedly reported to experience high rates of accidents associated with mining (Samage, 2014). About 297 questionnaires were used to collect the quantitative data meanwhile structural equation model SEM and percentage was used.

Measurement of implementation of Occupational health and safety

The established instrument to measure the implementation of Occupational Health and Safety (OHS) in this article was the Organisation Safety Support (OSS) and Proactive Hazard Control (PHC). Safety rules, principles and procedures, plus the uses of first-Aid support are uses in the measurement of OSS and PHC at the workplace (Kaynak *et al* (2016). A variety of literature used the same measurement to measure the accuracy of applications of health and safety at workplace, since the provision of OSS and PHC is the indicator for health and safety implementation in the organization (Villanueva & Nunez, 2010). The employees' communication should facilitate management on health and safety at the workplace. The assurance of safety practices at workplace should aim to control all work related injuries, availability of hazard warning signal and provision of feedback to employees about unsafe behaviour (Khdair & Subramaniam, 2011).

Results of the Study

Organization characteristics

The study was conducted in small scale mining firms operating from Geita, Shinyanga and Arusha regions; whereby about 297 (94%) firms were involved in this study. The main activities of mining involve extracting and selling minerals. However small scale miners are neither educated nor benefiting anything from these activities. The activities of these firms are operating in risky and dangerous environment. Such activities seem to be motivated by poverty and other social problems in the community.

Employees' Communication on Occupational Health and Safety in small scale mining firms

The assumptions were tested in order to justify the use of SEM in this article. These assumptions were the normal distribution of the data, homoscedasticity and identification of outliers. Using the P-P Plot of regression, standardized residuals data in all research variables were normally distributed. While in addition, no multicollarity problems were found since the Tolerance Value (TV), Value Inflated Factor (VIF) and all variables used in this article were greater than 0.1 for TV and less than 10 for VIF respectively as recommended by Williams (2015). The process of data screening also revealed that, there were no problems of heteroscedasticity since the scatter plot showed that the residuals were evenly distributed around the axis. The outlier labeling methods were used whereby three outliers were omitted.

The Direct Relationship between Employees' Communication on the implementation of Occupational Health and Safety in small scale mining firms

In this section, there were two hypotheses, namely H_1 and H_2 . H_1 state that EC has positive influence on the implementation of OSS programmes at workplace and H_2 stated that EC has positive influence on the implementation of PHC programmes at workplace.

The path analysis results showed that there was a significant relationship between EC programmes and

implementation of OSS at workplace ($\beta = 0.653$, Significant at 0.001). Also the path analysis showed that there was a significant relationship between EC and implementation of PHC at workplace ($\beta = 0.700$, Significant at 0.001). Hence, each hypothesis that is H_1 and H_2 were supported. Table 1: Provides the regression weights and the significance level:-

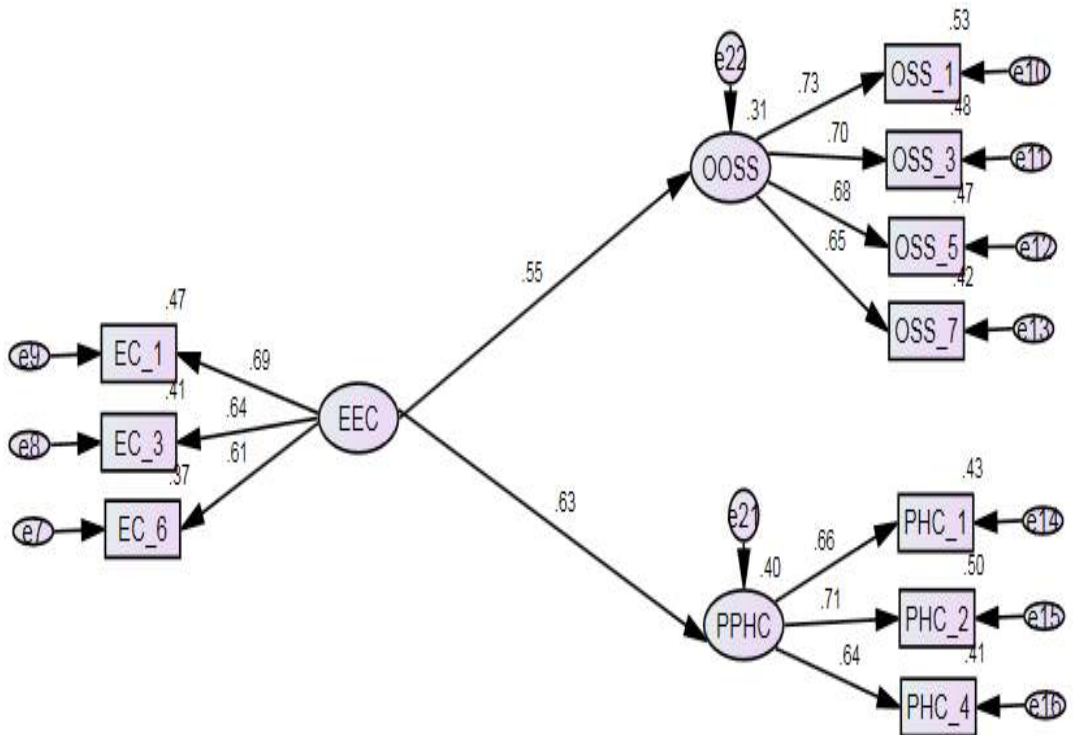
Table 1: The Regression Weights for the Direct Relationship

Path	Estimate	S.E.	C.R.	P	Label
OOSS <--- EEC	.653	.109	6.015	***	
PPHC <--- EEC	.700	.115	6.066	***	

*** Means, it is significant at 0.001

The developed model shows the direct relationship between employees’ communication and the implementation of occupational health and safety at the workplace. In this analysis, the model demonstrates influence of EC in identifying safety issues on the implementation of OSS and PHC at workplace. Also, the model shows the relationship between EC programmes on OSS and PHC. Figure 2 presents the model on the direct relationship between employees’ communication and the implementation of occupational health and safety at the workplace.

Figure 3: The Developed Structural Equation Model for the Direct Relationship



The model shows that the additional unit of the standard deviation of EC programmes led to the 0.653 significant increases in standard deviation of the implementation of OSS at workplace. Again, it shows that the additional unit in standard deviation of EC programmes led to the 0.700 significant decreases in PHC at workplace. This means that, the management practices namely EC implementation at workplace had different contribution on OSS and PHC at workplace.

The model was assessed to see whether it fits the data well by examining the model fit indices. The model fit indices included CMIN/df, GFI, AGFI, CFI and RMSEA. The indices indicated that the model fits the data well because they were all within the recommended values. The Chi-Square value was 139.454, P-value of 000 while the degree of freedom was 33. The Chi-Square value was insignificant which indicated that there was no statistically significant difference between the default model and saturated model. Table 2 presents the model fit indices with the recommended value.

Table 2: Goodness of Fit Indices for the Direct Model

Goodness of Fit Measure	Calculated Index *	Recommended value	Author
CMIN/df	4.226	<5	Bollen (1989); Ullman (1996)
GFI	0.917	≥ 0.90	Byrne (2010)
AGFI	0.862	≥ 0.80	Chau and Hu (2001)
CFI	0.902	≥ 0.90	Hair et al. (2010)
RMSEA	0.004	< 0.08	Hoe (2008); Steiger (2007) cited by Hooper, Coughlan & Mullen (2008)

Discussion of Findings

The findings revealed that employees’ communication programme has a positive influence on implementation of organization safety support at workplace. Therefore, if the management concentrates on enhancing the employees’ communication accidents, injury cases would be controlled. Asghar and Saeed (2012) argue to support the findings that employees’ communication has a great contribution towards minimizing and controlling the accidents at workplace, because when employees are communicated to they become informed and aware on how to avoid unnecessary risks at workplace.

On the other hand, the results revealed that employees’ communication has positive influence for the implementation of proactive hazard control at workplace. Any organization which values its human resources tends to maintain health and safety by preparing the health and safety proactive hazard control strategies so as to protect employees at workplace.

This also has been supported by Mashia *et al* (2016) who posited that employees’ communication is an important risk prevention and control strategy to guarantee safety at the workplace. Keffane (2014) urged that employees’ communication is a key factor in maintaining and changing workers’ attitude towards safety practices. Yorio and Wachter (2014) support the findings that providing instruction through employees’ communication about hazard recognition and control measures plus learning about safety practices like identifying protective equipment, and acquiring knowledge of emergency procedures and preventive actions maintain safety at workplace. Sembe and Ayuo (2017) and Oakman and Bartram (2017) support the findings by arguing that employees rely on communication to get feedback about safety issue in the organization.

Conclusion

The article investigated the influence of employees’ communication on the implementation of health and safety in small scale mining. The literature informed that employees’ communication has contribution to the process of minimizing accidents at workplace (Mashia *et al* 2016). This argument

is supported by Keffane (2014) who states that employees' communication has an impact towards maintaining safety of employees at the workplace. Therefore, this article concludes that employees' communication programmes significantly influence the implementation of OSS and PHC at the workplace. Therefore, organizations can realize safety of employees if there are serious strategies on emphasizing the employees' communication at workplaces.

Implications

The results revealed that employees' communication programmes significantly influence the proper implementation of health and safety at the workplace. Thus, if all organizations (private and public) emphasize on the employees' communication in health and safety matters, accidents, risks injuries and deaths at workplaces will be reduced in high rates and production will be improved. Therefore, managers should put emphases on health and safety issues in their organizations, if really they want to improve their efficiency. Also government officials should make sure that all organisations prepare and design strategies for improving employees' communication so as to enhance provision of health and safety compliance. If employees' communication is provided it maintains the organisational health and safety culture to the management and employees at large. Ultimately, it minimizes risks at the workplace.

Limitation of the study

Employees' Communication may not have the same influence in all working industries hence the study concentrated only in small scale mining firms. Tanzania has various working industries. This study did not consider the influence of employees' communication on other working industries and these findings do not dispute to all working industries in Tanzania.

Areas for further study

Another study may focus on the influence of employees' communication on occupational health and safety in other working industries such as processing, banking, agriculture and educational industries. This may potentially contribute to the existing body of knowledge particularly the possibilities of employee's communication to influence the implementation of occupational health and safety to other working environment. Therefore, it is important to conduct similar studies in other working organisation so as to validate the findings.

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Drivers of Managerial Capabilities of Grain Milling Firms in Tanzania

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Abstract

This article investigates the drivers of managerial capabilities of grain milling firms in Tanzania. Based on a qualitative analysis of 10 enterprises, the article reveals the key drivers of managerial capabilities of grain milling firms being owner-manager's serial and portfolio business activities, manager's accumulated experience, manager's formal training, ethnic and family attachments, firm size, firm performance feedback, organisational climate, position held, incubation hubs and nature of the sub-sector. The study contributes to knowledge on the kind of factors responsible for the development of managerial capabilities of grain milling enterprises in a developing economy. It proposes ways of nurturing managerial capabilities to achieve sustained firm performance.

Keywords: *Firm, Performance, Capabilities, Managerial capabilities, Grain Milling, and Tanzania*

Introduction

Research on what accounts for variation in firm performance has increasingly been receiving greater attention from both strategy scholars (Barney, Ketchen, & Wright, 2011) and practitioners (Kale & Huzair, 2017). For quite some time, researchers have attempted to develop theoretical elucidation and empirical evidence on why some firms succeed while others fail. While this kind of research has predominantly been influenced by both the industrial organisation (IO) perspective (Bamiatzi, Bozos, Cavusgil, & Hult, 2016; Porter, 1996) and the resource-based view (RBV) (Barney, 1991; Barney, Ketchen, & Wright, 2011), most recent studies have largely been informed by RBV and its streams (Huy & Zott, 2019; Vijaya, Ganesh, & Marathe, 2019). Especially where the business environment is unpredictable, it is increasingly being accepted that firm performance differences result from their resource endowments (Barney, 1991; Peteraf, 1993) and managerial capabilities (Helfat *et al.*, 2007). However, in view of the fact that having a pool of resources does not automatically lead to better performance (Charles, 2014; Grant, 1991), some studies have attempted to link specific managerial capabilities with firm performance rather than resource endowments (Bellner & MacLean, 2015; Khan, Xuehe, Atlas, & Khan, 2018; Rwehumbiza, 2017; Selomon, Charles, & Allan, 2016), simply because managers are in charge of asset orchestration in their firms (Sirmon, Hitt, Ireland, & Gilbert, 2011). Irrespective of the findings in these studies, most fail to show the factors driving the development of specific managerial capabilities.

Consequently, scholars advocate for in-depth analysis of firm managerial capabilities in order to have concrete evidence on how such capabilities develop, rather than produce a mere list of capabilities that matter. For instance, Helfat and Peteraf (2003) suggest further development of RBV on account of understanding the drivers of firm-specific capabilities and analysing the sources of managerial capabilities which are instrumental for firm performance (Barney *et al.*, 2011). This analysis could be interesting given that the managerial capabilities within a firm form the basis for expanding our knowledge on firm performance differences (Schmidt & Keil, 2013). Drivers of managerial capabilities refer to the factors related to the emergence of the origin or development of a manager's ability to undertake a particular task in a firm at the accepted level of efficiency (Helfat *et al.*, 2007; Helfat & Peteraf, 2003; Kor & Mahoney, 2004).

In view of the fact that development of managerial capabilities can be influenced by the context in which managers are operating (Haroon Hafeez, Noor, Shariff, Bin, & Lazim, 2012) and peculiarities of specific sectors, some studies suggest a more focused in-depth analysis of such capabilities (Helfat, 1994, Tuccu *et al.*, 2016). For example, Africa's context and Tanzania, in particular, differs from many other contexts due to the volatility of its business environment (Bigsten & Söderbom, 2011) and the fact that most firms have a simple organizational structure and are mostly owned by families (Ayyagari, Beck, & Demirgüç-kunt, 2007). In such an environment, the value of firm resources and capabilities to firm performance depends on factors like social networks, cognitive characteristics, knowledge and skills of the manager (Adner & Helfat, 2003). More specifically, for the grain milling sub-sector, it is noted that managers play a dominant role in resource management decisions contributing to differences in firm outcomes (Sirmon *et al.*, 2011). This role is framed under asset orchestration which involves the ability to sense, seize opportunities and reconfigure resources (Helfat *et al.*, 2007).

Basically, the development of managerial capabilities in the grain milling sub-sector reflects the way the sub-sector evolved and the changing economic dynamics (Mtaki & Sage-EL, 2017). In Tanzania, the sub-sector is characterised by a complex historical process of economic change from private hands to command economy then back to a market-led economy (Wangwe *et al.*, 2014). Before nationalisation in the late 1960s, production units were in private hands. Soon after nationalization, the National Milling Corporation (NMC) took over major milling activities in most towns and cities while custom mills dominated in rural areas. In the mid-1990s the game changed back to private hands and most of NMC assets were sold out. This transition has remarkable negative effects on innovation and owner-managers' entrepreneurial spirit.

Still, grain milling is recognized due to its importance in food security, employment, spillover benefits (poverty reduction, infrastructure improvements, agricultural productivity, and integrated markets) and GDP (Dinh, Palmade, Chandra, & Cossar, 2012). Even though the sub-sector in Tanzania is dominated by micro- and small enterprises, most of which are family-owned and run by owner-managers, it contributes 14% of the agriculture GDP (Wangwe *et al.*, 2014). Furthermore, as institutional, market and operational voids in the sub-sector are highly pronounced (Wilson & Lewis, 2015b), the role of the managers is crucial for diversification and creating personal networks to compensate for lack of resources (Hansen *et al.*, 2018).

Surprisingly, literature has not paid sufficient attention to drivers of managerial capabilities in the grain milling sub-sector. This research was skewed to drivers of organisational capabilities and not specifically to managerial capabilities. Organisational capabilities consist routines and activities, embody individuals, group and firm-wide know-how (Selomon *et al.*, 2016) whereas managerial capability refers to the manager's capacity to perform a task in a reliable manner (Helfat *et al.*, 2007). In this regard, managerial capabilities are a subset of organisational/firm capabilities. Still, in a sub-sector which is dominated by small enterprises, it is almost impossible to distinguish organisational from managerial capabilities given that the behaviour of the owner-manager is quite influential on the behaviour of the firm (Hyder & Lussier, 2016). This leaves a gap on what exactly constitutes managerial capabilities and how they are developed in the grain milling sub-sector.

The purpose of this article therefore is to investigate the drivers of managerial capabilities of grain milling firms in Tanzania. Specifically, it explores the managerial capabilities relevant in the grain milling sub-sector and investigates the drivers of such capabilities. It contributes to RBV by paying sufficient attention to the development and heterogeneity of managerial capabilities in a specific sub-sector. While the article widens our knowledge on the emergence and development of managerial capabilities, it informs owner-managers on how to develop and align their personal characteristics to firm resources.

The article is structured as follows. In section two, the literature review is presented followed by study methodology in section three. Section four and five present the study findings and discussion of findings, respectively. Finally, the conclusion and implications are presented.

Literature review

The issue of what accounts for firm success has inspired a growing debate on differences in firm performance (Badrinarayanan, Ramachandran, & Madhavaram, 2018; Tucco *et al.*, 2016). The debate is dominated by the two divergent perspectives on the differences in firm performance; industrial organisation (IO) and internal firm capabilities (Charles, 2014). While the IO perspective focuses on industry attractiveness and positioning (Chaddad & Mondelli, 2013; Porter, 1985), the internal firm perspective focuses on firm resources and capabilities (Barney, 1991; Barney *et al.*, 2011). The arguments on IO are confined in the structure-conduct-performance (SCP) paradigm implying that industry structure determines conduct (industry environment) and then conduct determines the firm's performance (Porter, 1980). Specifically, firm's performance is primarily a function of the industrial environment in which it competes while industry structure strongly influences the competitive rules of the game as well as the strategies potentially available to the firm. This implies that a firm's positioning in the industry highly determines its performance. Despite IO explanation on firm performance determinants, the framework is criticised for not developing the idea of a firm's internal resources and capabilities impacting firm performance. IO treats the firm as a 'black box' or 'production firm' (Grant, 1991; Hoskisson, Hitt, Wan, & Yiu, 1999).

Moreover, latest literature in strategic management is also skewed to firm's internal capabilities unlike industry attractiveness (Vijaya *et al.*, 2019). This is because the RBV framework uncovers a firm's ability to influence its performance. The RBV is premised on the two basic assumptions in explaining the link between firm resources and firm performance. These include resource heterogeneity and resource immobility. Resource heterogeneity means different firms have access to and possess different bundles of resources and capabilities (Peteraf, 1993) while resource immobility refers to the difficulties involved in acquiring or developing resources and capabilities making the differences among firms in the same industry (Barney *et al.*, 2011; Grant, 1991). Our research issue in this study is staged on the drivers of the managerial capabilities in a grain milling sub-sector which is addressed by RBV framework instead of IO. In this study, RBV facilitates the screening of drivers that are valuable in developing managerial capabilities likely to impact firm performance. For that case, the explored drivers of managerial capabilities must obey the VRIN (Valuable, Rare, Inimitable and Non-Substitutable) criteria.

In an endeavour to contribute to RBV discourses, empirical literature attempts to explore drivers of firm capabilities. For example, Helfat and Peteraf (2003) identified managerial decisions, changes in demand, science and technology, availability of raw materials, and government policy as drivers or organisational capabilities. Schmidt and Keil (2013) presented four important drivers, namely, firm's position in the market, firm's resource base, firm's position in the inter-organisational networks and managers' cognitive characteristics. Gebauer (2011) explored the contribution of management innovation to the evolution of dynamic capabilities and established that management innovation was a fundamental driver for the development of capabilities. Helfat (1994) identified tacit knowledge and cumulative organisational learning to be the key drivers in coping with the trajectories in the petroleum industry. Zollo and Winter (2002) found that tacit accumulation of past experience, knowledge articulation and knowledge codification processes were drivers of learning capability. Goeke, Gersch, and Freiling (2010) suggested prior experience in the sector to be a key component for creating alliance capabilities during industry transformations. Macpherson and Jones (2004) identified other drivers of technological and organisational innovations that include entrepreneurial characteristics, knowledge and expertise, business networks and alliances, and business environment. Kale and Huzair (2017) found that diversity of the knowledge-base and regulatory requirements underlying bio-similar products and pre-existing capabilities led to the development of technological capability.

In relation to the grain milling sub-sector, very few studies discuss drivers of firm capabilities in the sub-sector. For instance, Bagachwa (1992) studied the choice of technology in the grain milling firms in Tanzania. The author argued that the nature of the firm's technological capabilities is shaped

by the level of the country’s economy, implying that as Tanzania is a low-income country, the sub-sector is characterized by many production units that are labor intensive. Charumbira and Sunde (2010) focusing on seller concentration in the maize milling in Zimbabwe argued that the production capability of a firm is a function of commodity prices while firm ability to compete depends on the level of deregulation of the industry.

Existing literature on grain milling briefly focuses on drivers external to the firms and ignores drivers at personal and firm levels. It was noted earlier that the manager’s role is important in the sub-sector, so there is no way one could explore drivers of managerial capabilities and ignore drivers at a personal level. The reviewed literature on grain milling as well uses the IO approach which has already been criticized for treating a firm as a black box. Therefore to explore the drivers of managerial capabilities in the grain milling sub-sector, an analytical framework (See Figure 1) is used that presents three levels of analysis (personal, firm and external to the firm levels). At personal level, four drivers are identified in the extant literature namely, managerial decisions, experience in the sub-sector, manager’s cognitive characteristics and knowledge and expertise. Manager’s decisions are pronounced as a reaction to the firm’s external stimuli (Helfat & Peteraf, 2003). We learn from the extant literature (Goekeet *al.*, 2010; Becker, 1993; Hitt, Biermant, Shimizu, & Kochhar, 2001) that top managers’ characteristics facilitate the sensing, seizing opportunities in the market. In an uncertain environment such as grain milling, the value of the resource and choices to be made are dependent on the manager’s cognitive characteristics (Keil & Schmidt, 2013).

Organizational climate, performance feedback, tacit and diverse knowledge, management innovation, codified process, firm’s position in the network and market and past firm experience are identified as drivers of firm capabilities at the firm level. The previous literature (Richard, Jorgen, & Borge, 2004; Helfat & Peteraf, 2003; Kaymaz, 2011) state that the firm conditons create an environment for sharing knowledge and learning as a result of working together. From the analytical framework, we understand the role played by external factors in promoting development of capacities. The external factors found relevant include change in demand, science and technology, availability of raw materials, government policy and regulatory requirements. Figure 1 summarizes what is presented in the literature and guides the understanding of drivers of managerial capabilities in the grain milling sub-sector. If the literature clearly indicate such causality? Why opted for exploratory?

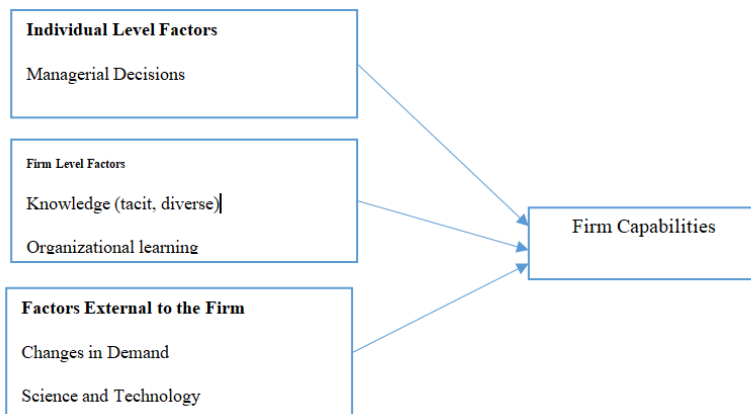


Figure 1: Drivers of managerial capabilities

Source: Compilation from the literature

Methodology

The study adopted an exploratory research design based on a case study, analysis of managers’ biographies and firms’ profiles. This approach was chosen in order to gain a deeper understanding

of the drivers of managerial capabilities and generate some findings for further testing. The research setting was the grain milling sub-sector in Tanzania. The sub-sector was selected due to its economic contribution (NBS, 2016), and the sub-sector's characteristics, providing wider understanding of managerial capabilities. The study areas were Arusha and Dar es Salaam regions because of the concentration of grain milling firms in these areas (National Bureau of Statistics, 2012). In total, 10 firms were purposefully selected, 8 from Dares Salaam and 2 from Arusha. The sample size was considered adequate for a compelling and robust qualitative study as it responds to the stated research questions (Yin, 2013). In addition, Eisenhardt (1989) suggests that a cross-case analysis of 4 up to 10 is a good basis for analytical generalization in strategic management. The unit of inquiry involved 8 owner-managers and 2 senior managers of the firms studied. All the respondents had experience of over five years that ensured dependability of the findings as suggested by Protogerou, Caloghirou, & Lioukas (2011).

Data was collected through in-depth interviews with managers and documentation of the biographies and individual corporate history (Creswell, 2009). It is argued that researching individual corporate history forms the basis for understanding the origins and development of capabilities (Teece, 2012). During the interviews, researchers looked for information relating to (i) relevant managerial capabilities in the sub-sector; (ii) manager's historical background (family, education, experience, and critical moments); and (iii) contribution of personal, firm histories and business environment relevant to the managerial capabilities identified. In all interviews, the researcher was accompanied by a research assistant who took notes and recorded the conversations for later transcription thereby enhancing the credibility of the findings. In processing data, the names of firms were concealed to ensure their confidentiality. The transcripts were sent back to the managers for verifying what transpired during the interviews after which the transcripts were uploaded in Nvivo 11 for coding and developing themes. The data was coded using both concept and data-driven coding (ground-up approach) considering the research questions at hand. We were inspired by Pratt, Rockmann, and Kaufmann (2006) to use a thematic approach in analyzing the data collected whereby cross-case analysis of multiple sources facilitated the development of themes and ensured the credibility of the findings. A thematic approach began by creating first codes through examining statements in various data sources and developed categories from common statements and consolidated codes into groups based on the similarity.

Findings

Profiles of the firms and managers studied

Findings indicate that all of the firms studied were family enterprises (Table 1) despite varying firm sizes. The accessed firm profiles indicate the involvement of family members in the management of the firms. This reflects the general trend of most enterprises in Tanzania where most food processing firms emerge from the family and are owned and controlled by family members (Dinh & Clarke, 2012). The firms were established between 1968 and 2008 meaning that they had been able to survive and/or grow over a long period of time. The firms had also developed a remarkable business experience that was useful in examining managerial capabilities and critical moments for the development of such capabilities. Reflecting on the number of employees, and based on Tanzania's SME Policy (2003) only two firms (K and U) were large, one was medium (N) and the rest were small (The United Republic of Tanzania, 2003). This distribution is analogous to previous research that claims that the food processing industry is dominated by small firms and few large ones with the missing middle (Wangwe *et al.*, 2014; Wilson & Lewis, 2015a). The gender composition (5 males and 5 females) shows a balanced distribution between the two categories. There were four managers who had attained tertiary education while the majority had attained primary or secondary education (See Table 1). Differences in education levels provided wide and contrasting views on the role of education on the development of managerial capabilities (See details on the role of training specialization). Further, respondents had varying experience within their firms, sub-sector and outside the sub-sector. This diversity in experience (in their firms, within and outside the sub-sector) provided important insights

in the identification of relevant managerial capabilities and their drivers. Table 1 summarizes the firms' and respondents' demographic characteristics providing a deeper understanding of their experiences.

Table 1: Profile of firms and visited managers

#	Name of the Firm	Year Established	No.of Employees	Age	Gender	Highest Level of Education	Experience within the firm	Experience in the Sub-sector	Experience outside the Sector
1	FIRM A	2006	11	46	F	CSSE	15	15	8
2	FIRM C	2007	18	47	M	Bachelor	10	10	9
3	FIRM D	2006	21	50	F	CPSE	11	11	
4	FIRM E	1999	20	35	M	ACSSE	27	27	
5	FIRM F	2008	30	49	F	Diploma	8	17	8
6	FIRM K	1998	350	41	M	Diploma	11	11	9
7	FIRM N	1994	70	39	M	CSSE	23		
8	FIRM P	1981	19	64	F	CSSE	37	37	9
9	FIRM Q	1993	27	58	F	Bachelor	24	24	10
10	FIRM U	1968	2000	42	M	Masters	11	11	7

Identified managerial capabilities and their drivers

A cross-case analysis revealed two main findings: identification of specific managerial capabilities adopted by the 10-grain milling firms in Tanzania, and the drivers of the identified managerial capabilities. Generally, the drivers explored were owner-manager's serial and portfolio business activities, accumulated experience, training specialization, ethnics and family attachments, firm size, firm performance feedback, organizational climate, position held, incubation hubs and nature of the sub-sector. The findings show that all firms (through their top managers) are connected to several actors, for example government officials, financial institutions and relatives. All respondents disclosed their connections with certain actors being a catalyst for firm success. Specifically the study found that managerial networking capability in a firm facilitates access to financial resources (firms F, K, N, P, Q, and U), new investors (firms P and Q), fast-tracking compliance such as registration of new products (firms K, P, Q, and U), access to quality raw materials (firms F, K and U) and market access (firms A and P). At least nine firms (9) acknowledged the importance of managerial learning capability to cope with environmental uncertainties such as technological and regulatory changes, over time. The reporting of this capability was explicit from all the nine respondents and from the firm profiles of the two large firms (K, and U). Through this capability, firms were able to respond to technological changes such as a shift from the use of a hammer mill to a roller mill (firms C, P, and Q) and complying with market standards (firms A, P, Q, and R).

The findings also show that six firms cited several innovative activities that top managers undertake including new products introduction, restructuring of departments, redesigning packaging materials and appealing to new markets. From the firms profiles and online content of some firms (K, Q, and U), it was established that with time, top managers have introduced new products in the market. For

instance, by 1998, firm K had 3 product lines but due to the innovative capability of the marketing manager 11 products are now in the market. Lastly, the article identifies the manager’s ability to diversify into related and unrelated activities. The data (interviews and profiles) on the two large firms (K and U) shows that from the opportunities in the sub-sectors managers are able to diversify. While these two firms anchor on opportunities to diversify, other firms (D, F, P, and Q) treat diversification as a “Plan B” option of minimizing risks in the sub-sector such as low margins and stiff competition. Thus, they use diversification as an alternative to survive and succeed in the grain milling sub-sector.

Table 2: Drivers of managerial capabilities

Managerial Capability	Drivers	Firms
Networking	<ul style="list-style-type: none"> • Serial and portfolio business activities • Experience • Ethnic and family attachment • Firm Size • Performance feedback • Incubation hubs 	C, K, Q, P, U C, K, P, Q, U D, E, F, N, P K, Q C, P A, P
Learning	<ul style="list-style-type: none"> • Serial and portfolio business activities • Ethnic and family attachment • Training and experience • Organisational climate • Nature of the Sub-sector 	C, K, P, Q, U C, D, E, F, N, P C, K, Q, P K, U K, U
Innovation	<ul style="list-style-type: none"> • Training and Experience • Organisational climate • Position held • Incubation hubs • Nature of the Sub-sector 	K, Q, U K, U C, P, Q A, P C, P, Q
Diversification	<ul style="list-style-type: none"> • Network diversity • Performance feedback • Nature of the sub-sector 	F, K, P, U D, F, P K, P, U

Serial and portfolio business activities

The findings reveal that the nature of opportunities existing in the grain milling sub-sector act as a motivator to undertaking both serial and portfolio business activities either into related or unrelated ones. The opportunities identified include the availability of grain milling by-products that are easily converted into animal feed and lack of support industries such as packaging, edible oils, transport, silos, detergents. Other respondents (firms P and U) reported that failure of one business led to the establishment of another. The managerial capabilities developed from serial and portfolio business undertakings include networking and learning. The findings show that in the process of firms undertaking multiple businesses, connections with other actors develop. Of the 10 firms accessed, only four (4) firms (K, Q, P, and U) admitted to have conducted serial or portfolio business activities and increased their network ties. This is because in the process of conducting multiple businesses, they made new contacts. The respondent of firm P, for instance, claimed that while doing the salt and processed powder milk packaging business and distributing the same to various supermarkets, she came across several actors. These actors included a bank officer who helped her secure a loan to launch her grain milling plant, and a Kenyan supplier of packaging materials for maize, and nutritional flour. It is also learned from firm U’s profile that, since commencement of the business 1960s, the owner-

manager has overseen approximately over 30 businesses and managed to develop several linkages in various industries such as transport, clearing and forwarding, and packaging and government entities.

From three firms, we were able to learn that doing multiple businesses also led to expanded knowledge of their managers through trial and error. Findings further show that in undertaking multiple businesses, they undertook several trials and experimentations and ended up becoming better by learning from earlier mistakes as they move from one business to another. For instance, the profile of owner-manager of firm U shows that he had tried several businesses some of which succeeded and others failed. There are times he suffered a loss equivalent to the US \$ 5million but he learned the importance of carrying out market research before launching any product.

Manager's accumulated experience

The findings show that experience facilitated the creation of various managerial capabilities including networking, learning, and innovation. Of the 10 respondents, five admitted that with time in business, they kept on increasing the network ties. Looking further into the owners' profiles of the five firms, it became apparent that all the five respondents had also accumulated experience outside the grain milling sub-sector that provided access to peripheral contacts (e.g. transport and banking). This came to be useful in their current businesses. For instance, managers of firms C and Q had a banking background while the manager of P had previously worked in the hospitality industry. Managers of K and U had worked in the transport industry. On different occasions, all these respondents cited how their experiences outside the sub-sector facilitated the creation of several network ties.

Additionally, the manager's experience has been identified as a driver of learning capability. The four respondents reported two ways in which experience facilitated learning. First, all the four respondents confirmed that, they learnt from past mistakes of trial and error and improved their business understanding over time. Secondly, three respondents out of the four described how they had learnt from business challenges experienced over time. In support of this, respondent of firm K gave an example of how low-quality raw materials had been rejected by customers, forcing them to revert to higher-quality product. They are now excelling with an improved market share of 30%.

Training specialization

The findings demonstrate that top manager's training specialization acted as a catalyst in developing learning and innovation managerial capabilities. Evidence from two respondents shows that attending tertiary and other formal training improved their knowledge and skills in marketing, and food science. The manager of firm K attested to the fact that his Diploma in Marketing that he had attained in the United Kingdom was more practical and it was the same knowledge and skills that he was currently applying. The owner-manager of firm Q, also studying Food Science, improved her skills towards product development. Besides, three firms (K Q and U) indicated that training specialization was useful in enhancing innovation capabilities. They argued that their specialization had made them better in launching new products. The findings show that the right fit between education specialization and tasks undertaken by the manager provides more chances of innovation in the same profession. For instance, respondents of K and U specialized in business-related courses and they have championed several innovative activities in the firms including restructuring departments and new products. The manager of firm Q specialized in Food Science and she had been able to introduce several nutritional mixes that didn't exist before. She intimated that she had been successful in introducing several products in the market compared to her competitors because of her background in Food Science. Surprisingly, respondents of firms D and E claimed that education didn't really matter. They claimed that what they had studied had little value in their current businesses. For instance, the respondent of firm E said, "*.... what I am doing is not related to what I studied. I studied Law ...my education specialization assists me in contract enforcement...*". There was a mismatch between what they had specialized in, in their formal training, and the functions they were performing. For instance, the respondent of firm E was a lawyer by professional while the owner-manager of firm D holds a Diploma in Education.

Ethnic and family attachments

Two important managerial capabilities were associated with ethnic and family attachments including networking and learning. Five respondents from firms D, E, F, N, and P admitted that ethnic and family attachments were important in enhancing their networking capabilities. This was facilitated through inheritance and mentorship. The respondents from firms E and N explained how they had inherited their parents' networks after being introduced to those networks when they were being groomed as successors. These networks included informal lending sources, friends, tribe mates, and government officials. For instance, the owner-manager of firm N (owned by the Asia-African) joined the firm while he was 16 years old as an employee while his father was the managing director of the same firm. Before his father retired from the business, he introduced him to a number of Asian-Africans businessmen who could be useful in the success of the business. The introduction was done during business meetings and other social gatherings like religious celebrations.

From the findings, it was further reported by six respondents (of firms C, D, E, F, N, P) that family and ethnic attachment was an important driver of their learning capabilities. Out of these six, the respondents of firm N and E were the product of their parents' grooming while the rest of the respondents said that they were mentoring younger members to take over their positions. Analogous to the grooming of younger ones, the owner-manager of firm N, for instance, reported that he would as well introduce his sons to the business once they finish school and if one succeeded to join university education, he would have to take a course relevant to his business. In support of the importance of grooming young personnel, all the six respondents agreed that when young people are introduced in business they get time to experience and learn firm activities. Some respondents (of firms D, F, and P) verified that the young people they had introduced in the business were able to take the owner-managers' roles in their absence.

Firm size

The findings show that firm size has been identified as one of the drivers of managerial capabilities. It should be noted that the sample included a variety of sizes including small and large firms. Respondents from all firm sizes claimed they were some advantages accrued from their firm sizes in the creation of new contacts or network ties. Large firms claimed that a number of stakeholders constantly wanted to engage and do business with them and in the process the number of useful ties increased. For instance, a respondent from firm K said that being in a large firm, a number of stakeholders (suppliers of various goods and services, government officials including ministers and members of parliament) had tried to create networks with them. His firm got frequent visits including business parliamentary committee, university professors. Small firms, as well, claimed that because of their smallness, they were able to access privileges in the market such as admittance to group exhibitions at zero cost, invitation to several business meetings and other programmes where they ended up increasing their network ties. A respondent of firm P reported that she had travelled abroad and increased her international networks because of programmes such as 'Believe Begin Become'. Also, the manager of firm Q said that she had had the opportunity to join an incubation programme because of the firm size and that is where she had met a number of stakeholders (including regulatory bodies) that have increased her network size.

Organisational climate

Two types of organisational climate are identified within the findings. On the one hand, an organisation climate characterized by the cooperation and teamwork among top managers; while on the other hand, there is hatred and little cooperation. On both angles, two main capabilities are developed including learning and innovation. The findings show that where there is cooperation, teamwork, joint retreats, regular meetings and working together there is also sharing of information and imparting new knowledge that some member didn't have prior to working together. Also, the findings show that working together facilitates managerial innovation in developing new products and appealing to new markets. Respondent of firm U admitted that when there is harmony as well and working together,

each manager's innovation level gets improved. Findings as well show that in some firms where there is no cooperation, such conflict forced some managers to equip themselves to prove other managers wrong. In the process, learning and innovation have been developed. For instance, the respondent of firm K confessed that in his organization there was no team-work, but rather hatred among some top managers. He added that this hatred had strengthened his ties with the founder and this has helped him continuously update his knowledge and invest in market research to develop new products so as to prove the other top managers wrong.

Position held

The findings have also shown that the position held by the manager influences resources allocation and nature of decisions made and more specifically champions innovative activities within a firm. Three managers of firms C, P and Q accepted the fact that being owner-managers gave them the power to utilize the resources they owned or controlled. Being in the position of Managing Director (controlling and accessing resources (directly or preferentially), there are opportunities for developing innovation capabilities. In the growing economy like Tanzania, there are opportunities for top managers particularly CEOs to develop the said capabilities, due to several initiatives taking place in the market. These initiatives provide access to new ideas, new exposure, and training opportunities. For instance, the respondent of firm C said, “.. *I attend various meetings, workshops, and exhibitions. Being in the position of the Managing Director I receive several invitations to attend several platforms ... I have learned about new products such as a mixture of cassava flour and maize flour.....*” However, the respondents cautioned that not all owner-managers holding the position of Managing Director had managed to be innovative in their positions as this depended on other factors such as the nature of resources and networks possessed by the respective manager.

Firm performance feedback

Both positive and negative firm performance had been identified to be useful in the development of networking and diversification capabilities. The positive and negative performance led to networking and diversification, respectively. On the one hand, findings show that positive performance feedback influences the managers' ability to network and increase their network ties. The respondents confirmed that once one's business is performing well in the market (improved visibility in various outlets such as *dukas* and kiosks, supermarkets, wholesalers' outlets) it is very likely that stakeholders would want to associate with such business. Similarly, other respondents added that performing well in the market inspired them to expand more and ultimately added network ties in the process. Additionally, three managers of firms D, F and P declared that negative firm performance had shaped the origin of diversification capabilities. The findings show that the negative firm performance made top managers craft 'Plan B'. It is also shown that hardship in business translates into managers trying to cope with such an environment. “.....*We need to think of Plan B that is why I have started the water business to compensate for the missing income. The business is difficult....*” (saida respondent of firm D). “.....*We are thinking as well diversifying the business and focussing on other products so as to continue earning the income we have been getting.....*” (Comment by a respondent of form F during the interview).

Incubators hubs

The analysis reveals that incubation hubs facilitated managerial networking and innovation. It was observed that at least two respondents had been the beneficiaries of the incubation hubs under the Small Industries Development Organisation (SIDO). The respondents reported that the incubation provided them with an opportunity to operate their businesses in subsidised premises. The incubation was instrumental in creating new network ties through exhibitions and training events. During exhibitions, they developed networks with government institutions, customers and business associations. A respondent of firm A acknowledged that as she constantly attended exhibitions, she learnt how to create business deals and made connections with several stakeholders. She added that, she attended several entrepreneurship training courses that exposed them to networking strategies.

Additionally, incubators are important towards the development of innovation capability (especially those of small firms [A and P]). The respondents of these two firms indicated that while in the incubation hubs, they were trained in several food technologies and protected against regulatory authorities. In turn the innovative capability had been developed through this protection. The respondent of firm A acknowledged that being under SIDO's incubation, she managed to introduce new products in the market something that would have been hard without incubation protection. While under incubation, regulatory authorities are not as harsh, as they allow market access even if compliance is still underway.

Nature of the sub-sector

The findings show that the nature of the sub-sector provides opportunities for the development of learning, innovation and diversification capabilities. The sub-sector characteristics presented by respondents include market challenges, product shortage and a variety of business opportunities. The findings show that market challenges such as changes in customer preferences have enabled managers to generate knowledge and skills towards improving business operations. For instance, the profile of the owner-manager of firm K documents that when he entered the business he started using low-quality wheat while their major competitors was using high-quality wheat grains. This strategy didn't work out as the business backfired and he had to change the strategy, as customers openly rejected his wheat flour. Since then, he no longer trades in the low-quality wheat grains. The owner-manager of firm U had begun the business as a cobbler; but with time his customers couldn't get a place to have their breakfast. He then learned that serving breakfast was the upcoming opportunity; so he added a restaurant to his business portfolio. After a certain period of time, there was wheat flour shortage in Dar es Salaam where he was operating his business, so he diversified into the wheat flour business as a new opportunity. The respondent of firm K clarified that the owner used to ferry wheat to Arusha and managed to learn the basics of the wheat business and later joined the sub-sector after being impressed by the performance of the wheat market. By then, there was scarcity of wheat in the market. In another instance, the owner-manager of firm P experienced many critical moments (scarcity of packaging materials, loss due to unfaithful suppliers, life hurdles, counterfeits problems) that enabled her to learn from each step.

The findings further show that market-related challenges such as counterfeiting and competition have fuelled the development of managerial innovation. Three respondents (of firms C, P and Q) attested to the fact that market challenges had forced managers to think outside the box and come up with innovative ways to manage their businesses. For instance, in fighting counterfeit challenges, the managers of firms C, P and Q devised various innovative approaches. The manager of firm P complained that when his nutritional mix commonly known as "*lishe*" was at its peak in the 1990s, there emerged counterfeits in the Dar es Salaam market so he decided to become innovative market-wise by first rewarding middlemen who could help fight against this cut-throat competition.

Furthermore, problems facing customers have been an incentive for solving customers' problems, leading to the development of diversification capability. The respondent of firm K said, "*....our customers' problems are our opportunities; we are not like our competitors who diversify into products such as bread that is produced by our customers... we have diversified into areas like edible oils where we have researched that our customers involved in the baking business were short of... we are as well into detergents not because our 'mama lishe' are anxiously looking for affordable soap....we went into polybags as we couldn't satisfy our needs and there is excess demand in the market*". Respondents from (K, P, and U) also said that the nature of the sub-sector tends to motivate the managers to develop diversification capability. The by-products influence managers to diversify into animal feeds.

Discussion of the findings

The article identifies four main managerial capabilities adopted by the grain milling firms in Tanzania, namely, networking, learning, innovation and diversification. Complementing the grain milling literature in Tanzania, this article is among the first to identify the relevant managerial capabilities in

the sub-sector. It has also explored ten drivers of the identified capabilities (See Table 2). These drivers correspond to very few drivers of capabilities in the extant literature. Table 3 shows both similar and different drivers that are unique to the grain milling sub-sector. In analysing the similarities and differences, three levels presented in the analytical framework are used.

Table 3: Drivers unique to the grain milling sub-sector

Level		Extant literature	Current study
Personal	Similar	Knowledge and Expertise/ Training Specialization	
	Different	<ul style="list-style-type: none"> • Manager’s cognition • Entrepreneurial characteristics 	<ul style="list-style-type: none"> • Serial and portfolio businesses behaviour • Manager’s experience • Ethnic and family attachments
Firm	Similar	<ul style="list-style-type: none"> • Organisational climate • Firm performance feedback 	
	Different	<ul style="list-style-type: none"> • Firm’s position in the market • Management innovation • Tacit firm knowledge and codified processes • Past/prior firm experience • Cumulative organisation learning • Business networks and alliances 	<ul style="list-style-type: none"> • Firm size • Position held
External	Similar	<ul style="list-style-type: none"> • Changes in demand • Business environment 	
	Different	<ul style="list-style-type: none"> • Changes in science and technology • Government policy • Availability of raw materials 	<ul style="list-style-type: none"> • Incubation hubs • Nature of the sub-sector Market shortages

At a personal level, the findings revealed that training specialisation is important for the development of managerial learning and innovation capabilities. This is similar to Macpherson and Jones’ (2004) observation, who identified knowledge and experience as drivers of technological and organisational innovation. Surprisingly, contradicting views on the importance of formal training were observed. Whereas some managers appreciated the contribution of formal learning, others belittled its importance; yet, the majority of the respondents stressed that formal training was important in enhancing their capacity to innovate, network and learn. This is supported by Unger, Rauch, Frese, and Rosenbusch (2011) who opine that human capital, education, in particular, increases the capability of the manager to undertake entrepreneurial tasks in a firm.

This article introduces new drivers at personal level including manager’s serial and portfolio business behavior, experience and ethnic and family attachments. Opportunities and competition level in the grain milling sub-sector encourage engagement into serial and portfolio business behaviors. It was noted from the findings that in grain milling there are plenty of opportunities such as the use of by-products and inefficiencies in support industries (e.g. packaging or transport) that encourage diversification into related or unrelated businesses. Firms K and U have highly diversified because of the existing opportunities in the market place. Similarly, intense competition leads to either the collapse of some businesses or establishment of new ones to compensate for the reduced incomes. Firm B, for instance, plans to establish drinking water business to compensate for the reduced incomes due to increased competition. It should also be noted that business failure is common in the manufacturing industry in Tanzania where grain milling is part, as documented by Wangwe *et al.* (2014). It is also

common practice for enterprising business managers in Africa to either practice serial or portfolio entrepreneurship because of either failure of one business then moving to another or existing market opportunities (Kshetri, 2011). Firm P for instance engaged into serial and portfolio business because of existing opportunities (e.g. nutritional mixes) and failure of an earlier business (salt packaging).

Manager's accumulated experience comes out clearly as a new driver of managerial capability in the findings because of the nature of the firms whereby owner/top managers are dominant in the firms' operations. Moreover, the manager's experience doesn't clearly feature in the extant literature, instead firm prior/past experience is pronounced because previous research was skewed to drivers of organizational capabilities and not managerial ones. The issue of ethnic and family attachment is pointed out because of the nature of the firms accessed (the majority of the firms in the sub-sector and sample in the current paper are family business in nature) and the collective culture (role of family and ethnic groupings is important) in the developing economies. In developing countries, Africa in particular, families provide resources to firms in terms of capital and inheritance (Kuada, 2009; Sakala, 2017). In terms of ethnic attachment particularly race, the history of entrepreneurship in Tanzania provides early signals of the existence of Asia-African networks. Indians were the first in Tanzania to initiate the business and hence created strong network ties since then and they have been grooming young people into such networks (Olomi, 2009).

At the firm level, findings similar to those in the extant literature include organizational climate (Ostroff & Bowen, 2000; Richard *et al.*, 2004) and performance feedback (Jiang & Holburn, 2018; Kaymaz, 2011). Contrary to the existing body of literature, this article introduces firm size and position held. From the findings, it was revealed that firm size matters in accessing resources and opportunities important for networking, innovation, and diversification. The position held also is explored because of the dominance of top managers in decision making as explained earlier. It is therefore not surprising to see the limited role of firm characteristics in the development of managerial capabilities. However, extant literature presents more firm-level drivers compared to the current study (See Table 3) because of the nature of firms described earlier (the majority of them being small in size). Because of their smallness, they are resource-constrained and lack systems and structures.

External to the firm level, similar drivers include changes in demand. What is unique at this level is the role of incubators. Incubators have been documented to provide a range of services including infrastructure, networks, and coaching and usually aim at supporting the start-ups and inexperienced firms (Peters, Rice, & Sundararajan, 2004). They are credited for providing rental space at a reasonable cost, access to a network of business and technical advisors likely to provide financial support and other business development services such as business planning. Incubation programmes in developing countries are aimed at boosting entrepreneurship spirit. In Tanzania, because of the complexity of the manufacturing sector, SIDO has established incubation hubs in different regions aimed at accommodating start-ups that cannot afford premise costs in the market but which are still struggling to comply. Market challenges identified earlier including shortage of some products and support industries have led to the development of managerial capabilities. Additionally, Science and Technology does not clearly feature out due to the fact in the grain milling sub-sector there are no frequent changes in technology.

Implications

Theoretically, the article contributes to documenting drivers of managerial capabilities that were missing in the extant literature. Specifically, it documents specific managerial capabilities and their respective drivers in the grain milling sub-sector and other contexts (sectors or countries) with the same characteristics. It should be noted that the findings of this article illustrate the role played by contextual factors in the development of managerial capabilities. This implies that the unique drivers of managerial capabilities explored are explained by the opportunities in the sub-sector, level of competition, complexity in the manufacturing business, nature of firms in the sub-sector and collective culture in the African economies. Thus, there is a need to consider the impact of context differences

while exploring the development of managerial capabilities. Furthermore, the drivers explored in this article obey the VRIN criteria. In the findings section, the article demonstrates how each identified driver was valuable in the development of the respective managerial capabilities. Similarly, not all firms identified all the drivers of managerial capabilities implying the rarity of the drivers among grain milling firms. The drivers are imitable and not substitutable as they are partly dependent on the manager's and firm's historical background, hence making it harder to be copied or purchased in the market place. This implies that the explored drivers of managerial capabilities are in line with the RBV. In that case, these drivers of managerial capabilities form the basis of understanding firm performance differences in the grain milling and other similar contexts. This contributes to the RBV whereby drivers of managerial capabilities are the sources of heterogeneity among managers and hence the basis for firm performance differences.

Practically, the article shows the role played by personal characteristics (including serial and portfolio business behaviors, experience, training specialization, ethnic and family attachment), organizational factors (including organizational climate, position held by the manager, firm size and firm performance feedback) and external factors (incubation hubs, business characteristics) in developing managerial capabilities relevant for impacting firm outcomes. The findings have shown that small firms lack systems and structures that sustain impact, so there is a need to align owner/top managers' characteristics and firm resources. This implies that for small businesses dominating the sub-sector, to have sustained managerial capabilities within their firms, they need to create systems and structures (corporate culture, human resources practices and rewarding systems) that will align to the status quo of the personal characteristics. For policymakers, incubation hubs have been found to be an area to nurture the development of managerial capabilities through the kinds of infrastructure, exposure, and protection they offer to small businesses under their umbrella. Moreover, there is a need to create more platforms that would not only provide exposure to small business owners but also networking avenues to maximize their potentials.

The study was cross-sectional and qualitative in nature; so future studies might need to be longitudinal and apply quantitative approaches using large samples to test explored drivers of managerial capabilities. This implies that caution has to be taken when generalizing findings to the entire grain milling sub-sector. It should be noted that our study aimed at analytical generalization to expand the RBV. Similarly, future studies need to explore the drivers evolutionary-wise so as to document the step by step stages of managerial capabilities development within a firm. Moreover, there is a need to explore drivers of managerial capabilities by paying attention to the context in a specific country. Lastly, this article assumed a direct link between drivers and managerial capabilities; future studies could establish the moderating variables of either managerial assets or behavior.

Conclusion

Most previous studies have explored the drivers of organizational capabilities in general. Unlike such research, this study first has explored managerial capabilities important for the grain milling sub-sector and second investigated the drivers responsible for the development of the managerial capabilities so as to understand the sources of heterogeneity among managers. Four specific managerial capabilities and their respective ten drivers have been explored based on ten cases in Tanzania's grain milling sub-sector. Some of the identified drivers of managerial capabilities are unique in the extant literature. The unique drivers include serial and portfolio business activities, manager's experiences, family and ethnic attachments, firm size, position held by the manager, incubation hubs and nature of the business in the sub-sector. These unique characteristics are closely associated with contextual differences either sector-wise or country-wise.

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Sustainability of social enterprises involved in waste collection and recycling activities: lessons from Tanzania

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Abstract

This paper investigates how social enterprises providing waste collection and recycling services overcame start-up challenges and sustain their operations. Based on analysis of five cases in Tanzania, it is evident that waste collection and recycling enterprises start as entrepreneurial entities driven by the opportunity to fill the service delivery gap left by the state. Although the enterprises studied have had a social impact, they have experienced several challenges, including limited access to resources, negative perception of their activities, competition, unsupportive policies, unreliable supply of raw materials, dishonesty of staff and/or waste pickers and poor working conditions. However, the enterprises sustained themselves through good management, engaging the right teams, supporting waste pickers, marketing and networking, developing their skills, using appropriate technology, reinvesting their earnings, diversifying and being members of cooperatives. The article contributes to knowledge by combining the traditional entrepreneurship and socio-environmental entrepreneurship perspectives to explore the sustainability of waste collection and recycling enterprises.

Keywords: *entrepreneurship, social enterprise, waste collection, recycling sustainability.*

Introduction

One of the central concerns about solid waste management (SWM) is the sustainability of the grassroots initiatives providing waste collection and recycling services in developing countries. While several social and environmental entrepreneurs are becoming part of the formal waste management system, little is known about the functioning and sustainability of social enterprises involved in SWM (Rathi, 2006; Guerrero et al., 2013). To address this gap, we draw on the entrepreneurship theoretical view and socio-environmental entrepreneurship literature (e.g. Isaak, 2002; Walley & Taylor, 2002) to explore the sustainability strategies of waste collection and recycling enterprises in Tanzania. In particular, we investigate how social enterprises providing waste collection and recycling services overcame start-up challenges and sustain their operations. By enterprise sustainability we mean its ability to overcome start-up challenges, survive, grow and become competitive (Charles, 2014). Accordingly, we provide a greater understanding of the sustainability of enterprises that combine social goals with the pursuit of profitable opportunities to address environmental and service provision gaps left by governments (Huybrechts & Nicholls, 2012; Mair & Mati, 2006; Warneck, 2013). It is noted that due to the failure of the state, waste pickers and other actors establish themselves as small groups, extended families, cooperatives, associations, community based-organizations (CBOs) or micro-entrepreneurs to carry out selective waste management activities (Gutberlet et al., 2016). Regardless of whether their motive is commercial, environmental or social, these actors are seen as key players in complementing the waste management service previously dominated by an insufficiently functioning public sector (Huisman et al., 2016).

Given the increasing amount of solid waste generated in urban areas, the main dilemma is whether the emerging social enterprises have the capacity to sustain SWM activities. A logical question is that if local governments are unable to provide a satisfactory SWM service using their own resources, can grassroots initiatives provide this service effectively? This question has prompted research on waste management in socio-environmental entrepreneurship discourses (Gutberlet et al., 2016). Studies have attempted to show how an innovative form of creating economic and societal value by means of an environmental breakthrough or socially beneficial market innovations contribute to the well-being of societies (Schaltegger & Wagner, 2011). The role of grassroots initiatives in improving urban waste management by providing a waste collection service is acknowledged (Gutberlet et al.,

2017). The literature agrees that collaboration between all stakeholders is needed to create an effective SWM system and that there is huge potential in enhancing private sector involvement (Wilson et al., 2013; Guerrero et al., 2013). It is evident that some initiatives initially taken by CBOs have turned into socio-environmental small-scale businesses and then into institutional entrepreneurial initiatives (Gutberlet et al., 2016). Nevertheless, in many cities of the global south, local governments, policy actors and development projects doubt the capacity of social entrepreneurs to play the role of cleaning cities. Likewise, the literature wonders whether social enterprises that operate alongside the public sector to fill service delivery gaps, such as collecting, sorting and processing waste, can be sustainable (Guerrero et al., 2013). This calls for more research on the characteristics and functioning of social enterprises involved in SWM.

In this article, we analyze social enterprises involved in collecting and recycling waste in Dar es Salaam, Tanzania. The criteria that make an organization a social enterprise are its social aim, innovativeness and business orientation. In recognition of the fact that waste collection and recycling initiatives in Dar es Salaam vary in their legal structures (Huisman, et al., 2016), we group the initiatives studied together under the broad concept of social entrepreneurship and name them social enterprises. We recognize that social enterprises can provide small-scale, low-cost solutions that are adapted to the local context and can help the public sector to be innovative and more cost-effective (Huybrechts & Nicholls, 2012). They search for inventive ways to sustain themselves and use market-oriented activities to generate an income that can then be reinvested in their organization. We note a growing consensus that social entrepreneurship has huge potential to solve the waste problems that developing countries face. Contrary to the literature that looks at social entrepreneurship from the social purpose perspective (e.g. Thompson, 2002; Haugh, 2007), we reveal how innovative and entrepreneurial waste management enterprises evolve to meet society's needs as well as generating a return to ensure their sustainability. As such, the article increases our understanding of the functioning of social enterprises by showing how capable they are of both pursuing the social goal and generating an income.

The next section presents the theoretical and empirical literature on entrepreneurship and socio-environmental entrepreneurship. The methodology section presents the context, study design, data collection approach and analysis. Thereafter, the findings are presented in the form of a description of each initiative and cross-case analysis. Finally, a discussion of the findings, implications and conclusions are presented.

Literature review

This article is informed by entrepreneurship theories with an emphasis on the socio-environmental entrepreneurship literature. The extant literature shows that the term 'entrepreneurship' has a diverse range of meanings, drawn from several economic, psychological, cultural and sociological views. In traditional economics in the seventeenth and eighteenth centuries, an entrepreneur was perceived to be someone who undertakes a project or activity. Later on, entrepreneurs were perceived to be those who shift economic resources from an area of lower to an area of higher productivity and greater yield, as well as agents of change that move the economy forward by serving new markets or creating 'new ways of doing things' (Dees, 2001), and innovators who start new profit-seeking business ventures (Schumpeter, 1934). Schumpeter emphasizes that entrepreneurship is the act of carrying out new combinations of productive resources. Wickham (2004) asserts that entrepreneurship is the creation of new value by identifying new opportunities, attracting the resources needed to pursue those opportunities and building an organization to manage those resources. It involves discovering, evaluating and exploiting opportunities, and a set of individuals, who discover, evaluate and exploit them (Shane and Venkataraman, 2000). According to Madhuri (2013), entrepreneurs have entrepreneurial attitudes and skills, such as business know-how, innovativeness, creativity, flexibility, the willingness to take risks and are oriented to growth.

In this paper, we (we!) hypothesize that entrepreneurs can find new opportunities for managing waste, which can be successfully converted into a business while addressing social and environmental

challenges. In this way, we incorporate social and environmental aspects in the conceptualization of entrepreneurship. In line with Dean and McMullen (2007), we observe that entrepreneurship theories have the potential to explain the market conditions in which entrepreneurs can earn entrepreneurial rent by reducing social and environmental harm. Consequently, our analytical framework draws on a typical explanation of economic entities to analyze the socio-environmental entrepreneurship context encompassing both social and environmental values. Social entrepreneurship is perceived as an innovative way of creating economic and social value by means of an environmental breakthrough that is socially beneficial (Schaltegger & Wagner, 2011). It is broadly defined as “a process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/or address social needs (Zahra et al., 2009; Gutberlet et al., 2015). Zahra et al. focus on how social entrepreneurs discover and take advantage of opportunities for the purpose of promoting social wealth via the creation of new ventures or the recombination of existing organizations. Basically, socially entrepreneurial activities blur the traditional boundaries between the public, private and non-profit sector, and emphasize hybrid models of for-profit and non-profit activities (Johnson, 2000). Although it can occur within governmental sectors, in most of the literature it refers to social entrepreneurship across the non-profit or business sectors (Austin et al., 2006), and this conceptualization is adopted in our article. It is noted that entrepreneurs within the social economy play a role in pioneering creative responses to environmental issues, although often with only limited impact in terms of the wider dissemination of solutions. Although environmental entrepreneurship is variously called green entrepreneurship (Isaak, 2002), ecopreneurship (Gutberlet et al., 2015; Isaak, 2002; Walley & Taylor, 2002), sustainable entrepreneurship (Dean and McMullen, 2007) and sustainability entrepreneurship (Tilley & Young, 2009), we consistently use the term environmental entrepreneurship to avoid confusion of terms and concepts. In this connection, we view grassroots initiatives as those taken by socio-environmental entrepreneurs, who contribute to the overall environmental and social progress through their innovative initiatives (Schaltegger, 2002; Beveridge & Guy, 2005). The motivation of socio-environmental entrepreneurs is to earn money while contributing to solving environmental problems, such as the lack of effective SWM services (Gutberlet et al., 2017).

In the light of the socio-environmental entrepreneurship literature, some researchers have attempted to study the participation of those at the grassroots engaging in waste management. For instance, Tefera & Negussie (2015) examined the opportunities and challenges of micro and small enterprise (MSEs) involved in SWM in selected cities in Ethiopia. Their findings indicated that the potential opportunities MSEs had through being involved in waste management were delivering a quality service, protecting the environment, providing jobs through charging those willing to pay and social equity. However, most MSEs were affected by limited resources and lack of support, the perception and awareness of the community, inadequate training, unorganized fee collection strategy and limited revenue. In terms of the motivation of those at the grassroots for being informally involved in waste management, Baud & Post (2002) established that they are often driven by poverty, and so in their struggle for survival they start their operations spontaneously, but sometimes continue them haphazardly. Further, research shows that waste pickers find it difficult to create formal cooperatives or associations, they cannot access funding opportunities, are susceptible to price oscillations and are subject to exploitative relations with intermediaries (Tirado-Soto & Zamberlan, 2013). It is often hard for organized waste pickers to achieve self-management through ‘induced networks’ and public-private partnerships (ibid). Gutberlet et al. (2016) revealed that while in most cases organized waste pickers receive some form of financial support or technical advice from an NGO, a university or local government, one of their most significant challenges is how to continue with their operations once the support ends. Contrary to many authors, Rouse & Kenman (2005) found that those operating in the informal sector are much more likely to be sustainable. Rouse (2006) added that managing solid waste in partnership with the private sector can save public money as it devolves responsibility for certain activities to informal partners. Ideally, municipalities and development partners/actors should provide waste pickers with adequate facilities (warehouses, equipment, vehicles, etc.), waste transfer points (Gutberlet, et al., 2017) and public space (Zapata Campos & Zapata, 2013). These authors

support integration of those operating in the informal sector in the existing SWM system to ensure their sustainability.

Although the role of government and development projects in supporting waste pickers and recycling networks is acknowledged (Zapata Campos & Zapata, 2013; Gutberlet et al., 2016), our article shows how socio-environmental enterprises can be sustained through entrepreneurial practices. We are aware that much of the existing literature does not see waste management activities (e.g. collecting, transporting, recycling, storing and reusing) as entrepreneurial opportunities that can be exploited for profit while addressing a social challenge. However, using the social entrepreneurship idea, we assume that those at the grassroots involved in SWM can operate entrepreneurially to generate revenue and reduce waste, thereby creating social value. Yet, previous empirical literature fails to explain why some initiatives start, grow and become sustainable while others fail within the same context of waste management. In our case, we assume that micro-enterprises can be active in SWM by creatively searching for new ways to collect, reduce or, where possible, recycle waste. These micro-enterprises can make a profit by providing a sound waste management service or filling a gap in the waste collection service (Ahmed & Ali, 2004).

Methodology

This article draws on a qualitative study that was done in Dar es Salaam, the largest commercial city in Tanzania, with an estimated population of over 5 million people and a growth rate of 4 percent (World Population Review, 2019¹). The city generates 5,600 tons of waste daily, putting pressure on the existing infrastructure and institutional capacity (Huisman, et al., 2016). Dar es Salaam was a suitable study area given the wide variety of those at the grassroots and private enterprises involved in collecting and recycling waste. The main actors comprise: i) city/municipal councils; ii) small groups collecting waste from private residences and transporting it to temporary collection points; iii) CBOs & NGOs; and iv) individuals (especially youth) collecting recyclable/reusable waste and selling it directly to intermediaries and recyclers.

The study was based on the explorative research design. The exploratory research was considered suitable for gaining an insight into the nature of private waste collection and recycling initiatives, for providing a greater understanding of the research issue and for developing a proposition for further analysis (Hammersley & Atkinson, 2007). It also provides the context and sets out to answer the 'how' and 'why' questions pertaining to the issue being researched. To gain an understanding of both the waste management system and private waste management initiatives, a combination of data collection methods was used. Specifically, we began with an intensive literature review and developed a checklist of the issues to be addressed based on the extant literature and the research setting. Waste management initiatives were then mapped, which entailed focus group discussions and semi-structured interviews with at least 40 entities involved at the grassroots. Most of these were unregistered/informal community-based groups, private companies, registered associations, self-help groups and registered CBOs, which provided various services, such as collecting, transporting, sorting, processing, recycling and composting waste, as well as buying and selling waste material.

After the mapping exercise, five cases were purposefully selected for in-depth analysis, since they met the criteria for social and/or environmental entrepreneurship as they were motivated to both serve the community and make a profit. All five enterprises had operated for at least two years and they were ready to reveal their sustainability strategies. The data were collected through semi-structured

interviews and observation. The interviews were guided by the checklist, which sought to obtain the life story of the respondent; a profile of the initiative, its development, operations and the working environment; marketing and networks; management and governance; opportunities and challenges; innovative practices and sustainability strategies. The respondents were owners and senior leaders of the initiatives who were well informed about their social enterprises. All initiatives/enterprises were

1 Accessed on worldpopulationreview.com on 15th January 2019

visited by the researchers and/or research assistant to observe their operations and facilities. The interviews and field visits took place between April and December 2018. The length of the interviews varied from 45 minutes to one hour, and were all recorded for later retrieval and transcription of the data. The researcher and/or research assistant also took notes during the meetings and interviews with the respondents.

After the interviews, the data were transcribed and the summary tables of key observations and evidence obtained in regard to key research issues from different respondents were then produced. In coding and organizing the data, the study objectives and issues identified from the literature were considered. The data were reviewed and edited where necessary to ensure the quality and accuracy of the data and information included in the findings. A qualitative content analysis of individual and across cases was done to generate emerging themes informed by socio-environmental entrepreneurship theories. A meeting with the respondents was organized to discuss and validate key observations and empirical themes from the results. Common views and evidence from different sources were then combined to produce the findings presented in this article.

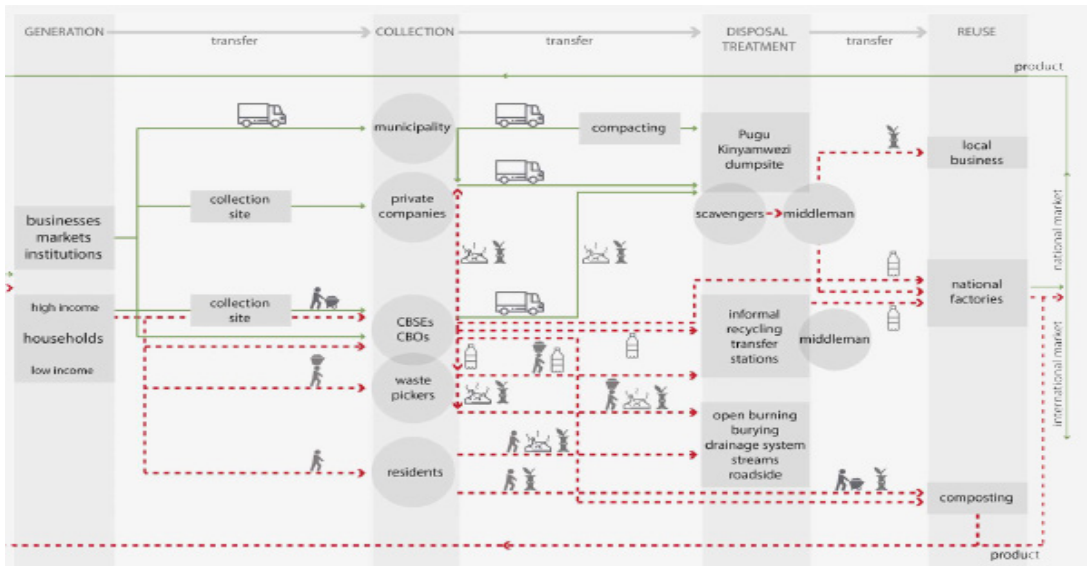
Waste Management Systems in Dar es Salaam

Traditionally, waste management in Dar es Salaam has been the responsibility of city/municipal councils. While the city council manages the dumpsites in terms of their coordination, planning, financing, maintenance and closure, municipalities are responsible for overseeing the collection and transportation of waste, fee collection, local waste recovery, recycling and composting. They are also responsible for collecting and transporting waste from public places and coordinating the collection and transportation of waste in wards and sub-wards. The wards authorize the formation of CBOs to establish waste collection systems, to set up neighbourhood waste collection sites and to collect fees. Whereas service providers at sub-ward level are contracted directly by the municipality, ward councilors and sub-ward chairpersons have the role of maintaining the relationship with these service providers and ensuring the payment of fees. In practice, wards also contract private service providers to collect waste directly from households or from the neighbourhood collection sites. The formal waste management system consists of either public or private enterprises, which are licensed to operate in accordance with regulations designed to protect the environment and public health.

The review of the previous reports revealed that the SWM value chain in Dar es Salaam entails waste generation, collection, disposal and reuse (Figure 1). The solid waste, which entails non-liquid material, originates from domestic, commercial, industrial, institutions' and agricultural activities (Maziku, 2014). Municipalities and established private companies have the capacity to compact waste and transfer it to the dumpsite. However, only 40% of the waste ends up in the city's only dumpsite, Pugu Kinyamwezi. Most of what remains is burned, buried in open pits or disposed of in streets, streams and drainage systems, with only a small fraction being recycled or reused, and so in recent years the city has embarked on decentralizing waste management activities. Consequently, in most affluent planned areas, waste from households, commercial establishments, institutions and industry is generally collected by private companies and taken directly to the dumpsite. When the vehicle collecting the waste is unable to gain access to it in these areas; it is taken initially to neighbourhood collection sites by handcart for bulking and informal resource recovery before transporting it to the dumpsite. In areas where people are less affluent and the neighbourhoods are more congested, waste is picked up by handcart for delivery to neighbourhood collection sites or it is taken directly to these sites by householders. In some cases, commercial waste pickers collect specific types of waste (e.g. plastic, aluminum scraps, iron sheets, bones, steel scraps, paper and glass) from residential areas, business premises and institutions and sell them to intermediate handlers. While contracted companies subsequently pick up the accumulated waste from the neighbourhood collection sites and transport it to the dumpsite, in areas where the collection service is poor, individuals commonly dump their waste in drainage ditches or streams and by the road side. Basically, waste collection in unplanned areas is constrained by the huge amount of waste generated, the low collection rate, inadequate financing of

waste collection and the sustainability of waste pickers' organizations.

Figure 1: Solid Waste Management Value Chain in Dar es Salaam



Source: University College of London, Development Planning Unit (2017) should improve the quality of the Figure

Findings

The findings presented in this article are based on the five cases involved in the study. The findings begin with a brief description of the cases followed by cross-case analysis reflecting the major themes.

Case I: Green Conservers

A community-based group of ten youths (4 males and 6 females) which aims to reduce accelerating deforestation due to the use of charcoal. Established in 2017 and registered as a CBO in 2018, the group's main activity is manufacturing briquettes using waste material. The group leader, an electrical engineer who graduated from Dar es salaam Institute of Technology (DIT), saw the opportunity to recycle waste to make briquettes for domestic consumption from the readily available waste and the effort to promote the use of briquettes as an alternative source of energy. While the community was becoming aware of the need to conserve trees, the government restricted people from cutting down trees without a permit. He mobilized his friends to join him and he raised capital through members' contributions of around \$25 each. They currently have around \$1500 compared with the initial investment of \$500. However, the most critical start-up challenge was limited resources (capital, skills and the right partners). They were denied bank loans, and so attracting competent graduates to join the group was always a challenge due to the lack of a steady flow of income to pay good salaries. The negative perception that waste could not be a viable business for university graduates, the newness of briquettes, and cheap charcoal in the market made it difficult for Green Conservers to move forward as expected. This required an additional effort to educate members and the community to accept Green Conservers as a viable social enterprise. In addition, some local government leaders demanded money from the group before they collected waste, arguing that wards lost part of the waste collection fee that could be earned by partnering with formal waste collectors. However, access to skills from abroad, raising capital gradually and selecting committed members with complementary skills enabled them to overcome start-up challenges, noted the group leader.

Initially, they began collecting solid waste from the community using their hands and simple technology to make briquettes. Through the technology learnt at a three-month course attended by the group leader at Uganda Institute of Technology, the group designed burning, crushing, mixing and binding and compacting machines, which are used to make between 200kg and 500kg of briquettes per day. The group has a formal management structure, with the Managing Director (group leader), Production Manager, Marketing and Distribution Manager, Waste Collection Leader, Production Supervisor and Sales Representatives. To address management challenges, they have a disciplinary policy whereby each group member is fined \$1 when he/she breaks the rules, which is deposited in the group's account to cover operational costs. They have received training in management and entrepreneurship to build their capacity. Sometimes, they engage university students as interns to complement their team. Overall, they embrace team spirit, transparency and accountability to ensure that their group survives and grows. The Managing Director keeps a record of the income generated and all members have the right to access it when they need to. The income obtained is used to pay salaries and the excess is reinvested in their business.

Several strategies have been applied by Green Conservers to ensure their sustainability. They provide training to community members as a way of recruiting customers. Personal selling, exhibitions and social media are used to reach community members and their customers. The group connects and networks with NGOs that support youth creativity and it has been supported to attend several exhibitions. They also go from door to door to demonstrate and sell their products. They participate in radio and TV programmes to talk about their initiative so as to make their group known. Their slogans are "Our waste our energy, let's keep it clean", "waste is wealth" and "waste is employment". They have been invited to attend various environmental workshops and exhibitions organized by the government. They connect with waste collection companies to get some waste for free as they take it to the dumpsite. They educate their suppliers to separate the waste before they dispose of it, which is very helpful for utilizing the raw material. Sometimes they provide free samples to stimulate the market. They have had several meetings with the Minister responsible for the environment, who sometimes refers to their activities in his speeches. The Small Industrial Development Organization (SIDO), a government body responsible for promoting industries, has been helping them to design machines at low cost.

After noting that some customers felt that the briquettes were not as good as charcoal due to their smaller size, they created a bio-briquettes machine, which produces briquettes that look like charcoal. This has expanded their market, noted the group leader. They are able to produce 500kg of briquettes per day, selling at \$0.4 to 0.5 each, with a profit margin of 20-30%. During the interview, they said they had extended their technology to create pavement blocks and tiles using the residual waste not used for making briquettes. Other future products are furniture and decoration materials from bottles and other waste material. 'Our goal is to absorb all types of waste and let no waste be sent to the dumpsite' noted the respondent. Exploring sources of cheap raw material (waste) and getting access to funding are their highest priorities.

Case II: KwaMakamba Initiative

KwaMakamba is a waste collection group established in 2015 by three youths after seeing an opportunity to start a waste collection and recycling business based on each other's strengths. The group leader thought up the business idea and learnt about it from a woman who was collecting waste in a nearby area. After sharing the idea with two friends, they joined him and got a grant of \$100 from the group leader's sister. Although the group is not yet registered, it has grown from one waste collection centre to three centres employing three security guards and three support staff. Their capital has

grown to around \$600, the main source being the reinvestment of the profits earned and loans received from their clients. The efforts made by them and their trustworthiness have enabled them to qualify for a loan four times.

The main activity of the group is to collect hard and soft plastic, nylons and empty cans from small-scale waste pickers, which they sell in bulk to recycling industries. When it started, the group members used to do everything themselves at the first centre. Later on, each group member took charge of one collection centre, working with and supervising the support staff. Their organizational structure is made up of the Group Leader, Branch Supervisors, support staff and site guards. For the purpose of quality control, each centre inspects and weighs the collected waste to get rid of unwanted substances before packaging the required material. They are connected with at least 20 waste pickers, who supply them with the material they need. In order to keep the suppliers, they provide them with small loans to help with their medical costs. They avoid working with drug-addicted waste pickers to ensure the reliability of the waste.

The clients of KwaMakamba are Indian and Chinese waste processors who provide the initiative with safety gear and interest free loans. The waste collected at one station varies from 1.5 to 2 tons of soft plastic, and from 800kg to 1 ton of hard plastic. The selling price for 1kg of plastic was \$0.2 and \$0.4 for soft and hard plastic, respectively. The clients pay for the transport of material from the site to the industry. However, the main challenges are abrupt price fluctuations, theft, and the unreliability of waste pickers, inadequate quality of the material collected, and low demand to match supply.

KwaMakamba received a supplier's award of \$150 from Yan industry. Because the success of their business lies in a strong supply chain, they decided to offer loans to waste pickers and engage them on a daily basis to ensure they stay connected with them. Treating waste pickers with respect and valuing them have made our suppliers trust our group, reported the group leader. The group provides medical support and a holiday allowance of \$3 each per holiday. This has reduced staff turnover. Through collaborating with their Chinese clients, they have been able to offer training in waste management to 20 young waste pickers. The youth that have been trained have started similar initiatives.

In order to diversify and reduce business risks, the group established a small retail shop selling groceries and employed another person to run it. However, returns from the shop are smaller than what they earn from recycling. Their main goal is to establish a small waste-processing factory that will sell semi-processed recycled material, which is more profitable than selling unprocessed waste. The main resource needed is capital, as they already have the skills needed to operate a small recycling plant, reported the group leader.

Case III: Mama Swai Initiative

The idea of Mama Swai originated from her son in 1999 when he was studying at primary school. He got his idea after seeing waste pickers generating some money from what they were doing. He began to collect perfume bottles and sell them to waste collectors around their home. Although he was later prevented by his father from doing this because he was studying, he started again in 2005 when he was in high school. He then engaged in recycling plastic, which his mother supported by giving him start-up capital of \$250. They started with one recycling centre and, at the time of the interviews they had added three more, recycling steel/iron, plastic bottles, hard plastic material, sulphates and nylons. The son is now a graduate and working full time in the family business with a running capital of \$1500. His mother is in charge of the business and

he is the business manager. They have four support staff and three site guards. The staff are paid according to their performance and capacity. Those who bring new suppliers and keep the existing ones are paid more. They collect 1.5 to 2 tons of waste daily, generating \$8500 per month compared with \$3700 when they started.

They use machines for reshaping steel and iron pipes, and scales to weigh them, and they provide first aid kit, gloves and boots. They use the scales to ensure that the waste pickers get the right amount of money for what they have collected. They also provide faithful and loyal waste pickers with wheelbarrows to transport the waste they collect, and to increase its volume.

To sustain their business, they empower waste pickers/suppliers through training and counselling. They make special arrangements for the waste pickers to save some of their income, which is shared at the end of each month. However, due to their religious orientation they buy waste mainly from the Muslim community and do not borrow money from the bank because of the interest. I remember we were approached by the local government asking us to take out a youth loan from them but we rejected the offer, because we had to pay interest, noted the respondent. The business does not allow unethical/illegal business to take place on their premises, such as selling cigarettes and drugs. They also have a principle of not charging excessively high price, which has made them more competitive in terms of pricing. Where necessary, they provide waste pickers with loans without interest to enable them to sustain their business, which has increased their loyalty.

The business faces several challenges, including a management challenge, theft and the dishonesty of some waste pickers. Some of their supervisors do not keep adequate records to show that the purchases and expenses incurred are correct. Occasionally, we have had to close some of our centres due to theft, noted the respondent. They now engage women supervisors as they believe they are more trustworthy than men. The only challenge with women is the higher rate of absenteeism than men. Further, unexpected price fluctuations of waste material has resulted in loss. The business appreciates the contribution of Mazingira Cooperative Society in negotiating for better prices for their members.

Despite several challenges, the business has enabled the family to pay their bills, including school fees and financing family expenses. They have enabled at least 12 waste pickers to become successful business people engaged in agribusiness and other enterprises. They are planning to establish three new collection centres upcountry and grow to become a recycling enterprise.

Case IV: Maisha Bora Creation

Maisha Bora Creation is a privately owned informal enterprise established in 2017 to design, make and sell decorative materials for furniture from used vehicle tyres. This enterprise was created as a new source of income for the founder after a decline in the welding business he was engaged in before. After graduating from the Institute of Social Work in 2014, the owner faced an employment challenge and decided to volunteer at a welding company. He then started his own welding business and later on moved to recycling tyres. Although it took time to secure a market for his products, he managed to convince his close friends to become clients.

This started as a one-man business and later he employed a production assistant due to the increased demand for their products. Since then, they have created jobs for seven staff. They offer a variety of products, including garden and beach chairs, coffee tables, dressing tables, wall mirrors, cafeteria and pub chairs and tables, swings, artificial flowers and flower

pots. Given that the business involves the use of fire during moulding, technical positions are held by men, and only two positions (i.e. marketing and sales representatives) are held by women. They use various types of machines, including a grinder, grill, welder, jigsaw and compressor for painting. They pay their employees according to their performance, whereby they are paid for the work done as a way of motivating them. They provide on-the-job training for their technicians in how to produce new designs to ensure they are competitive. They have set the reporting, lunch and closing time.

The business is located at a place with several garages to facilitate access to used tyres and customers. Their target customers are households, nursery schools and recreational centres. MaishaBora's prices vary depending on the size of the project and inputs such as paint, bolts, pipe and wire. The use of social networks has enabled them to brand their products and acquire even more customers. They have promoted their social media pages through various superstars' accounts, which have a large number of followers. They connect with other recyclers through social media, such as NGOs that are concerned with human dignity and the environment, to learn and share their creativity. Often, the MaishaBora Creation team receives new designs from customers and social media which have made them competitive.

One of the major challenges they are facing is the lack of a showroom. Instead, they use social media and word of mouth as key marketing techniques. In most cases, furniture stores are reluctant to accept their products. Insufficient capital was also cited as one of their leading challenges, mainly because of lack of collateral to secure a loan. Thus they finance their business from their own sources and the profits generated. Although they have sought government support several times, they are yet to receive any. They plan to partner with various reputable furniture stores to increase sales, and to create royal gardens in different places to demonstrate their products. Their long-term goal is to grow to become an efficient and effective medium sized industry recycling tyres and paper.

Case V: Mama Said Initiative

Mama Said is a group of three people established in 2014 to collect plastic and used bottles, and sell them in bulk to recycling industries. After getting the idea from a friend, the founder shared it with two youths who liked it and joined her to start the initiative with a loan of \$250 from the village community bank. They started at a member's house, as they did not have money to rent premise. But collecting waste at home caused the neighbour to complain, which prompted the local government to stop them. They secured an open collection centre from the local government and operated there for three years, after which they had to return it to the government. They moved to another open site, where they are still operating. They also have a new centre at another location. Their capital has grown to \$1250 and they employ two site guards. The chairperson is in charge of the group, while the two assistants and staff undertake the day-to-day operations, such as checking the quality of the plastic and bottles, weighing and delivering them.

Operationally, they collect from 500 to 800kg of waste per day and transfer it to clients using hired vehicles. Due to their long-term relationship with Coca-Cola Tanzania, the company helped them enclose their waste collection centre with grills for security, but the place lacks basic facilities such as water, electricity and shade. They appreciate receiving more than 500kg of plastic freely from Coca-Cola. In addition, their main competitive advantage is their ability to engage suppliers/waste pickers. In some cases, they help suppliers pay school fees, and pay their salaries in advance for rent or any

other pressing need. They have offered two waste pickers a place to sleep as they did not have any other option. They provided four suppliers with building material (iron sheets and wood) to cover the place where they sleep.

The main clients for their products that are readily available are local and foreign bottle manufacturing companies. However, price fluctuation has been a major challenge, mainly because of the growing competition from cheaper supplies from China. The working conditions are quite poor as the area does not have shade. The theft of material by waste pickers from each other and sometimes from them is still a challenge, as is the use of abusive language by the waste pickers. On a few occasions, the staff have been attacked by waste pickers for no good reason. It requires very good customer care and people skills to deal with waste pickers, noted the group leader.

Their main plan is to begin adding value through sorting and crushing. They believe that selling semi-processed products pays more than selling unprocessed ones. They also plan to have more branches and are searching for more capital for further growth.

Table 1 presents the types of enterprises/initiatives studied, their reasons for starting up, their challenges, management structure and operations as well as their sustainability strategies. While the results show different types of ownership, it appears that all of them were privately owned/community-based groups or enterprises (registered/unregistered). These enterprises started with a small amount of capital raised through members' contributions, family savings, grants from family members and loans from friends or the village community bank. The main activities carried out by them were collecting, processing, buying and selling (intermediation) and recycling waste. However, they all combined their key roles with other services, such as lending to their members, running a supplementary business, training and counselling waste pickers and disseminating their ideas. Basically, their activities are reflected in the reasons for starting their enterprise, which were primarily the existence of a business idea/opportunity, to create employment for themselves, having access to start-up resources and providing a social service (e.g. supporting youth and protecting the environment). Most owners/leaders of the enterprise were young graduates, who worked with fellow youths and/or family members.

Despite variations, they faced a number of start-up challenges relating to limited access to resources, the negative perception of waste management, low income, competition, unsupportive local government, unreliable supply of material, theft and dishonesty of waste pickers, lack of management skills, poor working conditions, and difficulty in getting clients at the beginning. However, they were all able to move from the start-up to the survival stage as some of them had the potential to grow. In terms of their development, it is evident that both the formal and informal enterprises were somewhat structured, with a division of roles, operating principles. All of them had been able to engage staff to support the group/enterprise founders. With respect to sustainability, the findings indicate that most strategies were quite similar to the ones applied by commercial enterprises, which were: adequate division of roles; engagement and retention of competent teams with complementary skills; application of feasible technologies; governance (transparency, performance-based rewards and operating guidelines); marketing and networking (training, exposure of the initiative, linkage with waste suppliers, membership of association/cooperative); support by a corporate organization or local government; and empowering suppliers.

Table 1: Characteristics of social enterprises studied and their sustainability strategies

Cases	Type of enterprise	Reasons for start-up	Challenges	Management & Operations	Sustainability strategies
Case I	<ul style="list-style-type: none"> Youth group Registered by Municipality Main activity: collection & processing waste New and growing Voluntary membership Start-up capital of \$250 from their own source 	<ul style="list-style-type: none"> Opportunity <ul style="list-style-type: none"> Awareness Policies Development projects Freely available raw material Employment creation Preserving the environment 	<ul style="list-style-type: none"> Limited Access to resources <ul style="list-style-type: none"> Capital Skills Members Negative perception Limited awareness Unstable income Competition Demand for bribe by local government 	<ul style="list-style-type: none"> Structured & clear division of roles Group members & staff working together Operational guidelines & their enforcement Deployment of the right personnel Collection of solid waste from the community & processing it Selling briquettes to individuals 	<ul style="list-style-type: none"> Mobilize complementary skills Seek competencies Re-investment Marketing & networking Technology Visibility Access to material Training community members & customers Start small Acquire competencies Transparency & accountability Teamwork & attracting talent Product development Expose the initiative
Case II	<ul style="list-style-type: none"> Youth group Not registered Got a grant of \$100 from a family member Main activity: waste collection 	<ul style="list-style-type: none"> Opportunity <ul style="list-style-type: none"> Got the idea from a neighbour Grant Employment creation Sharing competencies 	<ul style="list-style-type: none"> Low demand during high season Price fluctuation Theft & dishonesty of suppliers Inadequate quality control Unreliability of suppliers/ waste pickers 	<ul style="list-style-type: none"> Organized management & roles Collecting waste and selling in bulk to factories/ processors Disseminating the idea 	<ul style="list-style-type: none"> Retention of waste pickers Support by clients (safety gear & loans) Learning from clients Excellence Staff retention Diversification to other businesses Hardworking & trustworthiness Competence of the owners

<p>Case III</p>	<ul style="list-style-type: none"> • Informal family business • Family capital of \$250 • Activity: Intermediary • Three branches 	<ul style="list-style-type: none"> • Opportunity <ul style="list-style-type: none"> • Observed the income of waste pickers • Employment generation 	<ul style="list-style-type: none"> • Management challenge • Theft & dishonesty of waste pickers • Absenteeism of women members 	<ul style="list-style-type: none"> • Slightly structured with clear roles of owners & staff • Collecting & selling waste • Owners & staff working together as a team 	<ul style="list-style-type: none"> • Performance-based reward • Competence of the owners • Capacity building of waste pickers (tools, loans, training & counselling). • Ethical business • Competitive pricing • Engage trustworthy women supervisors • Membership of cooperative society • Support waste pickers to become entrepreneurs
<p>Case IV</p>	<ul style="list-style-type: none"> • Privately owned enterprise • Processing their formalization 	<ul style="list-style-type: none"> • Business potential • Generating employment • Helping the community 	<ul style="list-style-type: none"> • Getting clients at the beginning • Lack of showroom • Reluctance of furniture centres to accept their products • Insufficient capital • No support by the government 	<ul style="list-style-type: none"> • Quite structured with clear division of roles • Purchasing & recycling tyres 	<ul style="list-style-type: none"> • Engage qualified employees • Performance-based pay • On- the-job training • Learning • Staff guidelines & rules • Managing costs • Strategic location • Social networks (connections & new ideas) • Delivery model • Vision

<p>Case V</p>	<ul style="list-style-type: none"> • Group of one older person & youths • Started with a loan of \$250 • Activity: intermediary • Two centres 	<ul style="list-style-type: none"> • Got the idea from a friend • Access to start-up capital • Start-up place 	<ul style="list-style-type: none"> • Theft • Price fluctuation • Poor working conditions • Attack by waste pickers 	<ul style="list-style-type: none"> • The group leader, members & staff have allotted roles • Buying and selling recyclable material in bulk 	<ul style="list-style-type: none"> • Work space given by local government • Support from a corporate organization • Provide support to suppliers/waste pickers (equipment, home, training, loans, etc.) • Good customer service & peoples' skills • Plan & motivation to grow
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Discussion and implications

The findings presented in this article indicate: i) how social enterprises providing solid waste collection and recycling services emerged and overcome start-up challenges and; ii) strategies applied by those enterprises to ensure their sustainability. In terms of how the enterprises emerged, it is evident that they started small with an individual/group, who were largely motivated by the existence of a business opportunity. Starting small was considered appropriate because the enterprise required little initial investment, manpower and less compliance requirements. Although the owners/groups had a social motive for starting their enterprises, the main motivation was the existence of an opportunity that would ensure their survival, growth and the generation of employment. These findings support our initial assumption that even with a social goal in mind, social enterprises need to be run entrepreneurially. Contrary to the literature which assumes that those enterprises can hardly practice self-management and become sustainable (Tirado-Soto & Zamberlan, 2013), our findings demonstrate that social enterprises can fill service delivery gaps, such as waste collection and recycling, while generating an income, employment and linkages in the waste value chain. Like other entrepreneurs, the enterprises and groups studied took advantage of the opportunities presented by the lack of service delivery to fill the gap for the communities affected. As noted from the entrepreneurship literature (e.g. Shane and Venkataraman, 2000; Madhuri, 2013), the social enterprises studied demonstrated several entrepreneurial traits (innovation, opportunity orientation, mobilization of resources, commitment, vision, etc.). In line with Dees, (2001) it was observed that like other entrepreneurs, the social entrepreneurs studied were creative and innovative, with a vision to grow. The findings challenge the previous understanding of social entrepreneurship as “the phenomenon of applying business expertise and market-based skills in the non-profit sector such as when non-profit organizations develop innovative approaches to earn an income” (Austin et al., 2006). Indeed, the findings show that social enterprises involved in SWM can start with a profit motive in their mind and meet both social and business goals.

It is interesting to note that, although the main motivation of the enterprises studied was not to pursue a social goal but to seize a business opportunity which emerged due to service delivery gaps, they still had a social aspect in their operations, such as cleaning the environment, creating jobs and empowering the waste pickers. Besides collecting and recycling waste, some enterprises educated other players in the waste value chain to increase their knowledge on how to manage waste (e.g. Mama Swai Initiative). Some of them participated in other supplementary activities of a social nature (e.g. KwaMakamba initiative) to complement their core role. An interesting observation here is that even with a business mind-set, the collection and recycling of waste has the potential to make a social contribution and operate as a social enterprise. Recognizing self-sustaining social enterprises involved in SWM

could therefore help to expand the scope of collaboration between the local government and private sector. Contrary to the practice whereby large cleaning companies are awarded contracts to collect and transport waste on behalf of the state (Huisman, et al., 2016), emerging social enterprises appeared to have an important role to play. This implies that involving those at the grassroots in collecting and recycling waste could improve the effectiveness of the waste management services (Ahmed & Ali, 2004). Accordingly, we argue that despite their size and legal status, social enterprises can provide a possible solution to social and environmental problems left by governments, especially where the state is unable to provide adequate SWM services.

However, notwithstanding the fact that social enterprises involved in collecting and recycling waste were characterized by ease of entry, small-scale operations, labour-intensive technology and family/group ownership, they experienced similar start-up challenges to those affecting most micro and small enterprises in other sectors. For instance, the challenges relating to start-up capital, negative perception, management and operations, marketing and poor working conditions have been reported by previous studies (Olomi et al., 2018; Charles, 2014). Based on the cases studied, it is apparent that, like other micro and small businesses, waste collection and recycling initiatives in Tanzania, and perhaps in other developing countries, need to adopt an entrepreneurial orientation and reduce dependence on state/development projects given that opportunities for growth exist and expected support is not assured. It is clearly observed that, despite the efforts to access government support, only one case (Mama Said Initiative) secured temporary work space from the government, which was later repossessed. Other enterprises tried to involve the local government in their operations, but they hardly experienced any serious collaboration.

In terms of sustainability, the findings demonstrate that all five enterprises had the potential to be sustainable. It was observed that four enterprises started between 2014 and 2017 and one of them (i.e. Mama Swai) started in 1999. Regardless of their age, it was noted that all five had grown in terms of sales, number of employees and investment. As shown in Table 1, the enterprises studied used similar sustainability strategies to those of entrepreneurial entities in Tanzania and Africa in general. For example, strategies like adequate management, engaging and retaining the right people with adequate skills, supporting suppliers, marketing and networking, developing skills, using adequate technologies, reinvesting, diversifying and being members of business associations have been documented as the survival and growth strategies of micro, small and medium enterprise in Africa (Charles et al. 2016; Hansen et al., 2017; Olomi et al., 2018; Charles, 2014). However, besides the traditional business survival strategies of small enterprises, it is important to emphasize that the owners of waste collection and recycling enterprises in Dar es Salaam were quite strategic at the beginning in attracting the required talent. Whereas most micro and small enterprises are run by owner-managers (one person), the initiators of the enterprises studied were able to sell their ideas and convince other people to join them.

Our findings indicate that after the studied enterprises realized that the sale of products or services was not enough to sustain them, they attempted to supplement their income from other productive activities (e.g. KwaMakamba Initiative). This demonstrates their commitment to a social goal and the view that most social enterprises use hybrid income models to sustain their operations (Zahra et al., 2009). It indicates that social enterprises involved in SWM search for inventive ways to sustain themselves, try to establish new partnerships and recognize opportunities to do things differently. Furthermore, one entrepreneur (Mama Said) was able to obtain the support of a corporate organization (Coca Cola), while others (e.g. KwaMakamba) were supported by their clients in terms of capacity building. This shows that those at the grassroots can get the support of a wide variety of actors, as opposed to the previous conception, which puts emphasis on the state and development projects (Huisman, et al., 2016; Gutberlet et al., 2016). In addition, the social enterprises studied supported upstream linkages through, for instance, training waste pickers to become entrepreneurs and supplying them with basic equipment and tools that made them loyal to them. Basically, having a strong and reliable supply chain is one of an enterprise's survival strategies (Hansen et al., 2017). This is indeed a unique strategy of

waste collection and recycling enterprises in Dar es Salaam, given that most enterprises of their size are still weak in terms of value chain development (Charles, 2014). In this case, therefore, it appears that while social enterprises involved in SWM apply several business and entrepreneurial strategies to survive, they have some strategies to overcome resource and sustainability challenges.

Theoretically, this article combines the traditional entrepreneurship and socio-environmental entrepreneurship literature to explain the nature, survival and sustainability of the social enterprises involved in collecting and recycling waste in Tanzania. It indicates that while social enterprises have a social goal, their sustainability is driven by entrepreneurial competencies and skills propounded by the entrepreneurship theory. However, in the course of searching for a survival strategy, socio-environmental enterprises apply unique strategies to supplement their social goals. Although core principles of entrepreneurship and innovation are seen as in the mainstream business context, some key differences relating to motivation and how problems and needs are conceptualized are observed. This indicates that business entities taking advantage of social and environmental opportunities have the potential to contribute to the wellbeing of society through various strategies. In line with this, we argue that the waste collection and recycling initiatives which start as business entities can become social enterprises as long as they mainstream the social goal in their agenda and have a social impact. It shows that a wide variety of organizations can be typified as social enterprises involved in waste management with widely differing characteristics.

Practically, while the government plays a relatively small role in collecting and recycling waste and the private sector plays a major role, it is clear that those involved in collecting and recycling waste have the ability to reduce the social problem of solid waste. Thus, the private sector should be given incentives to enter the SWM system, which could be done through recognizing and supporting enterprises to access resources. Accordingly, it is argued that local governments should try to encourage social enterprises to enter the SWM system by giving them an incentive. In order to create an effective social waste collection system, local governments need to partner with those at the grassroots taking the initiative and support them to start, survive and grow. On the other hand, those at the grassroots need to learn from typical business entities and develop strategic networks with other businesses, the government, educational institutions or other waste management companies, which will help them access financial resources, networks, technologies, work space and markets for their products and services. Finally, instead of the private sector complaining about the failure of institutions and the state to address serious waste problems, they should develop businesses to resolve those problems, which will make a profit and care for the welfare of society.

Limitations and Areas for Further Studies

While this article makes an important contribution on the establishment and sustainability of social enterprises involved in collecting and recycling waste, it has some limitations. First, our analysis focused on a specific sector (solid waste management), expanding the scope of the study to include other social enterprises dealing with environmental conservation, health, or education, etc., would make the findings more rigorous. Second, because the study was qualitative in nature and based on a single country, the results cannot be generalized to other countries. More studies are therefore encouraged to investigate the collaboration between various actors with the potential to promote effective waste management services in developing countries. An analysis of the SWM value chains and mapping of the role of social enterprises at each stage would help to ascertain the sustainability of SWM activities. In addition, exploring and comparing public-private partnership models/arrangements across developing countries would help to develop the best model of collaboration between the state and the private sector. Finally, because the social enterprises studied had started to apply some simple technologies to develop their products, further analysis of waste value addition and product development would expand our knowledge of SWM.

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Conceptual paper on work environment and job satisfaction:

The moderating role of perceived organisation support

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Abstract

The aim of this paper is to propose a conceptual model that explains the influence of work environment on teachers' job satisfaction and the moderating role of perceived organisation support on their relationship in public secondary schools in Tanzania. Despite the large number of studies on work environment, none has specifically addressed an integrated relational model of work environment, perceived organisation support, and job satisfaction among teachers in government secondary schools. Regardless of the number of empirical studies on work environment and teachers' job satisfaction; in developed and developing countries still faces major challenges including non-commitment, high absenteeism rates and many leaving their teaching profession to other jobs. Therefore, this conceptual paper sought to connect concepts of work environment and teachers' job satisfaction. Specifically, the paper explains concepts of work environment in connections of workplace facilities, professional development, recognition and the moderating role of perceived organization support on teachers' job satisfaction. The study was conducted through review of literatures of scholarly articles from Google Scholar. The review revealed that there are still inconclusive on the influences of work environment and teachers' job satisfaction. Thus, this study contributes to the literature by providing such a conceptual model that can be used to study the influence of work environment and teachers' job satisfaction.

Keywords: *Work environment, job satisfaction, perceived organization support*

Introduction

Worldwide, Work environment and job satisfaction has been linked to many unfavourable outcomes that can be costly to organizations (Taiwo, 2010). Work environment and job satisfaction are essential for a successful secondary education system in enhancing teachers' efficiency, commitment, minimizing intention to leave and absenteeism (Shah, 2012). Organizations which are able to offer their employees a safe, pleasant, and supportive work environment, are better placed to satisfy them because they perceive organizational support positively (Asia, 2013). Despite the suitable work environment as a pre-requisite for improving efficiency and quality of output, teachers' job satisfaction remains a global challenge, and many countries are struggling with the issue (Naharuddin, 2013; Gitonga, 2015; Raziq & Maulabakhsh, 2015).

In developed countries, this concern has turned into on-going national debates as in Sweden statistics predicts that in ten years' time the greatest shortage of teachers will be in secondary education reaching a staggering number of 65,000 educators (Statistics Sweden, 2012; SNAHE, 2012). According to the Swedish Teachers Union's compilation of statistics from the Swedish Public Employment Service, vacancies in secondary school teachers in 2016 was 29% more than the year before, and around 40,000 teachers have abandoned the profession to work in other sectors (Dorozynska, 2017).

In the USA for instance, Ingersoll (2013) identified that every year about 15.7% of teachers leave the profession to another profession, while 40% of those teachers sponsored to further their studies are not willing to return back to teaching again. Out of the 3,252 teachers hired by the district of New York in

2010-2011, about 7.8% left teaching within the first year, while 16.3% left within the first two years (Mcadoo, 2013).

In England, the 2013 Teaching and Learning International Survey (TALIS) revealed that teachers who preferred to move to another school if possible was 8.2% which was higher than other comparable TALIS nations, 6.4% which were Australia, Alberta (Canada), New Zealand and the USA (Sam, 2017).

In developing countries, a survey conducted by the World Bank revealed that absenteeism rates ranging from 11% in Peru, 21% in Indonesia, 27% in Uganda, and 30% in Kenya (World Bank, 2010). In Ghana, about 33,185 teachers abandoned their teaching position to seek for other jobs (Ghana Business News, 2013). In Nigeria about 10% -15% of teachers are leaving their profession to other jobs within the first five years of engagement (Ekundayo, 2010). Tanzania is no exception either; since there have been frequent teachers' absenteeism, non-commitment to their jobs, and many quitting their profession to join other sectors (URT, 2014; HakiElimu, 2011), a clear indication of teachers' job dissatisfaction.

There is a growing body of literature that suggests that work environment can affect organizational and employee outcomes, such as satisfaction (Itunuoluwa & Clara, 2017). Job satisfaction has received considerable attention by researchers, in as much researchers have committed to research on employees' job satisfaction in many sectors (Muhammad, 2015). Empirical findings in education sector in particular teachers of government secondary schools indicates that, quite a number are still dissatisfied on their job. This is evident in the rate of frequent teachers' absenteeism, non-commitment to their jobs, and many quitting their profession to join other sectors (TAHOSA, 2012; Lyimo, 2014; URT, 2014; Msuya, 2016; Boniface, 2016). Perhaps this could be attributed to the inadequate studies on factors that can hinder teachers' job satisfaction in government secondary schools.

The purpose of this research is to provide an extensive review of the academic literature regarding the influence of work environment on teachers' job satisfaction and the moderating role of perceived organizational support in government secondary schools of Tanzania. This research is important because it can help leaders make better decisions about the work environment, the people who will use it, and the success of their organizations.

Literature review

Work environment, can be defined as a work location that takes a comprehensive approach which provide physical settings around a person, the social, cultural, economic, psychological, and professional atmosphere in which a person is supposed to interact with other individuals (Pravamayee, 2014). Also is defined as a work conditions that gives the satisfaction of workers, and which determine or enhances the efficiency, effectiveness, retention and commitment of employees of business organizations (Taiwo, 2010). Based on the above definitions of work environment, this study will use physical workplace facilities, recognition practices, and professional development as independent variables.

Workplace facilities are the internal and external office arrangement, temperature, ventilation, and the office work situation such as furniture, tools, communication, safety, and procedures (Hajjar et al., 2010). In this study, workplace facilities means teaching environment which include all facilities within the school surroundings including the physical location, infrastructure such as offices, furniture, tools, and houses.

Professional development is a process of creating a permanent change in an individual that improves the ability to perform job-related knowledge, complete current tasks, and give technical knowledge and skills needed on job (Niazi, 2011).It is a process of upgrading employees' skills and attitudes at all levels to maximize enterprise effectiveness (Koigi&Waiganjo, 2014). In this study, professional development means imparting knowledge to teachers that gives problem solving skills, creativity,

transmission of new ideas into teaching, as well as opportunity or problem findings on how teachers should be developed in their teaching profession, for satisfaction, commitment and adherence to their teaching profession.

Recognition practices is a process of timely formal or informal acknowledgement of an employee within an organization for well-doing; a person may receive mention or reward (Chepkwony,2014). It encourages and supports behaviour that contributes to the organization's goals, values and increase productivity as well as employee satisfaction (Danish, 2010). Recognition practices, monetary and non-monetary tend build and maintain an excellent business environment which is very important in retention of employees, and leading to job satisfaction (Nath, 2012). In this study, a recognition practice is anything of value whether in monetary or non-monetary; that a teacher receives from employer as an exchange for surpassing performance expectations.

Job satisfaction refers to the attitude and feelings people have about their work, and the extent to which job satisfied the needs and expectations of the employees. Positive and favourable attitudes towards the job indicate job satisfaction while negative and unfavourable attitudes towards the job indicate job dissatisfaction (Aziri, 2011). Job satisfaction described as any combination of psychological, physiological and environmental circumstances that cause a person truthfully to say I am satisfied with my job, since there is no conventional definition of the concept of job satisfaction although many scholars have studied it for a long time (Paper, 2016). In this study, job Satisfaction will refer to good feelings about teaching as a job that increases the morale of teachers and maintain their need to stay in the profession, their commitment to the job and their pride of being teachers.

Perceived organizational support (POS) refers as employees' perception or judgment of how much the organization values their contribution and cares about them, and they see their employment as a reciprocal exchange relationship (Hur, Han, Yoo, & Moon, 2015). Also it refers to the concept that how much the organization gives importance, and show concern about the well-being of employees (Neves, Eisenberger, & Neves, 2014). This study defines perceived organization support as; the support in terms of funds that buy facilities given to secondary school teachers by the education department office which is under the Municipal/District Executive Director in local government. The support will determine the degree of satisfaction of teachers in their job.

Herzberg's theory was developed by Frederick Herzberg in 1959. The theory explains the two sets of factors, which are intrinsic (motivators) and extrinsic (hygiene). The intrinsic factors include achievement, recognition, work tasks, responsibility, and advancement. These factors as identified by Herzberg leads to employee's job satisfaction. The extrinsic factors include organizational administration, supervision, working conditions, interpersonal relationships, salary, and status. These prevent dissatisfaction but cannot engender job satisfaction.

Herzberg's theory relates to the current study, since it assumes that the presence of motivator factors will boost employees' need of personal development and the need of feeling pleasant and contented which lead to job satisfaction. Therefore, in this study secondary school teachers need to be provided with professional development opportunities to fulfil the needs of personal development which leads to job satisfaction. Also teachers need to be provided with good workplace facilities to make them feel pleasant and comfortable. Moreover, teachers need to be given fair recognition practices which make them feel that are being valued by organization, and therefore, become satisfied with their job.

Organisational support theory was found by Eisenberger et al., (1986). It explains that employees develop a general perception concerning the extent to which the organization values their contributions and cares about their well-being. Perceived Organizational Support (POS) initiates a social exchange process where employees feel obligated to help the organization achieve its goals and objectives, and expect that increased efforts on the organization will lead to greater rewards (Eisenberger & Stinglhamber, 2011). This theory concurs with this study, since teachers would reciprocate such notion by working hard, being loyal, being committed and retained in the organization to help achieve its

goal while expecting value and care from the organization. Once POS is in place, it will increase job satisfaction, retention, and reduce or eliminate absenteeism.

Muhammad and Ahmed (2015) conducted a study on the impact of work environment on teachers' job satisfaction in private business universities in Pakistan. The purpose of the study was to check the relationship between work environment and teachers' job satisfaction in private business universities of Karachi. Generally, the study argued that there is significant correlation between work environment variables and teachers job satisfaction. The independent variables used were freedom of teachers, involvement of teachers, management policies, co-workers' relationships an employer – employee relationships, and teachers' job satisfaction used as a dependent variable.

Tio (2014) conducted a study on the impact of work environment towards employee job satisfaction: A case study in Gas industry in Indonesia. The purpose of the study was to examine and analyse the influence of the work environment condition on employee job satisfaction, and to provide insight into how to increase employee job satisfaction through the work environment. The result of the research showed that simultaneously work environment factors is significant towards the employee job satisfaction, however organizational environment does not have significant influence towards employee job satisfaction.

The independent variables of work environment used are human work environment (superior support, clarity information from superior, clear feedback from the superior, tolerance from superior, support of colleagues, teamwork) and organizational environment (organization culture, structure, administration and procedure). The study results revealed insignificance on organization environment.

Suleman and Hussain (2018) conducted a study on Job Satisfaction among Secondary-School-heads. The purpose of the study was to examine and compare the job satisfaction of male and female secondary-school heads working in public schools of Khyber Pakhtunkhwa-Pakistan. The results revealed that there was no significance difference between the job satisfaction of male and female secondary-school heads with respect to overall intrinsic as well as extrinsic factors. It also revealed that secondary-school heads were not satisfied with work environment, ability utilization, advancement, compensation, and supervision.

Nyamubi (2017) conducted a study on determinants of secondary school teachers' job satisfaction in Tanzania. It was conducted in eight secondary schools in two regions of Tanzania (Kilimanjaro and Lindi). The purpose of the study was to determine the factors of secondary school teachers' job satisfaction. This was a qualitative study and data was collected using focus group discussions. The study shows that job satisfaction among secondary school teachers in Tanzania is determined by their positive relationships with co-workers, students, parents, and respect of teachers' contribution to the society.

Raziq et al., (2015) conducted a study on Impact of Working Environment on Job Satisfaction. The objective of this study was to analyse the impact of working environment on employee job satisfaction. The study employed a quantitative methodology. Data was collected through a self-administered survey questionnaire. The questionnaire was adopted from a previous validated survey. The target population was educational institutes, banking sector and telecommunication industry operating in the city of Quetta, Pakistan. Simple random sampling is used for collection of data from 210 employees. The results indicate a positive relationship between working environment and employee job satisfaction.

Taiwo (2010) conducted a study on the influence of work environment on workers productivity : A case of selected oil and gas industry in Nigeria. The objective of the study was to analyse the impact of work environment on future worker's productivity. Primary data were used for this study that was generated through structured questionnaires with close ended questions. T-test was used to test the research hypotheses. The respondents were randomly chosen from four selected oil and gas industry in Lagos metropolis. The results of T-test indicate that employee productivity problems are within the work environment. Conducive work environment stimulates creativity of workers. Improvement in

work environment and bad working conditions contribute to low productivity of employees.

Gitonga (2015) conducted a study on the influence of work environment on organizational performance in government Ministries in Kenya. The objective of the study was to establish the influence of work environment on organizational performance in government ministries in Kenya. The target population was drawn from 6 government ministries based on the performance contracting reports of 2012. The total population was 7913 and the sample size was 367. Stratified random sampling technique was employed in selecting the sample. The study adopted descriptive research design and primary data was collected using a questionnaire in the selected government ministries. The study employed quantitative analysis techniques and the findings shows that the variables were significantly and positively influenced organizational performance in government ministries in Kenya.

Salunke (2015) conducted a study on Work environment and its effect on job satisfaction in cooperative sugar factories in Maharashtra, India. The purpose of the study was to investigate the relationship between work environment and job satisfaction of employee's in cooperative sugar factories. Review of literature provided a strong evidence of the relationship between the study variables. Analysis and interpretation of the data have empirically demonstrated that workload, stress, overtime, fatigue, boredom are some factors to increase job dissatisfaction. On the other hand good working condition, refreshment & recreation facility, health & safety facility, fun at workplace increase the degree of job satisfaction.

Zainie et al., (2015) conducted a study on the relationship between workplace environment and job performance in selected government offices in Shah Alam, Selangor. The purpose of this study was to examine the relationship between workplace environments and civil servants' job performance in Shah Alam, Selangor. Questionnaires were distributed with 100percent rate of return. The data gathered was analysed using Statistical Package for Social Science (SPSS) through descriptive statistic and Pearson Product Moment Correlation test. The findings found that two major elements in the workplace; workplace environment and job performance have a weak association. The finding of this study is very critical since it can help the employers in improving the worker satisfaction especially through adjusting the workplace environments in which as a result will increase the level of their job performance.

Moreover, Raziq et al., (2015) conducted a study on the impact of working environment on Job Satisfaction. The study revealed that workplace facilities have a great influence on employee's job satisfaction, attitudes, behaviours, and works performance because it keeps an employee satisfied in today's business world due to favourable workplace facilities. Several studies indicate that if workplace is not conducive due to factors such as poorly designed workstations, unsuitable office furniture, infrastructures, lack of ventilation, lighting, tools, and insufficient safety measures, etc; it increases job dissatisfaction. On the other hand a good workplace increases the degree of job satisfaction (Bangwal, Tiwari, & Chamola, 2017; Waqas, 2014; Zainie, Hamid, & Hassan, 2015).

Some previous studies indicate that professional development opportunities within every organization occurs at all levels of personnel, and may vary due to training needs so as to achieve high level of employee satisfaction, commitment, productivity and low level of turnover and absenteeism (Anwar & Shukur, 2015; Campus, 2013). Results show that there is a strong correlation between professional development opportunities and job satisfaction (Adesola et al., 2013; Chaudhary, 2016). However some scholars revealed that professional development opportunities were found to be the reasons influencing intention to quit since when employees are developed they become more marketable to join other organization (Latif et al., 2013; Vinesh, 2014).

Anwar & Shukur (2015) conducted a study on the impact of training and development on job satisfaction. The purpose of this study was to find out the impact of training and development on job satisfaction in private banks in Erbil. The researcher set two separate research hypothesis, the first research hypothesis which states that the training will have positive impact on job satisfaction

in private banks in Erbil and the second research hypothesis which states that the development will have positive impact on job satisfaction in private banks in Erbil. According to multiple regression analysis, the researcher found out that there is a positive relationship on training and development on job satisfaction.

Empirical studies on recognition practices revealed that, employees' perception of recognition practices is vital as it has psychological influence on their job satisfaction towards the organizational goals; if well utilized in the organization it boosts job satisfaction of employees, and increases commitment, retention, punctuality, lower absenteeism and turnover (Chepkwony, 2014; Shonubi et al., 2016). Also the acknowledgment of employee's contribution to the organization in the eyes of public; is a very important connection of organizational success as the result of employee job satisfaction (Waqas et al., 2014). Amarasena et al. (2015) emphasized that there is significant relationship between recognition practices and job satisfaction as study conducted on academic faculty members of state universities in Sri Lanka. However, other scholars hold different views that recognition has no significant relationship with teachers' job satisfaction (Alam et al., 2013; Danish, 2010).

Perceived organisational support on work environment and teachers' job satisfaction is very essential towards reducing turnover, increasing retention, commitment, punctuality, loyalty, and reducing absenteeism in an organisation (Krishnan & Mary, 2012). Some studies indicate that perceived organizational support has a strong and positive effect on job satisfaction (Francis & Schaffer, 2014). Other scholars have revealed that it has negative effect on intention to leave, and job satisfaction (Zumrah & Boyle, 2015).

Methodology

Several databases were searched using the keywords: work environment which includes workplace facilities, professional development and recognition practices. Job satisfaction and perceived organisational support were also searched. The databases utilized included Business Source Complete, Elsevier, JSTOR, and Pro Quest. The results were narrowed to academic journals and articles were further filtered by reading the abstracts and selecting only those papers that linked the work environment with employee job satisfaction of the different types of work environments, only work place facilities, professional development and recognition practices were selected. The remaining articles were read and further sorted by types of academic articles: conceptual, explanation, or empirical.

Analysis and interpretation

From literature databases, a total of 50 studies were included in this review. 38 of these were articles, 3 were book chapters, 8 were reports, and 1 dissertation. In short, 34 of the studies were excluded because they did not report on employees' job satisfaction and specifically on teachers' job satisfaction. Also 12 were excluded because they did not present a framework describing the construct. 4 studies remained because they were reporting on employees' job satisfaction in general and specifically on teachers' job satisfaction as follows:

Muhammad and Ahmed (2015) conducted a study but did not consider recognition practices, professional development as factors of work environment that may influence teachers' job satisfaction. Also the study did not consider the moderating role of perceived organisation support which is the gap for this study. This moderation variable might strengthen or weaken the relationship between working environment and job satisfaction. Furthermore, the study was conducted in private Universities of Pakistan not in public secondary schools whereby the work environment, systems and procedures are different. Therefore, the results cannot be generalized into other education institutions. Also the researcher suggested that variables and sample size should be increased in the future research to get the better results. In addition, the context in which the study was conducted is different from this study context.

Tio (2014) conducted a study but also did not consider the moderating role of perceived organisational

support which is the gap for this study. This moderation variable might strengthen or weaken the relationship between working environment and job satisfaction. Moreover, the study was conducted in gas industry in Indonesia not in public secondary schools whereby the work environment, systems and procedures are different. Therefore, the results cannot be generalized into other public service institutions. Also the researcher suggested in the future research to differentiate sets of work environment variable for different types of work environment. For example, the sets of parameters needed to measure work environment for office workers is different with the sets of parameters needed to measure work environment for factory workers.

Also future research should adjust composition of work environment variable according to the business. Because different line of jobs or business might have different composition of work environment variable significance towards employee job satisfaction. Therefore, this study has accommodated the suggestions given above. In addition, the context at which the study was conducted is different from this study context.

Suleman and Hussain (2018) conducted a study but left out the recognition practices variable which is accommodated in this study. Since the study was limited to heads of schools only who have other fringe benefits and allowances than general teachers, further investigation is required as the results cannot be generalized to general teachers. Moreover, the study did not consider the moderating role of perceived organisation support which might strengthen or weaken the relationship.

Nyamubi (2017) conducted a study but it was limited in scope; it only looked on few factors without integrating working environment such as recognition practices, work place facilities and professional development which may influence teachers’ job satisfaction in secondary schools. Yet again, it was a qualitative study which may need further quantitative research method to give a better insight on the subject matter. The present study focuses on quantitative methodology. In addition, the study did not consider the moderating role of perceived organisational support which is the gap of this study. This moderation variable may strengthen or weaken the relationship between working environment and job satisfaction.

Table 1: Summary of relevant empirical studies relating to the study

Study by:	Title	Purpose	Variable	Gap
Muhammad & Ahmed (2015)	The impact of work environment on job satisfaction in private business universities in Pakistan	To check the relationship between of work environment in private business universities of Karachi	Freedom of teachers, involvement of teachers, co-workers’ r/ ships, employer – employee r/ hips(Ind.V) & JS (Dv)	Variables: workplace facilities, professional development opportunities and recognition practice as factors of work environment that may influence job satisfaction.

Tio, (2014)	The impact of work environment towards employee job satisfaction: A case study in Gas industry in Indonesia.	To examine & analyse the influence of the work environment condition on employee job satisfaction	The human work environment & organizational environment (Independent Variable) and job satisfaction (Dependent variable)	Variables: Workplace facilities, Professional development, Recognition practices were not accommodated in this study. The study did not consider the moderating role of perceived organisational support.
Suleman & Hussain (2018)	Job satisfaction among Secondary-School-heads working in public schools of Khyber Pakhtunkhwa-Pakistan	To examine and compare the JS of male and female secondary-school heads	Ability utilization, compensation, and supervision	Variables: Workplace facilities, Professional development, Recognition practices were not accommodated in this study. The study did not consider the moderating role of perceived organisational support. Limited to heads of schools different from general teacher
Nyamubi (2017)	Determinants of Secondary School Teachers' job satisfaction in Tanzania	To determine the factors of job satisfaction	Relationship with co-workers, students and parents	Limited in scope; few factors without integrating Workplace facilities, Professional development, Recognition practices. The study did not consider the moderating role of perceived organisational support. The study is qualitative in nature.

Moreover, the review of literature in several studies indicates that if workplace is not conducive due to factors such as poorly designed workstations, unsuitable office furniture, infrastructures, lack of ventilation, lighting, tools, and insufficient safety measures, etc; it increases job dissatisfaction. On the other hand a good workplace increases the degree of job satisfaction (Bangwal, Tiwari, & Chamola, 2017; Waqas, 2014; Zainie, Hamid, & Hassan, 2015). According to Herzberg's Two Factor Theory and on the basis of previous research, the study assumes that:

H₁: There is a relationship between workplace facilities and teachers' level of job satisfaction.

Professional development opportunities, the review literature signifies the positive and negative relationship on employee's job satisfaction. Results show that there is a strong correlation between professional development opportunities and job satisfaction (Adesola et al., 2013; Chaudhary, 2016).; but according to Herzberg's Two Factor Theory this study assumes that:

H₂: There is a relationship between professional development opportunities and teachers’ level of job satisfaction.

Moreover, from reviewed literature Amarasena et al., (2015) emphasized that there is significant relationship between recognition practices and job satisfaction as study conducted on academic faculty members of state universities in Sri Lanka. However, other scholars hold different views that recognition has no significant relationship with teachers’ job satisfaction (Alam et al., 2013; Danish, 2010). Therefore, according to Herzberg’s Two Factor Theory this study will have the assumption that:

H₃: There is relationship between recognition practices and teachers’ level of job satisfaction.

Reviewed literature on perceived organisational support indicate that, perceived organizational support has a strong and positive effect on job satisfaction (Francis & Schaffer, 2014). Other scholars have revealed that it has negative effect on intention to leave, and job satisfaction (Zumrah & Boyle, 2015). However, those studies in work environment on teachers’ job satisfaction did not consider the role of moderating variable such as perceived organisational support. Therefore, according to Organizational Support Theory, the following hypotheses have been developed:

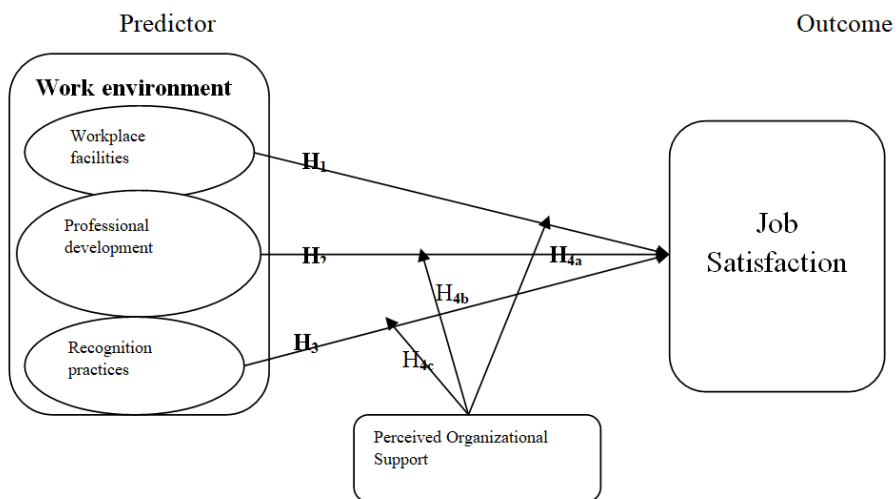
H_{4a}: Perceived Organizational Support as a moderating role strengthens the relationship between workplace facilities and teachers’ job satisfaction.

H_{4b}: Perceived Organizational Support as a moderating role strengthens the relationship between professional development opportunities and teachers’ job satisfaction.

H_{4c}: Perceived Organizational Support as a moderating role strengthens the relationship between recognition practices and teachers’ job satisfaction.

Based on the literature review, the study proposes the research model shown in Figure 1, which conceptualizes the relationship between work environment and job satisfaction, moderated by the perceived organisational support and could be employed in future empirical research. The independent variable in this research is the work environment and the dependent variable is the Job satisfaction. They are moderated by the role of perceived organisation support. Work environment includes workplace facilities, professional development opportunities, and recognition practices.

Fig 1: Conceptual Framework and Hypothesis Development



Source: Compiled from Theoretical and Empirical Literature Review

Conclusion and suggestions for additional research

The study attempts to contribute new knowledge to the existing literature on work environment and job satisfaction in Tanzania government secondary schools. It was hypothesized that work environment will have a direct significant impact on job satisfaction and that the perceived organisational support will moderate the relationship between them. The management can take steps to improve the working environment and perceived organisational support, to enhance employees' job satisfaction. It is strongly recommended that empirical research be carried out to establish the authenticity of these relationships, not only to enrich the existing literature and theory, but also to assist practitioners and human resource managers in government secondary schools, justifying their efforts in designing appropriate work environment and perceived organisation support and leading to employees' job satisfaction.

This review of the academic literature has shown that work environment can have a positive or negative effect on organizational success and the people who work there. According to the studies described above, work environment can influence employee outcomes such as satisfaction. The significance of this research is that it brings together, in one place, the vast amount of current academic literature on this subject and provides a great starting point for future research. This study is also beneficial for managers and leaders of organizations in that it can help them better understand the importance of work environment, and make more informed decisions regarding work environment and job satisfaction.

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Embracing dynamic industrialisation in Tanzania: The role of procurement competencies

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Abstract

This study mainly assumes that procurement is a kind of special competence which, if acquired, may sustain industrial competitiveness. The relationship between manufacturing firms' procurement competence and dynamic industrialisation was explored. The multiple regression analysis was used to determine effects of procurement competencies on embracing dynamic industrialisation in Tanzania. A survey on manufacturing firms was undertaken in examining relationships between procurement competencies and dynamic industrialisation in Tanzania using administration of questionnaire while data were collected were analysed through descriptive statistics and multiple regression analysis. Study findings suggested that limited technical procurement competencies and procurement behavioural competencies when interrelated with innovative capability, technological capability, government intervention and change management significantly affects sustainable procurement competencies on embracing dynamic industrialisation in Tanzania. The study's findings imply that there is limited understanding regarding the role procurement competencies on embracing dynamic industrialisation in Tanzania. This article suggests solutions which procurement professionals and organisations can implement in order to unlock the potential value in the dynamic industrialisation in Tanzania.

Keywords: *Dynamic Industrialisation, Procurement Competencies*

Introduction

Although in developed economies there are substantial improvements in procurement competencies, but in developing countries, procurement has not been viewed as having a strategic impact in dynamic industrialisation. Implicitly, continuous shift in the competencies landscape at an ever-increasing speed which makes it impossible for developing countries education to meet this ever-changing need arising from dynamic industrialisation (Kromydas, 2017; De Wever, et al., 2005). Different motivations and objectives may reasonably be expected to result in varying perceptions of the most desirable outcomes of procurement competencies in such situation. In a world of constrained optimisation, the challenge is to seek mutually accommodating outcomes between procurement competencies and dynamism in industrialisation.

Current business environment is evolved in shrinking budgets, dynamic needs and increasing global competition has driven manufacturing firms to proactive response on uncertainty more rapidly by developing new competencies as the old advantage and competence gained is quickly eroded owing to business environmental changes (Ncokazi, 2016; Moyo, 2017). As a result, in order to remain competitive in current business environment, exploration on all possible avenues becomes vital for manufacturing firms to survive. Based on this development, organisational profitability, industry and country competitiveness as well as the organisation's responsiveness to customers' needs all now depend on how procurement professionals are effectively carrying out their responsibilities.

Ideally, degree of industrial development varies continuously to reflect different levels of sophistication in the production of knowledge such that evolutionary path has been getting exponentially faster, with each big innovation acting with others to produce an accelerated effect (Kniivilä, 2007; Whitley, 2002). To developing countries such as Tanzania, speed of change and inability to adapt by learning new competencies is the biggest threat to the survival of industrial development. Practically, initiatives to measure competencies whose attributes are often accompanied with very large differences on level of industrial production which shaping pattern of specialisation and hence the pattern of trade

(Marginson and Van der Wende, 2007; Paluzie *et al.*, 2001). Indeed this “new” way of considering human resource, not only as a resource among others but as the main source of performance, requires a more precise formalisation of competence, in order to be able to efficiently link people, as source of performance, to process activities (Boucher, *et al.*, 2007).

Today, procurement function is currently receiving increased attention as an important contributor to the overall strategic success of an enterprise (Sobhani, *et al.*, 2013). Procurement is seen as contributor to streamline processes, unit price reductions; cost avoidance, value-addition and additional business benefits without increased spend when identifying better sources of supply. In essence, procurement is concerned with management of a significant proportion of non-pay expenditure and ensuring that best possible value for money is obtained when committing expenditure (Kilonzo, 2014; Watiri, 2017). Indeed, the contribution is both operational and strategic whereby procurement function can (and does) acknowledge savings to achieve its maximum operational level in many business organisations (Akintan and Morledge, 2013).

Consequently there is increasing interest on how to determine whether or not individuals are competent to make procurement decisions to dynamic industrialisation taking into account the wider implications of right quality, right quantity, right price, right source and right time. Furthermore, increasing pressure is being placed on individuals to make procurement decisions by adhering to value for money, transparency, integrity, economy, openness, fairness, competition and accountability. Increasingly, complex business environment, coupled with, means that demands individuals who are capable to initiate and implement innovative capability, technological capability, government intervention and change management that are critical for industrialisation improvement in general performance (Lawson and Samson, 2001; Eisenhardt and Martin, 2000). Thus, shifting exploration from conventional way of thinking to technical and behavioural professionalism in the discipline would help to eliminate most potential challenges arising from dynamic industrialisation (Bresnen, 2013; Hughes and Hughes, 2013).

The typical pattern identified by literature corresponds to a relationship between industrialisation rate (share of manufacturing output on gross domestic output) and the level of procurement competency development: as the level of competency grows, the manufacturing output share rises at the expenses of procuring inputs in sense of the right quality, in the right quantity, from the right source, at the right time and at the right price. It is believed that in order to prepare competent procurement professionals adequately, the requisite competencies must be identified and function effectively. Inevitably, when evaluating competencies in any human endeavour built upon characteristics and qualities, there is a subjective element which, when making comparisons and judgements, can lead to inconsistencies. As a result, competency studies aim to determine technical competencies and behavioural competencies (Vathanophas, 2006) are needed to accomplish desire for industrialisation.

It certainly seems obvious procurement is a complex management service, intended to support strategic aims of the organisation (Young and Green, 2011). However, some of procurement’s intended customers are confused about its role and intentions—and hence don’t trust its motives due to persistent asset misappropriation, procurement fraud, bribery and corruption. This is only partially due to incompetency individuals who are handling procurement activities; a good bit of it is procurement’s own fault (Fazekas, *et al.*, 2013; Bauhr, 2017). Whilst procurement presenting itself as a strategic business partner, some procurement practices are tactical—and worse yet, person lacks sufficient understanding or capacity to make or communicate responsible decisions (Holmberg, 2000; Wang and Zhang, 2010).

Having attracted much interest within international literature and a wide range of scholars (Pilav and Sacic, 2016; Slipicevic and Masic, 2012; Alakhram and Zaman, 2017), the concept of competencies has been referenced in a wide variety of contexts and disciplines including sociology, social work, management, psychology and political science (Vathanophas, 2006; Beede *et al.*, 2015; Omisore, 2014). Many studies showed that competencies it is a combination of technical and behavioural competencies

as well as ability to apply them according to protocol of business environment (Pacevicius and Kekyllte, 2008; Vathanophas, 2006).

The knowledge gained from schools, universities, training centers, or workplaces, put more emphasis on technical competencies than behavioural competencies (). Ultimately production costs are controlled by individuals who have insufficient behavioural competencies that drive behavioural commitment towards value for money, transparency, integrity, economy, openness, fairness, competition and accountability. Nevertheless, a division has been made between technical competencies and behavioural competencies. Whereas, technical competencies refer to technical proficiency for successful accomplishment of task, behavioural competencies denote Behavioral competencies encompass abilities, knowledge, skills, attitudes and actions that are related to excellent performance, with the view to achieving strategic objectives.

Every business organisation needs effective individuals capable of integrating technical competencies and behavioral competencies to enhance industrial development (Han, 2001; Melita *et al.*, 2003). That is why it is very important for a business organisation to identify, develop and retain competent workers. This means every successful and effective individual have to possess reputable competencies that enabled him to perform efficiently and effectively in today's highly competitive and dynamic business environment (Dike, 2013; Mba Sr. and Teresa, 2013). Thus, industrialisation occurs within any type of organisational context where human and physical resources are combined to achieve certain objectives (Šlaus and Jacobs, 2011; Connor, *et al.*, 2012).

In actual fact, competence can provide some contribution to trust into innovative technologies and products by reducing various types of risks both for the individual employees, but also for society (Padilla-Vega, *et al.*, 2015, 2015). In cases of strong network externalities economic models help to explain why radical speed of industrialisation are sometimes considerably delayed by the presence of competence (Katz and Galperin, 2013; and Lundvall, 2017). However, competence are not only contributing to lock-ins into old technologies becoming inferior over time, but can also be shaped to avoid these lock-ins, e.g. by designing appropriate interfaces between old and new technologies allowing their simultaneous use or ensuring their compatibility (Cordes and Hülsmann, 2014; Pierce *et al.*, 2008). The fact that few and possibly non existence of scientific research that has been carried out in Tanzania which determine effects of sustainable procurement competencies on dynamic industrialisation concerning dynamic competencies and their evolution over time increases the importance of this research. The results of this research could help not only the individual procurement professionals in Tanzania but also the employees working in collaboration with the procurement professionals as well.

Research Gap

According to data obtained from the Tanzania Industrial Competitiveness Report 2015 (TICR 2015) showed that generally, manufacturing sector in Tanzania remains relatively small, with most activities concentrating on the creation of simple consumer products such as foods, beverages, tobacco, textiles, furniture and wood allied products. In spite of its declining size, however, the sector continues to be of considerable importance to the Tanzania economy as is still one of the most reliable sources of employment and government revenue (Rweyemamu, 2010).

The manufacturing sector's relative contribution to overall GDP of the country has averaged 8% over the last decade, however activities within the sector have been registering an annual growth of over 4% and the sector is currently the third most important to the Tanzania economy behind agriculture and tourism (Mbelle, 2001; Kapunda, 2005). It was noted that biggest challenges for the manufacturing industry in Tanzania which causes slow economic growth are inconsistent average GDP growth rate, inconsistent average manufacturing sector growth rate, technical problems, administrative issues, market challenges, financial barriers and policy issues (Wangwe, *et al.*, 2014); TICR 2015). Hunja (2003) noted that sometimes, procurement professional has been mostly considered a process-oriented,

‘back-office’ support function often implemented by non-professional staff.

Indeed, there is insufficient understanding on effects of procurement competencies to dynamic industrialisation in Tanzania. By responding to this knowledge gap, this research adds to the call from Bridgman (2007) and Sampath (2014) to incorporate the concept of competence from the general management literature into procurement research. Moreover, the operation and management of procurement competence may provide competitive advantage which enable industrial development above and beyond the structural component.

Furthermore, while professional competency researchers have placed attention on investigating pre-defined activity-based whole procurement cases, there has been a scanty research identifying the procurement actors’ horizons from their perspective, and thus also in which tasks these actors engage and how they manage the activities therein. Consequently, in this research, sustainable procurement competency is investigated through the lenses of dynamic industrialisation, from a behavioural perspective. In doing so, the research tries to identify the behaviours that the individuals in procurement tasks engage with-that are argued to be important conducts -at a real practical procurement transaction in Tanzania.

Managing dynamic industrialisation is becoming one of the major focuses of scholars and practitioners (e.g. Ramdoo, 2015; Morris and Fessehaie, 2014). The industrial dynamic environments are forcing firms to primarily focus on competency capability. Consequently, the need is develop procurement competencies by supporting processes such as innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM). Besides variations in perceptions on dynamic industrialisation, there is even more diversity in trying to explain their existence, development and outcomes. For instance, some researchers have suggested that dynamic industrialisation is related to a dynamic environment (e.g. Beji and Belhadj, 2014; Guadagno, 2012), where as others link them with a more stable environment (e.g. Kniivilä, 2007; Pieper, 2000), and others that ignore the characteristics of a specific environment (e.g. Abiola, *et al.*, 2019; Makadok, 2001). However, most agree that dynamic industrialisation may be most valuable in a dynamic environment.

The argument of this paper is that currently procurement competencies will be affected but fundamentally changed either by technical competencies and behavioural competencies. This is because the relevant procurement competencies take the form of complex interlocking systems that are characterized by long-run cumulative development. Complexity and cumulateness underlie ‘lock-in’ – the inability to move away from old competencies that are in some sense less adequate than alternatives. However, some scholars and practitioners observed that procurement competencies as sources of industrial competitive advantage (e.g. Renukappa, *et al.*, 2016) see the outcome as improved effectiveness, others suggest that sustainable procurement competencies do not necessarily lead to industrial competitive advantage (e.g. Srivastava, *et al.*, 2013; and Crisan, (2012) maintain that procurement competencies are not directly linked to industrial competitive advantage.

Numerous authors in the dynamic industrialisation strategies literature recognise consequence of impediments on industrial development due to sustainable incompetence. For instance, Kim (2001) consider the dynamics of technological learning in industrialisation as one determinant of the firm capacity to respond on industrialisation; Perry (2018) study the dynamics of industrial development in a resource-rich developing society; Wiek, *et al.*, (2011) identify key competencies in sustainability with a reference framework for academic program development; Ogbimi (2007) finds support for promoting sustainable economic growth and industrialisation as solution to mass unemployment and poverty; Moyo (2017) suggest a review of progress, challenges and prospects for promoting inclusive and sustainable industrialisation in Africa.

More recently, studies have been focusing on identifying and nurturing core competencies as capabilities to drive manufacturing industry competitiveness and future growth applies to companies across and within industries (Srivastava, *et al.*, 2013; and Davenport and Harris, 2007). But there is

limited research reported in the literature for explaining influence of procurement competencies on enhancing dynamic industrialisation. Advocates of industrialisation either point to potential gains or use technical or behavioural arguments about how industry competitiveness problems can be solved through sustainable procurement competencies efforts. But other scholars perceived that competencies are contributing to lock-ins into old technologies becoming inferior over time (Malerba, *et al.*, 2001) signifying immediate intervention. Thus, invite scientific enquiry, to a greater extent, to explain influence of procurement competencies on enhancing dynamic industrialisation in Tanzania.

Main Objective

Determine effects of procurement competencies on embracing dynamic industrialisation in Tanzania.

Specific objectives:

- (i) To investigate effects of procurement technical competencies in embracing dynamic industrialisation; and,
- (ii) To assess determinants of procurement behavioural competencies on embracing dynamic industrialisation in Tanzania.

Research Hypotheses

The idea behind this study was to determine effects of procurement competencies on embracing industrialisation in Tanzania. In order to meet the study's objectives, the following main hypotheses were proposed:

H₁: Procurement technical competencies have negative and insignificant effects on embracing dynamic industrialisation; and,

H₂: Procurement behavioural competencies have negative and insignificant effects on embracing dynamic industrialisation.

Materials and Methods

In the following section research objectives are presented, hypotheses proposed, questionnaire design explained, sampling procedure described and data analysis methods presented.

The questionnaire

In order to address research objectives, a questionnaire was developed. The foundation of questionnaire design in this study was literature review elaborated in the theoretical part of the paper, and structured questionnaires used by procuring entities when conducting surveys. The questionnaire included 13 items and was divided in three parts. Respondents' demographic information was included in the questionnaire's first part and it referred to respondent's gender, age, educational background, trainings in procurement profession, type of informant, type of institution and years of experience in procurement. These characteristics were measured using nominal scale.

The second part was designed for measuring procurement competencies. This concept was operationalised with attribute and overall procurement competencies measures. Attribute procurement competencies measures represented two variables, namely procurement technical competencies and procurement behavioural competencies. The procurement competencies were measured with one item. All procurement competencies variables were rated on a five point scale, ranging from "very dissatisfied" (1) to "very satisfied" (5). The third part of the questionnaire included four items regarding of dynamic industrialisation are innovative capability, technological capability, government intervention and change management. These variables were rated on a 5-point scale, ranging from "very dissatisfied" (1) to "very satisfied" (5).

Sampling procedure

The targeted population in this study was manufacturing industries with procurement units in Tanzania. Thus, a sample consisted of individuals who dealing with procurement activities in manufacturing industries and were willing to participate in the research. Data were gathered from June to September 2018, using online questionnaire. The link to the questionnaire was distributed via e-mail, with the request to forward it to other addresses, if possible. Of 206 returned questionnaires, 32 were not included in the analysis because they were incomplete. Therefore, data collection resulted in a sample of 174 valid questionnaires.

Data Analysis

The collected data were analysed with the assistance of the SPSS 19 statistical software while AMOS 20.00 was used to estimate the parameters. Data analysis included descriptive statistics, correlation analysis and multiple regression analysis. Descriptive statistics was used to examine respondents' demographic profile and their procurement habits, as well as to assess attributes on procurement competencies on embracing dynamic industrialisation. This method was used to meet the first part of study questionnaire.

Correlation analysis and multiple regression analysis were used to explore how the attribute procurement competencies indicators were related to the procurement competencies variables, addressing the research objectives. Specifically, correlation analysis was performed to assess relationships between each procurement competency attribute and industrialisation attributes. At this stage, hypotheses were tested (H_1 and H_2) using Pearson correlation coefficients. In addition, multiple regression analysis was used to examine the relationship between the combination of procurement competencies attributes and industrialisation attributes. This is a useful technique that can be used to analyse the relationship between a single dependent variable and several independent variables (Hair *et al.*, 2006). Hence, multiple regression analysis was conducted to test the main research hypothesis.

Results

The results are presented as follows. Firstly, demographic profile of the respondents and their habits regarding the effects of procurement competencies on embracing industrialisation in Tanzania are presented. Next, the relationship between attribute and effects of procurement competencies on embracing industrialisation in Tanzania is examined.

Demographic Characteristics

Detailed descriptive statistics relating to the respondents' profile is presented in Table 3.1.

Table 3.1: Descriptive Statistics of Respondents' Characteristics

Characteristics	Percentage	Characteristics	Percentage
Gender		Age	
Male	63.4	Below 30 Years	15.3
Female	36.6	31- 40 Years	25.7
		41-55 Years	37.4
		56-60 Years	21.6

Educational Background			
Certificate	43.6	Type of Institution	
Diploma	36.2	Small Industries	34.2
Degree	13.5	Medium Industries	42.3
Post Graduate	06.7	Large Industries	24.5

Trainings in Procurement Profession		Years of Experience in Procurement	
Attended	24.8	Below 5 years	54.3
Not Attended	73.2	5-10 years	29.5
		Above 10 years	16.2

As presented in Table 3.1, male respondents (63.4%) outnumbered female respondents in the sample. Almost two-thirds were in the age group between 31 and 55, and about 42.3% were employed in medium industries. The respondents were almost not evenly distributed across different levels of education. The majority of respondents (73.2 per cent) have not attended procurement trainings. Furthermore, the majority of respondents have below five years experience in procurement activities.

In identifying the determinants of the embracing dynamic industrialisation, the adequacy of the procurement competencies of the selected manufacturing industries were considered which is in line with the study carried out by Done (2011). This is necessary to measure the manufacturing industry ability to accommodate innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM) in its operations.

Effects of Procurement Technical Competencies on Dynamic Industrialisation

First hypothesis suggests that the procurement technical competencies have negative and insignificant effects on embracing dynamic industrialisation in Tanzania. To test this hypothesis, we examined the number of dimensions employed by manufacturing industries in describing the ideas for embracing dynamic industrialisation in Tanzania. Regression analysis was applied in order to test procurement technical competencies on embracing dynamic industrialisation. On the basis of correlation matrices, the level of correlations among all independent variables was found lower than 0.70. This indicated that there wasn't a collinearity problem for regression analysis (larger than 0.70 is a sign of collinearity problem) (Lehmann, 1989). The set of innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM) to explain level of variance with procurement technical competencies. Hence, the regression model is useful for exploring the relationship between procurement technical competencies variables with dynamic industrialisation (sig. 0.00).

Table 3.2: Correlation matrix for Dynamic Industrialisation and Procurement Technical Competencies

S/N	Correlation	1	2	3	4	5
1	Procurement Technical Competencies (PTC)	1.000				
2	Innovative Capability (IC)	0.283*	1.000			
3	Technological Capability (TC)	0.268*	0.168*	1.000		
4	Government Intervention (GI)	0.337*	0.270*	0.253*	1.000	
5	Change Management (CM)	0.318*	0.214*	0.198*	0.287*	1.000

$P < 0.01^*$

The regression analysis is performed to determine the influence of innovative capability (IC), technological capability (TC), and government intervention (GI) and change management (CM) on procurement technical competencies. The regression result reveals that procurement technical competencies has a statistically significant impact on industrialisation, $R=0.351$, $\beta_0=0.962$, $t=2.435$, $p < 0.01$.

The value of R 35.1% showing that there is a positive linear relationship between procurement technical competencies and industrialisation. Furthermore, the result also shows that the procurement technical competencies explain 19.2% proportion of variation in industrialisation that is R_2 . The value of $F=11.45$ is statistically significant as $P<0.01$. And the value of $t=2.435$ is also statistically significant so null hypothesis is rejected.

Table 3.3: Regression Analysis on Dynamic Industrialisation (Dependent Variable = Procurement Technical Competencies)

S/N	Variable	Coefficient	Standard Error	Standardized Beta
1	Intercept	0.962*	0.031	-
2	Innovative Capability (IC)	0.276*	0.059	0.318
3	Technological Capability (TC)	0.242*	0.062	0.209
4	Government Intervention (GI)	0.302*	0.071	0.415
5	Change Management (CM)	0.219*	0.074	0.282

Note: $R^2 = 19.2$; $F= 11.45$; $P < 0.01^*$

The regression equation that can be formulated based on the information obtained is as follows:

$$PTC = \beta_0 + \beta_1 IC + \beta_2 TC + \beta_3 GI + \beta_4 CM + \varepsilon$$

$$PTC = 0.962 + 0.308\beta_1 + 0.209\beta_2 + 0.415\beta_3 + 0.282\beta_4$$

Where:

PTC = Procurement Technical Competencies; IC = Innovative Capability;

TC = Technological Capability; GI = Government Intervention; CM = Change Management and
 ε = Error term

The possible value of PTC when all independent variables are equal to zero is 0.962. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in innovative capability will lead to a 0.308 increase in procurement technical competencies; this means that there is a significant relationship between innovative capability and procurement technical competencies. A unit increase in technological capability will lead to a 0.209 increase in procurement technical competencies; this means there is a significant relationship between technological capability and procurement technical competencies. A unit increase in government intervention will lead to a 0.415 increase in procurement technical competencies; this means that there is a significant relationship between government intervention and procurement technical competencies. Lastly, a unit increase in change management will lead to a 0.282 increase in procurement technical competencies; this means there is a significant relationship between change management and procurement technical competencies in embracing industrialisation.

The regression analysis result showed that procurement technical competencies have positive influence on industrialisation as $R^2 = 19.2\%$ therefore manufacturing industries must pay attention towards this element of the procurement competence. This implies that, the procurement technical competencies determine whether a manufacturing industry would be highly competitive and dynamic to business environment or not. On the procurement competencies variables, there is a positive significant relationship between procurement technical competencies and industrialisation at 1%. This provides evidence that, manufacturing industry with strong procurement technical competencies is also able to absorb innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM) and thus avoids insolvency and failure.

Thus, if a manufacturing industry in Tanzania wishes to keep pace with competency dynamics and flexibility structure to industrial development resist insolvency and failure, it needs to increase procurement technical competencies in relation to changing business environment. This observation is in line with the studies by Han (2001) and Melita *et al.*, (2003) who examine the role of professional and managerial capabilities in bringing more competency dynamics and flexibility structure to industrial development. This also confirm that, individuals with reputable procurement technical competencies have greater flexibility to adapt to innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM) because they can respond more quickly with a flatter and faster decision-making even in complex interactions.

Influence of Procurement Behavioural Competencies on Dynamic Industrialisation

In assessing the role of procurement behavioural competencies on embracing industrialisation in Tanzania, four proxy measures were used; innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM). The innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM) which measures how well manufacturing industries are able to reinforce procurement behavioural

competencies for improving productivity and competitiveness for the success of beneficiation and value addition.

The relationships between the industrialisation variables (innovative capability, technological capability, and government intervention and change management) and procurement behavioural competencies employed in this study are presented in Table 3.4. Using correlation analysis, the results show that all variables are highly positively correlated with the procurement behavioural competencies and significant. This indicates that these four variables have a strong influence on procurement behavioural competencies. So the result of the correlation analysis, therefore, does not support the hypothesized relationships developed in this study.

Table 3.4: Correlation matrix for Dynamic Industrialisation and Procurement Behavioural Competencies

S/N	Correlation	1	2	3	4	5
1	Procurement Behavioural Competencies (PBC)	1.000				
2	Innovative Capability (IC)	0.339*	1.000			
3	Technological Capability (TC)	0.258*	0.291*	1.000		
4	Government Intervention (GI)	0.284*	0.308*	0.347*	1.000	
5	Change Management (CM)	0.357*	0.264*	0.243*	0.319*	1.000

$p < 0.01^*$

The study is specifically aimed to assess influence of procurement behavioural competencies on embracing industrialisation in Tanzania. To achieve this objective, the multiple regressions were conducted between procurement technical competencies and dynamic industrialisation variables. Multiple Regression analysis was used to determine the importance of each independent variable and its contribution to the mathematical model. The multiple regressions were conducted between dynamic industrialisation dimensions namely (innovative capability, technological capability, government intervention and change management) as they were the independent variables, and the between procurement technical competencies a dependent variable.

It is important to point out that the models presented in Table 3.4 are models of multiple regressions. They explore the change of each dynamic industrialisation indicator caused by the change of the same independent variable and that is the procurement technical competencies. The regression result reveals that procurement technical competencies has a statistically significant impact on dynamic industrialisation, $R=0.427$, $\beta_0=0.864$, $t=2.092$, $p < 0.01$. The value of R 42.7% showing that there is a positive linear relationship between procurement technical competencies and dynamic industrialisation. Furthermore, the result also shows that the procurement technical competencies explain 17.6% proportion of variation in dynamic industrialisation that is R^2 . The value of $F=12.513$ is statistically significant as $p<0.01$. And the value of $t=2.092$ is also statistically significant so null hypothesis is rejected.

Table 3.5: Regression Analysis on Dynamic Industrialisation (Dependent Variable = Procurement Behavioural Competencies)

S/N	Variable	Coefficient	Standard Error	Standardized Beta
1	Intercept	0.864*	0.023	-
2	Innovative Capability (IC)	0.351*	0.048	0.421
3	Technological Capability (TC)	0.382*	0.076	0.327
4	Government Intervention (GI)	0.297*	0.052	0.243
5	Change Management (CM)	0.308*	0.064	0.328

Note: $R^2 = 17.6$; $F = 12.513$; $p < 0.01$ *

The regression equation that can be formulated based on the information obtained is as follows:

$$PBC = \beta_0 + \beta_1 IC + \beta_2 TC + \beta_3 GI + \beta_4 CM + \varepsilon$$

$$PBC = 0.864 + 0.351\beta_1 + 0.382\beta_2 + 0.297\beta_3 + 0.308\beta_4$$

Where:

PTC= Procurement Behavioural Competencies; IC = Innovative Capability;

TC = Technological Capability; GI = Government Intervention; CM = Change Management and ε = Error term

The probable value of PBC when all independent variables are equal to zero is 0.962. The findings showed that taking all other independent variables at zero, if the innovative capability increases by one percentage point, the procurement behavioural competencies will increase by 0.351 units; and vice versa, if the procurement behavioural competencies decreases by one percentage point, the innovative capability will decrease by 0.351 units; this means that there is a significant relationship between innovative capability and procurement behavioural competencies. If the technological capability increases by one percentage point, the procurement behavioural competencies will increase by 0.382 units or by a 3.82% point, and vice versa; this means there is a significant relationship between technological capability and procurement behavioural competencies. If the government intervention increases by one percentage point, the procurement behavioural competencies will increase by 0.297 units or by a 2.97% point, and vice versa; this means that there is a significant relationship between government intervention and procurement behavioural competencies. Lastly, if the change management increases by one percentage point, the procurement behavioural competencies will increase by 0.308 units or by a 3.08% point, and vice versa.

The implication of this result is that, as manufacturing industries increases their procurement behavioural competencies in managing operations, thereby increasing innovative capability (IC), technological capability (TC), government intervention (GI) and change management (CM) exposure is expected to increase significantly.

This also confirms with the Tanzania Development Vision (2025) directive of increasing the productive capabilities and more specifically, the productive capabilities of its firms and its individuals effectively

by the end of 2025. Z-score, a measure of procurement behavioural competencies which makes use of productivity measures, also showed a positive significant relationship between procurement competencies and dynamic industrialisation at 1% level of significance. The result implies that, for manufacturing industries in Tanzania to mitigate the effect of production and consumption dynamics, they should engage in more productivity and competitiveness which would increase their possibility of survival which intend to reduce their exposure to manufacturing uncertainties. This observation is in line with Dike (2013) and Mba Sr. and Teresa (2013) who concluded that, every successful and effective individual have to possess reputable competencies that enabled him to perform efficiently and effectively in today's highly competitive and dynamic business environment. Procurement behavioural competencies showed a positive relationship with dynamic industrialisation, with significant level. This implies that, in analysing factors that influence the procurement competencies on embracing dynamic industrialisation in Tanzania, procurement behavioural competencies significantly contribute to the variations in the dynamic industrialisation.

Conclusion

The research aimed at finding out the relationships between procurement competencies and dynamic industrialisation in terms of procurement technical competencies as well procurement behavioural competencies. Different types of dynamic industrialisation like innovative capability, technological capability, and government intervention and change management were considered. Study findings indicate that procurement competencies showed a positive relationship with dynamic industrialisation, with significant level. This implies manufacturing industries in Tanzania to mitigate the effect of production and consumption dynamics they should bear operational competencies such as procurement competencies.

Study Limitations and Future Research Directions

This study has several limitations. First, the sample size is not large enough for the results to be generalized. The study did not cover all manufacturing industries in Tanzania existing in Dar Es Salaam and Dodoma. Second, the distribution of the manufacturing industries groups was the same in terms of years of operations and manufacturing sub-sectors. Hence, the comparisons were not practical to make. Third, self-reported measures were used. Individuals may have answered inaccurately or had social desirability bias. Forth, the study focused on private manufacturing industries, there was no resemblance of the public institutions. Some future recommendations include surveying public institutions and comparing the results with the private ones. Splitting in terms of years of operations in the field into several groups is important to capture any differences between years of operations and manufacturing sub-sectors. It is also recommended for future researchers to conduct comparative studies in countries with cultures similar to Tanzania. Finally, expanding the scope of the study and examining the impact of EI on productivity, success and academic achievements of academicians is suggested.

Study Implications

Such an empirical examination of the relationship between dynamic industrialisation dimensions and procurement competencies in manufacturing sector of Tanzania is likely to be useful for academia and practitioners in our context. From theoretical perspective, the study provides comprehensive understanding effects of procurement competencies on embracing dynamic industrialisation in Tanzania. The study provides a framework that will help the academicians to formulate the strategies for maximizing the influence of sustainable procurement competencies for enhancing dynamic industrialisation.

For managerial perspective, the study suggests that manufacturing firms who intend to achieve higher industrialisation through the implementation of procurement technical competencies and procurement behavioural competencies. The current study empirically proves that four dynamic industrialisation

dimensions such as innovative capability, technological capability, government intervention and change management are key predictors. Thus, the practitioners of manufacturing organizations should give more concentration to technical competencies and procurement behavioural competencies while enhancing dynamic industrialisation to attain better performance.

Conflict of Interest Statement

Authors declare that research was conducted in absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Perceived challenges and incentives for green ebusiness adoption among Small and Medium Tourism Enterprises (SMTEs) in Tanzania

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Abstract

Although the benefits for going green with green eBusiness are numerous, evidences indicate low pace in the extent with which enterprises adopts the technology. This study assessed the perceived challenges and incentives for green eBusiness adoption among Small and Medium Tourism Enterprises (SMTEs) in Tanzania. The assessment was done from Sourcing through Operations to End-of-IT-Life Management. A five point Likert scale questionnaire (from strongly disagree to strongly agree) was answered by 148 respondents from selected tour operators in Kilimanjaro, Arusha, Dar es Salaam and Zanzibar. A descriptive analysis was run using SPSS version 22, while structure open ended questions' responses were analyzed using content analysis. The findings indicate that the challenges have more to do with infrastructure, policy, facilitating conditions and industrial supports/pressures. It was argued that, green eBusiness adoption is a multifaceted phenomenon that requires systems thinking bringing together tour operators, the government, NGOs and CBOs, tourism association, ICT vendors, general public and community around attraction sites. Apart from contribution to Green IT body of knowledge, it informs on green eBusiness adoption guiding policies reformulation, including regulations. The paper results may foster for creating sustainable development and enhancing SMTEs' corporate social responsibility hence their acceptability to customers and other stakeholders around. In doing so eBusiness would ensure triple-bottom-line economically, socially and environmentally.

Keywords: *Green adoption challenges; Green eBusiness adoption; Small and Medium Tourism Enterprises (SMTEs); Green eBusiness adoption incentives.*

Introduction

Sustainability or eco-sustainability concerns, as used interchangeably, are gaining ground as a better way to do business, because of its contribution to the triple bottom line economically, environmentally, and socio-culturally (Graci and Dodds, 2008; Taylor, 2008). From this motive, the term “green” has evolved in various business sectors with the aim to substitute use of toxic materials with non-toxic materials and non-sustainable practices/processes with more sustainable ones (Ijab et al., 2010). The notion of “green business” emerged at the end of the 20th century came as a wake of the ever increasing public concern about the sustainability of economic development (Čekanavičius, Bazytė and Dičmonaitė, 2014). The term sustainability refers to meeting needs of the present generation without compromising ability of future generations to meet their own needs (Brundtland Commission, 1987).

In tourism sector concerns on ensuring that tourism business activities are relatively green are heightening in order to achieve the sustainability goals. Ali and Frew (2014) asserted that the tourism industry must begin to seek the right balance between economic growth and maintenance of the environment. Already, the United Nations World Tourism Organization (UNWTO, 2008) had called for drastic reductions in greenhouse gas emissions from tourism of 25–30 percent by 2020 and 50 percent by 2035. Although characteristics of business activities carried out in tourism force them to use various forms of ICT, including communicating and informing customers, partners and stakeholders from almost everywhere around the world have, destination selection, booking, payment, pre delivery support activities, transfer arrangements from to the airport and so forth (Kamuzora, 2006; Velte, Velte, & Elsenpeter, 2008; Buhalis & Law, 2008), the extent to which this use of ICT abides to green business practices is considered low. Already, critics have emerged that where ICT in use is itself not green; it is also a source of CO₂ emission – an important agent for pollution and climate change problems. Literature further posits that where ICT applications are not ecological and energy efficient

enough, the ICT applications are responsible for up to 3 percent of GHGs to the atmosphere by 2020 (Goasduff & Forsling, 2007; OECD, 2009), rising energy bills plus accumulated e-wastes from ICT end-of-life-management (Magashi & Schlupe, 2011; Yu et al., 2010). The challenge for sustainability with ICT, as put forward by Coroama and Hilty (2009), lies in the appealing synthesis, “green ICT for green”.

According to Collins (2008), a business can reap two types of benefits by “going green”: one is revenue rising, and the other is cost saving. By going green, a business distinguishes itself from others and gains a competitive advantage, which is an opportunity for raising more revenues (Collins, 2008; Swallow, 2009). Cost saving is mainly generated by waste utilization and input sparing (Čekanavičius, Bazytė and Dičmonaitė, 2014). It is therefore a question on which angle a firm looks green adoption at. Yet, adoption of green technologies in developing nations is critical for sustainable development both for climate change mitigation efforts and giving businesses competitive advantages.

There are many reasons why small businesses should care about sustainability. Among them is need to stay in business and get away from pressures coming from governments, consumers, employees and customers (Perkins, 2010). Also, a firm can obtain more business through commitments to sustainability such that it is considered more reputable and superior as compared to competitors. Besides, it is a way through which a company can save on its bottom line by increasing their energy efficiencies through facility operation, maintenance and use of cost-effective technologies (Perkins, 2010). Small business can also add to its top line through innovation since they are often considered more creative and flexible than larger companies. Studies assert that small businesses are more willing to experiment and in a better position to change course quickly when the challenges require it (Perkins, 2010). On top of that small businesses should care about sustainability as a way to attract, retain and engage talents (Perkins, 2010). Although the larger companies are in the sustainability limelight currently, small businesses have much to gain by developing their own sustainability strategies through exploiting younger workers talents.

Hitherto, although the benefits for going green with green ICT are numerous, evidences indicate that there are still low pace with enterprises adopting green practices including green ICT. Other studies on green business indicate that, adoption of green practices by the business firms has been always a challenge thus making sustainability campaigns complicated (Čekanavičius, Bazytė and Dičmonaitė, 2014). Studies indicate that green movement has always been confronted with a number of obstacles. For example, while the origins of the modern “green movements” can be traced down to the middle of the 1960s, it took almost 20 years for business to adapt to the “greening” trends and adopt them into its ideology and practice, still, the substance of the green business is still taking slow adoption pace among business enterprises.

In developing countries including Tanzania, the pace with which enterprises are adopting green practices including green ICT is still very low. A study by Masele (2019) to the Small and Medium Tourism Enterprises (SMTEs), found only a rudimentary and ad hoc green eBusiness uptakes. The companies were either not aware or they associated the green ICT adoption with additional costs to the firms rather than benefit. The percentage responses presented in brackets indicate that operational practices included sharing printers (69%), switching off computers at times not used (48%), switching to laptops rather than desktops (49%), using recyclable papers (10%), printing papers on both sides (9%) and virtualization as well as consolidation (4%). The study also revealed that the End-Of Life-Management practices included keeping obsolete ICT assets in special rooms/stores waiting for disposal or for tendering procedures (88%), transferring obsolete computers to other companies or within the same company but to different departments, which did not require sophisticated quality PCs (60%), and offering old PCs to needy people as charity, including schools, churches, Internet cafes, friends as well as employees (38%).

Still what makes such adoption low is not clear as there is no study that has documented that understanding. According to Sommer (2017), in order to “make sustainability standards work” for small

and medium-sized enterprises (SMEs) and sustainable development, the challenges and incentives for SMEs in the up-take of standards need to be better understood. It is from this reason that this study was formulated to fill this gap to the body of knowledge as well as informing policy makers towards a strive to realize sustainable development goals. This study was set to assess the challenges and incentives for green eBusiness adoption among SMEs in Tanzania. The term Green eBusiness adoption as introduced by Masele (2014) refers to a process whereby an ecological and energy efficient eBusiness is selected for use by a firm for their economic, social and ecological benefits.

Literature review

Common Characteristics for SMEs, which Influence on their Approach towards Environmental Issues

Despite their heterogeneity, the SMEs often have many characteristics in common, which influence on their approach towards green practices and use of green technologies. These characteristics are also regarded as generic barriers hindering adoption of environmental technologies. Hoevenagel et al (2007) summarize the barriers to include issues related to management, motivation towards green behaviors, resource constraints, and access to information.

Ownership and management of SMEs are often being concentrated on the same hands rendering the entrepreneur to play a key role in the enterprise basing on his/her personal preference in deciding about investments and business strategies. Adoption of environmental innovations is normally embedded in the SMEs' business strategic decision-making (Hoevenagel et al., 2007). Then, if there is no environmental orientation by the firm, it becomes easier to dump the agenda. SMEs also have little external pressure to behave in a more environmentally friendly manner. Hoevenagel, et al., (2007) exemplify that it is difficult for Non Government Organizations (NGOs) or customers to assign specific negative environmental consequences to one or more SMEs, while it is much easier to target large well known enterprises. Governments, on the other hand avoid increasing external pressure on SMEs by environmental legislation as it may deteriorate a country's entrepreneurial climate and hamper its competitive position towards other countries (Hoevenagel, et al., 2007). Besides, the lax enforcement or lack of legally binding minimum requirements imposes steep cost disadvantages on standard-compliant SMEs relative to non-compliant competitors studies (Sommer, 2017).

Low internal motivation for most entrepreneurs in SMEs to behave in a more environmentally friendly manner is another barrier. Hoevenagel et al. (2007) posit that SMEs do not have incentives to go beyond existing environmental legislation. On top of that, the SMEs suffer from important time and task pressure, which leaves them with little time to reflect strategically on future activities beyond the core business of the company. This aspect renders long-term investments which are not related to core-business to be regarded by SMEs as secondary costs. Besides, SMEs are risk averse, given the relatively small economic size of their enterprises (Braun, 2002; Moran, 2002). The basic perception of SMEs with respect to environmental issues is extra costs and not to extra benefits. To them, new environmental technologies will only be regarded successful when they result in a substantial reduction of total costs within a short time span like three years or less. Hoevenagel et al (2007) reveal for example, that, 80 percent of all 22.2 million SMEs in the member States of the European Union were only concerned by two environmental issues, energy savings and waste recycling.

Helmersson *et al.*, (2010) noted that SMTEs who are severely affected by their capital constraints face high risks of illiquidity, having limited access to capital markets and are seen as unfavorably dependent on their generation of internal funds to grow. According to Sommer (2017), SMEs face difficulties in financing adaptation to standards requirements and the recurrent costs of audits, documentation, and certification fees. Against this background, access to finance and the size and productivity of firms are also identified as two relevant constraints. Demonstrating from Tanzania, over 70 percent of SMEs consistently identify access to finance including respective conditionalities as the most serious barrier to their development (Olomi, 2009). Thus, it is fundamental to simplify these steps as much as possible

in order to increase the SMEs' interest in environmental issues. The relatively short-term focus of most SMEs hinders adoption of costly long time taking, and risky technologies adoption. It means that, any support to be done must be towards the development of less risky technologies and implementation of measures to at least partially offset these risks, like subsidies, leasing contracts, bank guarantees, and infrastructural support and so on among the most common approaches in government measures (Hoevengel et al., 2007).

Moreover there is barrier related to little information they possess about strengths and weaknesses regarding the relevant environmental technologies as well as their respective costs and benefits and/or governmental measures to stimulate uptake of such technologies. For this reason, actions focusing on the professional surroundings, such as trade associations or equipment suppliers, may be more effective in regards to adoption of environmental technologies than actions which try to influence the entrepreneur himself/herself directly (Hoevengel et al., 2007). Study by Ciccozzi et al (2002 cited in Mallett 2011) carried in five developing countries including Tanzania, indicated that spreading awareness and educating key players through comprehensive information provision and training in the sector and beyond including government departments, trade associations and the wider community at large is important. Through right information provision, it becomes easier to cultivate SMEs' interests towards being environmentally friendly.

The Green IT Reach-Richness Matrix

According to Molla et al. (2009), although end user firms' responses to environmental challenges vary, organization's IT activity chain permeates from *sourcing* through *operations* to *end-of-IT life management*. The extent of such permeation is known as Green IT Reach (Molla, et al., 2009). The extent of maturity of Green IT *policies, practices and technologies* is referred to as Green IT Richness. The combination of the two dimensions forms a "Green IT Reach-Richness Matrix" (Molla, et al., 2009) (see Table 1). Molla et al. (2009) further posit that maturity in Green IT Reach and Richness can demonstrate depth of a firm's Green IT strategy and commitment to main goals of eco-sustainability pollution prevention, product stewardship and use of clean technology. A combination of organizational motivation and institutional forces can influence the breadth and depth of Green IT adoption (Molla et al. 2009). Such factors can help to gauge a firm's approach to sustainability; eco-efficiency, eco-effectiveness and eco-equity (Chen et al, 2008). This study makes use of the Green IT Reach and Richness Matrix in examining the Green eBusiness challenges among the SMTEs selected for this study. The analysis comprised *sourcing, operations and end-of-life management* processes among the four operating firms.

Table 1: Green IT Reach-Richness Matrix

Green IT Rich Dimension – PPT (Depth)				
	Policies	Practices	Technologies and Systems	
Green IT Reach Dimensions : Cradle-to-Grave (Breadth)	Sourcing	The extent to which an organization has articulated a guideline(s) for an environmentally preferable purchasing of IT	The practice of analyzing the Green track record of IT hardware, software and services providers, incorporating Green considerations in IT procurement decisions	Information systems that track monitor and analyze the carbon footprint of supplies such as supplier sustainability assessment tools.
	Operations	Encompasses the extent to which Green issues are encapsulated in policy frameworks governing the development and use of the IT assets and infrastructure of an organization.	Green IT operation practices refer to eco-considerations in operating the IT and network critical physical infrastructure in data centers and beyond and operational actions designed to improve the energy performance of corporate IT assets.	New technologies and systems for (a) reducing the energy consumption of powering and cooling corporate IT assets (such as data centers) (b) optimizing the energy efficiency of IT assets (c) reducing IT induced Greenhouse gas emissions (d) supplanting carbon emitting business practice and (e) analyzing a businesses' total environmental footprint.
	End of IT Life Management	End of IT life management policy	Practices in reusing recycling and disposing IT hardware	Information systems that track the disposal of IT in an eco-friendly way.

Source: Molla et al. (2009)

The Systems theory

An exploration of the development of systems theory can be traced over a range of intellectual activity and practical endeavor. The approach attempts to view the world in terms of irreducibly integrated systems among its constituent parts (Laszlo and Krippner, 1998). The theory suggests that ecological, social, and economic systems are a group of interrelated, interacting or interdependent constituents forming a complex whole (Allen and Ervin, 2007). It views on striking a good balance between economic, social, and environmental components in order to correspond to ecocentric (ecologically centered) and anthropocentric (human-centered) positions in environmental ethics. According to Burnes (1996), The proponents of this model believe that the focus of change should take a holistic thinking. Burke (1980) maintains that a holistic approach is important in understanding organizations approach to change management. The study finds the theory useful in expounding the challenges and incentives towards green eBusiness adoption among SMTEs in Tanzania.

Methodology

The assessment for green eBusiness challenges was assessed from Sourcing through Operations to End-of-IT-Life Management. The study was carried at four operators in Kilimanjaro, Arusha, Dar es Salaam and Zanzibar, the regions accounting for more than 85 percent of all tour operators in Tanzania (URT, 2007). A firm was selected if it was in operation for at least three years as per Rogers (1995) who contended that technological adoption as a gradual process requires enough time to evaluate. Characteristics of business activities carried out in tourism force them to use various forms of ICTs (Buhalis and Law, 2008) including to communicate with and inform customers, partners and stakeholders ubiquitously at all times. Masele (2019) argues that all activities along the tourism value chain such as destination selection, booking, payment, pre-delivery support activities, transfer arrangements from/to the airport and so forth all involve some form of ICT. Unlike many other firms in Tanzania, tour operators are well established as well as registered (Olomi, 2001; URT, 2007), making it easy to establish sampling frame for random sampling, locating them and administering the questionnaires. In so doing, a five point Likert scale questionnaire (from 1- Strongly disagree; 2- somewhat disagree; 3- neutral; 4- somewhat agree; and 5- strongly agree) was answered by 148 respondents from selected tour operators (see Table 1). A descriptive analysis was run using Statistical Package for Social Sciences (SPSS) version 20, to establish what describes the phenomenon under investigation. The response rate indicates that 37.2% of respondents were from Kilimanjaro, 33.1% from Arusha, 20.9% from Zanzibar and 8.8% were from Dar es Salaam. Gender wise, 73% of respondents were males and 27% were females. Open ended questions responses were analyzed using content analysis.

Findings

Perceived Challenges to Green eBusiness adoption among SMTEs

The findings summarized in Table 2, are grouped into sourcing, operational practices and end of life management challenges. Of the challenges related to sourcing include: absence of appropriate Green IT Hardware and software (66.2%); absence of green procurement/importation standards and specifications on ICT (68.8%); lack of supporting industries green-readiness e.g. policy, infrastructure development, financial budgeting, monitoring practices to enable enterprises to transact using Green eBusiness (69.6%); poor green IT infrastructure (61.5%); and green IT solutions being costly (68.3%).

Perceived challenges related to operational practices included absence of enforceable government regulations (66.2%); absence of set aside funds for training, seminar, incentive and the like (68.3); absence of incentives to go green discourage green eBusiness uptake, as Green eBusiness is considered costly (69.6%); poor green IT adoption in the tourism industry hence failing to create any mimetic pressure among SMTEs (72.9%); poor knowledge and awareness on green eBusiness by the firms (73%); and, requirement for print out/hardcopies of some records by government or suppliers as another operational practice challenge (70.9%).

The end-of-life management challenges revealed included lack of procedures for handling e-wastes (65.5%); inexistence of a green disposal policy (66.1%); inadequate information on e-waste collecting companies (69.6%); and, contradictory and bureaucratic regulations on ICT take backs (69.6%).

Table 2: Perceived Challenges to Green eBusiness adoption

Challenges	Items	Responses					TOTAL
		Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	
Challenges related to Sourcing	Absence of appropriate green IT Hardware and software as a hindrance.	0 (0.0%)	7 (4.7%)	43 (29.1%)	69 (46.6%)	29 (19.6%)	148 (100%)
	Absence of green procurement/ importation standards and specifications on ICT as a challenge.	1 (0.7%)	5(3.4%)	40 (27%)	72 (48.6%)	30 (20.2%)	148 (100%)
	Lack of supporting industries green-readiness as a hindrance.	0 (0.0%)	5(3.4%)	39 (26.4%)	75 (50.7%)	28 (18.9%)	148 (100%)
	Poor green IT infrastructure as a challenge to green eBusiness implementation.	2 (1.2%)	9(5.3%)	33 (19.5%)	80 (47.3%)	24 (14.2%)	148 (100%)
	The cost of green IT solutions as a challenge.	2 (1.3%)	5(3.4%)	40 (27%)	75 (50.7%)	26 (17.6%)	148 (100%)

Challenges related to Operational practices

Absence of enforceable government regulations slow down implementation of green eBusiness.	2 (1.3%)	4 (2.7%)	44 (29.7%)	70 (47.3%)	28 (18.9%)	148 (100%)
Absence of set aside funds for training, seminars and incentives for adopters and the like as a challenge.	3 (2.0%)	3 (2.0%)	41 (27.7%)	67 (45.3%)	34 (23.0%)	148 (100%)
Absence of incentives to go green discourage green eBusiness uptake, because Green eBusiness costly.	2 (1.3%)	10 (6.8%)	33 (22.3%)	79 (53.4%)	24 (16.2%)	148 (100%)
Poor green IT adoption in the tourism industry to create mimetic pressure as a challenge.	4 (2.4%)	4 (2.7%)	32 (21.6%)	77 (52.0%)	31 (20.9%)	148 (100%)
Poor knowledge and awareness on Green eBusiness by the firms as a challenge.	1 (0.7%)	2 (1.3%)	37 (25.0%)	75 (50.7%)	33 (22.3%)	148 (100%)
Requirement for print out/hardcopies of some records by government or suppliers as a challenge.	2 (1.3%)	9 (6.1%)	32 (21.6%)	81 (54.7%)	24 (16.2%)	148 (100%)

Challenges related to End of Life Management	Lack of procedures for handling e-wastes as challenge.	1 (0.7%)	5 (3.4%)	39 (26.4%)	73 (49.3%)	30 (16.2%)	148 (100%)
	Inexistence of a green disposal policy as a challenge.	0 (0.0%)	6 (4.1%)	44 (29.7%)	64 (43.2%)	34 (22.9%)	148 (100%)
	Inadequate information on e-waste collecting companies as a challenge.	0 (0.0%)	5 (3.4%)	40 (27.0%)	76 (51.4%)	27 (18.2%)	148 (100%)
	Contradictory and bureaucratic regulations on ICT take backs as a challenge.	0 (0.0%)	6 (4.1%)	39 (26.4%)	70 (47.3%)	33 (22.3%)	148 (100%)

Discussion of findings

While going green by SMEs is very important for sustainable development, the mission to do so may not be realized unless the challenges and required incentives are clearly revealed and addressed. In line with such understanding, this study was formulated in order to investigate the challenges and incentives behind green eBusiness adoption. The challenges were categorized basing IT activity chain from sourcing, operational practices to end-of-life management.

This study revealed that, although all the ICT equipments were imported there was no Green ICT policy and specific regulations on green electronic procurement, operations and end-of-life management. ICT procurement/importation was guided without any established standards and specifications. There was lack of supporting industries green eBusiness readiness along with green IT solutions being considered very costly. There was poor knowledge and awareness on green eBusiness by the firms. Yet, the study revealed absence of set aside funds, or any form of incentives to subsidise green eBusiness adoption including training and seminars and the like on green eBusiness adoption. Consequently, there was poor green ICT adoption in the tourism industry that consequently made mimetic pressure among the SMTEs low. Moreover, there were a number of contradictory regulations that impedes green eBusiness adoption including the obligation requiring submission of print out/hardcopies of some records by government or suppliers and, contradictory and bureaucratic regulations on ICT take backs. There were also lack of procedures for handling e-wastes in general; inexistence of green disposal policy; and inadequate information on e-waste collecting companies. This study conceptualized that these challenges have more to do with infrastructure, policy, facilitating conditions and industrial supports/pressures.

It is the fact that any ICT application may not be expected in an organization without such facilities. That is to say, where required green eBusiness infrastructures including hardware and software to support green adoption are not easily accessible, it is inconceivable for a resource constrained SMEs to stretch beyond what working business environment supports. Venkatesh *et al.*, (2003) postulated that usage of technology is dependent on availability of an enabling environment for its application. Besides, adoption of technology for resources like environment that are perceived more of public than private interests it may be easily regarded as an additional cost than benefits.

Procurement system has enormous impacts on whether the ICT to be acquired could be “green” enough or not. According to OECD (2009) existence of policies on environmental requirements for ICT procurement, will not only reduce the environmental impact of own ICTs, but also offers opportunity for firms to use their purchasing power to increase competition and innovation among ICT providers. The policies are also important to operations and end-of-life management (re-using, recycling and disposing) of ICTs and network critical physical infrastructure in data centers and beyond including operational actions designed to improve energy performance of corporate IT assets. Chen et al (2008) assert that policies for purchasing energy-efficiency IT, evaluating the green track record of vendors in IT procurement decisions and disposing of IT in an environmentally friendly manner are among the Green IT practices supposedly to be adopted.

According to Masele (2014), mimetic pressure mostly takes part where coercive pressures are absent such that, some other organizations’ behaviors and their corresponding outcomes play a critical role in determining an organization’s decision with respect to moral issues. Masele (2014) further asserts that where most dealers are not practicing and are unaware of what constitutes green eBusiness, it is unimaginable to suffer mimetic pressure from competitors. This study found that, the SMTEs were all equally not informed on green eBusiness such that no mimetic pressure to go green was revealed. The finding is similar to what was noted in an interview with one of the MDs in Dar es Salaam, who categorically pointed that, environmental protection was argued to be not a means to differentiate the provided services.

Investigations further revealed nonexistence, lack of specificity and/or laxness in implementation of the available green related regulations. Revell and Rutherford (2003) argues that in order to encourage participation of SMEs in creating a sustainable development, the role of government and environmental policies are important, failure to which could create imbalances in the economic ecosystem. According to Sommer (2017), where there is weak legal enforcement the adoption of any green standards may be undermined. Sommer (2017) further argues that if legislative regulation or enforcement of environment issues is lax, the gap between firms complying with voluntary sustainability standards and non-compliant competitors is large with respect to implemented standards and associated costs. Thus, standards-compliant SMEs face a higher burden and cost disadvantages in comparison to noncompliant national competitors (UNFSS, 2016).

Besides, the effects of regulations are ambivalent as regulations and enforcement has also been found to be a relevant constraint. Some regulations were contradictory and bureaucratic. For example, regulations related to ICT take back for example among others required notification to grant the permit and export approval by the countries the e-waste pass and is shipped to. This ends up sometimes causing unnecessarily delay and hence discouraging those who are involved in the business. Sommer (2017) argue that although mandatory standards has to go hand in hand with activities that ensure international endorsement of the local standard in order to facilitate access to export markets, they must not overstrain the capacities of new, small firms, but exhibit manageable requirements as well as a smooth and affordable certification process. The study further noted that some regulations that obligatorily required submission of print out/hardcopies of some records to government or suppliers impedes the campaign towards green eBusiness adoption. One of the MD from a tour operator in Kilimanjaro for example lamented, *“We are however facing a number of challenges. For example some processes require mandatory printing out including managing booking because suppliers, hotels, and government offices, require printing of any official document to be presented as hardcopies.”* Another MD from a tour operating office in Arusha regarded papers as harmful because they involve tree cutting to make them. The study challenges for transferring most of existing business processes to electronic in order to enjoy the potential benefits from Green eBusiness applications. Suggestions include defying vendors not only to include where possible, clear aspects that promises economic gains to the adopting firms, but also to aggressively and widely market potential gains such that they would be clearly understood by all potential users.

Conclusion and study recommendations

Unless the revealed challenges and incentives behind green eBusiness adoption are addressed the destination to green business may remain a paradox. In its assessment from sourcing to operational practices to end of life management, the study has grouped the revealed challenges into infrastructure, SMEs generic characteristics, policy, facilitating conditions and industrial supports/pressures. This study is of the opinion that, green eBusiness adoption is a multifaceted phenomenon that requires systems thinking. It needs to involve not only the tour operators in business but also other several stakeholders including the government through responsible ministries and agencies, NGOs and CBOs, tourism association, ICT vendors, general public and community around attraction sites. The government support towards green eBusiness initiatives is important. It may include formulation of implementable policies and regulations, setting-aside funds for training, seminars, and providing incentives to adopters and the like. Tourism associations are urged to encourage tourism enterprises on green eBusiness uptake through creating more awareness and/or enforcing organizations to comply to green eBusiness. SMTEs should adopt green culture and take part and start using green eBusiness so as to enjoy the potentials for green eBusiness including revenue rising and cost saving. Vendors are urged to come up with environmentally friendly and affordable ICT equipments, as well as aggressively promoting them for green eBusiness uptake by tour operators. Tourists should be responsible for green tourism including adhering to green eBusiness guidelines. While community around should incorporate green tourism changes through sharing knowledge on environmentally friendly technologies, including reporting on any environmentally unfriendly conducts by tour operating companies.

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Conceptualizing transfer of entrepreneurship training: A theme for human resource development (HRD) in the Micro-Small and Medium Enterprises (MSMEs) in Tanzania

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Abstract

Despite major training efforts expended to MSME owners in Tanzania as part of HRD, they still face major challenges including lack of creativity and innovativeness. This raises questions on the effectiveness of offered training. Therefore, this study sought to link the concept of training transfer- a crucial aspect of training effectiveness- with the evaluation of entrepreneurship training. Specifically, the paper delineates concepts of transfer generalization and maintenance in terms of proximity and complexity and identifies vital transfer aspects in the study of entrepreneurship training. A systematic desk review presents the evolution of prominent models in the field and evidence that the study of transfer of entrepreneurship training should adapt prominent models as the 1988 Baldwin and Ford Models of the Transfer Process to fit contextual requirements and research evolution. This review thus culminates in a synthesized conceptual framework useful in research on entrepreneurship-training transfer in the MSMEs.

Keywords: Training Transfer, Entrepreneurship Training, Human Resource Development, MSME's, Tanzania

Introduction

Entrepreneurship training programmes are implemented to enable self-employment through Income Generating Activities (IGAs), (Karlan and Valdivia, 2011; Valerio, Parton and Robb, 2014). The training programmes are rarely stand-alone and tend to be combined with other interventions such as micro-finance, grants, internships or mentorship (McKenzie and Woodruff, 2014). While research indicates HRD occurs in (MSMEs), it also indicates that the informality, non-traditional and unique forms of HRD in MSMEs makes the area remain under-researched and underreported, with calls for more research; (Short and Gray, 2018) (Galvão and Marques, 2019). The problem is more pronounced in the Sub-Saharan Africa (Legas, 2015) regardless of the fact that MSMEs significantly influence the economic growth of countries through their contribution to production, exports and employment (OECD, 2014). Statistics indicate that, in many countries, the MSME sector encompasses approximately 99% of all businesses, provides over 50% of employment, and can generate around 50% of national turnover (Short and Gray, 2018). In Tanzania, statistics show that 2,754,697 individuals operated 3,162,886 MSMEs in 2010, (FSDT, 2012). The “Tanzania Development Vision (TDV) 2025” highlights MSMEs as an important contributor to the country’s long-term development. Estimates show that Tanzania’s MSME contributes 27% to 35% of overall GDP. Most MSMEs are in the agricultural sector, and more than half are owned by women (Magembe, 2019), making HRD in the sector a scholarship area that requires concerted efforts.

It is stated, for example, that there is no consensus on how HRD in SMEs is defined but according to Nolan and Garavan (2016), authors generally make explicit references to HRD using terms like: ‘training’, ‘development’, ‘learning’, ‘competence development’, ‘informal training’, ‘formal job-related training’ and ‘management training and development’. Scholars also note that the term ‘training’ though rarely defined is used frequently and generally conceptualized as a planned and systematic effort and as a formal activity such as a course aimed at improving targeted Knowledge, Skills, and Attitudes (KSAs) relevant to the job (Edwards, 2013; Nolan and Garavan, 2016). This study adopted previous authors conceptualization and henceforth uses HRD simultaneously with training,

specifically, entrepreneurship training.

Context of the paper

Despite efforts by the government and other stakeholders to promote MSME growth, their key obstacle to growth is limited access to credit and *know how* (Magembe, 2019). In recent years it has been debated whether training initiatives adequately address the trainees business and other entrepreneurial requirements. This debate arises from observations that in some cases there are differences in terms of perceptions of training providers on the one hand and those of participating trainees on the other hand (DeJaeghere, 2017). This creates skill gaps at various levels (Bhatti *et al.*, 2013) which in turn cause the majority of MSMEs to exhibit lack of creativity and innovation (Brown *et al.*, 2015) and low graduation rate which has earned them the name of ‘mice’ (Henrekson and Johansson, 2010). A similar problem was reported in Italy where startups declined between 2007-2008 despite training efforts (Matricano and Formica, 2017). Moreover, a study in Namibia reported that entrepreneurs attend training but are disappointed when no business outcome or behavioral change follows (Barkhuizen and Bennett, 2014). In Tanzania the Citizen Newspaper reported that despite MSMEs being key to inclusive growth, the trainings are ineffective because they use classroom based rather than application and experiential methods (Nensi, 2018). Shimba, (2018) also states that the supply side driven nature of the training, motivation of the trainees, motive of the training sponsors, focus of the trainings and trainer competence affect their overall impact on performance of the trainee’s enterprises. This raises questions on the effectiveness of training being offered and is the main prompt for this study.

The effectiveness of training is evaluated at several levels using various models and approaches. One of the key levels prescribed in prominent models is ‘transfer’, which was conceptualized by Thorndike in 1901 as “the extent to which the learning that results from a training experience transfers to the job and leads to meaningful changes in work performance” through generalization and maintenance (Blume *et al.*, 2010). Generalization can take on several forms but the most common is the measurement in terms of proximity i.e. near transfer where the learning is transferred to similar situations, and far transfer where the learning is applied to varied situations and contexts. The level of complexity of transfer defines the application of learning to new or unique situations whereby in entrepreneurship training ‘creative transfer’ proposed by Haskell (2001) is an example of complex transfer of training.

Transfer is the penultimate goal of training and is conceived to be the most crucial level since it is responsible for the consequent performance of work which will then result in realization of organizational objectives (Massenberg, Schulte and Kauffeld, 2017; Thalheimer, 2018). Notwithstanding, literature reveals that transfer of training is an elusive phenomenon (Bates, Holton and Hatala, 2012; Tonhäuser *et al.*, 2016). Estimates demonstrate that 70 - 92% of acquired learning is lost within a year following training (Grossman and Salas, 2011; Edwards, 2013; Hughes, 2016) causing wastage of billions in spending on training each year (Jain, 2014). This has created attention for research on training transfer from theoretical and empirical research over time.

Seminal models used to study the phenomenon are of two basic approaches namely *Results oriented models* like the Kirkpatrick Model of Training Evaluation of 1959/2009 have been widely used and a review of the literature found its recent adaptation by Thalheimer (2018) into the Learning Transfer Evaluation Model (LTEM). The other one is the *Process oriented models* like the Baldwin & Ford Model of the Transfer Process, 1988 and its recent adaptation by Blume *et al.* (2019) in the Dynamic Model of Transfer. Despite its vitality to HRD, the concept of transfer of training in entrepreneurship is still very basic due to complexity of the evaluations caused by factors like heterogeneity and informality of this sector (Ismail, 2015; Galvão and Marques, 2019).

Thus, it suffices to state that effectiveness of entrepreneurship training can only be fully realized when mapped with the concept of training transfer, which is responsible for the ultimate changes in business performance. Therefore, this conceptual paper sought to link concepts of training transfer in seminal literature to entrepreneurship training. Specifically, the paper delineates concepts of transfer

and presents a framework for the study of entrepreneurship training transfer to MSME owners. To achieve this, the following research question was posed: *What congruence or divergence exists between prominent training transfer models and entrepreneurship training assessment/evaluation?* The main objective of this study was to link the concept of training transfer with the evaluation of entrepreneurship training.

Theoretical background and review of literature

The extant literature reveals that the study of training transfer being highly involved with individual trainees, has exhibited a preference for psychological based theories (especially expectancy theory), an issue which has been criticized for hindering holistic developments in the area (Haskell, 2001; Tonhäuser *et al.*, 2016). A variety of theories are used in entrepreneurship training assessment depending on the angle

of focus: (socio)-Economic theory like Resource Based View, Human capital, and Institutional; Psychological theory like Motivational theories, Self-efficacy, Planned Behavior, Action Regulation; Instructional theory like Experiential learning, Constructivism and Andragogy. However, it has been noticed that most of the entrepreneurship training evaluations tend to rely on economic theory due to the fiscal or related performance measures used. According to Newman, Schwarz and Borgia, (2014) this is claimed to have effects similar to the study of transfer through hindering a holistic development.

Training Transfer, HRD in MSMEs, and the Transfer Problem

Evidence illustrates training's ability to effectively foster positive responses from trainees (reactions), enhance learning (learning), improve behaviors on the job [referred to as transfer in several models], and improve targeted organizational outcomes (results.) (Arthur *et al.*, 2003). However, of all these, ensuring key behaviors are used or transferred to the job context is essential for training to ultimately be effective (Seiberling and Kauffeld, 2017). Training transfer describes the degree to which trainees apply KSAs learned through training resulting in HRD. Baldwin and Ford (1988) define transfer of training as the degree to which trainees effectively apply the KSAs gained in a training context to the job. If learning is not translated into an identifiable performance change, then the results of the training in the context of performance is negligible (Hughes, 2016).

The role of training transfer research is to formulate and understand the learning process and how learning is transferred in both individual and organizational contexts (Bates, Holton and Hatala, 2012). Training transfer not only defines the parameters of the learning process, but contributes to an understanding of the dynamics that shape the learning process, contributing contextual and human factors and the intended performance outcome (Kirkpatrick, 2009; Edwards, 2013). As a result, training transfer must be viewed comprehensively to include the process of learning and the associated variables that both positively or negatively influence this process and impact the individual's ability to transfer. table 1 depicts different forms of transfer conceptualization by Haskell, (2001) as this taxonomy provides a level that is important for entrepreneurship training i.e. creative transfer.

Table 1: Haskell's Different Forms of Transfer

<i>LEVEL</i>	<i>TYPE</i>	<i>DESCRIPTION</i>
	Nonspecific transfer	implies that all learning is transfer of learning because all learning depends upon being connected to past learning
	Application transfer	The application of what has been learned to specific situations.
	Context transfer	refers to the application of learned materials under slightly different situations whereby lack of transfer may occur if the context changes, even if the learned task itself does not change
	Near transfer	previous knowledge is transferred to new situations that are closely similar to, yet not identical to, initial situations
	Far transfer	application of learning to entirely dissimilar situations from the initial learning
	Displacement or creative transfer	The creation of a new concept because of the interaction of the newly perceived similarity between the new and the old. It involves what Baldwin, Ford and Blume, (2012) term as <i>adaptive expertise (experts invent new procedures, make new predictions and strategies based on KSA attained through training to respond to novel circumstances)</i>

Source: Haskell, (2001)

The LTEM by Thalheimer (2018) also introduces two types of transfer:

<i>Type</i>	<i>Description</i>
<i>Assisted transfer</i>	Connotes situations where a person transfers their learning to the job, but does so with significant assistance, support, or prompting.
<i>Full Transfer</i>	Involves successfully putting learning into practice even without interventions of support, compulsion, significant help or prodding

Source: Thalheimer, (2018)

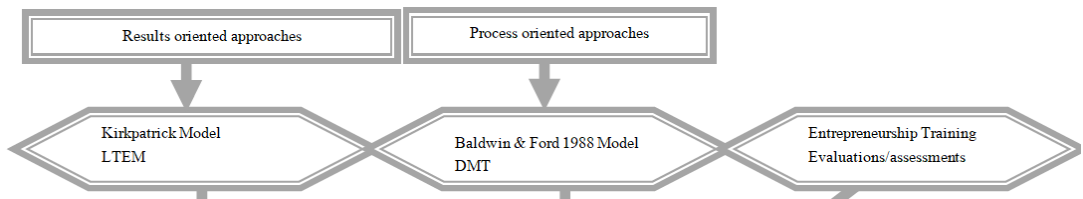
There is no universally accepted definition of MSMEs (Olomi and Rutashobya, 2009; Mbura 2013, Magembe, 2019). However, Tanzania SME policy considers micro enterprises to engage up to 4 people, in most cases family members or capital of Tshs 5 million. Small enterprises are mostly formalized undertakings, engaging between 5 and 49 employees or with capital from Tshs 5- 200 million. Medium enterprises employ between 50 and 99 people or capital from Tshs 200-800 million (URT, 2002). In Tanzania entrepreneurship training is provided through government and non-governmental organizations (Shimba, 2018; Magembe, 2019). Microfinance institutions in particular tend to offer most entrepreneurship and business training. (Brown *et al.*, 2015). Moreover, The National Entrepreneurship Training Framework (NETF) was established to organize entrepreneurship training in the country (NEEC, 2013). Other efforts include the launch of the Tanzania Entrepreneurship and Competitiveness Centre, collaboration between the Tanzania Private Sector Foundation (TPSF), the National Economic Empowerment Council (NEEC), and the Commission for Science and Technology (COSTECH). However, MSMEs still have problems of performance and growth which may be

attributed partly to the gap between the learning acquired and its application to their work environment, technically known as the transfer problem (Kirkpatrick, 2009; Blume *et al.*, 2010; Saks and Haccoun, 2010; Grossman and Salas, 2011).

The transfer problem

Despite the variety of conceptualizations of transfer, it is not a straightforward and automatic result of training. Multiple complexities in the process result in transfer being elusive to achieve desired behavioral outcome causing the ‘transfer problem’ or the training-firm performance paradox. This problem has been studied extensively using a variety of models due to its influence on the recall and utilization of learning, which ultimately affects the returns on expectations (ROE) from training (Wenzel and Cordery, 2014). Failure to transfer training is a common occurrence in organizations. Estimates demonstrate that as few as 10% of trained knowledge, skills, and attitudes (KSAs) are being used on the job a year after training showing a decrement in use of trained KSAs over time (Edwards, 2013; Hughes, 2016). Thereby, it is critical to have concrete models to evaluate the phenomenon and provide suggestions for improvement since failure to transfer entrepreneurship training affects MSME performance and therefore competitiveness and sustainable economic growth. A framework for the study is presented in Figure 1.

Figure 1: Research framework



Source: From the Literature

Methodology

To identify the extent to which the body of research literature has explored the determinants of transfer of training, an extensive, topic-based literature review was conducted following the principles of Nolan and Garavan (2016). Indicators of four models of training transfer; The Kirkpatrick, The LTEM, The Baldwin and Ford Models of the Transfer Process, and the Dynamic Model of Transfer (DMT) and various entrepreneurship-training evaluations were reviewed for synthesis. Google Scholar was the key search engine due to its wide access to various journal databases on the study area, Articles were accessed from Emerald Insight, Research Gate, Sage pub, Academia, Wiley Online Library, Psych info, Semantic scholar and Jstor through University of Dar-Es-Salaam subscription. From about 17,800 hits on the internet, 242 abstracts relevant to the three categories, and were found and reviewed for relevance. Finally, 77 documents were used in the study. The search of titles and abstracts on transfer of training was restricted to the time span from 1990 until July 2019, since publications until Baldwin and Ford (1988) have been examined. Additionally, the volume of publications on this topic has rapidly increased over the last two decades. As a result, several other literature reviews exist (e.g. Kirkpatrick, 2009; Blume *et al.*, 2010; Grossman and Salas, 2011; Tonhäuser *et al.*, 2016). The following search terms were used: training transfer, models of transfer. The same time span was used for entrepreneurship training evaluations and several reviews were found (e.g. Honorati and Cho, 2013; McKenzie and Woodruff, 2014; Prediger and Gut, 2014; Valerio, Parton and Robb, 2014; Ismail, 2015; Galvão and Marques, 2019) as well as rigorous evaluations of specific assessments and evaluations in various locations. The following search terms were used: entrepreneurship-training evaluation, HRD, and MSMEs.

Analysis and interpretation

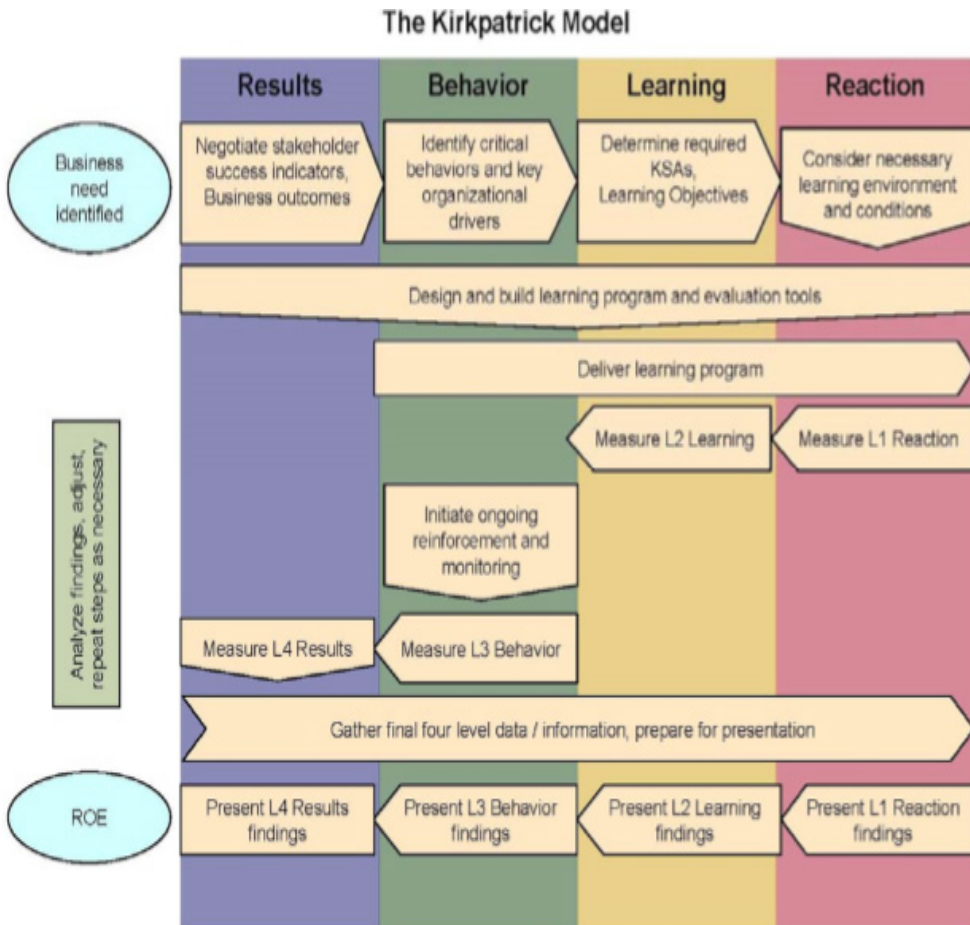
Despite its many conceptualizations, transfer of training is considered to be the hallmark of key training effectiveness models (Kirkpatrick, 2009; Edwards, 2013). Various models and definitions have played a key role in informing the development of the framework proposed for use in entrepreneurship training transfer assessment. The models selected to inform this study are from the prominent results oriented and process oriented approaches found in the seminal and empirical literature and their most recent adaptations. Results Oriented Approaches are the *Kirkpatrick Model of Training Evaluation* (1959; 2009) and the *Learning Transfer Evaluation Model (LTEM- 2018)*.

The Kirkpatrick-Katzell four-level model

The Kirkpatrick-Katzell four-level model was conceived by Raymond Katzell in the 1950s then enhanced, and popularized by Donald Kirkpatrick since 1959. It has left a permanent mark on workplace learning, as it was influential in transforming training-and-development into the learning-to-performance (Thalheimer, 2018). Kirkpatrick described four levels of evaluation (1-Reaction, 2 Learning, 3-Behaviour, 4-Results) in which the complexity of the behavioral change increases as evaluation strategies ascend to each higher level. The popularity of the Kirkpatrick Model was demonstrated by the 1997 American Society for Training and Development (ASTD) survey results whereby 99% of surveyed organizations used the model (Jain, 2014). HRD theory recommends that as many as possible of the four levels of evaluation be conducted in order to make the best use of organizational resources of time, money, materials, space, equipment, and manpower. However, few studies fully use of the model (Kirkpatrick, 2009). Moldovan, (2016) contends that it is difficult to carry out the Kirkpatrick's model from the first level to the fourth level since the evaluation becomes more complex and requires more time when ascending the hierarchy.

In 2009, a review of fifty years saw the model updated to include aspects of training needs analysis and emphasis on the work environment as key factors for training effectiveness. The model was updated to show that programs begin by considering what results the business wants to accomplish followed by each of the other three levels in an iterative pattern. This repetitive pattern makes all four levels to be addressed at almost every step in the process and therefore the model has been simply renamed as the Kirkpatrick Model to reflect this reality (Kirkpatrick, 2009). It is presented in Figure 2.

Figure 2: The Kirkpatrick Model



Source: Kirkpatrick, (2009)

The LTEM by Thalheimer (2018)

The LTEM by Thalheimer (2018) is proposed as a serious practical alternative to the Kirkpatrick model. The model is intentionally designed to overcome the most urgent failures in learning practice better than the Kirkpatrick model. It provides appropriate guideposts, enabling the creation of cycles of continuous improvement. The model is designed to be relevant for all learning interventions LTEM is composed of eight levels starting from completely inadequate methods of learning evaluation all the way through to the effects of learning transfer.

The inadequate levels in the model are *Level 1: Attendance*, *Level 2: Activity*, *Level 3: Learner Perceptions*, and *Level 4: Knowledge*. Thalheimer informs that that levels 5, 6, 7, and 8 warrant some level of validation. Thereby level 5: *Decision Making Competence* is an extension to the Kirkpatrick model, where Level 2 is designated as “Learning.” The model argues that in the Kirkpatrick model learning is interpreted, as “knowledge recitation yet learning results are much richer. It identifies that at a minimum, learning results can constitute comprehension, the ability to make decisions, and the ability to successfully engage and complete realistic tasks. Decision-making is viewed as an essential result of any learning initiative that intends to support subsequent behavior thus it must be rigorously evaluated by asking, “Do learners know what to do?” Level 6: *Task Competence* is introduced to test for competence demonstrated soon after learning as an antecedent to the next level, which is transfer

by asking “Can learners actually do what they learned how to do?” This level however cannot account for the maintenance of task transfer over time and contextual variation. Level 7: *Transfer* defines learning transfer by two criteria. First, people have had been previously engaged in some sort of learning experience. Secondly, they use the learning on the job or some other targeted performance situation by asking, “In targeted work situations, are learners successfully using what they learned?” As with the Kirkpatrick model, the LTEM considers transfer as the penultimate goal of learning, viewing learning as an instrumental means to other ends. Therefore Level 8: *Effects of Transfer* is geared at measuring the outcomes of learning by asking, “If learners have been successful in transfer, what effects has that transfer had on targeted and untargeted outcomes and stakeholders?” The model is as illustrated in Figure 4.

Figure 3: The Learning Transfer Evaluation Model (LTEM)

The Learning-Transfer Evaluation Model
Abbreviated as LTEM (Pronounced "L-tem")

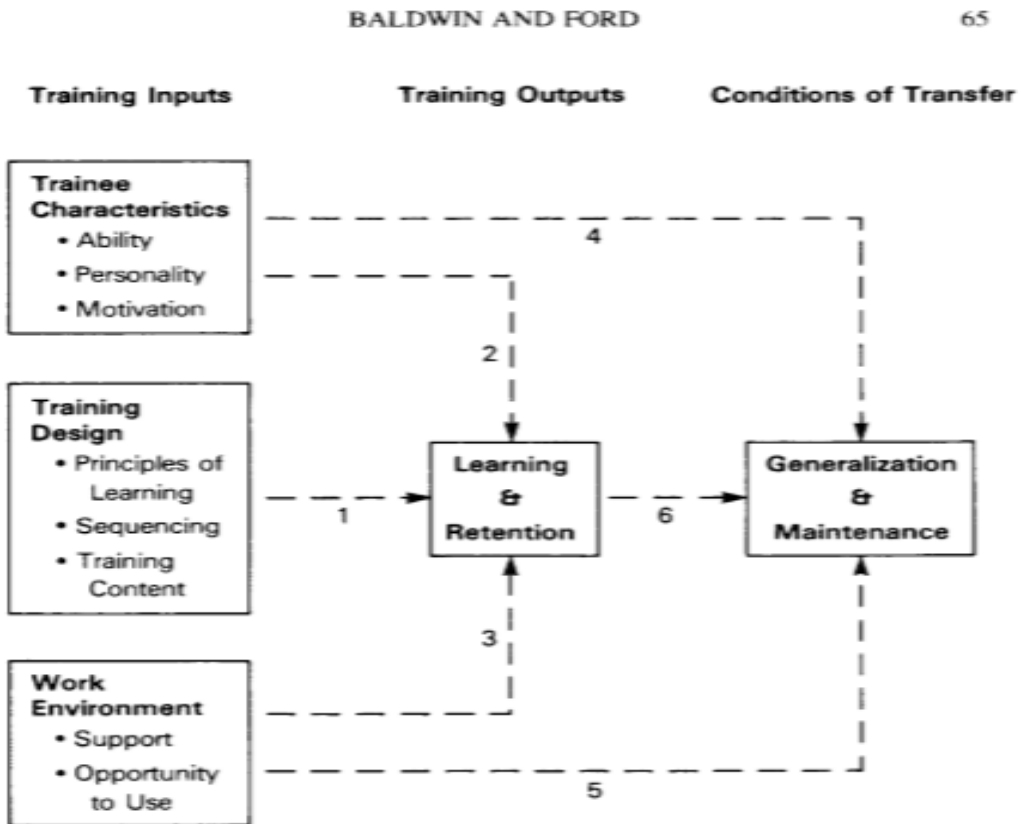
Tier 8	Effects of Transfer	<p>Effects of Transfer: Including outcomes affecting (a) learners, (b) coworkers/ family/friends, (c) organization, (d) community, (e) society, and (f) the environs.</p> <p><i>CERTIFYING EFFECTS OF TRANSFER REQUIRES: Certification of transfer plus a rigorous method of assessing transfer's causal impact—including positive and negative effects.</i></p>
7	Transfer	<p>When learner uses what was learned to perform work tasks successfully— as clearly demonstrated through objective measures.</p> <ul style="list-style-type: none"> • Assisted Transfer—when performance is substantially prompted/supported. <i>ADEQUATE TO CERTIFY ASSISTED TRANSFER.</i> • Full Transfer—when learner demonstrates full agency in applying the learning. <i>ADEQUATE TO CERTIFY FULL TRANSFER.</i>
6	Task Competence	<p>Learner performs relevant realistic actions and decision making.</p> <ul style="list-style-type: none"> • Task Competence—during or right after learning event. <i>Not a fully adequate metric because learners may forget their task competencies.</i> • Remembered Task Competence—after several days or more. <i>ADEQUATE TO CERTIFY TASK COMPETENCE.</i> <p><i>NOTE: "Tasks" comprise both decision making and action taking. For example, a person learning to write poetry could <u>decide</u> to use metaphor, could <u>act</u> to use it, or could do both.</i></p>
5	Decision Making Competence	<p>Learner makes decisions given relevant realistic scenarios.</p> <ul style="list-style-type: none"> • Decision Making Competence—during or right after learning event. <i>Not a fully adequate metric because learners may forget decision making competencies.</i> • Remembered Decision Making Competence—after several days or more. <i>ADEQUATE TO CERTIFY DECISION MAKING COMPETENCE.</i>
4	Knowledge	<p>Learner answers questions about facts/terminology.</p> <ul style="list-style-type: none"> • Knowledge Recitation—during or right after learning event. <i>Usually inadequate because <u>answering</u> terminology does not fully enable performance.</i> • Knowledge Retention—after several days or more. <i>Usually inadequate because <u>remembering</u> terminology does not fully enable performance.</i>
3	Learner Perceptions	<p>A. Learner is queried in a way that reveals insights related to learning effectiveness.</p> <ul style="list-style-type: none"> • Examples: Measures that target Learner Comprehension, Realistic Practice, Learner Motivation to Apply, After-Learning Support, etc. <i>Such measures can hint at outcomes but should be augmented with objective outcome measures.</i> <p>B. Learner is queried in a way that does NOT reveal insights on learning effectiveness.</p> <ul style="list-style-type: none"> • Examples: Measures that target Learner Satisfaction, Course Reputation, etc. <i>A metric inadequate to validate learning success—because such perceptions are not always related to learning results.</i>
2	Activity	<p>Learner engages in activities related to learning.</p> <ul style="list-style-type: none"> • Measures of Attention <i>A metric inadequate to validate learning success—because learners may pay attention but not learn.</i> • Measures of Interest <i>A metric inadequate to validate learning success—because learners may show interest but not learn.</i> • Measures of Participation <i>A metric inadequate to validate learning success—because learners may participate but not learn.</i>
1	Attendance	<p>Learner signs up, starts, attends, or completes a learning experience.</p> <p><i>A metric inadequate to validate learning success—because learners may attend but not learn.</i></p>

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Baldwin and Ford Model

Baldwin and Ford (1988) through Process Oriented approaches provide the earliest integration of the training transfer literature in their article “Transfer of Training: A Review and Directions for Future Research” (1988). They portrayed training transfer as a system comprised of *trainee characteristics*, which include ability, motivation, and personality factors; *work environment*, which include support and opportunities to use and *training design*, which includes principles of learning, sequencing and content. The model is widely cited. Hughes, (2016) indicates that Google Scholar has a citation count of 2,500 while Web of Science has 500 citations. This model plays a key role even in current transfer research. It is illustrated in Figure 4.

Figure 4: The Baldwin and Ford Model of the Transfer Process (B&FMTP)



Source: (Baldwin and Ford, 1988)

The latest review of the model found was by Tonhäuser *et al.*, (2016). They reviewed empirical studies that adapted the Baldwin and Ford as well as other important process-oriented models and illustrated the various determinants as presented in Figure 5.

Figure 5: Transfer Determinants in the Literature

Training Design: content, application orientation of contents, didactic-methodological design, order of contents, principles of learning, variety of methods, feedback and clarity of the measure.

Work Environment: social support through superiors and colleagues, possibility of application, positive or negative consequences of non-application, re-construction of learning, social climate/ transfer climate, design of work, organizational and institutional characteristics.

Trainee Characteristics: cognitive skills, prior knowledge, transfer capacity, motivation (to learn, train and transfer), volition, (self-efficacy, controlling convictions, self-control), and personal factors (personality traits, work related attitudes, and expectations), gender

Source Tonhäuser et al., (2016)

Several conceptual advances have occurred since the model's inception. Baldwin, Ford and Blume, (2012) cite literature on the ability to transfer what has been learned to novel situations as a key indicator of learning in line with Haskell's sixth level of transfer. They refer to the concept of *adaptive expertise* -the ability to invent new procedures and strategies- based on knowledge and skills attained through training and experience. These are used to make new predictions and change strategies to deal with novel circumstances. Hence the study of *adaptive transfer* has started to become a focus of transfer research (Baldwin, Ford and Blume, 2012). This advance is especially essential in the study of transfer in entrepreneurship training since success in the field relies greatly on the ability to adapt and strategize to create and innovate for competitive advantage.

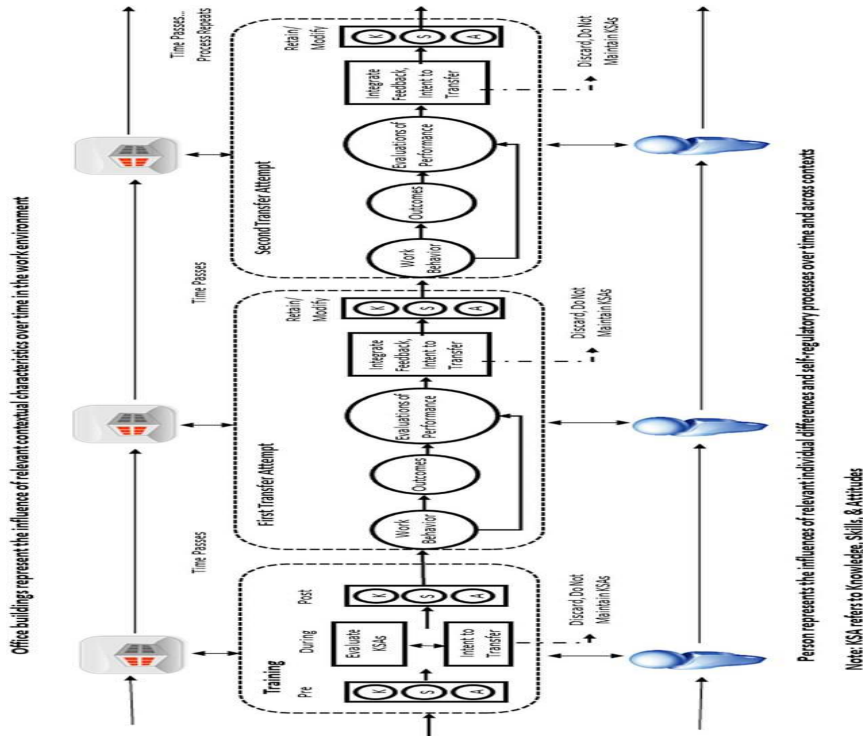
The context surrounding transfer has also become a key focus area. The present transfer context is thus divided into knowledge domain, physical, temporal, functional and social and modality context as aligned to near and far transfer and can guide the search for conditions under which transfer occurs. (Baldwin, Ford and Blume, 2012; 2017).

Studies in the past twenty years also portray a conceptual shift to focus on variables that intervene in the relationship between the predictors and outcomes. A number of studies that investigate the indirect mediational and moderation influence of various transfer system variables (especially motivation) has increased in the past two decades. (e.g. Kontoghiorghes, 2002; Awais Bhatti *et al.*, 2013; Grohmann, Beller and Kauffeld, 2014; Zubairy, Mozie and Ghazali, 2015; Massenberg, Schulte and Kauffeld, 2017; Paulsen and Kauffeld, 2017; Seiberling and Kauffeld, 2017). In line with this, Baldwin and Ford 2012 and 2017 provide future directions for research in transfer for HRD. Part of their advice is to focus on personalizing transfer research. This is elaborated as making transfer a personal choice (volition). This has shifted the focus of transfer research towards individual factors of motivation and personality characteristics since it is practically implied that if trainee readiness can be improved, and support enhanced then there will be a greater possibility for transfer.

The Dynamic Model of Transfer (DMT) by Blume, Ford and Surface, (2017) stems from the belief that transfer is a dynamic process that unfolds over time. It builds upon the work of Baldwin, Ford and Blume, (2012) to include how the criteria of interest changes or evolves over time. The authors view transfer evolution as resulting from the iterative interplay of people, situations and criteria over time. Therefore, the model embraces the view that the ultimate goal is about "understanding the process of how people simultaneously shape and are shaped by situations" that unfold over time (Blume, Ford

and Surface, 2017). The model focuses on the examination of the links from intentions to transfer at the end of training, to initial attempts in using the training, and then to the continuation of training transfer over time, that affects work behavior and performance as presented in Figure 6.

Figure 6: The Dynamic Model of Transfer



Source

(Blume, Ford and Surface, 2017)

Entrepreneurship Training Assessment and Evaluation

The growing importance of entrepreneurship globally has led to an exponential increase in entrepreneurship education and training programmes with a wide variety of definitions, objectives, contents and pedagogical methods (Botha *et al.*, 2006; Valerio, Parton and Robb, 2014). Given this lack of standard, consistent interventions, assessments become fundamental to improving contents, objectives and methodologies (Galvão and Marques, 2019), unfortunately, there is no standard model that is central to entrepreneurship training evaluation. This poses significant design and evaluation problems (Ismail, 2015; Galvão and Marques, 2019). Instead, the impact of entrepreneurship training programmes is assessed using a variety of indicators, which can be broadly classified into three categories: *business practice*, *business performance* and *psychological* indicators (Ismail, 2015). Consequently, it is generally difficult to obtain a consensus on the effectiveness of these programmes because they differ significantly in terms of length, content and target group (Ismail, 2015; Shimba, 2018).

There is also little research on entrepreneurship training as HRD in different national and cultural contexts and the literature provides limited coherence in terms of the content areas investigated. There is limited evidence on influence of learning strategies to the development of entrepreneurial competences and further these competences transfer into entrepreneurial activity (Lans *et al.*, 2009). Studies were found that adapt the Kirkpatrick Model but not fully (Ladzani and van Vuuren, 2003; Botha *et al.*, 2006; Haider, Asad and Aziz, 2015). Hence, a list of variables found in the literature is as summarized in tables 1 and 2 as a prelude to identifying the convergence and divergence between

entrepreneurship training evaluation and transfer of training models.

Table 2: Entrepreneurship training predictors in the literature

Predictor		Author(s)
Training Design	Training Needs Analysis	<i>(Abeysekera, Patton and Mullineux, 2017)</i>
	Content	<i>(Ladzani and van Vuuren, 2003; Botha, Nieman and van Vuuren, 2006; Haider, Asad and Aziz, 2015; Keith et al., 2016)</i>
	Delivery	<i>(Ladzani and van Vuuren, 2003; Honorati and Cho, 2013; Yaacob, Shaupi and Shuaib, 2016)</i>
Work Environment	Environment	<i>(Toutain et al., 2017)</i>
	Ethical work climate	<i>(Eslambolchi, 2012)</i>
Trainee characteristics	Age	<i>(Matricano and Formica, 2017)</i>
	Education level	<i>(Rauth Bhardwaj, 2014; Jiménez et al., 2015)</i>
	Racial composition & marital status	<i>(Botha et al., 2006; Bali Swain and Varghese, 2014; Rauth Bhardwaj, 2014; Field, Jayachandran and Pande, 2016)</i>
	Previous exposure/ experience in business or training	<i>(Lilla Hortovanyi, 2009)(Botha et al., 2006)</i>
	Sex/gender	<i>(Karlan and Valdivia, 2011; Honorati and Cho, 2013; Berge, Bjorvatn and Tungodden, 2015; Field, Jayachandran and Pande, 2016; Matricano and Formica, 2017; Gine and Mansuri, 2018; Hunter et al., 2018)</i>
	Personal attributes Motivation	<i>(Ladzani and van Vuuren, 2003)</i>

Table 3: Entrepreneurship training outcomes in the literature

Outcome		Author(s)
Indicators of business practices	Business management (Record keeping, strategy, budgeting, demonstration of knowhow/ skills/ learning)	<i>(Botha et al., 2006; Botha, Nieman and van Vuuren, 2006; Karlan and Valdivia, 2011; Moberg et al., 2014; Berge, Bjorvatn and Tungodden, 2015; Ismail, 2015; Krause, McCarthy and Chapman, 2016; Shimba, 2018)</i>
	Startups	<i>(McKenzie and Woodruff, 2014; Ismail, 2015; Gine and Mansuri, 2018)</i>
	Processing and packaging	<i>(Ismail, 2015)</i>
	Entrepreneurial innovativeness	<i>(Botha, Nieman and van Vuuren, 2006)</i>
Indicators of business performance:	Effectiveness	<i>(Rauth Bhardwaj, 2014; Haider, Asad and Aziz, 2015; Matricano and Formica, 2017)</i>
	Financial related (Income Assets, investment, profitability)	<i>(Botha, Nieman and van Vuuren, 2006; Kessy and Temu, 2010; Karlan and Valdivia, 2011; Berge, Bjorvatn and Tungodden, 2015; Gine and Mansuri, 2018; Shimba, 2018)</i>
	Employees	<i>(Gine and Mansuri, 2018)</i>
	Success, growth, customer satisfaction	<i>(Botha et al., 2006; Botha, Nieman and van Vuuren, 2006; Mrvanithamani and Ssandhya Menon, 2012; Honorati and Cho, 2013; Keith et al., 2016)</i>

Outcome		Author(s)
Psychological indicators	Self-regulation	<i>(Frese, Gielnik and Mensmann, 2016)</i>
	Personal initiative, risk taking, need for achievement	<i>(Frese, Gielnik and Mensmann, 2016)</i> <i>(Eslambolchi, 2012)</i>
	Entrepreneurial Intention, Orientation	<i>(Rauth Bhardwaj, 2014)(Botha et al., 2006)</i>
	Entrepreneurial Readiness	<i>(Olugbola, 2017)</i>
	Confidence, self-esteem, empowerment	<i>(Eslambolchi, 2012; Rauth Bhardwaj, 2014)</i>
	Motivation, mindset, happiness	<i>(Adem, 2008; Berge, Bjorvatn and Tungodden, 2015; Frese, Gielnik and Mensmann, 2016)</i>
	Competence	<i>(Lans et al., 2009)</i>

Studies on transfer of entrepreneurship training are practically non-existent. Studies akin to transfer evaluation include Haider *et al.*, (2015) which focuses on the determinants of entrepreneurial training effectiveness in MFIs in Malaysia. Moreover, it is argued that MSMEs rarely carry out formal training needs analysis and have no systematic approach to training whereas a conceptual study by Abeysekera, Patton and Mullineux, (2017) stresses on the importance of co-production of business training in MFIs. The matrix in table 4 presents a synthesis between the reviewed models of transfer and entrepreneurship training evaluations.

Table 4: Matrix of Training Evaluation Model indicators

Approach	Level of training effectiveness	Model & indicators				
		Kirkpatrick	L-TEM	B&FMTP	DMT	ENTP. TR. EV. MODELS
<i>Results oriented</i>	Attendance		Showing up, participating or completing			
	Activity		Attention, interest, participation			
	Reaction/ learner perceptions	Learner perception of training	Learner perceptions		Intent to transfer	Psychological indicators (e.g. self-regulation, personal initiative, intention, readiness, self-efficacy, confidence, empowerment)
	Learning/ knowledge	knowledge, attitudes and Skill expansion (Output)	Knowledge recitation and retention	Learning and retention		Knowledge, Learning
	Decision making competence		Immediate or recalled competence		Intent to transfer	Psychological indicators and business practices
	Task competence		immediate or recalled task competence			Business practices (e.g. start-ups, Record keeping, budgeting)

	Behavior	Behavior	Assisted or Full transfer	Transfer Generalization i.e. proximity (near or far) or complexity (creative or adaptive) and maintenance	Transfer at time 1 (Work behavior, outcomes, evaluation of performance) Feedback Transfer at time 2 (Work behavior, outcomes, evaluation of performance) Feedback Repeat to check maintenance and modification of KSAs over time	Entrepreneurial innovativeness? Entrepreneurial competence?
	Outcomes/ Results	Org. success (ROI): reduced costs, reduced turnover and absenteeism, reduced grievances, improved profits or morale, and increased quality and quantity of production.	Effects of transfer on learners, co-workers, organization, community, etc.			Business performance indicators (e.g. income, sales, inventories, assets and the number of employees), effectiveness

<i>Process Oriented</i>	Learning field			Training design and delivery (Principles of learning, sequencing Content)	Training Pre, During, Post (needs analysis)	Training design (e.g. content, delivery; experiential learning, constructivism, needs analysis)
	Organizational level			Work environment factors (Support, opportunity to use)	Relevant contextual environment	Org environment, ethical climate
	Individual level			Trainee characteristics (Personality, ability motivation)	Relevant trainee characteristics	Personal attributes (e.g. Sex/ gender, Age, Education level Experience, Exposure, motivation, personality)

Source: From the literature

The matrix shows the dispersion of entrepreneurship training indicators and the distinct lack of indicators specific to transfer of training proving that the need for further research in training transfer exists. The study also found that entrepreneurship training as HRD in SMES has no prominent evaluation models due to its complexity caused by constrained resources, heterogeneity and informality and HRDs interdependence on society and on common meaning (Prediger and Gut, 2014; Galvão and Marques, 2019).

Timothy. Baldwin ,. Ford, (2017) inform that the transfer problem remains acute and call for more evidence to inform the design and execution of effective training initiatives. Furthermore, today,s rapidly changing business climate dictates that organizational success depends more than ever on the speed with which people can learn and transfer new knowledge. Personalization of transfer research has also gained momentum in present day research and entails digging for personal reasons that drive trainees to train and studying how these affect transfer (Baldwin, Ford and Blume, 2012).

The transfer literature also calls for focus on individual motivation or readiness to learn and transfer as substantial inhibitors or facilitators of transfer (Baldwin, Ford and Blume, 2012, 2017) which is conceptualised as motivation to improve work through learning by Naquin and Iii, (2002). Therefore, the study of transfer of entrepreneurship training would be well informed by examining motivation or readiness to learn in mediating roles like others have done in different areas ofHRD research for example (Grohmann, Beller and Kauffeld, 2014; Massenberg, Schulte and Kauffeld, 2017) or moderation roles for example Zubairy, Mozie, & Ghazali, (2015). Moreover Bates, et al, (2012); Cowman & McCarthy, (2016); Tonhäuser, et al, (2016) and Paulsen& Kauffeld, (2017) call for research to examine the transfer system factor structure with data from groups with demographic, cultural orientation, training type, organizational or individual differences.

Conclusions and implications

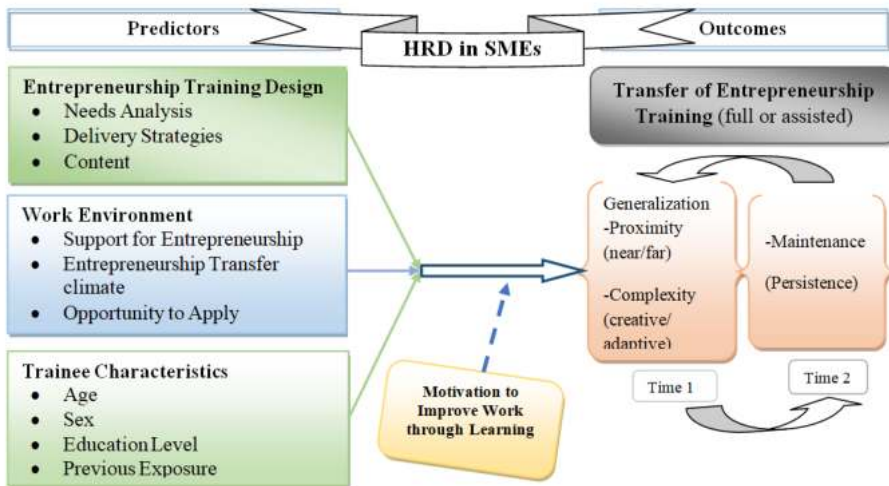
The integration of process and results oriented transfer models -particular the often-referenced Baldwin and Ford model (1988)- being the training design, work environment and trainee characteristics- with

the indicators commonly used in entrepreneurship training evaluations resulted in the model in Figure 8 that can be used to assess transfer in entrepreneurship training interventions. It also adds a dimension of transfer proposed by Haskell (2001), that is creative transfer or adaptive transfer (Baldwin, Ford and Blume, 2012), the highest level of transfer since creativity, innovation, reasonable risk taking and independence are vital components of entrepreneurship.

It has adapted several subdimensional variables that the literature has provided as important for the study of entrepreneurship training transfer. For example, the trainee characteristics of age, sex, education level and previous exposure are prominent in reviewed entrepreneurship training evaluations. Again the Kirkpatrick model of 2009 places emphasis on needs analysis and work environment factors of supervisor support, while the DMT proposes that the relevant conditions and relevant trainee characteristics be present in the context (climate) for maximal transfer, and that the transfer process is iterative between time 1 (generalization) and time 2 (maintenance). Thus in the framework, the training design includes needs analysis as a subdimension and work environment predictors are support for entrepreneurship, entrepreneurship transfer climate and opportunity to apply entrepreneurship training. Again the LTEM introduced full and assisted transfer which is also implicated for entrepreneurship training.

The framework also incorporates the conceptual shift to focus on variables that intervene in the relationship between the predictors and outcomes. It follows the study by (Naquin and Iii, 2002) to use ‘motivation to improve work through learning’ as a moderator (Zubairy, Mozie and Ghazali, 2015) in the relationship between the predictors and transfer outcomes

Figure 7: Conceptual Framework for Evaluation of Entrepreneurship Training Transfer



Source: From the Literature

This framework is supportive in research on entrepreneurial HRD in MSME’s. Researchers can systematically report more and richer information related to the trainees, trainers, and organizational contexts and their effects on transfer. Hence, it is essential to answering questions related to entrepreneurship teaching in MSME settings to determine which factors enhance the capability to leverage business results and economic growth through investment in learning. Future research may also investigate why transfer of entrepreneurship training occurs or not.

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Digital platforms and effectiveness of marketing communication in the telecom industry in tanzania: Evidence from Vodacom company

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Abstract

Internet marketing uses a powerful tool called social media, which provides new opportunities for users to engage in social networking through the Internet. This paper examines the role of digital platforms on the effectiveness of marketing communication in Telecommunication Industry in Tanzania. It specifically ascertains the extent to which peoples' awareness; attitude and skills towards digital platforms influence the effectiveness of marketing communication. The study was conducted in the Tanzania largest city of Dar es Salaam using Vodacom as a study ground. Self-administered questionnaires were distributed to 390 respondents and response rate was (365)93.6%). Data were quantitatively analyzed using multiple regression analysis. The findings of the study revealed that, all the three independent variables were found to have positive influence on the effectiveness of marketing communication with coefficient of less than 1 %. Nevertheless, only two variables namely the users' attitude and skills were strong predictors of effectiveness of marketing communication. The level of customers' awareness on digital platforms had positive but insignificant influence on the effectiveness of marketing communication. From these findings it is recommended that, the organization's management has to take the best side in capitalizing on peoples' skills and attitude, as failure to do so may lead to failure in realizing the desired outcome of marketing efforts hence incur irrecoverable monetary cost to the organization.

Introduction

The significance of the marketing institution within the company has changed the direction of the business where the core focus lies to the final user instead of the manufacturer which is very essential in the era of intense competition (Kotler & Armstrong, 2018; Baines *et al*, 2019). Besides, the advanced technological world has left people with no option to remain dull as marketing has taken over that science of organizing the need and want of the customers as determinants of the coming product (Mueller *et al.*, 2011). Internet development generates the various options for marketers to market their products and services since many people are increasingly using digital platforms (*Ibid*). Moreover, it requires interaction on digital platforms for people not to be taken for granted as target for marketing. Currently, internet marketing uses a powerful tool called digital platforms which give new advantage for people to interact in social networks through the internet. Digital marketing is said to have transformed how businesses and other organizations communicate with their audiences and a such they can be used alongside traditional marketing practices (Chaffey and Chadwick, 2019). Connections and contents developed by different users are from different types of social media. Social Media involves the use of web-based and mobile technologies to turn communication into an interactive dialogue. According to Baruah, (2012) Social media takes on many different forms including Internet forums, weblogs, social blogs, microblogging, wikis, podcasts etc. With the world in the midst of a social media revolution, social media are used extensively for the purpose of communication. The general availability of Internet has given people in organizations, the ability to use social media to connect with clients without a need of meeting (Gruen *et al*, 2006). In this case, users can access different sources of information and communication means because other users can recommend and advance their response via same communication means (Mueller *et al*, 2011). Thus technology has made information to travel in two ways more easily and fast (Senecal, 2004). This is very crucial in marketing dynamism as customers' involvement has been made a priority in business (Do-Hyung *et al.*, 2007). Essentially all organizations

ought to have effective online presence to prosper or possibly even survive. According to Chaffey and Chadwick, (2019) the key question is not whether to deploy technology -companies have no choice if they want to stay competitive. The question is how to deploy the technology.

Context of the paper

According to Chen *et al.*, (2011), social network can have different advantages for the brand awareness, loyalty, gain valuable customer insights, increase in sales as well as customer retention. In addition, social networking is a two-way channel where business owners have an opportunity to build relationships with their customers and create values proposition that lead to a positive impact on trust (Wu *et al.*, 2010). Because of the development of Internet and the existence of social media, Evans (2012) revealed the nature of social media based on personal oppression. This may be perceived to be so since individuality tend to be compromised through the development of technology. Clients may discuss about various issues from economical, technological, social and political arena through social media. Consistently, marketing is done via word of mouth marketing (WOMM) or competing through profession. Through social media, users depend on mobile and web based technologies to create highly interesting platforms of which individuals, communities and organizations can introduce, search, update, co-innovate, dialogue, modify and evaluate user generated shared posts. Moreover, Adam, *et al* (1992) point out that, social marketing sites play vital role in the growth of the business. It is critical for the companies to comprehend marketing environment for interacting with clients and revenue growth; though, there are some factors that increase companies' anxiousness about using digital platforms in marketing. These may be conceived in terms of inadequate of awareness and experience, trust and privacy concerns, acceptability of information, the nature of social networks which cannot be controlled and the fear of receiving bad reviews and/or comments on their services. In Tanzania like any other part of the world, social networking has become more popular among older and young generation and have gradually undermined the traditionally authoritative voices of Radios and Televisions. Firms are now considering digital platforms as a place of marketing since they can create strong personal connections with their prospective customers. This has shifted the advertising strategies from traditional media communications which is expensive and time consuming to two ways communications via social media sites which is friendly and cost effectiveness (Han, *et al.*, 2011). Today most of the people specially the youngsters are hooked on to the different social media for keeping in contact with their peer partly for social interaction but also as a means to a business end.

Internet marketing has revolutionized the way owners of business and consumers interact to do business. Previously, number of brands and business for different companies were adopting traditional marketing more extensively than marketing through Internet (Sandra *et al.*, 1996). In comparison with advertising, social networks such as Facebook and WhatsApp can be personalized based on the profiles and behaviours of targeted customers. This provides customers with value proposition compared to what they registered for. Furthermore, it gives insights of different types of products and services they need and looking for. Hence, this can be utilized in marketing implication for both big firms and Small and Medium Enterprises (Brown and Wyatt, 2010). Digital platforms are taken by many organizations as new experience which is used in different business industries.

Regardless of the benefits of internet marketing, most of the companies provide different services that are not adequately utilizing the benefits and opportunities of social media. According to Turban *et al.*, (2011), clear effectiveness in social media exists; however, companies are usually lacking competent personnel to utilize opportunities for social media. It is precisely that marketing through digital platforms is highly demanded for small and medium companies with an older customer base. According to Cisco System (2010), only one in seven companies has official procedure for using social digital platforms in their businesses and only one in five companies has developed a policy about the use of digital platforms. Inadequate formalized attention is unfortunately considering the risks and negative effects on business that are involved with social media. Moreover, using social media for marketing has brought negative impact on organizations such as the burden of the marketing

shift due to personal engagement with customers, increased customer power, tracking negative or misleading statements, unauthorized employees speaking on company's behalf and accidental release of confidential information. Limited use of digital platform has therefore created a question on whether digital platforms have enhanced the marketing communication of companies or not. In this regard, this paper examines the role of digital platforms on the effectiveness communication in the Telecom industry in Tanzania using evidence from Vodacom. Specifically, the paper focuses on the extent to which awareness of customers, customers' attitude and skills towards digital platforms influence the effectiveness of marketing communication.

Literature review

Digital Platforms Marketing

The digital world is embedded in hundreds of digital several platforms, which are seen and viewed globally. Some of the platforms available in the internet are; Facebook, Flickr, Twitter, Myspace, Pinterest, LinkedIn, google+, Live journal, slideshare, orkut, meetup, Whatsup etc. (Brown, 2008). This implies that, marketing through digital platform is accompanied by various numbers of channels. However, core purpose is to look for proper patterns that result into good communication and a better overall return on investment for the brand. These sites offer platforms to find influential partners in business, whether organization is looking for distributors, providers, or others. They are a meeting point and often negotiate amongst suppliers, manufacturers, distributors, wholesalers, retailers and be like usually within a well-defined area which is facilitated by internet (Ba and Pavlou, 2002). All these are achieved through social networks defined by Hersant (2011), as a wide spectrum of web based and mobile applications that facilitate social interaction across geographical boundaries mainly through developed content by the user. Recently, there has been an exponential growth not only in the number of social media networks but also in the socio-demographic attributes of their user base. According to Shet (2018) social media use is not limited to youth in that 72% of all internet users are now active on social media; 89% of people aged from 18 to 29 years of age use social media while 82% of people aged 30 to 49 years are active on social media. On the other hand, 65% of those aged 50-64 years use social media while those over 65 years of age 49% of them are active social media users. Marketers use social networks for improving conversation rates through the interaction with new, recent and old customers. Shared blog post, videos, images or comments on varied social media allows followers to react, visit the company website and become customers (Online Marketing Trend, 2012).

On the other hand, Smith (2009) defines social media marketing as tactics that lookup to social networks and platforms to initiate capacity building on the company brand alongside with promoting products/services. Usually, social media marketing campaigns center on initiating a social media appearance on significant platforms, developing suitable content and advertisement as well as acquiring customer inputs throughout the campaign using surveys and contests. In the view of Akhtar, (2011), Social media marketing refers to the process of receiving attention through social platform sites hence involves a lot of efforts to convincing customers that products or services from a certain company are valuable where by all that is done is through online via various platforms. It is known as a more targeted type of advertising and is therefore believed to be very effective in developing brand awareness.

Effective Marketing Communication

Effective marketing can be defined as the relationship between work input such as monetary inputs in expenditure on an advertising campaign and the desired outcome, in terms of increase in sales and revenue (Social, 2011). In marketing a new brand that is trying to grow, it is important to find a balance between the cost and the results. The goal is to maximize return on investment, by looking for the effective strategies for the least amount of money (Aljifri *et al.*, 2003). Digital marketing has simplified the marketing tools to be the more affordable of which can be used even for small business. The use of effective digital marketing tools allows the business to realize effective time management by reaching more customers at a short time. It can therefore be oriented that, social media helps in reaching

huge number of customers from all over the world, in that once presence on the social media sites of one's choice is the potential for reaching influential clients is unlimited. Facebook can potentially reach every many clients with low cost as reaching local clients (Ba, 2002). Moreover, YouTube, LinkedIn, MySpace, Flickr and Digg have international users that can be targeted and reached with no any additional work or incur additional expenses.

Theoretical perspectives

In order to explain theoretically the role of digital platform on marketing communication, two theories namely McLuhan's Media Theory and Technology Acceptance Model (TAM) are adopted. McLuhan (1995) in McLuhan's Media Theory argues that, apart from the uploaded content in social Medias, users can be changed by the media itself. According to him, content that users are exchanging will not vary from the existing Medias. Interaction of new communication channels can convert user's behavior forever. Apart from content developed, social media has high impact in the society. McLuhan divided media into two parts namely *hot* and *cold*. The "hot" one need users to allocate a lot of effort in understanding the content while the "cold" refers to medias that influence ones' sense, so the users do not need to apply much efforts, such as films, radio, and photography. Hence, both developed content and pattern of communication in social media may change user's behavior if it will be properly used.

In business, managers and consumers are supposed to understand behavioral change and how it aligns with usage of existing social media and embrace changing attitude in accepting technology change. Despite of this, Contractor (2009) suggests that, more studies are needed in data mining and data modeling on the web with behavioral frameworks. According to him this should be through capturing generated social media and existing data information on current social media websites, like Facebook, LinkedIn and Twitter. Acquiring several social network analysis in studying online social networks and knowledge networks could result into more deep understanding of the society and inform social media marketing conduct for businesses. This theory supports the paper due to the fact that organizations ought to focus on the development of appropriate contents that can be comprehended by the targeted users of information regarding a particular brand. Moreover, the organization ought to be sensitive to a chosen platform taking into account the strengths of the 'Hot' and 'Cold' media if they are to enhance the effectiveness of marketing communication. It is also important to communicate desired content by taking into consideration the users' awareness and skills in accessing the desired appropriate social media platforms.

Furthermore, to predict, explain and understand customers' acceptance or rejection of a certain information systems; researchers need to initiate and use *TAM* for understanding user's acceptability of the information systems, hence Technology Acceptance Model (TAM) by Davis (1989) is used as a second theory to guide this paper. TAM is one of the most popular research models to predict use and acceptance of information systems and technology by individuals. Various scholars referenced the model which used to unveil factors affecting user's motivation in accepting and acquire new information system (Ali, 2011) or rejecting it. The model posits that users' adoption of a technology for normal use is dependent on its perceived usefulness (i.e., enhances task performance) and perceived ease of use (i.e. extent to which a technology requires effort.)

Empirical literature review

Extant literature shares empirical studies that are related to digital platforms use in varied environments and outcomes. Howe (2006) conducted a study in the US on the role of social media and found out that digital platform as the tool for marketing communication allows people to share the companies' news by informing consumers about the company's products they offer. It also helps to provide identity about the company's products and services they offer. Han *et al.*, (2011) also conducted a study in the US to look on user's willingness to pay on social network sites. It was found out that, customers are willing to participate in sharing and conversation on the social media sites at any cost. A study conducted by Gutiérrez *et al.*, (2018) in Columbia assessed the influential factors for social media on

the purchasing decisions. The findings indicated that, there is a growth in social marketing adoption and that through information consumers' purchasing decisions can be influenced. However, through social media, customer behavior can be shaped towards changing purchasing attitude. A study by Marina (2013) was conducted on social media contribution to the marketing of sport events in Vienna. The findings revealed that, social media is important for the pursuit of an unquestionable high social desire for users to feel part of the group and made it simpler to interact than reaching out several groups of fans. Kiran (2014) on the other hand conducted a study on social media and changing communication patterns. It was found out that, social media is going to be a next big challenge for the different aspects of customers' social and personal lives. Social media is creating a new kind of social order and strengthening social network but weakening inter-personal relations.

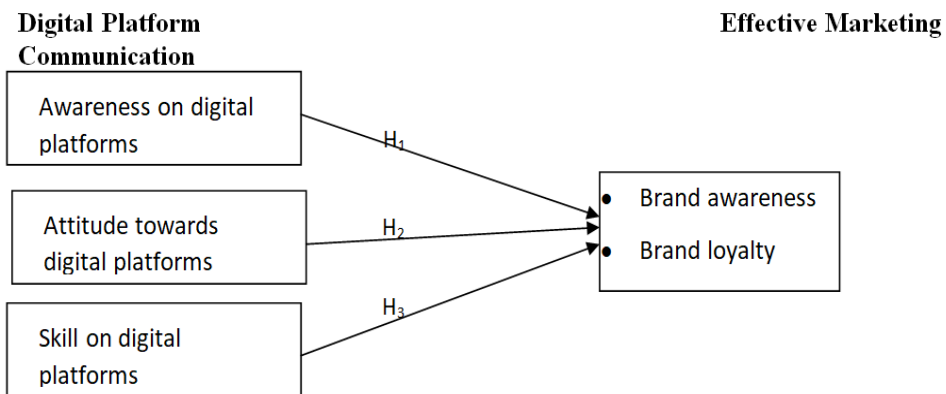
Another study by Msia (2014) examined the role of new and social media in Tanzanian hip-hop production. The findings revealed that social media also helps to spread information. While social media sites have become mainstream, there remains a problem of visibility of information in social media as users of social media tend to be bombarded by massive information daily. Furthermore, Constanze *etal* (2014) conducted a study on use of social media among adolescents in Dar es Salaam and Mtwara regions, Tanzania. It was found out that social network sites are constantly changing in terms of popularity and functionality and require high flexibility by practitioners and organizations in general. It was highlighted that, the use of internet and social media, especially through mobile phones among a sample of school-going, urban Tanzanian youth, is generally high.

From the above studies it can be argued that despite recognizing the contribution of social media on marketing activities by organizations, limited studies have been conducted in ascertaining as to what it takes in the digital platforms to have effective influence on marketing activities. This triggers a need to examine the extent to which awareness, attitude and skills on digital platforms would influence effective marketing.

Conceptual Framework of the Paper

Figure 1 conceptualizes the concept of this paper on the role of digital platforms on the effectiveness of marketing communication in the telecom industry in Tanzania with the support from Vodacom Company

Figure 1: Conceptual Framework



Source: Synthesized from the Literature

The conceptual framework behind the paper focuses on the independent three variables namely peoples' skills, awareness and attitude towards digital platforms as they are conceived to have influence on effective communication as the dependent variable. In order for the telecommunication industries to have effective marketing communication the organization should adopt new information and communications technology by looking on the skills, awareness and attitude that people have on digital marketing instead of traditional marketing or analogy. Digital platforms such as Facebook, Twitter and You Tube have advantage of having wide coverage and having direct engagement with customer or product. Moreover, it allows conversation. Effective communication by using digital platforms saves cost and time to reach a huge mass population of customers. All of these lead to increased brand awareness and brand loyalty, which are indicators for effective marketing communication.

It was therefore hypothesized that

H₁: Awareness of digital platforms has a positive impact on the effectiveness of marketing communication

H₂: The attitude of digital platform's users has a positive relationship with effectiveness of marketing communication

H₃: Skills of people on digital platforms have a positive influence on the effectiveness of marketing communication

Methodology

The study was conducted at Vodacom Tanzania in Dar es Salaam headquarter located in Kinondoni District. Vodacom was chosen due to the fact that it is a leading Telecommunication Company in Tanzania with more experience in marketing and sales. The customers of Vodacom were considered as the respondents of this study. Because, it was not practical to consider all customers, a convenience sampling technique was used to select 390 customers. According to Tabachnick and Fidell (1996) a rule of thumb given by $N \geq 104 + m$ (Where N is the sample size and m is the number of independent variables) can be used for determining the sample size. Given our 3 independent variables the minimum acceptable sample size will be 107 Moreover Sivo et al (2006) proposes a critical sample size of 200 respondents. Since a large sample size is said to be generally good for controlling bias a sample of 390 was chosen. Out of 390 questionnaires distributed to respondents; 365 questionnaires were properly filled and returned, 15 incomplete questionnaires were returned and 10 questionnaires were not returned at all. This makes the response rate of 93.6% which is acceptable for continuing with data analysis. According to Client Heartbeat, (2018) contacting wrong participants and not gaining cooperation from the right participants can result in low response rate. This study was however freed from this anomaly. The study mainly used primary data, which were collected through structured questionnaires. The questions were in a 5 point Likert scale form and this was important because structured questionnaires require lower cognitive load on the respondent and therefore reduces the amount of thinking that a respondent needs to undertake to complete the task. This generally has leads to higher response and more accurate data.

To ensure content validity of the data collection instrument it was considered appropriate to pilot the data collection instrument to 10 users to comment on the representativeness and suitability of the questions and allow some suggestions to be made on the structure of the questionnaire (Rose, 1995; Hair, et al, 2003). Some few corrections were made out of the responses to improve clarity of the instrument before it was finally vetted by one expert for final use. Coefficient of reliability was measured by using Cronbach's Alpha. Al-Eqab and Adel (2013) reveal that, most favourable way of measuring internal consistence and data collection tool is done through Cronbach's Alpha. To be considered as acceptable, the scale should be 0.7 and above (Gutiérrez et al, 2018). Variables used in the study showed that they are all reliable since the results of Cronbach Alpha are at least 0.7 as shown in table 1 above.

Table 1: Variables Cronbach Alpha

Variable Description	Cronbach Alpha
Marketing Communication Effectiveness	0.789
Awareness	0.737
Attitude	0.716
Skills	0.879

Findings, Analysis and Discussion

Data were analyzed by using descriptive and multiple regression analysis. Specifically, the descriptive statistics were used to summarize the profile of the respondents. Furthermore, Chenhall (2003) suggests that, with regression analysis, it is possible to access the advantage and strength of variables in a non-random relationship.

Profiles of the Respondents

The profiles of the respondents were examined using age, gender and education. The results on age groups revealed that majority of the respondents were youth of the age between 18 – 25 years as they were 139(38.1%) of the respondents. Moreover, 64(17.5%) of the respondents were of the age between 26 – 36 years, 87(23.8%) of the respondents were of the age between 37 – 47 years, 43(11.9%) of respondents were of the age between 48 – 58 years and 32(8.7%) respondents were above 58 years. These findings seem to reflect the social media use trend in the world as per age categories (Shet, 2018). With regards to sex, the results show that 156(42.7%) of the respondents were males while 209(57.3%) of the respondents were females. This implies that, females were more accessible for the study than males. In the view of Guadagno (2018) social media platforms are gendered depending on the options in use; Men and women engage in different types of social media they also use and consume different types of social media as a function of gender.

Additionally, a study by Kishara (2017) supports that, gender differences occur within social media sites. In the study, snapchat and Instagram both had significantly more females using those sites than male. The respondents' level of education revealed that, 106(29 %) of the respondents had below secondary education level, 149(40.8%) respondents had above secondary education level and 110(30.2%) of the respondents had college education or above. These results show that, the majority of the respondents 259(71%) had education level of above secondary education.

Digital Platforms and Effectiveness of Marketing Communication

The objective of the study was to assess the role of digital platforms on the effectiveness of marketing communication. The findings are presented through a Model Summary, Correlation analysis and Multiple Regression analysis.

Model Summary

The model summary provides information about the regression line's ability to account for the total variation in the dependent variable. Table 2 provides a model summary for the:

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.523 ^a	.274	.246	.29095

a) Predictors: (Constant), Awareness, Attitude, Skills.

b) Dependent Variable: Effectiveness MC

The results on model summary in Table 2 show the overall influence of all the three variables on the effectiveness of marketing communication. To measure the strength of the relationship between digital platforms and effectiveness of marketing communications, Pallant (2001), suggested the use of R squared, which always varies between 0 to 100%. In this study the model indicates R squared to be 0.274, which signify that, 27.4% variation in effectiveness of marketing communication is explained by the variation on indicators of digital platforms and the remaining 72.6% is explained by other variables not included in this study. Furthermore, Pallant (2010) suggested the use of adjusted R square to measure the strength of the model, because it considered different predictors which are in between 1 and R square. As per the model summary, adjusted R square is 0.246, which means that, awareness, attitudes and skills towards digital platforms explain the variation of effectiveness of marketing communication by 24.6%. Apart from the adjusted R square, the regression analysis model summary reveals the accuracy of the sample in representing the population of the study through the standard error of estimate. Moreover, as the estimation of standard error gets smaller, population representation of the study becomes higher. Table 2 reveals the standard error of estimate to be 0.2909 which is smaller and is regarded to show that, the sample of the population represents the population of the study (Pallant, 2010).

Correlation

Correlation is used to quantify the association between two continuous variables (e.g., between an independent and a dependent variable or between two independent variables. Cohen (1988) and Hair et al. (2010) show that, the relationship amongst the variables of a given assessment is conducted through Pearson’s correlation. For any correlation at 0.01 levels, it implies that at 99% assurance, correlation amongst the variables is not random.

Table 3: Pearson Correlation Coefficients

	MC Effectiveness	Awareness	Attitude	Skills
MC Effectiveness Pearson Correlation	1	.469**	.878**	.283**
Awareness Pearson Correlation	.469**	1	.426**	.269**
Attitude Pearson Correlation	.878**	.426**	1	.537**
Skills Pearson Correlation	.283**	.269**	.537**	1

** . Correlation is significant at the 0.01 level (2-tailed).

The table 3 reveals that, all the study variables were significant at significance level of 0.01. These findings signal that there was multicollinearity problem, which was solved through multiple regression analysis where variance inflation factor was computed.

Hypothesis Testing

This part tests the hypotheses related to the 3 digital platforms constructs and a marketing communication variable. The regression results are presented in table 3 .

Table 3: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.310	.215		6.097	.000
Awareness	.116	.041	.130	2.816	0.06
Attitude	.859	.047	.968	18.408	.000
Skills	.371	.068	.271	5.485	.000

a. Dependent Variable: Effectiveness Marketing Communication (MC)

The Multiple Regression results presented in table 3 shows the coefficient values of independent variables. Specifically the coefficients show the direction of relationships together with contribution of unit change for individual variables to the change in marketing communication constructs. The first hypothesis states that awareness of digital platforms has a positive impact on the effectiveness of marketing communication. The results summarized in Table 3 shows that, there is a positive but insignificant relationship between awareness of the digital platform and the effectiveness of marketing communication at the $P \geq 0.05$ level of significance. This indicates that, there is enough evidence to support the hypothesis (H1), that awareness of digital platforms does not significantly influence the effectiveness of marketing communication even at 95% level of confidence since the $P \geq 0.05$.

The second hypothesis stated that attitude of digital platform’s users have a positive relationship with effectiveness of marketing communication in Tanzania. The results summarized in the table 3 reveals that, the attitudes of users towards digital have a positive and significant relationship with effectiveness of marketing communication at significance level of 95%. The result indicates that, the attitude of digital platform’s users as an independent variable has a positive and significant influence on Effectives Marketing Communication (MC) since the $P \leq 0.05$. In the last hypothesis, it was stated that, skills of digital platform users have a positive relationship with effectiveness of marketing communication. . The results as summarized in the table 3 , indicates that, Skills of digital platforms users and effective of Marketing Communication have positive and significant relationship, since $P \leq 0.05$

Discussion of the findings

The findings of the study revealed that, user’s awareness of digital platforms has a positive but insignificant relationship with effectiveness of marketing communications. According to World Wide Worx (2012), companies are increasing their budgets for marketing in digital platforms so as to inform users about their products and services. In the views of Howe (2006), digital platform are effective tools for marketing communication as it informs consumers and provide identity about the company’s products and services that they offer. This was found to be working if customers are aware of the

media. Further contrary to the findings of the study of Hans *et al*(2011); Celine (2012) and Msia, (2014) found that user's awareness of digital platforms have a positive relationship with effectiveness of marketing communication. Moreover, on the side of theories, McLuhan's Media theory through his ideas on the effects of the new media on society, such as his hot-cool media dichotomy contends that apart from the uploaded content in social media, users can be changed by the media itself. It seems that the nature of the media matters in enhancing awareness and therefore usability of the media in question. Contents that users are exchanging will not vary from the existing Medias. Nevertheless, the interaction of new communication channels can convert user's behavior forever (McLuhan, 1995). This means that, as long as users are aware of the presence of the media, then the media such as digital platforms transforms the whole communication structure including how effective marketing communication is.

Furthermore, the current study findings revealed that, the user's attitude towards digital platforms, have a positive and significant relationship with effectiveness of marketing communication. This is similar to what Insight Express (2004) revealed, that, the attitude of digital platform users toward the media is the key in determining the effectiveness of marketing communication. That is, if their attitude is positive towards that digital platform, then, it will also bring positive results on the effectiveness of MC, as they will be interested in using that media. Corollary to this, Highley, (2010), Kiran (2014) and Flórez *et al.*, (2017) indicate that, customers are setting the pace in this race and are willing to participate in sharing and conversation on the social media sites at any cost. This translates into the view that, the company with their marketing strategies that can keep up with the customer will share the winners' circle in that as long as users have positive attitude towards that digital platforms, other factors are not much important, hence attitude will bring positive results to the effectiveness of Marketing Communication. TAM depicts that, apart from other external variables, perceived usefulness and perceived ease of use determine the attitude of users towards the digital platform. In turn, the attitude of users toward the systems determines the readiness of users to use the provided digital platform. This means that, the positive attitude of users towards digital platform gives marketers a better channel for communicating their marketing efforts. Hence, user's attitude towards digital platform and effectiveness marketing communication are positively connected as the findings from this study and TAM reveals.

It was also found out that, skills of users of digital platform have a positive and strong relationship with the effectiveness of marketing communication. This concurs with the findings by Howe (2006) and Highley (2010), which revealed that, without user's skills on how to use the available digital platform, any marketing communication efforts will not yield the expected results. It was indicated that, for effective marketing communication, skill on how to use digital platforms is the very important element although for any user to gain or find a skill, it largely depends on his or her attitude towards that digital platform. Han *et al* (2011), Msia, (2014) and Kiran (2014) found that, education and training on how to use the available digital platform is positively linked to the effectiveness of marketing communication. It was explained that, when users are trained and educated about the available digital platform, it gives them a positive attitude towards that digital platform. Moreover, via education and trainings, users gain skills to use the available media and it becomes easier for marketers to effectively communicate their marketing efforts. I McLuhan's Media theory, portrays that, apart from the media being the message, but without skills on how to use the available media, then it is useless. Corollary to this TAM theory suggests that, the ease of use represents the skills of using the provided digital platform. If the digital platform is not ease to learn and develop skills on using it, users attitude towards that system will be negative and hence failure for marketers to communicate their marketing efforts.

Conclusions and recommendations

This study assessed the role of digital platforms on the effectiveness of marketing communication in the telecommunication Industry in Tanzania. From the findings of the study, it may be concluded that all independent factors hypothesized to have positive influence on effectiveness of marketing communication. Specifically, it was found that, user's awareness about the digital platform has a

positive but insignificant influence on the effectiveness of marketing communication, which fulfills the first objective of the study. On the other hand, the second objective of the study intended to establish the extent to which attitude of customers on digital platforms influences the effectiveness of marketing communication. It was found that, the attitude of users of digital platforms to have strong and significant positive influence on the effectiveness of marketing communications. The third objective of the study assessed the influence of user's skills on digital platforms on effectiveness of marketing communications. It was found that user's skills and effectiveness of marketing communications have a strong and positive significant relationship. From these conclusions, the following recommendations are set forth:

- The importance of the effectiveness of marketing communication in any organization cannot be undermined. The organization's management has to take the best side of it, as the failure to do so will lead to the failure in marketing efforts and it will cost the organization in terms of money.
- Without user's skills on how to use the available digital platform, any marketing communication efforts will not yield the expected results. For effective marketing communication, skills on how to use digital platforms are an important element. However, for any user to gain or find a skill, it largely depends on his or her attitude towards that digital platform. It is up to Telecommunication Company such as Vodacom to use traditional media in the meantime to communicate and sensitize awareness and positive attitude towards use of digital platforms.
- Moreover, these digital platforms have been changing every day and speedy of change is the competitive advantage in this contemporary world. Managements have to be awake each time to these changes, as lagging behind will leave them outdated.
- Furthermore, to enhance effective operations in business settings, marketers have to exploit the opportunities available in the digital platforms,. The Digital Company's management should do best by capitalizing on people's skills and attitude in enhancing effectiveness on marketing communication.

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Determinants of financial inclusion in developing countries:

A study of the East African Community (EAC)

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Abstract

Financial inclusion has been a subject of concern globally in efforts towards ensuring majority of population can access and use financial services. The EAC has been at the forefront of enhancing financial inclusion however still remains financial exclusion of individuals. This study aimed to examine the determinants of financial inclusion in the EAC region. The study applied fixed effects approach using LSDV (Least Square dummy variable) and Pooled OLS regression for data analysis. The results showed that regulatory quality, mobile subscribers and penetration strength of the banking sector positively and significantly affected financial access when branches per 100,000 adults were used. However, GDP per capita and age dependency ratio negatively and significantly affected financial inclusion. LSDV results further revealed that there are no significant effects of country heterogeneity conversely; time effects were significant though with variation on measure of financial inclusion for Borrowers per 1000 adults. The study recommends that authorities need to enhance regulatory quality to ensure banking system is stable in the provision of banking services which can enhance trust in the banking sector. In addition, information is crucial for enhancement and smooth implementation of regulations and financial inclusion policy framework and initiatives that are in place.

Keywords: *Financial Inclusion, East African Community, Financial Intermediation*

Introduction

The financial inclusion determinants debate is well elaborated in literature (Uddin *et al.*, 2017; Zins & Weill, 2016; Olaniyi & Adeoye, 2016; Demirgüç, -Kunt, Klapper, Singer, & Van- Oudheusden, 2015; Bruhn & Love, 2014). The determinants of financial inclusion are said to be driven by the demand or supply dynamics, whereby the demand side factors comprise of the socio-economic characteristics like education levels, income levels, age differences and gender. Conversely, the supply side dynamics entail: perceptions plus individual attitudes that stimulate someones' decision to utilize financial services. Similarly, World Bank (2015) echoed that, besides socio economic factors; behavioural and attitude traits determine financial decisions.

Financial inclusion diverges momentarily in the developing countries not only between regions but also between countries and the reasons for divergencies may be micro or macro (Demirgüç, -Kunt & Klapper, 2012a). For instance, while 51 percent of Southern Africans owned an account in 2011, only 11 percent of Central Africans did. Concerning formal saving, only 4 percent of North Africans saved money at a formal financial institution while 18 percent of Western Africans did. Africa is at the leading position in terms of mobile banking with all 13 countries with the highest share of the population owning a mobile money account 10 percent or more, being African (Demirgüç, -Kunt *et al.*, 2015). In a few African countries (Uganda, Tanzania, Zimbabwe, Somalia plus Côte d'Ivoire), more people declared owning a mobile money account than a formal account at a financial institution. The study of determinants of financial inclusion marvel is not only vital in Eastern Africa Community, but also in developing countries as a whole. Conclusively, various obstacles are encountered in the promotion of financial inclusion. The informal market is hamstrung by lack of capacity and limited resources base and the formal financial market is affected by the rules and regulations which govern their operations thus leading to the exclusion of the downgraded people (Akudugu, 2013). People can either be voluntarily or involuntarily excluded in financial inclusion (Tita & Aziakpono, 2017). Dittus

and Klein (2011) believed that whereas voluntary exclusion oozes from cultural, religious barriers and absence of interest in financial services, involuntary exclusion stems from deficiency of trust in the financial system or barriers such as affordability, inappropriate product design and inability to meet eligibility criteria (European Commission, 2008).

The EAC financial sector has largely been dominated by banks. In addition the level of financial inclusion has varied among the countries. For instance, Sarma (2008) using a financial inclusion index showed that there was a variation in the ranking of the level of financial inclusion among the three countries (Uganda, Tanzania and Kenya) with Kenya being the leading among the three countries. Furthermore, Sarma (2012) based on financial inclusion index categorized Tanzania, Uganda, Rwanda and Kenya as low index financial inclusion from 2004-2010. The diversity of countries in terms of financial inclusion implies that countries face different challenges and are different from one another. Developments in the financial inclusion have been enabled by various initiatives and advancement in technology. For instance, mobile phone penetration is steadily increasing in all partner states ranging between 50% and 75% across the partner states (EAC, 2018). Technological innovation has enabled improvement in financial inclusion through mobile money services. It has been noted that mobile phone usage has been positive where the under-banked population has been reached by affordable, accessible and sustainable financial services (Ouma, Odongo & Were, 2017) and it continues to be a catalyst in the efforts towards financial inclusion. This is also observed in alignment with the increase in the uptake of mobile money services which has improved financial access for households. In addition, Lotto (2018) argues when examining Tanzania, that there is a departure from customer usage of banking retail services to mobile financial services, however banks linkage to mobile financial services in terms of delivery channels is likely to enhance financial access.

The Financial inclusion initiatives have also enabled change in the level of access and usage of financial services. According to Alliance for Financial Inclusion (2018), member countries with a National Financial Inclusion Strategy in Africa was 20 and in particular in EAC countries and year the strategy was approved were; Burundi (2015), Kenya (2015), Rwanda (2012), Tanzania (2017) and Uganda (2017). There has been marked achieved following the financial inclusion strategy. For instance, in Tanzania, the National Financial Inclusion Framework (NFIF) 2018-2022 stipulated that there has been an increase in the progress financial inclusion where by, the end of the first NFIF in 2016; it had marked an increase from 58% in 2013 to 65% in 2017. Despite these efforts towards financial inclusion, it has been observed that the level of financial inclusion is still a problem whereby rural people, small holder farmers, younger people and dependents and women are greater proportions left behind (Finscope Tanzania, 2017). Despite various research conducted to investigate the factors for financial inclusion, less has been conducted about EAC financial inclusion determinants and the problem still exists hence the need to close this gap. For this reason therefore; this study examined the determinants of financial inclusion in the EAC region using pooled OLS and LSDV approach. The results show that regulatory quality, mobile subscriptions per 100 people and penetration strength of the banking sector. On the other hand, GDP per capita, and age dependency ratio were negatively and significant in explaining financial inclusion when branches per 100,000 adults was used as a measure of financial inclusion. With respect to differences in countries, LSDV results further reveal that there are no significant effects of country heterogeneity however taking into account time effects reveals that time effects were significant though with variation on measure of financial inclusion for Borrowers per 1000 adults. The motivation of this study was based on the fact that African countries (East African Community) have low financial inclusion in comparison with the rest of the world, yet financial inclusion can contribute to alleviate poverty and boost economic growth, understanding the determinants of financial inclusion in Africa is a major issue (Zin & Weill, 2016), hence justifying this study to close this gap that aimed at examining the determinants of financial inclusion in the EAC region.

Literature review

Financial Inclusion and Measurement

Financial inclusion has been defined differently and elements emphasized in the definitions vary in some EAC countries like Tanzania and Burundi (AFI, 2018). Reserve Bank of Zimbabwe (2016) refers financial inclusion as the effective usage of a variety of quality, affordable and accessible financial services, given in an impartial and translucent method via well regulated and recognized entities by the citizens of Zimbabwe. Olaniyi and Adeoye (2016) defined financial inclusion to a state where by the majority of the population easily get access to bank financial services. Financial inclusion can be termed as the ability of an individual to possess his or her own account in any formal financial institution, which enables him or her in terms of saving, borrowing money in a formal manner, contracting insurance or utilizing payment services. Being financially included leads therefore to economic benefits. It can favor disadvantaged and poor people allowing them to increase their income and the probability of being employed (Bruhn & Love, 2014).

In this study, financial inclusion refers to the ability of every citizen to access and use the financial banking services. Literature indicates different measures of financial inclusion being used however the use of bank related measures in terms of accessibility and usage have dominated linked to bank penetration, availability of bank services, use of banking system (Sarma, 2008; Park & Mercado, 2015). These include ownership of bank account, ATMs per 100,000, branches per 100,000 adults, borrowers from commercial banks, depositors with commercial banks.

East African Community. In this paper, this included countries like; Kenya, Uganda, Tanzania, Burundi and Rwanda.

Theoretical literature

Theory of Financial Intermediation

The provision of financial services is critical in enabling the move of resources from surplus units to deficit units. The theory of financial intermediation explains the role of financial intermediaries in the economy in particular economic growth and the impact of regulations on financial intermediation (Cuza, 2009). The theory builds on the argument of information asymmetry and transaction costs (Allen & Santomero, 1998). Financial intermediaries thus enable the reduction of transaction costs as they can be more easily diversified compared to individuals. In addition intermediaries can overcome information asymmetry by undertaking delegated monitoring.

Financial intermediation has been found to be critical for enhancing financial inclusion of the poor (Bongomi, Ntayi, Munene & Akol, 2017). Resource mobilization and asset transformation allows banks to mobilize deposits from customers and clients and provide loans which can later facilitate production by the private sector. Thus this allows efficient allocation of resources which enables investments which later results to higher rate of growth per capita (Shabbir, 1997). It has been argued that bank led financial inclusion has definitive advantages for inclusive growth in developing economies (Swamy, 2010). It can provide formal identity, access to payments and deposit insurance. However problems of adverse selection which may lead to moral hazard may lead banks to refrain from issuing credit and thus limit credit to individuals.

The banking sector has remained dominant and there is a distinction between supply side and demand side barriers to access. The World Bank (2005) argues that financial exclusion revolves around four areas being savings, credit, transaction banking and insurance. In addition exclusion has been accelerated by complications regarding access, conditions, prices, marketing and self-exclusion. However technological developments have been instrumental in enhancing accessibility of financial services. Branches being the traditional outlets along with growth in technology have enhanced use of ATM enabling access to financial services. Furthermore, the evolution of information technology

has revolutionized the intermediation and enhanced financial access. ICT has been found to have advantages of reducing information asymmetry, and the complementary synergy has been positive with both mobile phone and internet penetration having a positive net effect on formalization of financial activity in the banking system (Asongu & Acha-Anyi, 2017). In addition mobile phone usage has enabled to reach the unbanked (Ouma, Odongo & Were, 2017). Along these developments in the banking system and given the banking risk business, bank regulations are critical.

Merton (1995) contended that regulation of financial intermediaries is critical and that regulations tend to be shaped by the time path of financial innovation. Furthermore, regulating the integration of mobile money services with banking services still remains critical especially in addressing the convergence of telecommunication and financial sectors towards enabling maximum benefits from mobile banking (Nyaga, 2014). Therefore regulations and policies should ensure a balance in the safety of the financial system and provision of financial services to the majority.

Empirical literature

Allen, Demirgüç, Kunt, Klapper, and Peria (2016) assert that before analyzing our results, it is imperative to point out the difference between voluntary and involuntary exclusion. Some people may choose not to own an account because of a lack of money or for cultural reasons hence indicating that absence of Money, religious factors plus family member has an account, are categorized as voluntary self-excluded barriers. Involuntary exclusion, however, is driven by market failures. Aterido, Beck, and Iacovone (2013) jotted that the prevailing gender gap in the financial sector results from female participation in the economy and not within the financial sector itself. Cultural reasons are behind the exclusion of women from financial inclusion in Africa, while market failures are overall not responsible for gender discrimination.

Nandru *et al.* (2015) examined the factors that increase financial inclusion in Pondicherry region. The study employed factor analysis and multiple regression methods to understand the relationship between usage and frequency of banking services and other independent variables. The study established that easiness in accessing bank products and purpose of opening bank account have significant influence on usage frequency of banking services.

Zin and Weill (2016) examined the determinants of financial inclusion in Africa using World Bank's Global Findex database on 37 African countries to perform probit estimations. The study findings revealed that being a man, richer, more educated and older favor financial inclusion with a higher influence of education and income. Mobile banking is driven by the same determinants than traditional banking. The study emphasized that informal finance is not a substitute for formal finance in all aspects of financial inclusion in Africa. Fungáčová and Weill (2015) utilized 2012 Global Findex to study financial inclusion factors in China, the study findings revealed that richer, more educated, older men are more likely to be financially included.

In Africa, individual characteristics strongly differ in terms of motivation to loan taking. This is envisaged in a way that the poorer people ask more for loans related to medical purposes and to education, while richer people ask more for loans motivated by business and to buy a home, an apartment or land. Educated people ask more for loans to finance education but less to finance medical purposes or business. They also resort more too formal credit in order to purchase a home or land and women borrow less for business or land purchasing (Zin & Weill, 2016).

Demirgüç, -Kunt, *et al.* (2015) argued that the saving habits are different on the African continent in comparison to the world. The main motivations of saving in Africa are "for education" (21.3%) and "for farm or business" (19.6%). While 23.9% of individuals worldwide and 40% of individuals of high-income economies save for old age, which is their main saving motivation, only 10.3% of African individuals do so.

Uddin, Chowdhury, and Islam (2017) investigated the determinants of financial inclusion in Bangladesh during the period 2005–2014. The study employed the generalised method of moments and the quantile regression approach. The study distinguished between the supply side and demand side determinants of financial inclusion. The study established size of a bank, efficiency, and the interest rates as supply side determinants, while literacy rate and age dependency ratio were demand factors. In line with the above, Siddik, Sun, Shanmugan, and Yanjuan (2015) studied the determinants of financial inclusion in Bangladesh using multi-dimensional index. Findings revealed that the significant variables among the socio-geographic variables were rural population, household size, and literacy rate. The infrastructure variables which (paved road networks and internet), and bank deposit penetration in the banking industry were found to be significant in determining financial inclusion.

Furthermore, a study on inter-state variations in the access to finance, using a composite financial Inclusion Index was carried out by Chithra and Selvam (2013). Findings exposed that determinants of financial inclusion were: socio-economic factors, income, literacy, population, deposits and credit penetration. Similarly, Soumaré, Tchana, and Kengne (2016) studied the factors determining financial inclusion in Central and West Africa. Their findings indicated that individual attributes like gender was a positive significant determinant of financial inclusion in Central Africa while income was significant in West Africa.

According to Duncombe and Boateng (2009), Internet usage aspects have impacted on financial Inclusion that improvements in technology brings about easier access to financial products for the women since it cuts down on the need to travel long distances, hence cutting on their cost of transportation in accessing financial services. Olaniyi and Adeoye (2016) also studied the factors affecting financial inclusion in Africa during the period 2005–2014. The study employed the dynamic panel data approach to establish the determinants of financial inclusion. The study found that financial inclusion was driven by per capita income, broad money as a percentage of GDP, literacy rate, internet access and presence of Islamic banking activities.

Country characteristics have been found to significantly influence the level of financial inclusion as is observed by Park and Mercado (2015) who found out that per capita income, rule of law and the demographic structure that is age dependency ratio significantly influence the level of financial inclusion in Developing Asia. Furthermore, the analysis of governance by Ajide (2017) examined the determinants of financial inclusion in sub Saharan Africa countries using a panel of 18 countries from SSA and GMM, showed that institutions, GDP per capita, inflation and bank concentration are key drivers of financial inclusion. However, there were differences between one measure and another on the impact of financial inclusion.

Abel, Mutandwa and Roux (2018) examined the determinants of financial inclusion in Zimbabwe, using the logit model found out that age, education; financial literacy, income, and internet connectivity were positively related to financial inclusion. Furthermore on microeconomic perspective, Tuesta (2015) analyzed the micro economic perspective on the three dimensions determining financial inclusion being access, use and barrier in Argentina. Using a probit model, it was found that the level of education. Income and age are important in determining whether people have financial products or not.

Oyelami, Sabu and Adekunle (2017) examined the determinants of financial inclusion in sub Saharan African countries. Using panel autoregressive distributed lag (ARLD) the study showed that both demand and supply side factors influenced financial inclusion. From the demand side, level of income and literacy while from the supply side interest rate and bank innovation (ATMs) and the study found that GDP per capita does not exert positive effect on financial inclusion.

Methodology

Data sources and variables

This study used five countries from the EAC (Kenya, Uganda, Tanzania, Burundi and Rwanda) with an exception of South Sudan which recently joined in March, 2016 (EAC, 2018). This is partly contributed by the lack of data for South Sudan. Furthermore, while some studies examine sub Saharan countries such as Oyelami, Saibu and Adekunle (2017), some countries are not examined in the sample such as Burundi. This study utilized several sources of data. Data was obtained from the World Development Indicators (WDI). The WDI provides a panel data set that could be observed for the period 2004-2016 which this study used. These variables were Borrowers from commercial banks per 1000 adults, Automated teller machines (ATMs) per 100,000 adults, Commercial bank branches (per 100,000 adults), Age Dependency ratio (% working age population), GDP per Capita, Individuals using the Internet as % of the population, mobile cellular subscriptions per 100 people (Table 1). Regulatory quality was sourced from the World Governance Indicators (WGI) and Bank credit to Bank deposit is sourced from Financial Structure and Development Database of World Bank for 2017.

Due to lack of single measure of financial inclusion in terms of accessibility and usage authors have used various measures of financial inclusion. For instance, Oyelami *et al.* (2017) used borrowers from commercial banks per 1000 adults and depositors with commercial banks per 1000 adults but did not use ATMs per 100,000 adults. This study used three measures of financial inclusion being borrowers per 1,000 people, ATMs per 100,000 adults and Branches per 100,000 people. These variables are selected based on past literature (Oyelami *et al.*, 2017; Ajide, 2017; Sarma, 2008). In addition, the selection is based on the dominance of the banking sector in provision of financial services despite the rising role of mobile financial services.

Regression Estimation

This study used panel data and applied the Pooled OLS and the Least Square Dummy variable (LSDV) approach. The LSDV is a strategy for estimating the fixed effect model that uses a set of dummies. The LSDV approach allows the slope coefficients to be constant but the intercept to vary across the countries of analysis by applying dummies to estimate the fixed effects (Gujarat, 2004; Park, 2011). The LSDV approach has been argued to be a good approach for small N and it is easy to estimate and interpret. Park (2011) explains that the LSDV becomes problematic if there are many individuals (or groups) in panel data. This study applied both the POLS and LSDV. With the LSDV approach, Rwanda was used as the base country. This was selected because Rwanda has indicated developments for instance, trends in regulatory quality in Rwanda has shown an upward trend towards positive compared to the other members countries. The following estimations were tested for the three measures of financial inclusion.

The pooled OLS regression estimation was;

$$FI = \beta_0 + \beta_1 AGEDEP + \beta_2 GDP_PERCAPITA + \beta_3 INTERNET_USERS + \beta_4 MOB_SUBSCR + \beta_5 REGQUALITY + \beta_6 BCREDIT_DEPOSIT + e \dots\dots\dots$$

. (i)

On the other hand, the regression estimation with LSDV based on the three measures of financial inclusion which would allow for the intercept to vary across countries was estimated as;

$$FI = \beta_0 + \beta_1 AGEDEP + \beta_3 GDP_PERCAPITA + \beta_3 INTERNET_USERS + \beta_4 MOB_SUBSCR + \beta_5 REGQUALITY + \beta_6 BCREDIT_BDEPOSIT + \alpha_2 D2i + \alpha_3 D3i + \alpha_4 D4i + \alpha_5 D5i + e \dots\dots\dots$$

\dots\dots\dots (ii)

The dummy variables indicate that D2i = 1 if the observation belongs to Kenya, 0 otherwise; D3i = 1 if the observation belongs to Uganda, 0 otherwise; and D4i = 1 if the observation belongs to Tanzania, 0 otherwise and D5i = 1 if the observation belongs to Burundi, 0 otherwise. Due to having five countries,

the study used only four dummies to avoid the situation of perfect collinearity. The dummy variable approach helps to use the differential intercept coefficients (α_2 , α_3 , α_4 , α_5) to examine by how much the intercepts of Kenya, Uganda, Tanzania and Burundi are different from the intercept of Rwanda.

Table 1: Description of variables

Variable	Description
Bank Borrowers per 1000 adults (BORROWERS)	Borrowers from commercial banks (per 1,000 adults)
ATM per 100,000 adults (ATM)	Automated teller machines (ATMs) (per 100,000 adults)
Branches per 100,000 adults (BRANCHES)	Commercial bank branches (per 100,000 adults)
Age dependency (AGEDEP)	The Age Dependency ratio (% working age population
GDP per capita (LNGDP_PERCAPITA)	Natural logarithm to minimize the effects of large numbers.
Internet users (INTERNET_USERS)	These are individuals using the Internet (% of the population)
Mobile subscribers (MOB_SUBSCR)	This is mobile cellular subscriptions (per 100 people)
Regulatory quality (REGQUALITY)	Index obtained from World Governance Indicators.
Bankcredit_Bankdeposit (BCREDIT_BDEPOSIT)	This is the private credit by deposit money banks as a share of demand, time and saving deposits in deposit money banks. This study used this to reflect the strength and penetration of the banking sector in relation to bank credit and bank deposits

Source: WDI, WGI, Financial Structure and Development Database

Findings and Discussion

The descriptive statistics for the variables of study are summarized under Table 2. The results show that the average values for the dependent variables vary however the mean for branches per 100,000 adults and borrowers per 1000 adults are almost similar with a value of 3 however the mean of borrowers per 1000 adults is higher is 37.8. The independent variables showed that GDP per capita had the lowest volatility as reflected from the standard deviation and mobile subscribers per 100 people had the highest volatility.

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
ATMs	60	3.480667	2.931333	0.04	9.81	0.7147	2.5748
BORROWERS	55	37.88218	57.02779	0.39	272.73	2.6145	9.5319
BRANCHES	63	3.002381	1.616659	0.39	6.16	0.5459	2.0863
AGEDEP	65	90.44662	9.605506	76.54	109.51	0.4638	2.2403
LNGDP_PERCAPITA	65	12.81754	1.075714	10.50044	14.51005	-0.2689	2.2253
INTERNET_USERS	64	6.597031	5.932236	0.35	21.88	0.8601	2.5931
MOB_SUBSCR	65	35.73985	24.94864	1.4	80.44	0.1496	1.7187
REGQUALITY	65	-0.4381538	0.3720421	-1.36	0.25	-0.8494	3.0958
BCREDIT_BDEPOSIT	65	79.26292	16.11084	45.03	116.06	0.2389	2.9148

In addition the results of multicollinearity indicated that it was moderate level with the VIF values ranging between 1.67 and 3.49 (Daoud, 2017; Akinwande, Dikko & Samson, 2015) after testing with the different measures of financial inclusion as summarized under Table 4 on the next page below. To test for heteroscedasticity, the Breusch-Pagan (Cook-Weisberg) test was used. This tested the null hypothesis that the error variances are all equal and the results showed that heteroscedasticity was not a problem with $p > 0.05$, that is ($p = 0.4721$) when ATMs per 100,000 were used and ($p = 0.6640$) when branches per 100,000 were used. However results from borrowers per 1,000 adults revealed the existence of heteroscedasticity ($p = 0.0000$) and thus as result of this, the robust standard errors were used to correct for the problem of heteroscedasticity (Reyna, 2007).

Furthermore, correlation analysis between dependent and independent variables as summarized under Table 3 showed that age dependency ratio and GDP per capital is negatively correlated with all three measures of financial inclusion however it is only significant negatively correlated with branches per 100, 000 adults. On the other hand, bank credit to bank deposit was positive and significantly correlated with branches per 100,000 adults. Regulatory quality was significant and positive correlated with ATMs per 100,000 adults and Branches per 100,000 adults indicating that an environment with good regulatory quality can increase financial inclusion. Furthermore, Internet users and mobile subscribers per 100 adults were both positive and significantly correlated with all measures of financial inclusion. These preliminary correlation results showed that the explanatory variables were significant in explaining the level of financial inclusion in the EAC region.

Table 3: Correlation Analysis

	ATMs	BORROWERS	BRANCHES	AGEDEP	LNGDP_PER CAPITA	INTERNET _USERS	MOB_SU BSCR	REGQU ALITY	BCREDIT_ BDEPOSIT
ATMs	1.0000								
BORROWERS	0.7410*	1.0000							
BRANCHES	0.6594*	0.4418*	1.0000						
AGEDEP	-0.2326	-0.2595	-0.6005*	1.0000					
LNGDP_PERCAPITA	-0.0609	-0.1976	-0.2308	0.5763*	1.0000				
INTERNET_USERS	0.6582*	0.4357*	0.6110*	-0.0640	0.2874	1.0000			
MOB_SUBSCR	0.8751*	0.6087*	0.7391*	-0.2630	0.2295	0.7743*	1.0000		
REGQUALITY	0.5977*	0.2967	0.5019*	-0.0001	0.1779	0.5923*	0.5545*	1.0000	
BCREDIT_BDEPOSIT	0.0526	-0.0089	0.6573*	-0.5388*	-0.1796	0.3700	0.3340	0.0398	1.0000

* $p < 0.05$

Table 4: Multicollinearity and Heteroscedasticity Test Results

Variable	BRANCHES	ATMs	BORROWERS
	VIF	VIF	VIF
MOB_SUBSCR	3.48	3.6	3.4
INTERNET_USERS	3.44	3.35	3.49
AGEDEP	2.97	3.45	2.69
LNGDP_PERCAPITA	1.98	2.14	2
BCREDIT_BDEPOSIT	1.86	1.95	1.67
REGQUALITY	1.76	1.78	2.31
Mean VIF	2.58	2.71	2.59
Breusch -Pagan Test			
	chi2(1) = 0.19	chi2(1) = 0.52	chi2(1) = 28.27
	Prob > chi2 = 0.6640	Prob > chi2 = 0.4721	Prob > chi2 = 0.0000

Regression Estimation Results

Tables 5, 6 & 7 (Appendix) show the results of the POLS and LSDV models estimated under the three measures of financial inclusion as dependent variables. These were branches per 100,000 adults, ATM per 100,000 adults and bank borrowers per 1000 adults. Comparing the two methods of analysis based on the F-Test results which allow comparing a fixed effect model and OLS to see how much the fixed effect model can improve the goodness of fit. Differences were observed between the LSDV and POLS with LSDV indicating improvement in R-square and adjusted R-squared. According to Park (2011) and Pillai, (2016), if the null hypothesis is not rejected, then the POLS is a better model. Results of the F-Test tested the null hypothesis of the country effects being zero. For the case of Borrowers per 1000 people and ATM per 100,000 adults, the LSDV estimation was better while for Branches per 100,000 adults, the POLS estimation was favored. The summary statistics between the two methods of analysis are as summarized below;

Summarized F-Test results and Regression results under POLS and LSDV

	ATMs	BRANCHES	BORROWERS
F-Test	F(4, 48) = 8.48 ; Prob > F = 0.0000	F(4, 51) = 2.42 ; Prob > F = 0.0604	F(4, 43) = 3.96 ; Prob > F = 0.0080

Variables	ATMs		BRANCHES		BORROWERS	
	POLS	LSDV	POLS	LSDV	POLS	LSDV
AGEDEP	0.0586**	-0.0863	-0.0313*	-0.00717	-0.936	-4.365
LNGDP_PERCAPITA	-1.260***	-2.262*	-0.317**	0.606	-21.96***	25.34
INTERNET_USERS	0.0418	-0.125*	0.0181	0.0349	3.062	2.847
MOB_SUBSCR	0.118***	0.151***	0.0264***	0.0121	1.896***	0.3
REGQUALITY	0.497	-2.177**	1.056***	1.956***	-59.61**	-98.13**
BCREDIT_BDEPOSIT	-0.0389***	0.0192	0.0369***	0.0134	-1.249***	0.962
Overall intercept (Base intercept)	13.04***	31.06*	6.374***	-4.377	381.2***	-115.6
Country 2- Kenya deviation from the Base		-0.164		1.035		152.6
Country 3- Uganda deviation from the Base		7.319*		-2.464		70
Country 4-Tanzania deviation from the Base		3.852		-2.053		91.39
Country 5-Burundi deviation from the Base		-0.928		0.386		3.998

Based on POLS regression estimation with Branches per 100,000 adults as a measure of financial inclusion, the results showed that age dependency, GDP per capita, mobile subscribers per 100 people, regulatory quality and ratio of bank credit to bank deposit were all significant in explaining financial inclusion. However Age dependency ratio and GDP per capita were significantly negative. The negative results show that a unit increase in age dependency ratio reduced financial inclusion are similar to Park & Mercado (2015) and Uddin *et al.* (2017) where higher age dependency was

negatively related to financial inclusion. These results can be attributed to saving and consumption patterns of the working population. This is due to the need to direct resources towards support for either the young or dependents. Furthermore the GDP per capital had a significant and negative relationship with measures of financial inclusion. The negative and statistically significant relationship can be due to lower incomes which tend to reduce individuals' access to financial services. The results are contrary to the results by Zin & Weill (2016); Evans & Adeoye (2016) but similar to Lotto (2018) who found a statistically significant relationship between income and financial inclusion. Positive relationship could imply that improvements in income may lead to an increase in access to credit because individuals are able to have guarantees and collateral thus making it easy for them to access credit from banks.

On the other hand, individuals using the internet were not significant in affecting financial inclusion in terms of branches per 100,000 adults though it had a positive relationship. This result is contrary to Evans & Adeoye (2016). However the results on mobile subscribers per 100 people showed a positive and significant relationship with Branches per 100,000. The evolution of banking services and integration with other services such as mobile money services can enhance financial access (Asongu & Acha-Anyi, 2017).

Regulatory quality was positive and significant for financial inclusion. A unit improvement in the level of regulatory quality increased financial inclusion. This may occur since better and quality regulations with strong institutions can enhance opening up of more access points such as branches hence increasing financial inclusion. These results are similar to Ajide (2017) who observed positive impact on number of bank branches and negative impact on number of ATM per 100,000 adults. In addition, the negative and significant relationship observed could mean that a weak government's ability to formulate and implement sound policies and regulations that permit and promote private sector development can lead to decline in financial inclusion. On the overall, results show that regulatory quality is significant for financial inclusion.

The results also showed that penetration and strength of the banks in provision of credit and mobilization of deposits in terms of bank credit to bank deposit was positive and significant for Branches per 100,000 adults. This can be attributed to the fact that credit is important for the development of the economy and also individuals and thus banks capability in resources mobilization and transforming of deposits to credit can enhance financial access. Therefore if the banking system is strong in terms of providing credit then it is likely to increase accessibility and usage of this service by the people hence the positive relationship with financial inclusion. This can be supported by Uddin *et al.* (2017) finding that bank size played an important role in on both deposit collection and loans and advances disbursement of a bank.

Using the LSDV estimation results on the other hand which assumes that the slope coefficients are all the same for all countries but intercept varies over countries, it showed that country heterogeneity were not significant. The only significant result was observed Uganda when ATM per 100,000 adults was used. From the baseline intercept of Rwanda, the results showed that the intercept of Kenya was 0.164 smaller than the intercept of Rwanda, Uganda was 7.319 larger than the baseline Rwanda of 31.06 and this deviation was statistically significant. The intercept of Tanzania was 3.852 larger than Rwanda and Burundi's intercept was 0.928 smaller. Though the LSDV assumes slope coefficients are constant, the differences in the intercept could be attributed to differences in such aspects as different leadership among countries.

Furthermore, the LSDV estimation results, assuming that slope coefficients being constant but allowing intercepts to vary over time, results showed that time effects were significant as opposed to country effects when ATM per 100,000 adults is used thus supported that financial inclusion has changed over time shown under Table 7 (Appendix). On the other hand when Borrowers per 1,000 adults is used, results showed that time effects were not significant. Thus the results imply that in terms of borrowers per 1,000 adults, financial inclusion has not changed over time.

Conclusions and limitations

This study examined the determinants of financial inclusion in developing countries with a focus on the EAC member countries (Kenya, Uganda, Tanzania, Burundi and Rwanda). This study concludes that financial inclusion in EAC varies depending on the type of measure that is used to capture financial inclusion. In addition, there is no significant effect of country effects on the level of financial inclusion. Financial inclusion still remains paramount to the development of its people. The results of the study showed that regulatory quality, mobile subscriptions, banking sector penetration, age dependency and GDP per capita are important for financial inclusion. Subsequently, countries should ensure to maintain good regulatory environment by formulating and implementing sound policies and regulations to enhance financial inclusion through development of the private sector. In addition given the variation in results, for the different measures of financial inclusion, a more unified measure of financial inclusion is needed for analysis thus future research should consider developing a financial inclusion measure that captures accessibility and usage and which can be used by all countries. Given the fact that this paper findings were for EAC, the results should not be generalized to other regions a part from those with similar characteristics like those of EAC. Lastly, future researchers should consider evaluating regional blocks like ECOWAS, SADAC, in terms of financial inclusion and compare and contrast results.

Implications and Recommendations

The study has implications for policy makers, financial institutions in EAC member countries and future academia. To policy makers and financial institutions in EAC member countries should endeavor to ensure that financial inclusion relevant information is available. This is critical for measuring financial inclusion and establishing regulations that can support development of the financial sector and further financial inclusion. Parallel to information available, it is recommended that more efforts are needed to establish an appropriate measure of financial inclusion because financial inclusion can be considered as a tool for poverty reduction. Therefore it is important to have a more inclusive measure of financial inclusion.

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Appendix 1: Detailed Regression Results

Table 5: Pooled OLS Regression Results

	ATMs	BRANCHES	BORROWERS
AGEDEP	0.0586** (2.87)	-0.0313* (-2.38)	-0.936 (-1.18)
LNGDP_PERCAPITA	-1.260*** (-8.67)	-0.317** (-3.27)	-21.96*** (-3.84)
INTERNET_USERS	0.0418 (1.24)	0.0181 (0.78)	3.062 (1.82)
MOB_SUBSCR	0.118*** (13.91)	0.0264*** (4.66)	1.896*** (4.50)
REGQUALITY	0.497 (1.33)	1.056*** (4.08)	-59.61** (-2.98)
BCREDIT_BDEPOSIT	-0.0389*** (-3.78)	0.0369*** (5.80)	-1.249*** (-3.95)
_cons	13.04*** (6.41)	6.374*** (4.75)	381.2*** (4.17)
N	59	62	54
R-squared	0.927	0.882	0.640
Adj R-squared	0.919	0.869	
t statistics in parentheses			
* p<0.05, ** p<0.01, *** p<0.001			

Table 6: LSDV Estimation Results with intercept vary over countries

	ATMs	BRANCHES	BORROWERS
D2	-0.164 (-0.14)	1.035 (1.06)	152.6 (1.82)
D3	7.319* (2.23)	-2.464 (-0.98)	70.00 (0.25)
D4	3.852 (1.68)	-2.053 (-1.24)	91.39 (0.58)
D5	-0.928 (-0.77)	0.386 (0.45)	3.998 (0.05)
AGEDEP	-0.0863 (-1.03)	-0.00717 (-0.11)	-4.365 (-0.66)
LNGDP_PERCAPITA	-2.262* (-2.64)	0.606 (0.91)	25.34 (0.38)
INTERNET_USERS	-0.125* (-2.68)	0.0349 (0.94)	2.847 (1.22)
MOB_SUBSCR	0.151*** (10.03)	0.0121 (0.98)	0.300 (0.36)
REGQUALITY	-2.177** (-3.22)	1.956*** (3.96)	-98.13** (-3.04)
BCREDIT_BDEPOSIT	0.0192 (1.28)	0.0134 (1.08)	0.962 (1.57)
_cons	31.06* (2.01)	-4.377 (-0.38)	-115.6 (-0.09)
N	59	62	54
R-squared	0.958	0.901	0.737
Adj R-squared	0.949	0.882	
t statistics in parentheses, * p<0.05, ** p<0.01, *** p<0.001			

Table 7: LSDV Estimation Results with intercept vary over time

	ATMs	BRANCHES	BORROWERS
d2	-0.165 (-0.33)	0.552 (1.50)	-14.66 (-1.35)
d3	-0.173 (-0.33)	0.751 (1.95)	-8.900 (-0.73)
d4	-0.159 (-0.31)	0.665 (1.73)	-9.064 (-0.61)
d5	-0.943 (-1.69)	1.543*** (3.62)	-19.67 (-1.01)
d6	-1.075 (-1.79)	1.557** (3.40)	-26.07 (-1.20)
d7	-1.761* (-2.64)	1.598** (3.14)	-35.16 (-1.40)
d8	-1.930* (-2.60)	1.575** (2.78)	-38.23 (-1.35)
d9	-1.469 (-1.83)	1.572* (2.56)	-37.69 (-1.15)
d10	-1.345 (-1.62)	1.719** (2.71)	-31.68 (-0.99)
d11	-2.127* (-2.43)	1.525* (2.28)	8.021 (0.21)
d12	-3.412** (-3.50)	1.489 (1.99)	-38.15 (-1.00)
d13	-3.862*** (-3.85)	1.507 (1.96)	-4.445 (-0.07)
AGEDEP	0.0426* (2.40)	-0.0265* (-2.12)	-0.690 (-0.94)
MOB_SUBSCR	0.146*** (11.61)	0.0101 (1.05)	2.267*** (3.66)
INTERNET_USERS	0.103** (3.33)	0.0271 (1.15)	2.042 (1.04)
LNGDP_PERCAPITA	-0.954*** (-6.11)	-0.480*** (-4.22)	-20.38** (-2.97)
REGQUALITY	-0.488 (-1.25)	1.351*** (4.50)	-61.88** (-3.08)
BCREDIT_BDEPOSIT	-0.0347*** (-3.57)	0.0342*** (4.94)	-1.172** (-3.21)
_cons	9.801*** (4.31)	7.630*** (4.45)	346.3** (3.57)
N	59	62	54
R-squared	0.962	0.923	0.706
Adj R-squared	0.945	0.891	

t statistics in parentheses;* p<0.05, ** p<0.01, *** p<0.001

Note that the dummy variable d2-d13 are the time dummies which represent the time from 2005-2016 and the base year is d1 (2004).

Owner-manager's individual characteristics and their effects on SMEs' competitiveness in tanzania: The case of Dar es salaam City

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Abstract

This paper examines the effects of owner's individual characteristics on SME's competitiveness. More particularly, it assesses the effects of owner's level of entrepreneurship education, business experience and attitude towards firm's competitiveness. Data were conveniently collected from the sampled owners of 113 SME's in Dar es Salaam. It is estimated that Tanzania's SME sector is populated by more than 3 million enterprises. The paper used mixed method but largely employed quantitative data that were complemented by in-depth information from key informants. Self-administered questionnaire and Interview guide were used for respective data collection. Regression analysis and thematic analysis were utilised to analyse quantitative and qualitative data respectively. The paper findings indicate that most of the entrepreneurs strongly agreed that attitude of the owners (M=4.21) as the most important attribute for their firms to be more competitive. This was followed by entrepreneurial education (M=3.546) where respondents agreed that this attribute matters on the competitiveness of the firm. Finally, most respondents did not agree that experience was of the business owners (M=2.22) had influence on the competitiveness of the firm. The study recommends to the government of Tanzania, education institutions, donors and other stakeholders to stimulate entrepreneurial enthusiasm amongst Tanzanian individuals through skills development in entrepreneurship, innovation and competitiveness.

Keywords: *Individual Characteristics, SMEs and Firms Competitiveness*

Introduction

There is global evidence that the world's governments acknowledge the impact of Small and Medium entrepreneurs (SMEs) on the improvement of people's standards of living, overall economy and on job creation in an environment where formal and full wage employment may be scarce or unavailable (Hove & Tarisai, 2013; M'Nduyo *et al.*, 2013). As a result, economies and societies are increasingly becoming characterized by small businesses entrepreneurs that are globally vital to local and national economic growth and development (Singh *et al.*, 2010; OECD, 2019). Dalberg (2011) on the other hand, opined that the SME sector is the backbone of the economy in high-income countries, but is less developed in developing countries despite being vital for economic growth, innovation and prosperity. Estimates show that above 95% of businesses around the world, are SMEs and account for nearly 60% of jobs in the private sector, significantly contribute to innovation, and provide support to regional development and social cohesion and make a critical contribution to GDP (SEAF, 2007; Ayyagari *et al.*, 2011). Statistics show that Japan is at the lead with the highest number of SMEs among the industrialised countries: accounting for above 99% of total businesses (EIU, 2010). According to Ministry of Micro, Small and Medium Enterprises of India, there were 13 million SMEs in 2008 equivalent to 80% of all businesses in the country (Ghatak, 2010).

OECD (2005) reported that, more than 95% of enterprises in its area are SMEs. In Africa, Quartey and Abor (2010) propound that in South Africa, it is estimated that 91% of the formal business entities are SMEs. In the case of Tanzania 95% of the businesses are Small and Medium Enterprises (SMEs), and they represent about 35% of the country's GDP. (<https://www.tanzaniainvest.com/SME>).

Despite the importance of SMEs, they have been characterised by a number of challenges. Nearly half of SMEs in developing economies mention access to finance as their major limitation (Dalberg, 2011).

Specifically, businesses tend to face difficult lending conditions or may be unable to access finance from local financial facilities. According to World Bank (2015), SME's in Africa are weak because of small local markets, undeveloped regional integration and very difficult business conditions, which include cumbersome official procedures, poor infrastructure, dubious legal systems, inadequate financial systems and unattractive tax regimes. The implication of this is that many firms fail to grow and opt to stay informal and use simple technology that does not need great use of national infrastructure. Kauffmann (2004) contends that smallness of SMEs tends to protect them from legal proceedings because have limited assets to confiscate and unlikelihood of bankruptcy; and this makes them more flexible in the event of uncertainty of business conditions. Although they operate under difficult business conditions, SMEs in Africa are of even greater significance. According to Ayyagari *et al.* (2007), the SME sector in Sub Saharan Africa accounts for above 90% of all enterprises of which between 70% and 80% are micro and very small ones; but they provide the main sources of employment and income for Africans, second to subsistence agriculture.

According to KPMG and Nation Media Group (2004) as cited in Mutunga *et al.* (2013), the growth of SMEs revenues in East Africa was highest in the past 12 months; in the construction it was 61%, services 46% and information technology 44%; and this reflects the intensity of the activity of the sectors. Conversely, since the majority of SMEs in Africa are owned by families or family members are the majority shareholders, they are characterized by poor book keeping records and the secrecy in the manner they conduct their businesses activities. Mbura (2013) classifies problems of SMEs in terms of firm situational factors, poor management and eternal problems.

SMEs' development has been identified as the key strategy to reduce poverty in Tanzania (URT, 2010). This has acted as the driving force for the increasingly a deep-self interest to develop SMEs in Tanzania. According to UNIDO (2013) several policies have been enacted to facilitate establishment and competitiveness of existing SMEs in order create job opportunities and generating income. Some strategies have been mounted to reduce the drawbacks facing SMEs including marketing, management of human resources, skills, infrastructure, regulations and access to finance (URT, 2010). It has been argued that success or failure of any organization largely depends on the human resource capability of the firm to combine resources in a manner that takes advantage of the opportunities and minimize threats towards achieving organizational objectives (Nganu, 2005). One of many beliefs towards successful business is the fact that firms grow because of the individuals that are capable having vision and strategies of achieving those visions and the ability to take risks (Mbura, 2013). Invariably efforts towards successful business outcome require entrepreneurial acumen of individual's entrepreneurs in order to achieve the best results given the competitive environment surrounding most economies and businesses. The entrepreneur characteristics typify the personality traits of an entrepreneur who logically plays a founding and dominant role in development of a business (Gómez, 2006; Mbura, 2013). The initiation and development of a business requires certain aspects to be in place. Some of the key interdependent aspects include an opportunity focus, a business plan, resource acquisition and deployment, an appropriate structure and a motivated team, and a founder or lead entrepreneur (Rwigema & Venter, 2004). All these aspects are dependent on a founder or lead entrepreneur who orchestrates these interdependent variables in a fruitful way.

Consequently, formed business therefore reflects character and behaviour of the entrepreneur whose vision and actions are central to its success and/or failure. The Characteristics of an entrepreneur which play an important role in determining firm performance may be categorized as demographic factors, individual background/characteristics, personal traits, and entrepreneur orientation and readiness (Islam *et al.*, 2011). Demographic factors include age, gender, income level, marital status and religion. Individual characteristics influencing SME performance include experience, education, managerial know-how and social skills of the owner/manager (Islam *et al.*, 2011). Personality traits influencing firm performance include self-confidence, perseverance, desire to be boss and will to succeed (Gaebler, 2007; Islam *et al.*, 2011). Entrepreneurial orientation consists of autonomy, innovativeness; risk taking, proactiveness, and competitive aggressiveness while entrepreneurial readiness refers to belief in own

self to perform a given task (Kristiansen *et al.*, 2003; Islam *et al.*, 2011). According to Nabi *et al.*, (2017) a need to enhance entrepreneurship knowledge and skills is realized yet limited research on entrepreneurship education have been conducted.

In Tanzania, despite all the interventions made, SMEs progress is relatively low. Estimates show that if Tanzanian SMEs' full potential is utilized, they have the greatest potential for further employment generation (URT, 2003) and contribute more than the contributed 40% of GDP (Tamara, 2006). So the focus should currently be on human capital and know-how which are identified as non-easily-imitable, rare to obtain but also very valuable to bring real competitive advantage to the firm (Barney, 1991; Hunt and Morgan, 1995). In the view of Penrose (1959) as cited in Rugman (2002) the upper most important attributes to people's personal characteristics include the rare human capital resources, people's behaviour, knowledge, personal experience and expertise that if are put into effective use can help SMEs to gain grounds for being more competitive in the local and international markets. Consequently, this paper examines the effect of owner-manager's individual characteristics on SMEs competitiveness. More specifically, it examines the effects of owner-manager's entrepreneurship education, business experience and attitude towards firm's competitiveness.

Literature review

Key concepts

Firms competitiveness. According to Porter (1990), *competitiveness* refers to the ability of a given firm to compete successfully in a given business environment. Lall (2001) delineates firm competitiveness as the ability of a firm to do better than benchmark companies in terms of profitability, sales, or market share. Akben-selcuk (2016) on the other hand opined that competitiveness is regarded to be an outcome variable and adopts a static approach. It is therefore logical to conceive competitiveness as an outcome of entrepreneur individual characteristics and behaviour. In this study, *Firms competitiveness* is the ability of owner's individual managers of SME's to compete auspiciously and successfully by embracing their personal characteristics such as entrepreneurial education, personal entrepreneurial experiences and attitudes

Individual Characteristics in this study entails managers' entrepreneurial personal characteristics like entrepreneurial education, experiences and attitudes. It is worth noting that despite the varying definitions of *SMEs* from nation to nation and organisation to another, IFC (2009) regarded SMEs as registered businesses with less than 250 employees, although the appropriate definition still varies from country to country and even across organizations. Conversely, SMEs in this study refer to the sampled 113 Small and Medium Enterprises in Dar es Salaam-Tanzania which are owned by individual managers at a micro level.

Theoretical perspectives

Three theories have been adopted in this study: Resource based view, Achievement theories and Entrepreneurial Models guided this paper.

Resource Based View (RBV)

The Resource Based View (RBV) by Robert Grant (1996) a theory aligns itself well with the human capital view of people in an organization with strong arguments stating that human resources are intangible assets that play an important role in building competitive advantage. (Wirida, Andalas, & Amali, 2019.) . The theory posits that the manner in which resources are utilized determines a competitive advantage in an organization (Wernerfert, 1984; Barney, 1991; Peteraf, 1993; Mata *et al.*, 1995). The main assumptions of RBV are resource diversity and resource immobility. These assumptions usually determine whether an organization is able to make a sustainable competitive advantage by determining whether a process or technology provides a real advantage over the market. In the views of Mata *et al.* (1995) and Afiouni (2007), the RBV of the firm indicates that

an organization's management of human capital contributes significantly to the capacity to sustain competitive advantage by creating specific knowledge, skills and culture in the firm that are difficult to be imitated. This means that sustainable competitive advantage can be both created and maintained by ensuring diversity of resource, like increasing knowledge and skills, and/or resource immobility in the sense of a culture that people would wish to work in. To create human capital resource diversity and immobility, an organization needs to have adequate practices in the management of human capital, organizational processes, knowledge management and systems, as well as both formal and informal educational opportunities. Therefore; it is the ability of the SME's owner-manager to organize human resource which can then lead to firm's competitive advantage. This requires skills, knowledge, proper attitude and adequate practices in the management of human capital as key drivers to successful resource management.

Achievement Motivation Theory

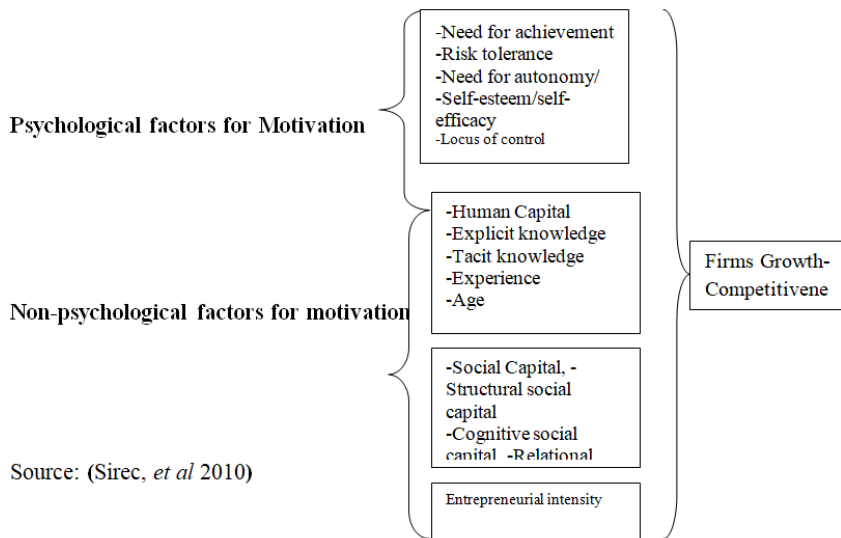
Achievement motivation theory by McClelland (1961) propounds that people who aim to become entrepreneurs must have a need for achievement, affiliation and power. These act as the basis upon which an entrepreneurial personality is established. Entrepreneurs always want to achieve success in their endeavours. The need for *power* comes from the urge to gain dominance in a certain field and thus cause influence among other people. The need for *affiliation* comes from the urge of motive of maintain friendships with other people.

The urge to *achieve* something motivates one to do better and achieve a goal according to a set of standards. Shanthakumar (1992), Johnson (1994) and Solymossy (1998) contend that the inclusion of measures of achievement orientation within the framework of entrepreneurs' personal characteristics is in agreement with research. Some studies conducted earlier show that the need for achievement is the key feature of entrepreneurial behaviour. Subsequent researches propound that Achievement is related to independence, orientation (Cooper *et al.*, 1989), risk-taking possibilities (Sexton & Bowman 1986), and control perception (Miller and Friesen, 1982). Orientation of an individual, willingness and desire for satisfaction or a sense of accomplishment is a result of the need to achieve; the need which is demonstrated by the application of passionate, prolonged and repeated attempts to achieve something difficult, whether by skills, practices or perseverance. This is then accomplished by a future-oriented commitment to the task, involving prioritization of accomplishing the task as well as frequently sacrificing other activities and time of an individual. An appropriate attitude should characterise the entrepreneur if destiny of the endeavour is to be realized.

Entrepreneurial models

Sirec *et al.* (2010) assume that the presumed importance attached to the SME sector is built on the belief that if factors which influence growth are identified, certain benefits which contribute to the growth process can be located. A combination of models was designed that came up with an entrepreneurial model that defines the concept of entrepreneur. The entrepreneurial concept with distinguishing characteristics is the central part of the entrepreneurial theory. The concept is based on psychological and non-psychological factors for motivation which ultimately determine personal characteristics of entrepreneurs. The *psychological motivation* factors that will act as the internal driving force of the SMEs owner constitute the general attitude of the owner-manager that range from what the owner wants to achieve, the risks he/she is willing to go through to achieve his/her goals and his/her self-belief in individual skills and expertise. In addition the desire to have control over his/her own work, the level of self-assurance he/she has to pursue opportunities will lead to the set of vision he/she has for her business. The psychological factors below combined with the *non-psychological* motivation factors such as age, knowledge and experience can directly affect the level of firms growth and hence its competitiveness. Figure1 illustrates the entrepreneur's personal characteristics model.

Figure 1: Envisaging a Model for Entrepreneurs Personal Characteristics

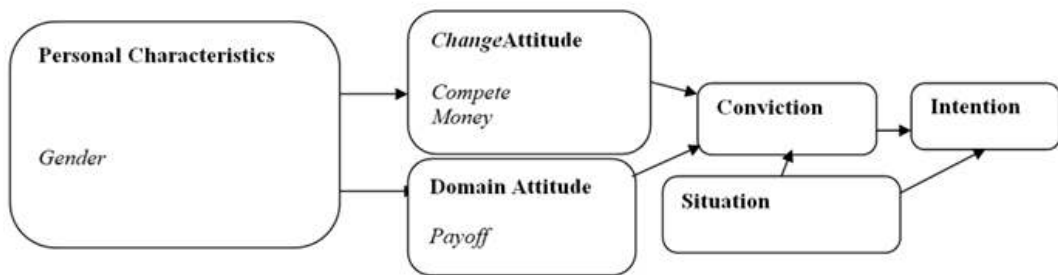


Source: (Sirec, et al 2010)

The Economic-Psychological Model

The economic-psychological model by Davidsson (1995) explains the contribution of personal characteristics to starting a business and how this affects the overall competitiveness and growth of a firm. In this model, he categorized personal characteristics as the driving force for SMEs owners to have overall success in pursuing certain types of business. According to Boyd and Vozikis (1994), the major determinants of the owner/manager target to establish a firm, is the assurance that this career is a suitable alternative for him/her and is perceived to be a self-efficacy. Adding to this Shapero and Sokol (1982), Martin (1984) and Bird (1993) suggest that there are factors that affect owner conviction and the drive to start a business, namely open opportunity, displacement, being between things, or free-choice period, and change orientation. Nevertheless, they all recognize the personal characteristics as important variable in shaping the establishment and development of the firm thus determining in the long run the competitive attitude of the owner-manager. Figure 2 demonstrates the economic-psychological model of the determinants of entrepreneurial intentions.

Figure 2: Economic-psychological model of determinants of entrepreneurial intentions



Source: Adopted from Davidsson (1995).

Empirical perspective

Some researchers such as Ismail and Meutia (2012) proved through empirical research that entrepreneurial competence has a positive and significant effect on competitive advantage. Kamukama *et al.* (2017) research examined the effect of managerial competency on business performance with competitive advantage as a mediator variable. The results indicated that competitive advantage is the mediating variable between managerial competency and business performance.

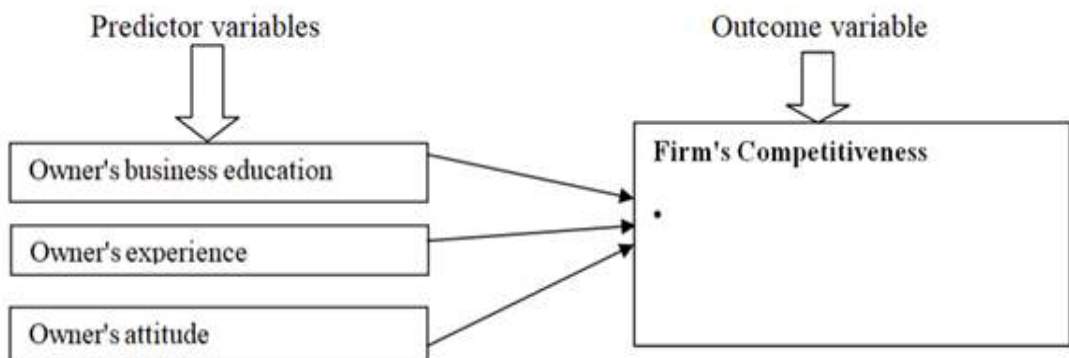
Rungwitoo (2012) empirically assessed simultaneous effect of entrepreneurial competencies, including knowledge and skills, in individual level on competitive advantage of SMEs in established phase. The study found that partially entrepreneurial competency has a positive and significant effect on competitive advantage, but the relationship is weak. In simultaneously entrepreneurial competency have no significant effect on competitive advantage. The study showed further that the five dimensions of competitive advantage namely internal process and knowledge, value to customer, cost and resources, product proprietary and production are weakly influenced by different roles of entrepreneurial competencies.

Olawale & Garwe (2010) study investigated the internal and external environmental obstacles to the growth of new SMEs and found finance, economic, markets, management and infrastructure to be the most significant obstacles. Mutunga & Gachunga (2013) sought to establish how nurturing and development influenced succession planning in SMEs. It was found that SMEs that have a succession plan, as they replaced the current owners/managers with successors in good time, found it easier to get used to the new owners than those who did not.. Islam *et al.* (2011) conducted a study on the effect of characteristics of entrepreneur and characteristics of the firm on the business success of SMEs. . The findings indicated that the characteristic of entrepreneur was seen as a significant factor for business success of SMEs in whereas the firm characteristics were insignificant. In a related study, Sarwoko *et al.* (2013) revealed that the entrepreneurial characteristics that led to an increase in the competence have a significant influence on business performance. Unlike the reviewed studies, this current study considers individual entrepreneur business education, attitude and experience as influencing constructs on firms' competitiveness.

Conceptual Framework

The following figure 3 provides conceptual framework for the paper

Figure 3 Conceptual Frame work for the Paper



Source: Developed from the literature

From the figure 3 , the three construct namely; owners business education, owners experience and attitude, are considered to have significant influence on Firms' competitiveness.

Methodology

The current paper is based on a study that was conducted in Dar es Salaam which is the largest city with the largest number of SMEs in Tanzania. A cross-section descriptive research design was adopted in an attempt to assess the factors that relate to the competitiveness strength of the Tanzanian SMEs. The sample size for the study consisted of 113 SMEs owners/ owner managers. Using VanVoorhis and Morgan (2007) and statistical formula ($N \geq 104 + M$) also as cited by Mbura (2007) where M is the number of independent variables it was possible to arise at minimum required size of 107. Since this is the minimum required, a study went for 113 respondents who were conveniently sampled for data collection. Sample lists were obtained from Small Industries and Development Organization (SIDO), Tanzania Chamber of Commerce, Industries and Trade (TTCIA) and Confederation of Tanzania Industries (CTI) directories. From these directories, firms which meet the pre-determined criterion of SMEs were selected. Data were collected using structured questionnaire. Open ended questions through interview guide were used for securing qualitative in-depth information from purposively selected 5 key informants. A 5 point Likert scale was used to gather data through where 1 represents strongly disagree, 2=Disagree, 3=neutral, 4=Agree and 5=strongly Agree. ,

Reliability and Validity of Data

Cronbach's Alpha was used to determine the reliability of the study. According to Namdeo and Dev Rout, (2016), the closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. The rule of thumb is that If the value of alpha is >0.9 = Excellent, >0.8 =Good, >0.7 = Acceptable, >0.6 = Questionable, >0.5 =Poor, and <0.5 = Unacceptable. In this study it was found that all the three constructs had Cronbach Alpha that are higher than 0.7 hence acceptable.

In terms of validity, McMillan & Schumacher (2006) opined that validity refers to the degree of congruence between the explanations of the phenomena and the realities of the world. In this study, data collection on instrument was subjected to piloting and reviews by an expert before it was finally widely distributed to 113 sampled respondents.

Findings, analysis and discussion

This section provides findings, analysis and discussion in the context of the three objectives that were articulated in an earlier section. It should be recalled that there were three constructs namely Attitude, Education and experience that were related to firms' competitiveness. Mean values and Standard deviations were computed with the help of SPSS 20 to ascertain the most influencing predicting constructs to the firms' competitiveness. The findings are preceded by a description of the characteristics of the respondents.

Characteristics of the Respondents

Respondents were asked to indicate their age, sex and their marital status. Table 1 provides the findings

Table 1: Characteristics of the respondents

Descriptive characteristics of the of the respondents in terms of Age, Sex, Marital status, Educational level and years spent in business were requested from the respondents The following table 1 provides the findings

	Respondents	Frequency (N=113)	Percent (%)
Age	18-35years	12	11
	36-45 years	27	24
	46-55	31	27
	56 years and above	43	38
	Total	113	100
Sex	Male	85	75
	Female	28	25
	Total	113	100
Marital status	Single	6	5
	Married	61	54
	Widowed	27	24
	Divorced	19	17
	Total	113	100
Education level	Primary education	8	7
	Ordinary level education	19	17
	Advanced level education	37	33
	Diploma	26	23
	Bachelor's degree & above	23	20
	Total	113	100
Years spent in the business	1 to 5 years	28	25
	6 to 10 years	66	58
	Over 10 years	16	14
	No response	03	03
	Total	100	100

Source: From the Field

The findings in Table 1 depict that the age group between 46 years and above were 74 (65%) of the all respondents, while those whose age were below 46 years were 39 (35%). This implies that the majority of owners in the study area was in higher age category which may suggest that they have high experience and settled attitude towards entrepreneurial conduct. In terms of Sex the findings shows that more of male respondents dominated the sample with 85 (75%) while female were 28 (25%). This may suggests that, male group were more involved in SMEs than females. The findings also provides that married respondents were 61 (54%), followed by widowed 27 (24%), then divorced 19 (17%) and the last group is of single with only 6 (5%) of the total respondents. This implies that the majority of employees in the study area were married. Marriage has been related to entrepreneurship tendency in

the literature., copreneurs have been said to experience work–family conflict (WFC), which can have a negative effect on business sustainability (Peregrino-Dartey, 2018) but at times have been instrumental for business prosperity (Mbura, 2013) Furthermore in terms of Education, *respondents* with Diploma and Bachelor degree were 49 (43%) while those without college qualifications were the majority 64(57%). A study by Ivar Kolstad and Arne Wiig (2015) found there was a significant and substantial effect of an added year of primary education on entrepreneurial profitability. This is consistent with theoretical arguments that primary schooling provides a generalized form of competence that underpins the variety of skills an entrepreneur needs to succeed in business. In terms of experience the findings indicate that those respondents with at least 6 years of experience were 82(72%) while those with less were 28(25%). This shows that most of the respondents had adequate experience to enable them make fruitful business decisions

Means and Standard Deviations

The section begins with Mean and Standard Deviations for Owner Manager Education, followed by Owner Manager Experience and finally by the Owner Manager Attitude. It begins with computation of the influence of individual attributes within each construct before embarking on the overall Means for the 3 main constructs The range for the 5 point Likert scale were determined The minimum and the maximum length of the 5-point Likert type scale, the range was determined through calculating by $(5 - 1 = 4)$ then divided by five as it is the greatest value of the scale $(4 \div 5 = 0.80)$. Afterwards, number one which is the least value in the scale was added in order to identify the maximum of this cell. So the range is provided as follows:

- From 1 to 1.80 represents (strongly disagree).
- From 1.81 until 2.60 represents (do not agree).
- From 2.61 until 3.40 represents (true to some extent).
- From 3:41 until 4:20 represents (agree).
- From 4:21 until 5:00 represents (strongly agree).

Entrepreneurship Education and Firm’s Competitiveness

The first objective of the paper was to assess the effects of owner-manager’s level of education on firm’s competitiveness. Findings, analysis and discussion are presented in the context of related attributes to this construct.

Table 2. Entrepreneurship Education and Firm’s Competitiveness

Entrepreneurship Education Attributes	The highest level of formal education	Entrepreneurship education matters on firm’s competitiveness	Desire to continue with further studies in the process of acquiring formal education	Process of acquiring expert knowledge through other means	The level of formal education assists to be competitive
Valid N	113	112	113	113	113
Missing	0	1	0	0	0
Mean (M)	3.85	3.75	2.25	3.65	4.23
Std. Deviation (S.D)	1.247	1.541	.383	.132	1.151

The findings in Table 2 show that the Mean Values for four attributes namely the highest level of formal education, the level of formal education, Process of acquiring expert knowledge through other means and Entrepreneurship education matters on firm's competitiveness were greater than 3 ($M > 3$).

The findings suggest that most of the owner managers/managers strongly agree that formal education assists firms to be competitive ($M=4.23$) and that they simply agree that highest level of formal education would matter in driving a firm towards success ($M=3.85$). They also agree that entrepreneurship education ($M=3.74$) and Process of acquiring expert knowledge through other means ($M=3.64$) also greatly influence firms competitiveness. On the other hand the remaining attribute on the Desire to continue with further studies in the process of acquiring formal education had the Mean score of less than 3 ($M=2.25$) implying that respondents do not agree that it matters in influencing firms competitiveness.

In terms of all statements their standard deviations ($S.D < 3$) suggesting that there is minimum dispersion of opinions amongst respondents which is considered to be a robust for the validity of information. The findings are supported Admassie & Matambalya (2002) who point out the importance of giving out entrepreneurship trainings for improved SMEs competitiveness. On the other hand, Mashenene & Rumanyika (2014) note out the effects of inadequate business training on the firms competitiveness.

In the in-depth interview on importance of formal education the owner of bamboo art craft noted:

“Before receiving education on how to make better bamboo furniture's I had limited vision and limited market. I can say attending a college has improved my style as well as connected me to different customers with bigger orders.”

The response in a way shows that expert knowledge obtained through other means were important but not as important as acquiring specific entrepreneurship training.

In another in-depth interview it was also observed that entrepreneurship education is important for effective firm competitiveness

A respondent from Nyamza Company stated that,

“Most of the time we rely on a more traditional way of learning on how to do business. We learn from friends, family, formal bosses and many others, but if we were able to receive entrepreneurship education, we could be more organized and be able to compete with other well established firms.”

This was supported by another view by AGP Consultants Company who said that:

“Entrepreneurship is a key driver of any business; people who are exposed to entrepreneurship frequently have more opportunity to exercise creative freedoms, higher self-esteem, and an overall greater sense of control over their own lives.”

Despite the fact that desire to continue with further studies were ranked lowly in stimulating firms competitive effectiveness, a respondent from Kaymu Tanzania said that:

“Entrepreneurship is important because it helps to drive the economy, it allows people to bring creativity into the marketplace, it creates companies with the potential to hire millions of people and it brings new products and services to market.”

This may suggest a need for enhancement of entrepreneurship education as important rather than the process of acquiring higher formal generic education.

Owner manager's Experience and Firm's Competitiveness

The second objective of the paper was to establish the effects of owner's-manager's business experience on firm's competitiveness. The findings, analysis and discussion are presented in the context of related attributes to this construct

Table 3 Owner-Manager's Business Experience and Firms Competitiveness

Owner's / Owner manager Experience Attributes	Age	Your age affects your competitiveness	Years of doing business	Prior business experience	Previous company ownership	Business experience affects your competitiveness
N	113	113	113	113	113	113
Mean (M)	2.02	3.14	2.19	1.03	1.20	3.74
Std. Deviation (S.D)	.855	1.381	.766	.161	.404	1.469

Source: Field Data, (2014).

The findings on Table 3, depict that the computed Means Values for the two statements, which are: "your age affects your competitiveness" and "business experience, affects your competitiveness" at greater than 3 ($M > 3$). On the other hand, age, years of doing business, prior business experience and prior company ownership were not considered to have influence on firms' competitiveness since the Mean were less than 3 ($M < 3$). The standard deviations for all attributes are less than 3 signifying that there is minimum dispersion of opinion regarding the responses from respondents. The findings indicate that responding managers/ owners' managers agreed though not strongly that Business experience had effect on firm's competitiveness ($M=3.74$). They also to some extent agreed that Age that owner manager/manager has also influences firms competitiveness ($M=3.14$). The rest of other attributes in this construct were not supported.

To some extent the findings are in line with Sirec *et al.* (2010) who point out that non psychological motivation factors such as age, knowledge and business experience can directly affect the level of firms growth and hence its competitiveness. A study by Islam *et al* (2011) suggests that only one of the demographic factors (duration of organization's operation), had a significant effect on business success of SMEs. In other words, SMEs that were operated for a longer period were more successful than those who were in operation for a shorter period.

The issue of business experience seems to be supported in an in-depth interview by owner of Artisans Development Agency of Tanzania (ADAT) who noted that,

"When I started my business almost 12 years ago I had limited approaches of doing business but as time passed by my experience grows and I find that I can take more challenges and apply different approaches in both solving business issues and expanding my business."

Generally having business experience signifies the mental capability of an individual to handle challenges, increase efficiency and being able to recognize business opportunities quickly. . Through interview, the study found that experience is very valuable in the competitiveness of the business. However, one cannot hang his/her hat on the past experiences. One will always need to search for new experiences and also apply new knowledge to one's previous knowledge and skills; broaden and build one's experiences with other persons' ideas, and will most importantly, leverage the strengths of the inexperienced.

This finding is also supported by owner of ACAA Group who noted the importance of experience with some reservations that:

“I think that experience is an advantage so long as you don’t overvalue your experience and think that your experience entitles you to future successes of your business. The moment you think that your experience gives you a free pass from hard work, is the moment that your experience starts to work against you.”

From experience, one expects to come up with humility, passion and a good work ethic. However, there are no rules on how much experience one should gather to start a business, and therefore finding out more about different experiences can help to make her/his business more competitive.

Owner’s Attitude and the Firm’s Competitiveness

A third objective of the study was to ascertain the effect of owner’s attitude to the firm’s competitiveness. The findings, analysis and discussion are discussed in the context of related attributes to this construct.

Table 4: Owner’s Attitude and Firms Competitiveness

Owner’s Attitude Attributes	The ability to control every aspect of a business makes a firm competitive	Risk tolerance makes a firm competitive	Need for independence makes a firm competitive	Overall attitude of the owner significantly relates to competitiveness of the firm
Valid N	113	113	113	113
Mean	3.78	4.05	4.29	4.68
Std. Deviation	1.024	.800	.740	.616

Source: Field Data (2014)

The findings in table 5 reveal that the Means values for all the f four statements within Owner Attitude construct are above 3 (M>3). This implies that the attributes concerning *The ability to control every aspect of a business, Risk tolerance, competitive, Need for independence and Overall attitude of the owner* have been found to have influence on the competitiveness of the firm since their Mean Values are at least 3.. The standard deviation for all the attributes were less than 3 (S.D<3) suggesting that there is minimum dispersion of opinion among the respondents.

The findings are in line with Islam *et al.* (2011) and Sarwoko *et al.* (2013) outline the importance of entrepreneur characteristics for improving firm’s competitiveness.

Overall Mean and Standard Deviation

Overall Mean Values and Standard Deviations for all the three constructs were computed to ascertain the most influencing factors. The following table 6 provides the findings

Table 5: Overall Mean Values and Standard Deviation

	Mean	Std. Deviation
Owner-Manager's/Manager entrepreneurship education and r competitiveness of the firm	3.546	1.30556
Owner-Manager's/Manager's experience and competitiveness of the firm	2.22	1.01490
Owner-manager's/Manager attitude is and competitiveness of the firm	4.21	1.28346

The findings in table 6 depicts that two constructs namely Owner managers' entrepreneurship education (3.546) and Managers' attitude (4.21) have their Mean values that is greater than 3 ($M > 3$). On the other hand Owner-manager's experience has Mean values of less than 3 ($M = 2.22$). This may suggest that these two influencing constructs are likely to be strong predictors of firms' competitiveness. The standard deviations for all these statements fall below 3 ($S.D < 3$) which implies that there is minimum dispersion of opinion amongst the respondents.

These findings imply that the respondents highly agreed that Owner manager's attitude affects firm's competitiveness, followed by Owner-Manager's/Manager Entrepreneurship education. Finally respondents disagreed that Owner-Manager's/Manager's experience had influence on Firms' competitiveness. In the views of Hamburg (2014) the way people are educated and trained can be modelled to create competitive advantages in a way that it is difficult for competitors to copy. This view seem to be synthesized by Matlay (2008) who argues that graduate needs for entrepreneurship education often does not match actual outcomes in terms of entrepreneurial skills, knowledge and attitudes. This mismatch may tend to influence an entrepreneur's perceptions of actual and future educational needs.

Most of the graduate entrepreneurs, however, seem to be satisfied with the outcomes of their entrepreneurship education, both in relative and in absolute terms. One of the key informants namely Glomark limited owner said:

"The addition on entrepreneurship education has made me able to know my market share and what the markets requires"

To emphasize the importance of entrepreneurship education further a quote by Joanna Drake, Deputy Director-General, DG Environment (former Director for Entrepreneurship & SMEs, DG Internal Market, Industry, Entrepreneurship and SMEs) had this to say: *"The establishment of the European Entrepreneurship Education Network is a further milestone towards a more entrepreneurial Europe. I am confident that this new EE-HUB will help to inspire a change in mindsets, facilitating our readiness for the knowledge society and creating an environment where new ideas can prosper."* (The European Entrepreneurship Education Network/ EE-Hub.EYU (2017).

Nevertheless Ogubazghi & Muturi (2014) argue in favour of experience in that, there are several studies which concurred with the opinion that the quality of human capital increases as the years the owner/manager spent in school or training increases.

Although there are mixed results to the direct effects of owner's experience to firm's competitiveness in which some studies found little or no direct relationship while other studies such as Liargovas and Skandalis (2010), focus more on the *"age of the company"* to firm's competitiveness in which case, they argue that older firms benefit from reputation effects, which allow them to earn a higher margin on sales. Nevertheless, their age also facilitated developed routines which are out of touch with changes

in market conditions. The owner of awesome magazine and Mobiad noted on business experience that;
“My experience has given me the courage to take on risks and made me stronger to face competition but one cannot always depend on their experience because the market changes every day”.

Lastly the overall owner’s attitude towards competition can assist on firm’s competitiveness, innovativeness as well as creativity. Uzuriwa Rangi manager stated;

“I think my positive attitude towards competition has made me develop new strategies, change direction of my business as well as made me more innovative”.

Conclusions, paper implications and recommendations

This paper examined the effects of owner’s individual characteristics on SME’s competitiveness. Findings revealed that majority of Tanzania’s owners of the SME’s, strongly agreed that Owner manager/manager’s Attitude is very vital to strengthen their competitiveness(M=4.21). Thus general attitude of entrepreneurs in terms of optimistic behaviour towards the current and future business, personal control of the business and readiness to take risk business were perceived to be very important towards firms’ competitiveness.

In terms of entrepreneurship education (M=3.546), the findings indicate that most of the owner managers/managers simply agree that it has a strong influence on the firms’ competitiveness. Thus to remain competitive attaining excellence in education, entrepreneurship education and engaging in the process of acquiring expert knowledge though other means are key successful factors in attaining a high level of firms competitiveness. Despite realization of such importance, disappointingly it was discovered that the majority of SME’s owners had not received business education. Similarly, most of owners of SME’s in Tanzania have enough prior experience to compete in the market. However, they did not consider owner-manager’s experience (M= (2.22) as important on competitiveness of the firm.

This paper smidgens the following recommendations: Firstly, the government of Tanzania through its education institutions, donors and other stakeholders should increase attention and focus on the main objective, which is to increase uptake of entrepreneurship education at all levels of education and within all target groups.

Set Government of Tanzania targets for participation in entrepreneurship education that every student should have at least one practical entrepreneurship education experience before leaving compulsory education. Moreover organise activities to raise awareness of the benefits of entrepreneurship and entrepreneurship education involving SMEs and their intermediary organisation.

We can also develop some kind of learning network to assist entrepreneurship education diffusion amongst owner managers’ entrepreneurs but also support in orienting entrepreneurs to a positive attitude towards entrepreneurship.

Further to this the various business organizations such as (Tanzania Chamber Of Commerce, Industries And Agriculture (TCCIA) or Tanzania Trade Development Authority (Tan trade) who are responsible enhancing Tanzania’s economic performance through development and promotion of goods and services for both local and foreign markets should motivate business owners in Tanzania to take several business courses through the provision of information on different courses, fund and scholarships available which have requirements specific for SME’s owners. This will help the support to go straight to the targeted group (SME’s owners) hence the goal can easily be achieved though appropriate attitude and skills development. . In the current situation opportunities such as scholarships are grabbed by non-targeted people. Some do not even have dreams to become business owners hence it takes time for the results to be seen.

Furthermore the paper recommends on the reformation of the entire education system. There is a need for a more rational investment of resources, especially in secondary and tertiary education, and emphasis should be placed on quality of education, technical education, responsiveness to the market

demands, revision of school curricula to stress, entrepreneurship and entrepreneurial skills, Innovation and critical thinking.

The study also recommends business owners themselves through their own informal organized groups within their own sectors to occasionally organize business seminars to update themselves and share experiences. Technology changes almost every day and if one does not keep up with the times and keeps on learning everything one can find that his/her business is not going to last for very long. In order for the Tanzanian SME's owners to be successful, it is important that they take advantage of every learning tool they can get their hands on, especially attending as many business seminars as possible that pertain to the type of business they are operating. Seminars will help SME's owners to learn from what others are doing. They can get out there and network, learn about new technologies, learn tricks and important tips pick up new ideas they can use to run their businesses which can bring new life to an old business, and keep things fresh and exciting, not just for themselves, but also for their customers. Finally, from seminars SMEs owners can get inspiration as they learn from others, and seeing how successful they could be. This will indisputably inspire them to take all that they learn at the seminars and put that knowledge into their business to make it a successful one

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Analysis of administrative aspects and information system success in Tanzania

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Abstract

Information System (IS) usage is a mechanism to improve efficiency to citizens and governments. However, challenges exist in attaining IS success like human and technical barriers. The aim of this paper was to analyze the relationship between administrative aspects and IS success in Tanzania guided by Unified Theory of Acceptance and use of Technology (UTAUT) as well as IS success model. Quantitative method was used and a survey was made to tax practitioners by using a self-administered questionnaire. The collected data from 246 respondents was analyzed using PLS-SEM assisted with SmartPLS 3. Findings indicated a significant relationship between administrative aspects and IS success ($p=0.003$). The results support the integrated UTAUT and IS success model in the context of IS especially to public sectors. The outcome of this study can assist stakeholders like government agencies to consider administrative aspects such as ICT laws and processes in order to achieve IS success.

Keywords: *Administrative aspects, information system success, Tanzania*

Introduction

Information System (IS) success is understood by different measures depending on the research's context and objectives. Proposed measures of IS success are determined from the IS success models (Galanis & Chatzoglou, 2015) such as DeLone and McLean (1992; 2003) IS success models. The measures include user satisfaction, system quality, information quality, process reforms, service quality as well as saving time and cost (Peter, DeLone, & McLean, 2013; Shannak, 2013; Urbach & Müller, 2012). From these suggested measures, the meaning of IS success is not homogeneous. IS Success can be interpreted to use of the system and benefits which may be derived on usage. Governments, especially in electronic government (e-government) projects use IS for ease communication with citizens and enhance work efficiency (Kalu & Masri, 2019; Sodhi, 2016). However, attaining IS success has been a problem due to several challenges including technical, human and organizational which need to be tackled (Furuholt & Sæbø, 2018; Mkude & Wimmer, 2015).

Researches dealing with IS success studies have tried to provide factors related to the challenges of using IS as applied in e-government projects (Muriuki et al., 2019; Bwalya & Mutula, 2015). Some authors argue on factors related to users of the systems and the administrative matters (Kamatula, 2018; Al-Muftah et al., 2018; Kalu & Masri, 2019). Users of government electronic services are those from the supply side such as the management who apply the systems and provide support, and from the demand side comprising employees using and operating the systems, as well as the citizens at large. It is argued that users considerations like acceptance of the systems and their attributes (such as gender, experience, attitude and knowledge) seem to be imperative but not sufficient for IS success in e-government implementation (Dwivedi et al., 2019; Sarrayrih & Sriram, 2015; Oseni, Dingley, & Hart, 2015). Systems acceptance may influence usage thus acquiring the derived e-government benefits as proposed by the technology acceptance theories such as the Unified Theory of Acceptance and Use of Technology (UTAUT).

Proposed administrative matters for IS success include proper ICT policies, laws, processes, budgets and funding of e-government projects for the IS success (Al-Muftah et al., 2018; Migot & Paul, 2019). Many e-government challenges face public institutions due to the prerequisite of making financial commitment and changes in work processes so as to realize the benefits of Information and

Communication Technology (ICT). In relation to administrative matters relevant for IS success in e-government projects, Wirtz et al. (2014) suggested investing proper administration. Oseni, Dingley and Hart (2015) point the relevance of both, administration through leaders who institute laws and provide e-government support, and users who have to adopt the system for usage – ultimately deriving benefits from the government electronic services (interpreted as IS success).

Tanzania government institutions apply IS in their e-government projects. Several achievements are observed in various activities such as operationalization of universal communications service access; government mobile services platform; recruitment portal; government portal; national identity system; revenue collection systems and money transfer; online systems for college and university applications as well as loan applications through Higher Education Students' Loans Board (United Republic of Tanzania, 2016, Furuholt & Sæbø, 2018) . Despite these achievements, Tanzania faces different challenges that hinder IS success. There exists unnecessary duplication of efforts and improper utilization of scarce resources due to poor harmonization of initiatives leading to adoption of different systems and standards as well as problems associated with ICT laws and policies (Kamatula, 2018; Lupilya & Jung, 2015). Furthermore, Tanzania ICT Policy of 2016 indicates that most citizens are not able to access broadband services (United Republic of Tanzania, 2016). Building on this argument, Furuholt and Sæbø (2018) show that there is still a long way to go in order to fully use the benefits of electronic services, mostly because of Tanzania's poor ICT infrastructure, management, and human capabilities. Due to such experience, this study sought to analyze administrative aspects relevant for IS success which can be applicable to practitioners especially in government institutions as well as provide inputs to policy makers for proper modification of ICT guidelines. The rest of this paper provides the literature review, methodology used to conduct the research, findings and their discussions, conclusions as well as recommendations.

Literature review

DeLone and McLean (2003) IS Success Model

The IS success model was developed by DeLone and McLean in 2003 to modify their original model of 1992. This modification was due to several shortcomings pointed by other authors (such as Seddon, 1997), and addressing technology improvements since IT changes with time (DeLone & McLean, 2016). Seddon (1997) observed that some of the concepts in the 1992 DeLone and McLean IS success model were not clear. By addressing the identified limitations, the developed DeLone and McLean (2003) IS success model came up with various interrelated variables which are system quality, information quality, service quality, intention to use, use, user satisfaction and net benefit. The suggested variables are taken as IS success measures which are applied by different studies depending on the context and objectives of the research. The model has been one of the widely applied models in the study of IS success and other authors use commented constructs from the model to make further improvements (DeLone & McLean, 2016; Peter, DeLone, & Mclean, 2013; Urbach & Müller, 2012). The suggested measures (such as net benefits mapped in reduction of cost and corruption, efficiency, increased transparency and so forth) helped to inform this study.

The study used further UTAUT due to additional reviewed administrative matters which could not be featured by the DeLone and McLean (2003) IS success model. UTAUT developed by Venkatesh et al. (2003) is a reflection of an individual's internal schema of beliefs. In developing this theory, authors examined eight competing models of technology acceptance to formulate a unified model that combines different elements of the models. The models drawn by UTAUT are the Technology Acceptance Model (TAM), the Theory of Reasoned Action (TRA), the Motivational Model, Theory of Planned Behaviour (TPB), the combined TAM and TPB, the model of Personal Computer Utilization, the Innovation Diffusion Theory and the Social Cognitive Theory.

UTAUT was developed to modify previous models and provoke limitations of using multiple models. It states that an individual's behavioral intention to use a technology is influenced by effort

expectancy, performance expectancy, facilitating conditions and social influence. The variable facilitating conditions has been used to explain different administrative aspects used in this study such as management support. The management support can be in form of providing guidelines and funding. Researchers apply few UTAUT items in their studies others make modification; for instance, Dwivedi et al. (2019) included user attitude as a mediating construct and modified the original UTAUT model. Yet, UTAUT has been extensively used (Venkatesh, Thong, & Xu, 2012; Abdelghaffar & Magdy, 2012), due to its ability to explain users' IS acceptance.

Empirical framework

There are several administrative factors for IS success in e-government activities reviewed differently by authors (Syed, 2018; Muriuki et al., 2019; Al-Naimat et al., 2013). Uppal and Gulliver (2018) termed IS success administrative factors as enabling conditions that include support from administrators, funds, ICT security, rules and regulations; whereas, Al-Muftah et al. (2018) mapped them in legal, organizational and political factors. The differences in viewing IS success factors can be partly caused by the means in which countries address ICT challenges due to economic, social and cultural levels' differences (Nabafu & Maiga, 2012). Besides, IS success is contingent upon various factors that change and require frequent evaluation (DeLone & McLean, 2016).

The management of electronic services' projects seems crucial in enhancing efficiency in IS operations for e-government (Syed, 2018; Migot & Paul, 2019; Wirtz et al., 2014; Al-Muftah et al., 2018). IS management encompasses performance of organization measures like system effectiveness, and not merely individual constructs of users' acceptance of IS. Wirtz et al. (2014) advocated information management, system management, service management and privacy management. For effective management, recommendations are provided on IS success issues such as capacity building to ICT technical support staff and ensuring appropriate software specification (Kamatula, 2018; Muriuki et al., 2019); while Migot and Paul (2019) insist on improving the IS project control practices.

Conversely, strategies, strategic clarity and alignment in electronic services appear important for IS success (Syed et al., 2018; Al-Naimat et al., 2013). Kamatula (2018) suggests strategies for the long-term preservation of public information when dealing electronically. Successful implementation on commented strategies requires political will among the leaders who can approve budgets and funding (Nabafu & Maiga, 2012; Kalu & Masri, 2019). A key factor, political will, should be coupled with appropriate administration (Uppal & Gulliver, 2018). Lack of support from senior administrators poses challenges in e-government projects, especially sustainability of the developed systems.

Building on the above arguments, it is suggested that there is a significant role of senior officers in determining the success of IS for e-government operations. Senior officers' role is considered as top management support (Syed et al., 2018; Al-Naimat, 2013). Müller and Skau (2015) argue on involving senior officials in the process of IS development for e-government implementation. Leaders are decision makers in several government activities. One cannot neglect the importance of the decision makers. Success of IS (portrayed by transparency, improved efficiency or reduction of cost and corruption tendencies) may be achieved if the public at large recognize government electronic services. Public awareness on ICT for IS success can be facilitated through government senior officials.

Moreover, proper plans are suggested for IS success (Bwalya & Mutula, 2015; Al-Naimat et al., 2013). Plans need to be flexible to accommodate internal and external factors (Franke & Eckhardt, 2014). This proposition is due to changes in Information Technology (IT) as there is continuous advancement in technology (DeLone & McLean, 2016). Plans should also focus familiarity and education to users that can be achieved through proper designs. Moreover, citizens and ICT stakeholders' involvement can stimulate willingness to engage in applying systems in e-government (Migot & Paul, 2019). Hence, a balance between the demand side and the supply side of electronic services has to be created; especially attention on technical specification of systems in e-government projects.

Franke and Eckhardt (2014) as well as Mofikoe (2015) proposed appropriate e-government activities

for IS success. It is argued further that IS success for e-government projects requires efficient record management, funds and budgets in place (Uppal & Gulliver, 2018; Al-Naimat, 2013). Absence of budget implies no IS projects in e-government (Esteves & Joseph, 2008). Additionally, the use of IS in e-government implementation requires proper financial administration accompanied with resources mobilization and consideration of sources of funds as well as their implication (Migot & Paul, 2019; Nabafu and Maiga, 2012).

The above discussions indicate the relevance of administrative aspects of government electronic services for IS success. However, certain studies (Tutu et al., 2019; Venkatesh et al, 2003; Chopra & Rajan, 2016) show peculiar results. For instance, the study by Chopra and Rajan (2016) observed administrative aspects to be unsupportive to the IS success (satisfaction). Tutu et al. (2019) found administrative matters (such as budgetary control) as less important compared to other ICT factors (power stability and reliable ICT infrastructure). Additionally, Gupta et al. (2008) indicate that IS administrative matters (facilitating conditions) had statistically lower level of significance on IS success; while Venkatesh et al. (2003) suggest a direct relationship between administration (facilitating conditions) with actual use (as opposed to intention usage of the systems). Due to the differences in observation by different authors, this study saw the relevance of evaluating the reviewed administrative factors in relation to the current period as they seem to be important for IS success in e-government projects. Hence in this study, it was hypothesized that administrative aspects have a positive influence on IS success for e- government implementation.

Consequently, the conceptual framework in Figure 1 of this research show administrative aspects (such as the ICT plans and laws) that were presumed to have influence on IS success factors in e-government operations.

Independent variable

Dependent variable

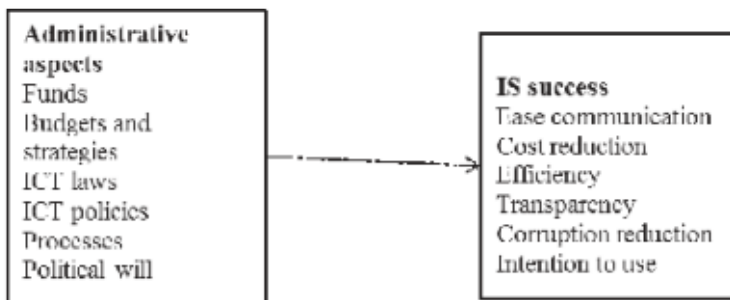


Figure 1: Conceptual Framework

Source: Compiled from literature

Methodology

This study is purely quantitative and analyzed the causal effect relationship that exists between administrative aspects and IS success. A survey was made to tax practitioners who are users of electronic systems of the Tanzania Revenue Authority based in Dar es Salaam, Tanzania. A five point Likert scale self-administered questionnaire from “1 = strongly agree” to “5 = strongly disagree” was used to assess respondents’ perception on administrative matters for IS success. Likert scale was used to ensure application of a reliable type of measurement because this study involved a large dataset. Questions were developed through various literature including studies by Al-Shbouland et al. (2014) as well as Nabafu and Maiga (2012). A convenient sampling technique was used to choose the aforementioned study area and government organization due to remarkable experience of exercising

electronic services in tax collection; thereafter, respondents were distributed with questionnaires to obtain differing opinions on IS success. A total of 246 questionnaires were returned and used for data analysis. 246 sample size was quite sufficient for the usage of the analysis tool – SmartPLS 3. From this sample, majority (216) were staff as they operate IS of the Tanzania Revenue Authority; and few were tax consultants who use the systems to assist importers and exporters. Before making analysis, gathered data (as guided by questions in Table 1) were processed in SPSS Version 20 after being checked for accuracy and completeness.

Data analysis involved descriptive, validity and reliability tests. The composite reliability values for administrative aspects is 0.866 and for IS success is 0.795. The developed hypothesis was tested using PLS-SEM which involved single systematic statistical testing and estimating of causal relationship existing amongst the latent variables (Urbach & Ahlemann, 2010). Moreover, PLS is said to be robust against multicollinearity problems (Cassel et al., 2000); and it has been extensively applied in IS research.

Table 1: Study Variables and Measures

Variable	Variable's item code	Item's description
IS Success	ISS1	<ul style="list-style-type: none"> • E-government has made ease communication between staff and citizens. • There is reduction of daily working costs. • E-government operations enable faster decision making. • Transparency in government is enhanced. • Electronic operations in government reduce the level of corruption. • Users intend to use e-government if the systems are easy to use.
	ISS2	
	ISS3	
	ISS4	
	ISS5	
	ISS6	
Administrative Aspects	ADA1	<ul style="list-style-type: none"> • Sufficient funds allocated to support e-government projects. • Budgets and strategies set on ICT training and development. • Laws govern the management of public sectors' ICT. • Policies developed to manage ICT • Decisions on organization processes fit instituted technology. • Political will by government leaders support e-government.
	ADA2	
	ADA3	
	ADA4	
	ADA5	
	ADA6	

Findings and discussion

The findings in Table 2 show that most of the respondents were aged 20 to 30 years (27.6%), male (58.9%) and with post graduate education (43.5%). This implies that majority of the sampled respondents were young educated males.

Table 2: Characteristics of the Respondents

Characteristics	Percentage (%)
Age	
20-30 years	27.6
31-35 years	17.5
36-40 years	11.4
41-45 years	12.6
46-50 years	11.8
above 50 years	19.1
Gender	
Male	58.9
Female	41.1
Highest Level of Education	
Secondary	2.0
Advanced Secondary	0.8
Diploma	11.4
First Degree	42.3
Post Graduate	43.5

The items with low outer loadings below the value of 0.70 were dropped. The items with acceptable outer loadings of 0.70 and above were retained as shown in Table 3. According to Hair et al (2010) values of 0.70 and above indicate item reliability.

Table 3: Outer loadings for Administrative Aspects and IS Success

	ADA	ISS
ADA3	0.811	
ADA4	0.858	
ADA5	0.810	
ISS1		0.708
ISS6		0.908

The collinearity test in Table 4 indicated acceptable Variance Inflation Factor (VIF) values for ADA3, ADA4, ADA5, ISS1 and ISS6. Hair et al. (2010) and Ringle et al. (2015 stated that (VIF) < 4 or (VIF) < 5 is acceptable.

Table 4: Collinearity (VIF) values for Administrative Aspects and IS Success

	VIF
ADA3	1.709
ADA4	2.013
ADA5	1.418
ISS1	1.138
ISS6	1.138

Bootstrapping test in Table 5 showed that the relationship between administrative aspects and IS success is significant ($p=0.003$) with T- value as 3.014. This implies that administrative aspects have a positive influence on IS success for e-government implementation. The results of this study are different from Chopra and Rajan (2016) as well as Tutu et al. (2019). The study by Chopra and Rajan (2016) showed no significant results between administrative aspects and IS success. Equally, the findings by Tutu et al. (2019) indicated administrative matters were less important. The differences in results are due to administrative aspects such as ICT laws and policies to manage ICT that have shown to be dependent on IS success. Furthermore, the significant results of this study show administrative aspects having influence on IS success for e-government implementation which support the UTAUT theory and IS success model.

Table 5: Outer loadings for Administrative Aspects and IS Success

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Value
ADA ->ISS	0.195	0.224	0.065	3.014	0.003

Conclusions, implications and recommendations

This study can conclude that there is a significant relationship between administrative aspects and IS success for e-government implementation. The theoretical implication of this study is that the use of UTAUT theory and IS success model to analyze administrative aspects and IS success show that in the context of e-government implementation in Tanzania, the administrative aspects have influence on IS success. The results of this study are different from previous literature such as Tutu et al. (2019). Furthermore, the administrative aspects being “Laws govern the management of public sectors’ ICT”; “Policies developed to manage ICT”; and “Decisions on organization processes fit instituted technology” are indicators that influence IS success in terms of “e-government has made ease communication between staff and citizens” and “ users intend to use e-government if the systems are easy to use”. This study recommends that stakeholders like government agencies as well as policy makers should consider administrative aspects such as ICT laws and processes in order to achieve IS success for e-government implementation.

Limitation of this study is that it is a quantitative approach and future research may opt for qualitative methods to further understand the relationship of administrative aspects and IS success for e-government implementation.

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Analysis of e- logistic operations practices and performance of health care supply chain management in developing countries: A study of public referral hospitals in Uganda

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Abstract

This paper examined e-procurement logistic practices and health care supply chain management in the context of Ugandan public referral hospitals. The objective was to examine the relationship between logistics operations and performance of health care supply chain management. Quantitative approach was used in this paper. Semi-structured survey questionnaires were distributed to respondents in 3 regional public referral hospitals. Descriptive statistics and PLS-SEM assisted with SmartPLS 3 were used for data analysis. Findings show a significant relationship between logistics operations and performance of health care supply chain management ($p=0.000$). This study implies that central management of drugs, the order picking of drugs is given to the right patients for quality control, and there is a person to update stock daily are key in e-procurement -logistics operations in relation to performance of health care supply chain management. E-procurement through logistics operations is related to performance of health care supply chain management in terms of ICTs tracking systems and data transparency. There is a significant relationship between E-logistics operations and performance of health care supply chain management in the context of Ugandan public referral hospitals.

Keywords: *E-Logistic operation practices, health care supply chain management, regional public referral hospitals, Uganda.*

Introduction

In health care supply chain management, healthcare organizations have tried to seize the opportunity offered by Information Communication Technologies (ICTs) to move towards a new management based on the control of financial, administrative and medical aspects (Ageron, Benzidia, & Bourlakis, 2018). Similarly, Volland, Fugener, Schoenfelder and Brunner (2017) highlighted on the importance of the logistics function as a strategic place in management of hospitals. Shen, Shih, Chiang, and Lin (2007) commented that most studies have focused on trajectory of intra-site patients by proposing innovative practices to optimize circulation and safety of care units. Although literature exist on health care supply chain management (Lyson 2006; Li, Ragu, & Rao, 2006; Elmuti et al., 2013; Ngunyi, 2014; Mackintosh et al., 2018; Arora & Gigras, 2018), there is still limited studies on health care supply chain management and logistics operations particularly in Africa.

However, when it comes to Uganda referral public hospital matters of logistics operations, there are numerous missing links which have resulted to number of patients losing their lives due to inadequate drugs and some become expired before usage which calls for the need to a certain the real cause of problem and provide a tentative solution, hence motivating this study to be carried out to bridge the knowledge gap (Abaliwano et al, 2018). It is argued that predominantly, "the people who handle these drugs are least aware of its effectiveness and impact that it could have if not 'handled with care'. There is a large number of untrained staff who has little knowledge of the product. They may get confused with the packaging material. For example, using packaging for infectious samples with non-infectious specimens. There is lack of knowledge of the study sites. The transportation of medicines is subject to regulation, making the process more painful" (WHO report, 2018)

Africa countries face challenges in health care supply chain management (Omanji & Moronge, 2018). One of the challenges identified by Pule (2014) is poor logistic operations in terms of improper

procurement procedures. In addition, Benzidia et al. (2016) cited that logistics culture is not adequately addressed in the strategic vision of hospitals. In view of literature from previous scholars citing challenges and need for more research in health care supply chain management.

It is asserted that in Uganda, hospitals epitomize a momentous percentage of health expenditures in Uganda which is estimated to be 26% of the entire health care annual expenditure (Mujasi, Eyob & Jaume, 2016). Therefore; proper logistic operations via e-procurement practices and health care supply management in the regional referral Ugandan hospitals, among others, will lead to not only internal efficiency and effectiveness but also to economic growth and development oozing from greater savings in terms of money and lives. This paper is motivated to research on e-procurement and health care supply chain management by specifically examining logistics operations and health care supply chain management in the context of Uganda regional referral hospitals using the UTAUT Theory.

Literature review

Definition of Key Concepts

Logistic operations

Logistic operations deals with the routine practices involving “planning, implementing, and controlling the efficient, effective flow and storage of goods, services, and related information from point of origin to the point of consumption for conforming to customer requirements” (Volland et al., 2017).

E-procurement logistic Practices

Procurement is an important logistic function (Yang, 2013). In addition, Innocent and Kalaskar (2016) define e-procurement as a process of procuring (purchasing/obtaining) required resources or services by making use of Information Communication Technology (ICT). In this paper, e-procurement logistic operation practices refers to activities undertaken by public referral hospitals to promote effective health care supply chain management using ICTs (electronic means) in pressing and receiving orders of drugs instantly and subsequently administering to the right patients in the referral hospitals.

Health Care Supply Chain Management

It should be recalled that the concept of Supply chain management is so vital since it maintains the multifaceted network affiliation amongst all stakeholders involved in the process of health supply chain such as, drug producers of raw material, health business partners, to delivery drugs and other health equipment, middle and retail partners and hospitals managers (WHO, 2019).

Chopra and Meindl (2007) and Ashcroft (2006) define the concept of health care supply chain management as controlling and flow of information; materials, services and money through any activity in a way that promotes the quality of an organization’s operations satisfy consumers’ needs. For purposes of this paper, health care supply chain management refers to the management of information flow, drugs and services in public referral hospitals in Uganda.

Theoretical background and literature review

Unified Theory of Acceptance and Use of Technology (UTAUT)

Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by Venkatesh, Morris, Davis and Davis (2003) with the assumption that individual’s internal schema of beliefs. UTAUT theory has been applied in research and scholars such as Khatun et al (2017) have utilized the UTAUT theory. The study by Khatun et al. (2017) was examined cloud-based mHealth service for primary care and revealed that the relationship between performance expectancy and behavioral intention is not significant. The selection of UTAUT theory in this paper was due to the assumption of UTAUT theory

which states that an individual's behavioral intention to use a technology is influenced by performance expectancy, effort expectancy, social influence, and facilitating conditions. In this paper, performance expectancy and effort expectancy usability and benefits respectively are analysed to predict the relationship between e-procurement practices and health care supply chain management with the specific objective that argues that there is a significant relationship between logistics operations and performance of health care supply chain management.

Empirical literature review

Various studies have been conducted on health care supply chain management (Suleiman, 2015; Masheti, 2016; Mackintosh et al., 2018, Ageron et al., 2018). Recently Arora and Gigras carried out a study on the importance of supply chain management in health care of third world countries with the aim of finding vulnerabilities among departments and propose measures to reduce them. Arora and Gigras noted that integrating subsystems, streamlining workflow and use of technologies can be used to assist in the implementation of supply chain management to ensure accomplishments such as availability of medicine and product at right time and coordination on all departments.

In building further literature on health care supply chain management is a research by Suleiman (2015). Suleiman explored factors that influence adoption of e-procurement and value addition in Tanzania. By using descriptive statistics the findings showed that e-procurement adoption from a compatibility characteristics is more difficult on side of upward stream while on complexity characteristics, the findings revealed that it was easy for internal employees to adopt e-procurement but difficult for supplier to adopt new systems due to lack of knowledge and cost of operations. Another study in Africa on health care supply chain management is by Masheti (2016). Masheti did a study in Kenya to investigate e-procurement practices and operational of pharmaceutical manufacturing firms in Nairobi. The application of descriptive statistics and regression analysis revealed that e-procurement enabled pharmaceutical manufacturing firms to improve order processing, reduce material lead time, decreased transaction costs, improved product/service quality and increased order placement. Further findings showed that e-planning, e-supplier selection, e-tendering and e-sourcing influenced operational performance of pharmaceutical manufacturing firms in Nairobi. Based on these findings, Masheti recommended that more investment should be directed to e-procurement in order to experience optimal benefits from e-procurement such as widening the scope of suppliers.

Other scholars argued on development linkages in the health sector in an effort to build more literature in understanding health care supply chain management. For instance, Mackintosh et al. (2018) conducted studies in East Africa with the aim to rethink the health sector procurement as development linkages in Kenya and Tanzania. Mackintosh and others used a quantitative approach and found that in the context of poor access to reliable medicines, extensive reliance on private medicines purchase, increased globalization of procurement systems, domestic linkages between health and industrial sectors have been weakened in the East Africa countries that were selected for the study. The results of the study by Mackintosh and others is in line with the previous study by Inderfurth, Sadrieh and Voigt (2013) which pointed out that Uganda's health care sector faces a multitude of challenges due to procurement procedures such as poor sourcing procedures and bullwhip effect that can affect information flows.

The reviewed literature indicates that health care supply chain management requires more research and in particular Uganda which still faces challenges in its health care sector in relation to logistics. Therefore, this paper examines health care supply chain management and e-procurement practices with the specific objective of examining the relationship between logistics operations and performance of health care supply chain management in the context of Ugandan public referral hospitals.

Conceptual Framework

The conceptual framework in Figure 1 shows the hypothesized relationship which stated as **H1**: There is a positive relationship between logistics operations and health care supply chain performance.

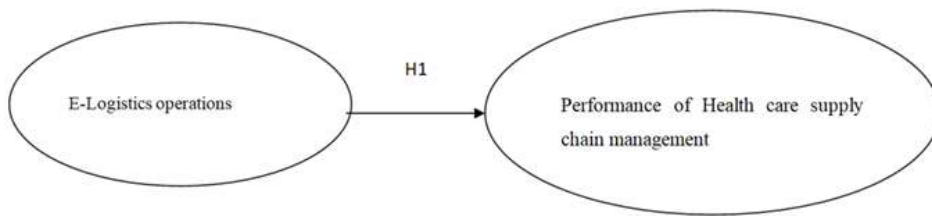


Figure 1: Conceptual Framework. Source: Compiled from Literature

Methodology

This study used a quantitative approach which considers a positivism and deductive philosophical orientations for purposes of testing the hypothesis stating that there is a significant relationship between logistics operations and performance of health care supply chain management. The area of study is Uganda. The staff and procurement managers of the selected public referral hospitals were the respondents in this study. Purposive sampling was used in order to obtain data from key informed respondents. Semi-structures questionnaires were used to amass data from a sample size of 40 respondents. The measurement items for logistics operations were adopted from Pinna, Carrus and Marras (2015) and the 9 statements were; There is frequent supply receipt of drugs at the hospital in a timely manner (Log15); There is bulk storage of drugs in the hospital (Log16); There is proper arrangement of drugs in the hospital (Log17); There is central management of drugs in the hospital (Log18); The order picking of drugs is at the right time (Log19); The order picking of drugs is given to the right patients for evaluation (Log20); The order picking of drugs is given to the right patients for quality control (Log21); There is stock replacement of drugs just in time in the hospital using logistic management information systems (Log22); There is a person to update stock daily (Log23).

On the other hand, the measurement items for performance of health care supply chain management were adapted from Mathur et al. (2018). The 7 statements for performance of health care supply chain management were; There is higher performance expectation for savings from health care supply chain management (Per24); There is need to integrate health care supply chain management data with hospital data using ICTs tracking systems (Per25); Hospitals should use data analytics to improve performance of health care supply chain management (Per26); Hospitals should use benchmarks to improve performance of health care supply chain management (Per27); Managers should reposition health care supply chain as a strategic function in hospitals (Per28); Managers should building trust with health care supply chain partners (Per29); Managers should improve data transparency across the health care supply chain management (Per30). The composite reliability indicated for logistics operations (0.92) and for performance on health care supply chain management (0.82). This study used descriptive statistics assisted with SPSS version 20 and Partial Least Squares Structural Equation Modeling (PLS-SEM) assisted with SmartPLS Version 3 to analyse data collected from the respondents. Given the small sample size and the high predictive power of PLS-SEM according to Ringle, Wende and Becker (2015) and Hair, Black, Babin and Anderson (2010), among others, were the main reason for the choice of SMART PLS3.

Findings and discussion

The demographic information of the sampled respondents is shown in Table 1. Findings indicate that majority of respondents were males (52.5%), between 36 to 45 years old aged (52.5%), have university education (100%), and married (42.5%). These results suggest that majority of respondents were educated married males between 36 to 45 years old.

Table 1: Respondents Demographic Information

		Frequencies	Percentage
Age Groups	18-25	5	12.5%
	26-45	5	12.5%
	36-45	21	52.5%
	46 years and above	9	22.5%
Gender	Male	21	52.5%
	Female	19	47.5%
Marital Status	Single	9	22.5%
	Married	17	42.5%
	Divorced	6	15%
	Widowed	8	20%
Education	University	100%	100%

Source: Field data (2019)

The inferential statistics using PLS SEM analysis through the bootstrapping technique revealed that there is significant relationship between logistics operations and performance of health care supply chain management ($p=0.000$). The findings in Figure 1 show that the T-value (2.82) is above 1.96 and therefore, logistics operations showed significant relationship to performance of health care supply management. In Figure 2, the p value ($p=0.01$) further indicates that the relationship between logistics operations (Log) and performance of health care supply management (Per) is significant. This suggests that (Log18, Log21 and Log23) are indicators of logistics operations that predict performance of health care supply chain management in terms of the need to integrate health care supply chain management data with hospital data using ICTs tracking systems (Per25), and managers should improve data transparency across the health care supply chain management (Per30).

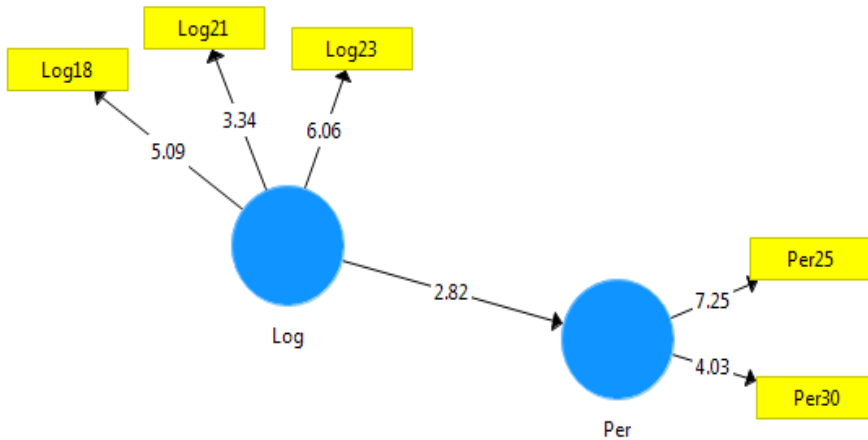


Figure 1: T values- E-logistics Operations (Log) on Performance of healthcare supply chain management (Per)

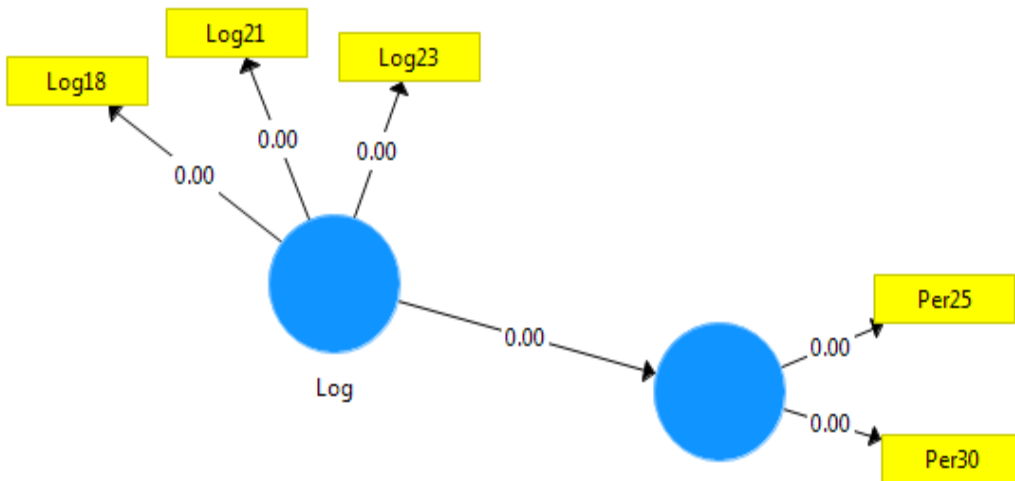


Figure 2: P values-E- logistics Operations (Log) and Performance of healthcare supply chain management (Per)

Collinearity values for the retained items which are Log18 (2.136), Log21 (2.209), Log23 (1.597), Per25 (1.251) and Per30 (1.251) indicated Variance Inflation Factor (VIF) < 4 or (VIF) < 5 and this is acceptable according to Hair et al. (2010) and Ringle et al. (2015) respectively. The significant results of the relationship between logistics operations and performance of health care supply chain management support the UTAUT theory hence logistics operations does predict performance of health care supply chain management in the context of Uganda public referral hospitals. This suggests that e-procurement practices using logistics operations can predict performance of health care supply chain management hence stakeholders in the health sector should consider e-procurement practices via logistics operations. The results of this study differ from Arora and Gigras (2018) because in the context of Uganda, the predictors of performance of health care supply chain management are “There is central management of drugs in the hospital”, “The order picking of drugs is given to the right patients for quality control” and “There is a person (full time staff) to update stock daily”. In addition, the results of this study are in line with Masheti (2016) which recommended for more investment in e-procurement so as to experience optimal benefits from e-procurement such as widening the scope of suppliers.

Conclusion, implications, recommendations and limitations

This paper specifically examined logistics operations and performance of health care supply chain management. This study can conclude that in examining e-procurement practices and health care supply chain management, there is a significant relationship between logistics operations and performance of health care supply chain management. The results of this study have a theoretical implication in the context of Uganda public referral hospital whereby the UTAUT theory can be applied to explain the relationship between logistics operations and performance of health care supply chain management. The outcome of this study guides the recommendations for policy makers and practitioners in the health care sector to consider the predictors of logistics operations which are “There is central management of drugs in the hospital”, “The order picking of drugs is given to the right patients for quality control” and “There is a person to update stock daily” in relation to performance of health care supply chain management. This study had limitations which were among others; small sample size and mainly quantitative approach. Therefore, future studies can explore further the relationship of logistics operations and health care supply chain management using larger sample size, qualitative approach or mixed method. In addition, the findings of this study were limited to Ugandan referral hospitals whose management requested us to keep the hospital names and confidential, hence ensuring ethical issues and therefore, findings should not be generalized to other countries with different settings, levels of economic, political development but rather a comparative study may be done by future researchers to see whether there are differences or similarities and reasons why they exist.

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Relationship Between Institutional Factors and Foreign Direct Investment Flows of Tanzania in East African Community

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Abstract

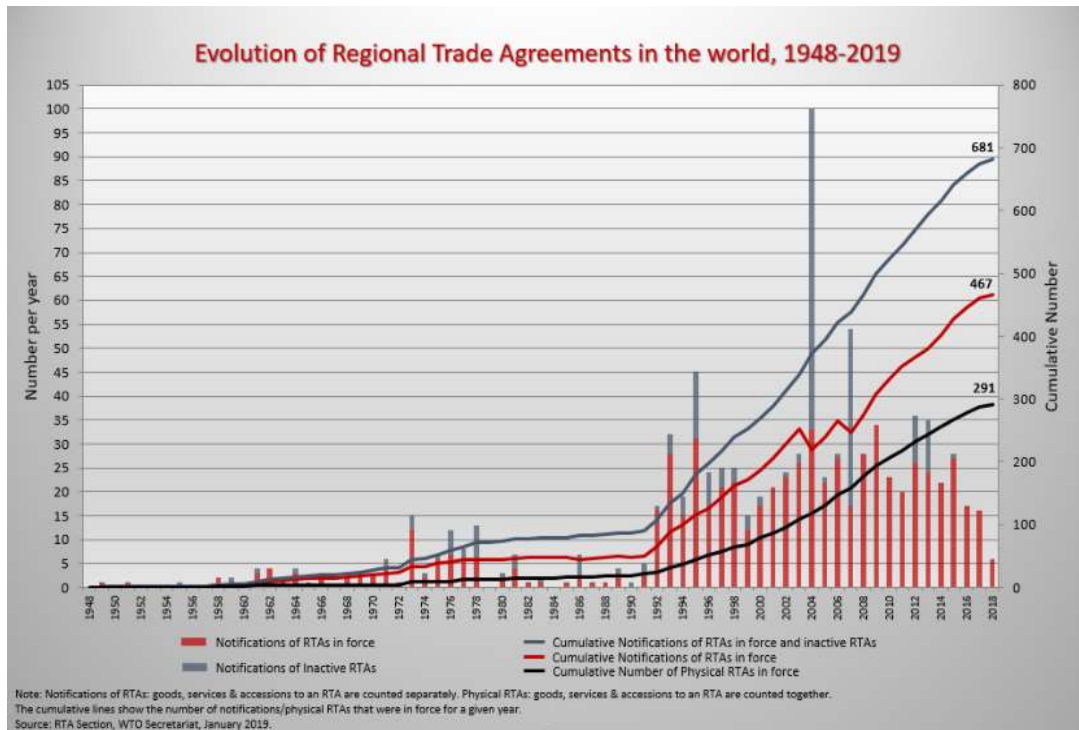
This paper informs of the extent which institutional factors influence Tanzania Foreign Direct Investment inflows in the East African Community. It gives a comparative analysis of the institutional factors that influence Foreign Direct Investment the states using the indicators from the World Development Indicators t from 2000 to 2018. The paper is built on the Gravity Model which was used as a framework to predict the relationship between the dependent and dependent variables. The analysis of the data obtained revealed that the rule of law and control of corruption, management of external debts, and return on investment for both Tanzania and her trading partners in EAC had a positive effect on the Foreign Direct Investment inflows in Tanzania. Gross Fixed Capital Formation as a proxy for the Quality of Infrastructure in other EAC countries harms Foreign Direct Investment inflows to Tanzania; hence, improvement in infrastructure in EAC is critical to the performance for the EAC partners. Further, the Business Regulatory Environment and return on investment were found to be positively correlated with FDI inflows. Inflation harmed the FDI. The study thus underscored the importance of stable Business Environment for Tanzania to continue enjoying the lion share of FDI in EAC. Tanzania Foreign Direct Investment performance in EAC is highly correlated with Institution and macroeconomic environment in other EAC countries; hence, there is a Hub –ad spoke relationship on FDI Inflows in EAC. Therefore, Tanzania should continue pushing for regulatory and macroeconomic reform in other EAC countries to keep on enjoying the lion share of FDI inflows.

Keywords: *Foreign Direct Investment, East African Community, Institutional Factors, Domestic Production, & Preferential Trade Agreements*

Introduction

Since the mid 1980's many developing countries have attempted to attract Foreign Direct Investment (henceforth) to their economies using different inward and outward development policies. Among others, the policies included stabilization and structural adjustment measures, trade liberalization, and privatization. Also, the FDI has been attracted through offers and tax holidays and subsidies to foreign investors, and improvement in the regulatory framework and investment climate (Banga, 2005).

One of the recent strategies is the signing of Bilateral, Multilateral and Preferential Trade Agreements (henceforth PTAs). In the last two decades, almost 700 PTAs have been notified to the World Trade Organization (henceforth WTO) (World Trade Report, 2011). Since the advent in 1995, the WTO has averagely received 11 notifications per year, i.e. almost one notification per month. According to the WTO (2017), averagely, each World Trade Organization (WTO) member has signed 13 PTAs. This proliferation of PTA has expanded in line with creation of the enabling environment for FDI inflows. Table 1 illustrates the proliferation of PTAs across the Global.



Source: WTO, 2019

The proliferation of PTAs have expanded with and expansive sets of investments related measures in terms of specific FDI policies or investment provision with the PTA trade Chapter or model Investment framework to guide the treatment, admission and protection of FDI. For instance in East African Community the council of Minister has endorsed three key instruments to guide the admission, protection and promotion of FDI. This includes double taxation agreements, EAC Investment Code and EAC model bilateral investment agreements.

The PTAs investment rules provide a framework for the entry, promotion, and protection of FDI in the region and provide fair and equitable treatment to PTAs investors. The rules further tend to provide a mechanism on the treatment and protection of FDI which contribute to an improved Investment climate. The expectation is that expansive set of trade and investment in PTA will raise the total of FDI in the region and enhance trade and investment, stimulate trade flows, expand the export market, increase competition, and allow countries to exploit economies of scale (Bollinger and Stover, 1999).

Table one highlight the some of the PTA with an expansive sets of Investment provisions.

Table 1: Selected PTA with some Investment Provision

Agreement	Trade in goods	C.E.T*	Standards**	Trade in services	Investment	Labour
United States - Central American Free Trade Agreement (CAFTA) (2004)	Yes	No	Yes	Yes	Yes	Yes

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) (2004)	Yes	No	Yes	Yes	Yes	No
South Asian Free Trade Area (SAARC) (2004)	Yes	No	No ^{a/}	No	No ^a	No
European Community (EC) - Mediteranean partners (1995-2004)	Yes	No	No	Yes	Yes	No
United States-Singapore (2003)	Yes	No	Yes	Yes	Yes	Yes
Chile-Republic of Korea (2003)	Yes	No	Yes	Yes	Yes	Yes
Economic Cooperation Organization Trade Agreement (ECO) ¹ (2003)	Yes	No	No	No	No ^b	No
European Community (EC) - Mexico (2001)	Yes	No	Yes	Yes	Yes	No
United States-Jordan (2000)	Yes	No	No	Yes	Yes	Yes
European Community (EC) - South Africa (1999)	Yes	No	No	No	Yes	No
Chile-Canada (1996)	Yes	No	No	Yes	Yes	Yes
North American Free Trade Agreement (NAFTA) (1994)	Yes	No	Yes	Yes	Yes	Yes
European Community (EC) - Russian Federation (1994)	Yes	No	Yes	Yes	Yes	Yes
The Southern Common Market (MERCOSUR) (1994)	Yes	Yes	Yes	Yes	Yes	Yes
Commonwealth of Independent States Free Trade Agreement (CIS) ² (1994)	Yes	Yes ^c	Yes	Yes	No	No

Common Market for Eastern and Southern Africa (COMESA) (1993)	Yes	Yes	Yes	Yes	Yes	Yes
European Free Trade Association (EFTA) -Turkey (1991)	Yes	No	Yes	No	No	No
South Pacific Forum Cooperation Agreement (1980)	Yes	No	No	No	No	No
Southern African Customs Union (SACU) (1969)	Yes	Yes	Yes	No	No	No
Andean Community (1969)	Yes	Yes	Yes	Yes	Yes	Yes
Treaty Establishing the European Community (1957)	Yes	Yes	Yes	Yes	Yes	Yes
East African Community	Yes	Yes	Yes	Yes	Yes	Yes

Source: UNCTAD, 2016

On the bilateral level alone, the number of investment treaties increased from 385 in 1989 to more than 3000 in 2017. Furthermore, the signing of the PTA has also become one of the key tools to attract FDI in developing countries. Further, the RTA membership has proven effective in attracting FDI by creating a positive market size effect and a better investment environment favorable to foreign investors. In particular, RTA membership can be a device to ensure commitment to domestic reforms for attracting more FDI.

However, only a few of the developed countries, such as China, Indonesia, Egypt, and Columbia were successful in attracting FDI. The majority failed to attract a substantial amount of FDI. According to UNCTAD (2016), Indonesia, Egypt and Columbia received a total of USD 96.4 billion in 2007 while China alone received nearly 31% of the total FDI that flew to the developing countries. A question here is why the inflow of FDI was low in some countries and biased in others. The key factors commonly mentioned factor in the literature is the poor institutional factors in the countries it fails.

Investment Provision and FDI Destination

It has also been demonstrated that joining PTA alone is not a panacea. Members may observe a gain in FDI while others, within the PTA, may experience losses in FDI inflows. This depends on the interaction between the motivations of the firms making the FDI and the variation of the institutional factors among the PTA members (Dunning, 1997; Eden, 2002; Eithier, 1998; Feils and Rahman, 2008; Rugman and Verbeke, 2007). The magnitude of the influence of PTA on FDI depends on the change of the investment climate which is connected to the PTA and the advantage of the location of a country. This gives an implication that there is no a clear cut relationship between the institution set up of a country and within the PTA and the extent of FDI inflows to specific PTA members.

The expectation is that, the higher the degree of the investment measures implementation and the location advantage of each PTA member, the higher the degree of FDI inflows to the respective members. In some cases, investment measures can be implemented in the form of region measures; hence, the magnitude of the changes in investment is related to the significance and nature of the trade and investment liberalization embodies at the bloc level. The conclusion is that a stronger environmental change a country has executed relative to other PTA members and her location advantage is likely to lead to intra and extra inflows of FDI from the rest of the regional integration.

There is evidence that Tanzania’s share of FDI inflow has been higher than in other countries in the EAC. According to the UN Investment Report of (2015), the share of Tanzania’s FDI inflows relative to other EAC countries was 37 percent in 2001, and this was followed by Uganda (24 percent) and by Kenya (15 percent). By 2005, Tanzania’s share of FDI in EAC had grown to 54 percent just five years after signing the EAC Treaty. There was a slight decline in 2008 to 40 percent and this increased to 42 percent in 2015 and 2016 while the share of Kenya within this period remained at 17 and 12 percent respectively. The key factors being mentioned in the literature as the source of FDI differences in the differences in the quality of institutions factors. Moreover, there is a continuing unequal distribution of FDI flows in East African countries. It is not clear what explains this pattern of FDI flows into the East African countries.

Table 3 summarizes the FDI inflows in EAC since the year 2010.

	Percentage FDI Inflows in Tanzania as the Ratio of Total FDI in EAC						
Country	2010	2011	2012	2013	2014	2015	2016
Burundi	1.0	3.0	1.0	7.0	32.0	1.8	0.1
Kenya	178.0	335.0	259.0	514.0	874.1	2,17.4	394.1
Rwanda	42.0	106.0	160.0	111.0	359.2	1065.3	409.8
Uganda	544.0	894.0	1205.0	1146.0	1755.0	517.0	541.2
Tanzania	1813.0	1229.0	1800.0	1872.0	5502.9	3449.7	1365.4
Total	2578.0	2567.0	3425.0	3650.0	8523.2	5033.8	2710.6
%TA/EAC FDI	70%	48%	53%	51%	65%	69%	50%

Source: UNCTAD (2017)

Table one shows that Tanzania has enjoyed the lion share of the total FDI inflows in EAC since the signing of the Common Market Protocol in 2010.

Despite fact that Tanzania holds the lion share of FDI in EAC, FDI inflows to East Africa had stagnated at around 2% of the total inflows in Africa from 1970 to 1990, after which it rose to 8% in 2000 and then dropped to 4% in 2010 (UNCTAD, 2012). According to UNCTAD’s Annual Report (2017), East Africa exhibits the lowest in-flow of FDI when compared to other African recipients. While FDI inflows to Africa reached a record high of than US \$ 88 billion in 2017, the inflow into East Africa represents a mere 5% (\$4 billion) of the total, FDI inflows in African Continents.

The report by UNCTAD (2016) pointed out that EAC countries suffer from institutional weaknesses, such as corruption, poor application of the rule of law, political instability, among others, that raise the cost of doing business and thus constrain FDI inflows. Investors have rated institutional weaknesses such as corruption, crime, theft, and disorder as major issues of concern in promoting private sector activities in East African countries like Kenya.

East African countries suffer from institutional weakness such as corruption, poor application of the rule of law, political instability, among others, that raise the cost of doing business and thus constrain FDI inflows. Investors have rated institutional weakness, such as corruption, crime, theft, and disorder as major issues of concern in promoting private sector activities in East African countries like Kenya. There is a great need to assess the extent which the Institutional FDI Fitness Model may apply in the case of East African countries. This raises the need to examine the relationship between institutional factors and FDI inflows in some of these developing countries. Therefore, there is a great need to assess the extent to which the Institutional FDI fitness model may apply in the case of East African countries.

The review of the literature shows that previous studies have paid much focus on the EU and NAFTA but less on ASSEAN and EAC. A few of them have paid attention to the nature of the EAC and the inflow of FDI. One of the notable studies is that of Karau (2014) who studied the impact of institutions on the inflow of FDI in the EAC but it neither explains the effects of RTAs on a particular country. On the other hand, scholars such as Willem & (Bezemer, 2004) have examined the economic factors affecting FDI at length, they have explored political factors much less. At the domestic level, only political instability and political institutions have been examined systematically, mostly in very recent research. Political instability and violence should make a country less attractive for FDI since they render the economical and political context less predictable

Theoretical Literature Review

Factors determining FDI inflows in a country have been explained at length by the Dunning (1980) hypothesis which emphasizes on the location advantage of a country as the key determinant of FDI. Dunning (1980) applied Hymer (1976) Ownership advantages (O), Vernon's (1966) location characteristics (L), and Buckley and Casson's (1976) internationalization advantages (I) as the analytical basis of the Electric Paradigm Theory.

Dunning (1980) maintains that a firm will become an FDI and engage in the international value-adding activities if and only if the three conditions shown in Figure 1 are met: The first condition is that the firm must possess certain comparative advantages, which are specific to the nature of the ownership over the local competitors. It means that the firm as an international player must have some ownership advantages to cover for the costs of an international player; it must have some ownership advantages to cover for the cost of international production or outweigh the disadvantage of doing business abroad. The first condition of the Dunning Eclectic Paradigm addresses the WHY questions, the condition answer why the FDIs go abroad, as well as elaborate the core competences that give a competitive advantage over the firms that are already serving a foreign market (Asafo-adjei, 2007).

The second condition is that an international firm can use the internationalization advantages to exploit its competitive advantages over the local firms in the foreign market. This condition addresses the WHERE questions, it elaborates on the location-specific factors which favour overseas production as a firm uses some production resources more effectively than in their home country. The motive of moving offshore is to use the firm-specific advantages in conjunction with factors in a foreign country. The more these factors are utilized, the more the profits are generated by these FDIs. The choice of investment location depends on a complex calculation that includes economic, social and political factors. The location advantages of various countries are key in determining which countries become the hosts to the investments. Some aspects that can form country-specific advantages for a multinational firm include, but not limited, to large and growing high-income market, low production costs, a large endowment of factors which are scarce in the host country, and an economy that is politically stable, nearness to the port, and participation in the regional integration (Rugman, 2010).

The third condition is that a firm needs to use some specific resources in the foreign country in combination with the ownership and internalization advantages. This condition addresses the HOW question; in other words, how to go abroad. This condition results from internationalizing foreign

operations through the control over suppliers or market outlets. The multinational enterprises have various choices of entry mode ranging from vertical to the horizontal mode. The multinational chooses internationalization where the market does not exist or functions poorly so that transaction costs of the external route are high (Nations & Development, 2002). Hence, according to Dunning (*ibid*), for FDI to take place, all the above three conditions must be met.

However, the role of institutions in investment decisions has gained momentum. North (1997) defines institutions as the rules and regulations that structure political, economic, and social interactions. These rules include both informal contracts (sanctions, taboos, customs, traditions, and codes of conduct) and formal rules (constitutions, laws and property rights). Indeed, issues of property rights, tax laws, and political stability are crucial when one is making investment decisions. For instance, North (1990), Butler and Joaquin (1998), assert that political risk involves unexpected change of the institutional environment within which business operates. This may alter the operating cash flow of a firm, in such a way that FDI may either avoid the risk altogether, or by insurance, or negotiate with the government prior to investment.

According to Campos and Kinoshita (2003), theoretical and empirical findings suggest that the host country's institutions influence investment decision because they directly affect business-operating conditions. The quality of institutions of a country plays a critical role in determining the location decision of the FDI; hence, differences in the amount of FDI inflows are a result of differences in institutions quality (Wei and Wu, 2001). Moreover, the quality of institutions is an important determinant of FDI activity, particularly for less developed countries for a variety of reasons: First, poor legal protection of assets in these countries increases the chances for the expropriation of a firm's assets, making investments less likely. The quality of institutions, which is necessary for well-functioning markets, increases the cost of doing business if such quality is poor and this should diminish FDI activity. Since poor institutions lead to poor infrastructure, the expected profitability falls in the market so does the FDI.

The cost of investment consists of the economic as well as the non-economic costs, such as bribery and time lost in dealing with local authorities. Moreover, institutions underpin local business operating conditions but they differ from physical supporting factors such as transport and communication infrastructure. The basic notion is that less corruption, a fair predictable and expedient judiciary, and an efficient bureaucracy help to attract FDI (Wei and WU, 2001).

Although institutions play a very great role in attracting FDI in a country, estimating the actual impact of the institutions on FDI is a cumbersome exercise since measurements of institutions are not accurate. Most measures entail composite index of a country's political, legal, and economic institutions, developed from survey responses from officials or businesspersons who are familiar with the country. Comparability across countries is questionable when the survey respondents vary across countries. Also, institutions are quite persistent so there is a likelihood of having little informative variations over time within a country (Blonigen, 2005). Hence, data limitation has impeded extensive testing of these ideas, constraining the existing studies to focus on just one aspect of the issue, normally corruption.

Campos and Kinoshita (2003) examined the importance of institutions as the determinant of FDI for 25 transition economies in Central Europe and the former Soviet Union. They used the institution variables rule of law and quality of bureaucracy. Their econometric results indicated that countries with good institutions could attract more inflows of FDI. Poor quality of bureaucracy was found to be a deterrent of foreign investors as there is an increase in transaction costs, which adversely affect profitability of the investment project.

Like Vittorio and Ugo (2006), it is clear that institutions may affect FDI inflows through three potential channels. First, the presence of good institutions tends to improved factor productivity and subsequently stimulates investments, whether domestic or external. Second, good institutions will result in a reduction of investment-related transaction costs (*i.e.* corruption-related costs). Finally, as

by definition, FDI generally involves high sunk costs. Therefore, good institutions (i.e. proper property right enforcement, effective legal systems) will give more security to multinational firms.

Wilhelms and Witter (1998) have also added that high level of government fitness requires that the legislature's decision- and law-making processes are transparent, efficient and reasonably democratic implying that the societal groups that have to support and carry through policies are included in the government decision- making process, thus facilitating policy implementation. As far as the executive level of government is concerned, high government fitness means that policies are implemented transparently, efficiently and consistently to ensure equitable treatment of all subjects under the law. A transparent, reliable, independent, fair and equitable judiciary guarantees high government fitness of the legislature and executive branch. High government fitness is expected to increase FDI by decreasing instability and thus investment risk.

From the theoretical framework above, the relation between PTA and FDI is neither self- evident nor straightforward, as the decision for foreign investment depends on lots of factors, including economic, social and political. The extent to which Tanzania becomes the best location FDI choice relative to other EAC countries will depend on the extent to which Tanzania has integrated EAC investment policy change relative to other EAC countries. As well as the opportunity through which Tanzania will realize from the PTA, due to the aggregating individual country market into a PTA market, and additional economic growth associated with PTA formation. The aggregated market will enhance investment climate, stimulate investment inflows, enlarge export market, increase competition and allow countries to exploit economies of scale and permit them to specialize in the production of goods and services to make them best suited to their resources and factor endowment (UNECA, 2004, Choudhri *et al.*, 2006).

The theoretical framework in this paper is premised on three key variables, the Preferential Trade Agreements (EAC), which are independent/explanatory variables, the Country Risks, and international competitiveness are the moderating variables, and FDI inflows to Tanzania are the dependent variable. The independent or explanatory variable has a direct influence on the dependent variable, which has a cause and effect relationship. The moderating variable, 'moderates' the cause and effect relationship by influencing the independent variable negatively (through a reduction) or positively (enhancing). According to the theoretical framework, Tanzania ratification and implementation of the EAC community treaty and protocols will influence macroeconomic stability, reform on regulatory authorities, as well as reform on investment liberalization, protection, and promotion. This will increase investor's confidence which will culminate into the increased FDI inflows. The new economic relationships envisioned by the proponents of Preferential Trade Agreements reveals that multilateral and regional trade agreements either act as instruments of development or eventually result to increased investment inflows of the participating countries (Bhagwati, 2007).

The country risk will measure the location advantage of the country, which comprises Macroeconomic risks and political risks. While international competitiveness is a function of the real effective exchange rate, relative unit labour cost and the quality of labour of the host country in our case Tanzania, macroeconomic risks are the function of economic risks, financial risk and currency Risks. On the second hand, political risk represents the investment provision which is embodied in the EAC protocols and treaties; these provisions will culminate into investment liberalization, promotion, and protection as a result of Tanzania participation in EAC. Hence, this variable is a function of the removal of the restrictions on the investment inflows in Tanzania. Political risk has a profound impact on the admission and establishment, entry and exit regulations and standard of treatment to foreign investors. Standard of treatment involves provisions such as National Treatment Principal; Most favoured nation treatment, and fair and equitable treatment. The protection of foreign investors involves property rights, nationalization, expropriation, investor's dispute settlement and provisions related to the repatriation of capital.

In a nutshell, the factors measuring political risk are basically a set of investment issues covered in

the 1990's investment agreements; hence, political risk of Tanzania due to her participation in EAC will comprise; investment provisions in the EAC, bilateral investment treaties signed by Tanzania and multilateral investment agreements.

Methodology

The gravity model applied in this paper as the framework of analysis to to predict the relationship between the dependent and dependent variables. The gravity model provides an excellent empirical framework of analysing the relationship between the sizes of the economy (GDP) and bilateral FDI flows between two countries. The model answers the questions that has failed to be answered by the previous trade theory such as what is the size of the trade or FDI flows, what is the relationship between trade flows of a country and its economic size, how can the change on the economic size of the country predict the size of trade and FDI inflows and out flows of the said countries.

The Newtonian physics notion is the first justification of the gravity model. In 1687, Newton proposed the law of universal gravitation which states that, the forces of attraction between two objects i and j is given by the equation below:

$$F_{ij} = G \frac{Y_i Y_j}{D_{ij}^2} \dots\dots\dots (3.1)$$

Whereby F_{ij} is the attractive forces, Y_i and Y_j are the masses, D_{ij} is the distance between the two objects and G is gravitation constant depending on the units of measurement of mass and force.

Tinbergen (1962) proposed that roughly the same functional form could be applied to international trade flows. The general gravity equation could be to a whole range of what we might call social interaction; the specification model by Tinbergen is as follows:

$$X_{ij} = G \frac{Y_i^\alpha Y_j^\beta}{D_{ij}^\phi} \dots\dots\dots (3.2)$$

In equation 2, X_{ij} is exports from country i to country j , G is a constant, Y_i is the amount of exports which country i is able to supply to country j , that depends on the country's economic size measured in terms of GDP, Y_j is the size of the importing country in terms of GDP and D_{ij} is the geographical distance between country i and country j . In this study, Tanzania FDI and a proportional of GDP represents X_{ij} to the rest of EAC Countries, Tanzania is the reference case (exporting Country) (i) and the EAC members are Tanzania Trading Partner, and therefore the importing countries (j). Specifically, the general stochastic form of the Tinbergen (1962) in his paper called "Shaping the World Economy" gravity equation has the following equation:

$$X_{ij} = \beta_o Y_i^{\beta_1} Y_j^{\beta_2} N_i^{\beta_3} N_j^{\beta_4} D_j^{\beta_5} A_j^{\beta_6} \mu_j \dots\dots\dots (3.3)$$

Where:

X_{ij} = Value of total trade (export + import)

Y_i and Y_j = GDP of the exporter and import courtiers

N_i and N_j = Population of the exporter and importer

D_j = The distance between the two countries

A_j = Any of the factors influencing trade between two countries

μ_j = Error term

and b 's = the coefficients to be estimated.

By taking the logarithm of equation (3.3), the model is expressed in the *log-log* form so that the coefficients are elasticity's of trade flow with respect to explanatory variables. Bilateral trade flows are determined by the predictors' variables in the gravity equation. Since all the EAC countries are small economies, it will be worthwhile to assess how successful these economies are in attracting FDI after taking their size into account. The size of the economy indirectly gives the effect of other factors like macroeconomic stability, industrial competitiveness, the availability of natural and human resources.

UNCTAD (2012) has classified institution factors that determine FDI into two broad categories, namely: traditional and non-traditional factors. Traditional factors are those that are quantitative and, thus, can be directly measured and expressed numerically. These include factors such as economic growth rate (GDP), public investment, public debt, degree of openness, inflation rate, rate of return on investment and population. Non-traditional determinants are those factors that are more qualitative, and consequently, are not always susceptible to direct measurement. These factors contribute to what might be called a country's business environment which can generally be gauged through surveys of the investor firms. These non-traditional factors are usually measured indirectly through proxy and dummy variables. These factors include infrastructure, quality of labour, political stability and economic integration.

The model predicts that FDI becomes more dominant relative to domestic production and trade as countries become more similar in terms of relative size and endowments. The model also predicts that relatively similar factor endowments between countries encourage horizontal FDI and vice versa (Carr *et al.*, 2001).

The Model Specification for FDI inflows as follows:

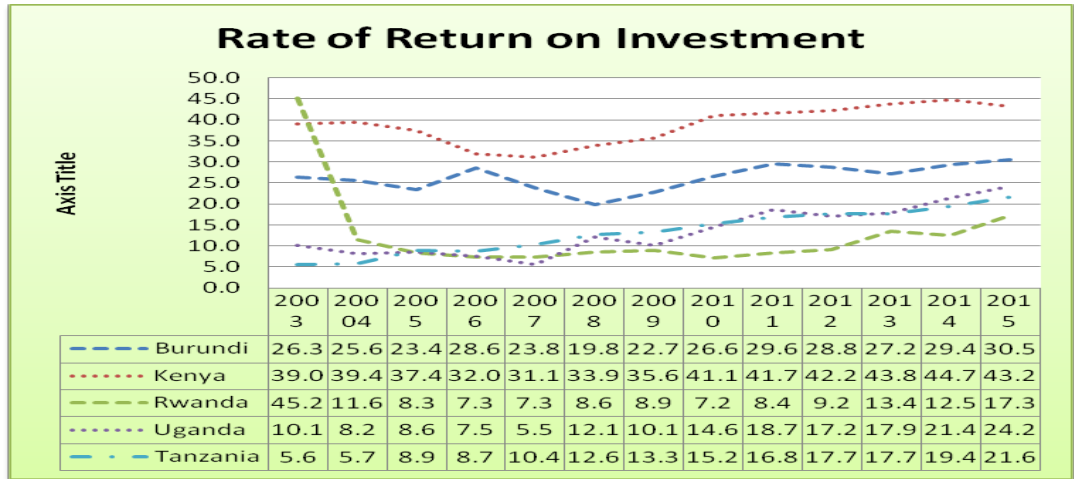
$$FDI_{it} = \alpha_i + \beta_1 GDP_{it} + \beta_2 EXDS_{it} + \beta_3 INF_{it} + \beta_4 LIR_{it} + \beta_5 OPEN_{it} + \beta_6 CORR_{it} + \beta_7 GOVEFP_{it} + \beta_8 STAB_{it} + \beta_9 REGQUP_{it} + \beta_{10} LAW_{it} + \beta_{11} NET_{it} + \mu_{it}$$

where FDI_{it} was the ratio of foreign direct investments to nominal GDP in country i at time t , with GDP_{it} , EXD_{it} , INF_{it} , LIR_{it} , and $OPEN_{it}$ being the corresponding GDP growth, debt service on the external debt, inflation rate, lending interest rate and degree of openness

Variable applied in the model is specified as follows: governance variables included: $CORR_{it}$, $GOVEFP_{it}$, $STAB_{it}$, $REGQUP_{it}$ and LAW_{it} , representing percentile ranks of Control of Corruption, Government Effectiveness, Political Stability and Absence of Violence/Terrorism, Regulatory Quality and Rule of Law. NET_{it} represents internet users per 100 people.

Descriptive Analysis

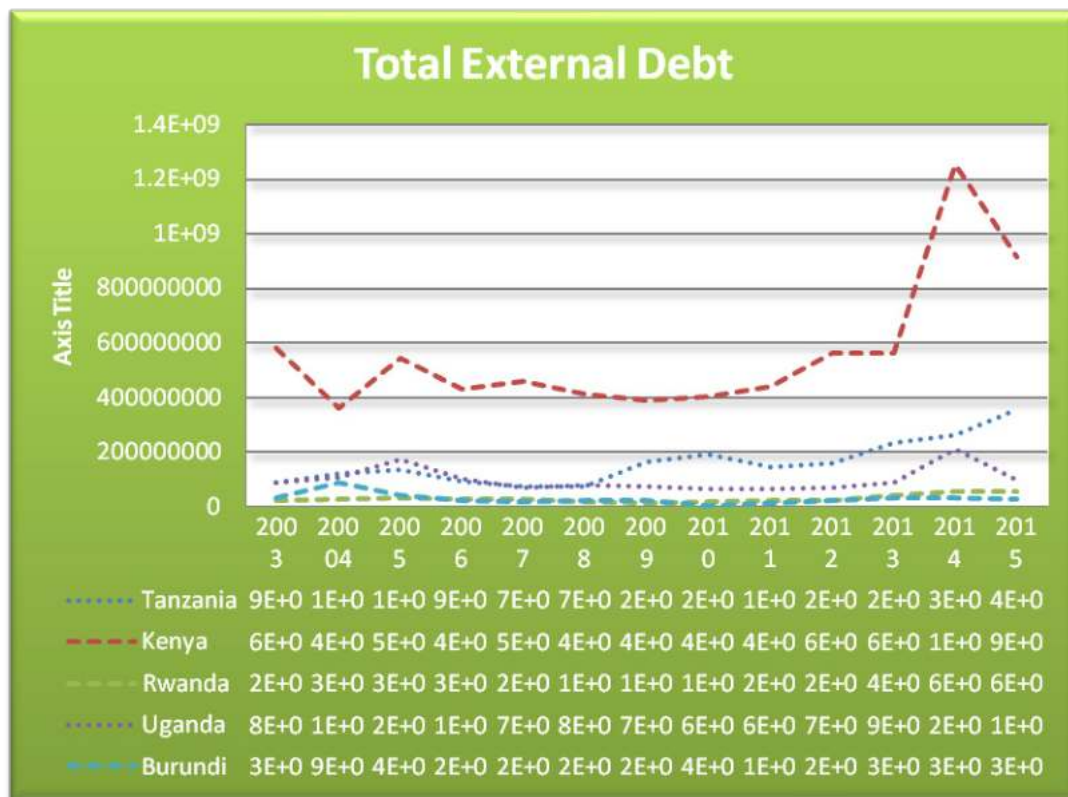
Return on Investment is one of the barometers applied by the Investor before they decide to invest in a certain country. The Return on Investment (ROI) is a performance measure used to evaluate the efficiency of an investment or compare the efficiency of several different investments. ROI tries directly measures the amount of return on a particular investment, relative to the investment's cost. It is as useful in evaluating the potential return from a stand-alone investment as it is in comparing returns from several investments. This fact is also applied in PTA, the fact that countries have signed PTA but the attractiveness of the Individual Country within the PTA is vital input applied by the Investor to PTA members.



Source: Author's Calculation based on WDI data (2019)

From Figure 1, it is clear that Kenya has the highest return on capital than any other member in EAC. Hence, this stands to be the highest FDI destination in EAC. Practices have shown that although Tanzania has a low rate of investment return compared to Kenya, since the signing of the Common Market Protocol in 2009, Tanzania has been enjoying the lion share of the FDI inflows in EAC. Kenya receives an average of 50 percent of the total FDI coming to EAC countries. A high rate of investment in Kenya is humped by regulatory factors; for instance, in Kenya, the telecom industry regulator requires that foreign firms that invest in the sector preserve 20 per cent shareholding for Kenyans within three years of receiving the license while the Mining Act of 2016 restricts foreign participation in the mining sector. This is a similar case in other EAC countries. For instance, foreign companies operating in Tanzania are required to preserve 30 per cent shareholding to local citizens while the Electronic and Postal Communications (Licensing) Regulations provides that Content Services License for free-to-air broadcasting requires 51 per cent local ownership.

The local content requirement is introduced by Kenya by requiring foreign firms to find Kenyan shareholders and sell them 30 per cent shares, a process that was perceived to be costly and time-consuming owing to the due diligence required to secure credible investors. It is difficult for a developing country to support itself with only domestic financial resources because these resources are limited. The dual gap framework identified the need for financial resources from foreign sources to augment available limited domestic financial resources to achieve sustainable economic growth in a country, especially for a developing country. External (foreign) debt and foreign direct investment (FDI) are required by developing nations to attain the economic status that allows them to be relevant for their residents and to compete globally. FDI and external debt tend to supplement domestic financial resources to empower a country to effectually perform her development programmes as well as elevate living standards of her populace. Figure 2 illustrates the external debt of the EAC countries.



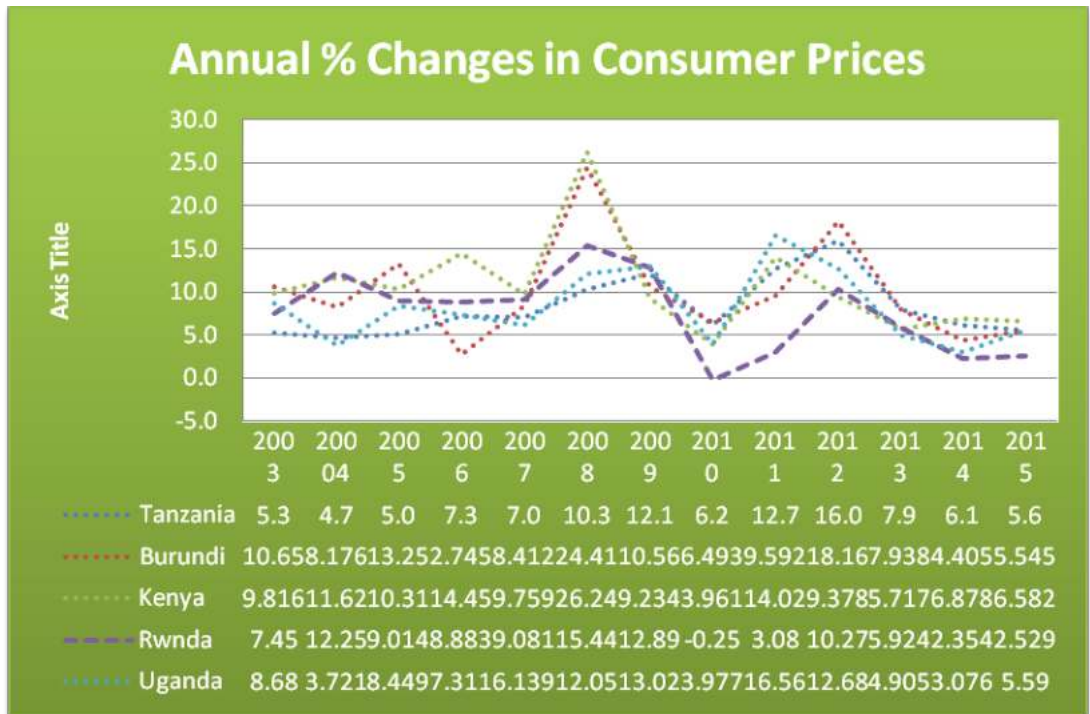
Source: Author's Calculation based on WDI Data (2019)

Reading through Table 2, it is clear that Kenya has a very high external debt when compared to other EAC countries. The fact is that both FDI and external debt is the source of capital to developing countries and they tend to complement each other. Hence, a country with very high external debt but low FDI inflows signals to have a problem in the institutional and governance issues. Most EAC countries have resorted into external borrowing as a means of cubing the deficit in their budget but the manor on which the money borrowed has been spent, and has harm on FDI inflows. Since EAC countries are prone to debt overhang problem due to mismanagement of external debt. Also, they experience capital flight which limits the chances of FDI contribute to economic growth. The expectation is that capital flows from external debt and foreign direct investment should bridge the gap between the desired investments and savings mobilized internally but these have not been the case in the EAC. Likewise, the external debt and FDI are assumed to be beneficial, but inherent problems in Nigeria. These include capital flight, poor governance; macroeconomic instability, corruption, currency (Naira) depreciation, and weak export base among others make the effects of external debt and foreign direct investment in EAC ineffective measure of cubing budget deficit inherent in EAC Countries.

Figure 5 provides the situation of Inflation rate in EAC countries from 2003 to 2015. The reviewed literature has indicated three theoretical rationales which explain the impact of inflation on FDI: (1) Nnadi and Soobaroyen (2015) and Andinuur (2013) observed that inflation is a measure of macroeconomic instability and that higher inflation rate could chase away prospective and already existing foreign investors, (2) inflation rate increase in host country reduces FDI as it erodes the value of the profits made by foreign firms (Sayek, 2009) and (3) low inflation reduces nominal interest rates and consequently pushes down the cost of capital for foreign investors. On the contrary, Obiamaka *et al.* (2011) noted that it is possible that inflation in the host country can have a positive impact on FDI inflows on condition that it does not exceed a certain threshold level. Overwhelmingly, literature

shows that inflation harms FDI (Nnadi & Soobaroyen, 2015; Sayek, 2009; Andinuur, 2013; Xaypanya *et al.*, 2015).

Furthermore, one of the greatest risks to FDI inflows in EAC is the rate of inflation to the host country. A high inflation rate tends to affect the productivity and the predictability of the investment returns. The expectation is that monetary policy is supposed to shape the economic environment that is conducive in attracting FDI into host countries. However, the characteristics of monetary policy present the impossible trinity, a trilemma problem where trade-offs must be done to maintain economic stability. Two of these anchors are inflation autonomy and exchange rate variability. These trade-offs can impact on the host country’s attractiveness on FDI inflow. Hence, a country within the PTA with a high inflation rate is likely to receive low FDI when compared to a PTA member with low inflation. Figure three provide the summary of the Inflation rate for the EAC countries from 2003 to 2015.



Source: Author’s Calculation based on WDI data (2019)

Reading through Figure 5, it is clear that, on average, all the EAC countries have maintained the inflation from 5 to around 10 percent with ups and downs in some years. Kenya and Burundi had the highest inflation rate in EAC in 2007 and 2008. From the data above suggest that there is a very low deviation of the inflation rate among the EAC countries but the deviation in terms of FDI inflows is very high. Tanzania has proved to be dominant in terms of FDI inflows since the signing of the Common Market Protocol in 2010. EAC countries need FDI to assist in alleviating some of its socio-economic problems, such as unemployment, high level of unskilled labour and finance capital deficits (Akinboade, Siebrits, and Rousset, 2006) as well as volatility in the inflation rate.

Overall Summary of Descriptive statistics for the variables

Variable	Obs	Mean	Std. Dev.	Min	Max
loggdp _{ii}	52	-1.738205	0.3302058	-2.302585	-1.203973
loggdp _{jj}	52	-1.96973	0.3507418	-2.302585	-1.609438
logfdigdp	52	7.23703	2.002267	1.280934	9.223237
logbre	52	1.293785	0.1806211	0.9162908	1.504077
logrrit	52	2.938003	0.6197987	1.704748	3.811097
logrritz	52	2.507973	0.4340191	1.722767	3.072693
logintt	52	1.099017	1.305787	-1.609438	2.890372
logintz	52	0.8636324	0.7726363	-0.356675	2.302585
logcorrt	52	1.143876	0.0991803	0.9162908	1.252763
logcorr	52	1.02199	0.1921599	0.6931472	1.252763
logpsetp	52	1.10187	0.186815	0.4054651	1.386294
logpset	52	1.181616	0.0775967	1.098612	1.252763

Logrlw	52	1.077015	0.1569599	0.6931472	1.252763
loggdp _{ptz}	52	1.858326	0.1456671	1.504077	2.04122
loggdp _r	50	1.659397	0.642983	-1.609438	2.415914
logiftz	52	2.024654	0.3814822	1.547562	2.772589
logifj	52	2.086401	0.5564272	0.8563244	3.267278
logexdt	52	18.77805	0.4788842	18.10357	19.68028
logexdtp	52	18.08742	1.373553	15.29137	20.94874
logdisij	52	2.300285	0.2303149	1.90806	2.459589
logctci	52	6.945909	0.1889087	6.710523	7.140453
logctcj	52	7.822527	0.3202905	6.956545	8.253227
loggf _{cj}	51	2.881562	0.6080633	0.751416	3.457893
logcb _{spi}	52	4.91405	0.621059	3.94739	5.933041
logcb _{spj}	52	4.214312	0.9181845	1.547562	5.485626

Regression Result

The regression analysis was done using three estimation models, i.e. Fixed effects, pooled effects, and random-effects model. The emerging assumption is that either the fixed effect or random effect could be used for the interpretation or publication. In this, the pooled model is estimated only for comparison purposes. On the decision whether a fixed effect or random effect should be selected for estimation, a Hausman test was conducted. The Hausman result shows that the fixed effect model is adopted for the estimation of our model. Hence, the key assumption in is that the value of the intercept is not the same across the variable and the intercept does not vary over time, they are time-invariant. The dependent variable is the model FDI inflows of Tanzania as a percentage of GDP.

Regression Result

logfdigdp	Tanzania FDI as a proportional of GDP	Coef.	Std. Err.	z	P>z
loggdp11	Annual % Change in GDP at constant prices for Tanzania	-1.10734	1.27829	-0.87	0.386
loggdp12	Annual % Change in GDP at constant prices for Tanzania Trading Partner in EAC	-0.57708	0.669032	-0.86	0.388
logbre	Business Regulatory Environment	20.40309	5.77273	3.53	0.000***
logrrit	Rate of return on investment for Tanzania trading Partner in EAC	0.884437	1.121141	0.79	0.43*
logrritz	Rate of return on investment for Tanzania trading Partner in EAC	4.574382	1.446	3.16	0.002**
logintt	Internet users per 100 people for EAC Countries other than Tanzania	0.097388	0.47426	0.21	0.837
logintz	Internet users per 100 people for Tanzania	0.948739	1.324329	0.72	0.474
logcorrt	Percentile Rank of control of corruption in Tanzania	-0.08261	4.658015	-0.02	0.986
logcorr	Percentile Rank of control of corruption in Tanzania Trading Partners in EAC	5.808024	2.398961	2.42	0.015*
logpsetp	Percentile Rank of Government Effectiveness for Other EAC Countries	12.63672	4.516536	2.8	0.005**
logpset	Percentile Rank of Government Effectiveness for Tanzania	7.95043	4.036499	1.97	0.049*

logrlw	Percentile Rank of Rule of Law for other EAC Countries	-19.2511	5.409238	-3.56	0.000***
loggdprt	GDP Growth rate of Tanzania	1.730567	1.153568	1.5	0.134
loggdpr	GDP growth rate of Tanzania Trading Partner	-0.3578	0.257379	-1.39	0.164
logiftz	Annual % changes in consumer prices for Tanzania Trading Partner in EAC	2.390305	1.042094	2.29	0.022*
logifj	Annual % changes in consumer prices for Tanzania Trading Partner in EAC	-1.93026	0.536814	-3.6	0.000***
logexdt	Total external Debt for Tanzania	-0.97126	0.689432	-1.41	0.159
logexdtp	Total External Debt for Tanzania Trading Partners	-1.04398	0.468787	-2.23	0.026*
logdisij	Bilateral Distance between Tanzania and Trading Partners as a prox for Investment Cost	12.26453	6.486401	1.89	0.059*
logctci	Gross fixed capital formation for Tanzania	-3.15648	3.01561	-1.05	0.295
logctcj	Gross fixed capital formation for Tanzania	-1.8691	0.68159	-2.74	0.006**
loggfcej	Gross fixed capital formation for Tanzania Trading Partner	-0.1304	0.172193	-0.76	0.449
_cons		-1.0805	45.20597	-0.02	0.981

*** and ** and * indicate significance levels 1%, 5% and 10% level, respectively.

In the estimation process, the following variables were found significant, while variables not listed here were found insignificant or have no effect to the dependent variables **Logbre** (Business Regulatory Environment), **logrrit** (Rate of return on investment for Tanzania trading Partner in EAC), **logrritz** (Rate of Return on Investment for Tanzania trading Partner in EAC), **logcorr** (Percentile Rank of control of corruption in Tanzania Trading Partners in EAC), **logpset** (Percentile Rank of Government Effectiveness for Tanzania), **logrlw** (Percentile Rank of Rule of Law for other EAC Countries), **logiftz** (Annual % changes in consumer prices for Tanzania Trading Partner in EAC), **logifj** (Annual % changes in consumer prices for Tanzania Trading Partner in EAC), **logexdtp** (Total External Debt for Tanzania Trading Partners), **logdisij** (Bilateral Distance between Tanzania and Trading Partners as a prox for Investment Cost), **logctcj** (Gross fixed capital formation for Tanzania)

The coefficient of Business Regulatory Environment, (**Logbre**) is positive and significant at 1% level; this implies that there is a positive relationship between Tanzania Business Environment and her counterparts in EAC. This implies that when Business Regulatory Environment of Tanzania Trading Partners in EAC changes by 1 unit, Tanzania regulatory environment changes by 20 units. This might be one of the factors accounting for the lion share of Tanzania FDI in EAC. Tanzania enjoyment of the

lion share of FDI in EAC does not come without pre-conditions. Just like any other business people, foreign investors are driven by profits. They go to places where the net profitability is highest, not inevitably where costs are lowest; and they transmit the best practice when it is advantageous for them to do so, not necessarily when host countries need it.

This finding is consistent with the study by Haozhen Zhang (2015) Who applied three sets of econometric models to examine the effects of business regulations on foreign direct investment (FDI) by using FDI statistics from 12 source countries to 64 host countries in 2000. The regression results suggest that FDI inflows are strongly correlated with business regulatory costs in the FDI host countries. By using endogenous threshold models and the rolling-regression techniques, we find evidence of a nonlinear threshold effect in the relationship between FDI inflows and regulatory costs. When a host country's regulatory costs are sufficiently low, a further decrease in regulations may not stimulate and may even decrease FDI inflows. On the other hand, beyond some threshold, FDI inflows significantly rise as the regulatory costs fall. Also, we find that the marginal effect of business taxes on FDI depends on the level of regulatory costs; i.e., as regulatory costs rise, the marginal effect of taxes on FDI inflows falls. Our results suggest that the regulatory competition between FDI host countries may have different impacts on countries with different regulatory cost levels. While a fall in the costs can directly stimulate FDI inflows in heavily regulated countries such as Brazil and China, it might not affect, or harm FDI inflows in low-cost countries such as Canada and the United States. In the low-regulatory-cost countries, tax incentives might be more effective to attract FDI than those in heavily regulated countries.

The coefficient of the Return on Tanzania Investment, (**logrrit**) is significant at the 10% level. This suggests that when Tanzania returns on Investment change by 1 Unit, FDI inflows increase by 0.9. The fact that Tanzania return on Investment is positive and significant, stand as a magnet to attract FDI. Some of the reason that might account for the positive Investment Return for Tanzania is the stability of inflation rate and the discovery of Oil and Gas. This finding is in line with Sun Wenkai, Yang Xiuke and Xiao (2016) have also examined the impact of High Investment rate in China and concluded high investment rate and the rapid growing foreign-invested economy in China, was attributed for by government investment, investment from the private sector, foreign direct investment are typical key factors that contribute to China's high investment rate, low cost of production factors, huge market demand, and economies of agglomeration are principal elements that attract FDI flows into China. Likewise, the reason that China continues to top in the investment rate is because of the high return to capital in the country. During the period with high return to capital in the US and Japan, their investment rates were significantly higher than today. The comparatively higher return to capital brings surging FDI into China. (2) The high investment rate and return to capital will sustain for at least 10 years.

Return on Investment for Tanzania Trading Partner in EAC (**logrritz**) is positive and significant at 5% level. This also suggests that there is a positive relationship between the Investment return for other EAC Country and Tanzania. It follows that when the FDI inflows of Tanzania trading partner change by 1 unit, Tanzania FDI increases by 4.5 units. This might also suggest that at every five investors coming to EAC four chooses Tanzania as their best destination. This might be also suggesting that Tanzania has a better investment location advantage than her Trading Partners in EAC.

Percentile Rank of control of corruption in Tanzania Trading Partners in EAC, (**logcorr**) had the expected positive sign and its coefficient was statistically significant at 10%. An increase in the percentile rank in control of corruption by 1 unit was likely to increase FDI inflows as a per cent of GDP by about 5.4 units. According to the World Bank (2004), corruption was regarded as a threat to foreign investment for several reasons: it distorted the economic and financial environment; it reduced the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and last but not least, it introduced an inherent instability into the political process. Foreign lenders and investors would find it difficult to conduct business effectively in

countries where there is widespread financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans.

Percentile Rank of Rule of Law (**logrlw**) is negative but significant at 1% level. This suggest that Perceptions of the extent to which agents have confidence in and abide by the rules to other EAC Countries can negatively affect Tanzania FDI inflows. Hence the choice of the Investor to Tanzania economy is influenced by the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence in other EAC countries. The Institutional FDI Fitness model predicts that all else equal, countries with high Institutional Fitness experience higher inflows of foreign direct investment than countries with low Institutional Fitness. High Institutional Fitness means that a country's institutions are transparent, well-functioning, reliable and predictable. Countries with high quality institutions provide an environment for both investment attraction and expansion of existing firms since it attracts a favourable environment for operation for foreign investors. Institutional reforms that change laws, rules and regulations, create a better investment climate in an economy by reducing transaction costs, hence, creating opportunities that attract FDI.

Three variables that determine macroeconomic and investment cost, Annual % changes in consumer prices for Tanzania Trading Partner in EAC (**logifj**), Total External Debt for Tanzania Trading Partners (**logexdtp**), Gross fixed capital formation for Tanzania (**logctcj**). The three institutions condition were significant but with negative relationship on Tanzania investment inflows. Hence the predictability of Tanzania FDI inflows is highly affected by change of macroeconomic variables in other EAC.

Inflation for other EAC Countries (**logifj**) harmed Tanzania FDI inflows. The coefficient was statistically significant at 1% level. The model shows that a 1 unit increase in inflation would lead to a 1.9 units decrease in FDI inflows as a per cent of GDP in Tanzania. This implies that macroeconomic stability for EAC Countries is crucial in enhancing FDI inflows in Tanzania.

There are three theoretical rationales which explains the impact of inflation on FDI: (1) Nnadi and Soobaroyen (2015) and Andinuur (2013) observed that inflation is a measure of macro-economic instability and that higher inflation rate could chase away prospective and already existing foreign investors, (2) inflation rate increase in host country reduces FDI as it erodes the value of the profits made by foreign firms (Sayek, 2009, p. 423) and (3) low inflation reduces nominal interest rates and consequently pushes down the cost of capital for foreign investors. On the contrary, Obiamaka et al (2011) noted that it is possible that inflation in the host country can have a positive impact on FDI inflows on condition that it does not exceed a certain threshold level.

Inflation not only reduces the level of business investment, but also the efficiency with which productive factors are put to use. It is thus necessary for the EAC Partner Sates to maintain price stability to attract FDI. The higher the level of macroeconomic-instability, the higher the risk premium on investment and the lower would be the level of investment.

6.0 Conclusion and Policy Implication

Overall the study found out that the perception people had on the rule of law and control of corruption, management of external debts, and return on investment for both Tanzania and her trading partners in EAC had a positive effect on the FDI inflows in Tanzania. Gross Fixed Capital Formation as a proxy for the Quality of Infrastructure in other EAC Countries have a negative implication of FDI Inflows to Tanzania hence improvement in infrastructure in EAC is critical in explaining FDI performance for both Tanzania and her counterpart in EAC.

Business regulatory Environment and return on investment were found to be positively correlated with FDI inflows. Inflation harmed FDI. The study thus underscored the importance of a stable Business Environment for Tanzania to continue enjoying the lion share of FDI in EAC.

EAC Council of Minister has endorsed three key instruments to guide investment inflows. Double

taxation agreements, EAC Investment Code and EAC model bilateral investment agreements. The EAC Code presents an earlier attempt by the EAC region to harmonize aspects about investment among member countries. The Code was to guide partner states on engaging with foreign investment and investors without any binding effect on any partner states. However, the study has noted that there is a very little integration of the Investment instrument at the EAC level to Investment policies at the Partner states level. This will create a lot of contradiction to the predictability of the investment environment in the Region.

The study also found Tanzania FDI performance in EAC is highly correlated with Institution and macroeconomic environment in other EAC. High correlation implies that there is a Hub –ad spoke relationship on FDI Inflows between Tanzania and other EAC. Hence Tanzania should continue to push for regulatory and macroeconomic reform in other EAC Countries to maintain enjoying the lion share of FDI inflows.

Finding from this paper also suggests that Tanzania should continue with her objective of promoting regional trade agreements. This is due to the fact that as the integration process has a positive influence on Tanzania FDI inflows. This is depicted with the positive correlation of Tanzania Rate of Investment return and other EAC Countries. Given the fact that the Common institution which are responsible for implement EAC Common Market have not been established in EAC Partner States, except at the EAC Head quarter in Arusha this also have stimulated high divergence between common Investment Policies and Domestic Investment measures. We need institutions that protect and promote the EAC integration vision, and able to drive the Common Market agenda.

In order for Tanzania and the EAC Partner States to enjoy and reap the full benefit of the Custom Union and Common Market the establishment of the Common Policies is an avoidable. Common policies will also reduce the transaction and compliance cost and hence eliminates the practice of applying and implementing Investment measures in a piece meal fashion. The overriding objective of common policies is to tackle invisible barriers by ensuring that there are no non-tariff barriers of any nature embedded in national legislation or national practices.

Regional integration is not a series of events characterized by the conclusion and signing of legal instruments *'per se'*. It is a gradual process carefully undertaken. To minimize the chances of opting to a Non-Tariff Barriers an optimum situation Tanzania and other EAC Countries need to ensure that the Common Market is being built onto an established Customs Union in a well sequenced manner. That way a Common Market can be built deliberately and at a safe pace of integration process.

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. xtreg fdi gdp loggdp_i | loggdp_j | logrit | logritz | logint | logintz | logcorr | logcorr | logsetp | logset | logriw | loggprt | logftz | logif
> j | logctci | logctcj | loggf | cf, fe
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Fixed-effects (within) regression
 Group variable: obs
 Number of obs = 28
 Number of groups = 3
 R-sq: within = 0.9877
 between = 0.0596
 overall = 0.0771
 Obs per group: min = 3
 avg = 9.3
 max = 13
 F(17, 8) = 37.72
 Prob > F = 0.0000
 corr(u_i, Xb) = -0.7141
 Prob > F = 0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
fdi gdp					
loggdp_i	505.3697	838.4142	0.60	0.563	-1428.017 2438.756
loggdp_j	-2787.252	816.1613	-3.42	0.009	-4669.323 -905.1803
logrit	2248.331	1028.482	2.19	0.060	-122.352 4621.014
logritz	10661.6	1613.619	6.61	0.000	6940.588 14382.61
logint	209.2971	550.2779	0.38	0.714	-1059.646 1478.24
logintz	-2684.433	893.9893	-3.00	0.017	-4745.976 -622.8904
logcorr	14868.39	6343.899	2.34	0.047	239.333 29487.45
logcorr	9082.147	2683.395	3.38	0.010	2894.227 15270.07
logsetp	-679.5509	1395.637	-0.49	0.639	-3897.897 2538.795
logset	8934.698	4533.206	1.97	0.084	-1518.893 19388.29
logriw	-19577.45	2962.239	-6.61	0.000	-26408.39 -12746.51
loggprt	1205.844	1243.859	0.97	0.361	-1662.501 4074.189
logftz	6146.341	1024.617	6.00	0.000	3783.57 8508.113
logif	-4898.216	514.3875	-9.52	0.000	-6084.396 -3712.036
logctci	-2616.573	3232.892	-0.81	0.442	-10071.64 4838.49
logctcj	-580.8362	641.7471	-0.91	0.392	-2060.708 899.0352
loggf	229.5018	281.8871	0.81	0.439	-420.5309 879.5345
_cons	-28173.14	23800.27	-1.18	0.270	-83056.66 26710.38
sigma_u	4661.1951				
sigma_e	459.84311				
rho	.9903613				(fraction of variance due to u_i)

	fdi gdp	perinctx	openind	exr	gdpi	gdpij	bre	rrit	rritz	intt	intz	corr	corr
fdi gdp	1.0000												
perinctx	0.4804	1.0000											
openind	-0.0402	0.1703	1.0000										
exr	0.1017	0.0681	0.3067	1.0000									
gdpi	0.3685	0.8027	0.3043	0.0836	1.0000								
gdpij	0.3546	0.1163	0.2104	0.7386	0.1369	1.0000							
bre	0.5589	0.1876	0.0703	0.1319	0.0936	0.2648	1.0000						
rrit	-0.1556	0.2220	0.2653	0.7799	0.1686	0.5362	-0.3300	1.0000					
rritz	0.4472	0.9858	0.2296	0.0686	0.8217	0.1229	0.1805	0.2373	1.0000				
intt	0.6139	0.7088	0.2877	0.2810	0.6073	0.4618	0.4997	0.2215	0.7339	1.0000			
intz	0.3057	0.8046	0.3683	0.0635	0.7701	0.1266	0.1397	0.2675	0.8752	0.7243	1.0000		
corr	-0.3725	-0.7625	-0.0689	-0.0387	-0.5827	-0.0575	-0.1563	-0.1322	-0.7371	-0.5038	-0.4844	1.0000	
corr	0.3319	-0.2555	0.0496	0.2521	-0.2473	0.0414	0.5909	-0.2255	-0.2479	0.0796	-0.2059	0.1709	1.0000
psetp	0.4442	0.1649	0.1257	0.4174	0.1001	0.3764	0.7122	-0.1100	0.1311	0.3840	0.0148	-0.1431	0.5716
pset	-0.3728	-0.8698	-0.1500	-0.0503	-0.5673	-0.0779	-0.1796	-0.2625	-0.8676	-0.6517	-0.7347	0.7196	0.2159
riw	0.6145	0.1865	0.0091	-0.2874	0.1007	0.1364	0.7561	-0.5745	0.1787	0.4761	0.1386	-0.1105	0.3602
ggprt	-0.2431	-0.3476	-0.0444	-0.0276	-0.4216	-0.0344	-0.0697	-0.0223	-0.3320	-0.2123	-0.1994	0.4110	0.0614
gdp	0.4006	0.0286	0.0067	-0.0530	0.0450	0.0501	0.5707	-0.3994	-0.0132	0.1396	-0.1183	-0.0434	0.4168
iftz	0.2852	0.4334	-0.1070	0.0245	0.2976	0.0072	0.0914	0.0101	0.3597	0.1590	0.0017	-0.3582	-0.0772
ifj	-0.2586	-0.2009	-0.0696	0.1433	-0.1440	0.0650	-0.2090	0.0905	-0.2186	-0.2553	-0.3540	0.1296	-0.0943
exct	0.2538	0.7353	0.3399	0.0462	0.6128	0.1042	0.1537	0.2586	0.7991	0.6885	0.9291	-0.5163	-0.1827
exctp	0.0848	0.1032	0.4032	0.8811	0.0664	0.7496	0.1717	0.7291	0.1243	0.4024	0.1928	-0.0017	0.1712
psetp	1.0000												
pset	-0.0638	1.0000											
riw	0.4069	-0.1891	1.0000										
ggprt	-0.0610	0.1175	-0.0308	1.0000									
gdp	0.5359	0.0147	0.5885	0.0699	1.0000								
iftz	0.1564	-0.2475	0.0617	-0.6128	0.0844	1.0000							
ifj	-0.0203	0.3765	-0.2941	-0.2581	-0.1327	0.4346	1.0000						
exct	0.0200	-0.7357	0.1435	-0.0923	-0.1489	-0.1339	-0.4829	1.0000					
exctp	0.3113	-0.1060	-0.1198	0.0236	-0.0491	-0.0952	0.0311	0.1770	1.0000				

The Implication of Political Regime Change on Public Procurement Practice in Tanzania: The Case of Tanroads

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Abstract

This study examines the implication of political regime change on public procurement practice in Tanzania. The study was guided by three hypotheses in which independent variables were government resource control, inclusion of digital system and reduction of duties on government entities and dependent variable was public procurement practice. The study was mainly guided by quantitative research design whereas survey was the main strategy of inquiry. Data that informed the study was collected from 100 respondents working with TANROADS using structured questionnaire. Descriptive statistics, correlation and multiple regression analyses were performed to assess the existing relationship between the study variables. Results found that all three independent variables are positive and statistically significant in explaining the independent variable. This implies that public procurement practice in Tanzania is strongly influenced by political regime change variables which are: government resource control, inclusion of digital system and reduction of duties on government entities. Therefore, it is recommended that the efforts which have been employed by the government as a result of regime change pattern in Tanzania on public procurement practices must be embraced and improved further. This will assure the realization of sufficient and adequate practices in government entities in line with public procurement for that matter.

Keywords: *Regime change, Public procurement, Procurement, TANROADS*

Introduction

Public procurement has been a debatable topic in business environment literature for some time now. This is due to its importance and sensitivity which is brought about together with other reasons, such as the use of public funds which attracts the interest of the general public (Weele, 2010). So far existing business scholarly works (for example Hodges & Sager, 2015) have concentrated in looking at the environmental factors such as economic, technology and legal, affecting procurement performance but little has been done on regime change as a political business environment and its implication on public procurement practices specifically.

A political regime is a set of political structures that make up a state (Caporale & Grier, 2000). It may also be known as a form of government, the set of rules, a state system or a political pattern that regulate the operation of a government or institution and its interaction with society (Jong-A-Pin & De Haan, 2011). In the light of this definition we stress that political regime may have strong influence on all aspects of life including cultural or social norms, politics, economic, technology and other environmental factors. Political regime usually constitutes the provision of the policies, directives, and laws which may have an important say on the pattern of activities and setting in the country (Prashad, 2016). Among other entities, government organizations and agencies extremely feel the effect of political regime change because: 1) they deal directly with government matters such as operations, rules and system (Rigor, 2009), 2) the pattern of government resource allocation, distribution and use in most cases change with the regime in question, particularly in African countries (Msamangira & Tesha, 2014), and 3) local and international agreements in place may change since each political regime usually tends to have areas of interest and priorities set to be achieved in a given timeframe (Prashad, 2016).

Mankiw (2011) noted that activities and undertakings with severe fiscal implication in the government are usually guided by the political regime since those are areas of vital interest to the government in assuring delivery of goods and services to the public. Among the activities essential or critical to the government is public procurement (Stiglitz, 2000). This is due to the fact that public procurement is massive and huge such that it entails severe use of resources such as fund, which has significant implication on the country's gross domestic product [(GDP), Rodrigues & Diaz, 2011]. Public procurement covers all public works, supplies, services and contracts which make it as something of vital interest of the regime on the practice (Lysenko, 2014). This is because all activities related to the government, the procuring entity is the government as the resource provider which is massive and constitutes large volumes of purchase that entails a vital concern on the regime(s) in power (Halchin, 2013). Besides, public procurement constitutes high risk of corruption due to the size of the financial injection by the government and turnover (Lysenko, 2014).

The contention aforementioned is in line with contract awarding theory which asserts that public procurement is large and complex such that activities i.e. supply generation and provision, cannot all be performed by one entity alone (Busch, 2014). As a result, the awarding of contract must be through a well-defined set of competitive process to assure the tender is granted to the best bidder among several others to perform the supplying to the required entities of the government, and the government pays the winning entity as per the agreed terms (Halchin, 2013). The contention also agrees with Green's (2014) assertion that public procurement is an important venture to the government which is well looked upon. With the political changes in place usually the venture experiences changes as well since the modality the government operates and undertakes determines the pattern of public procurement as well in the respective country, where government(s) perform procurement activities in assuring the availability of supplies for that matter.

Tanzania, in particular, constitutes procurement activities both public and private with the most notable ones as the public procurement since this has the greatest impact on the economy due to the financial turnover in the market and the economy in general (Samwel, 2005). Public procurement in Tanzania is conducted annually with the requirement of all entities to conduct their procurement plans on annual basis. Once the supplies are provided and closed; none of the activities may be performed unless there is an emergence which is out of control such that emergence procurement can be performed to rescue the situation (Kimbwereza, 2016). In light of that, this paper sets forth that political regime change pattern may have an important say on public procurement practices. This may be evident with the current Tanzanian regime, as an example, which has brought about changes in several procurement practices. Such practices i.e. payment systems, tendering, acquisitions, auditing practices and others have either been enjoyed, ignored by the government organizations or absent in previous regimes. This may be reflected in all government organizations including Tanzania National Roads Agency (TANROAD) as an executive agency under the Ministry of Works, Transportation and Communication which came into force in 2000. The entity is specifically entitled with maintenance and development of truck and regional road network in Tanzania mainland (URT, 2016).

This paper focuses on TANROADS for the main reason that the entity through the government has had several contracts and agreement pertaining to procurement practices in terms of supplies and delivery of goods and services with both local and international partners such as Chinese and several others (Kaikuye, 2017). We assume that with the current political regime several changes may have occurred, e.g. pattern of handling government affairs, which may have affected the way procurement practices are handled. This is evident with lots of contracts which the government through the entity have entered with several contractors and companies been breached. Also, the entity has may have been deprived certain duties pertaining to the maintenance and development of truck and roads network since the government has instituted Tanzania Rural and Urban Road Agency (TARURA) which specifically deals with the maintenance and development of street/feeder road networks (Kaikuye, 2017).

To uncover important relationship and understand the subject matter, this study makes use of public policy theory as well, which entails the principled guide to action(s) taken by the governing body in the country on several issues and concerns in line with the laws of the land and the institutional arrangements and customs for that matter. This is due to the fact that since the current government took over there may be changes on government entities' procurement practices since the funds are all allocated from the central government and not from the entity as it was before as noted by Muga (2016). The government in 2016 had issued a directive on demanding all public organizations to bank with the central government and not commercial banks such that once they need money they present a budget which needs to be approved.

In addition, the procurement activities have been transformed from manual practices to the computerized operations such that the government had issued such a directive to the extent that at the moment Epicor 10.0 system is in installation stage all over the country in all government units, departments and sections performing procurement activities to be well connected with the system to avoid fraud and several persisting malpractices such as frauds, corruption, over estimation of costs and others. Also, the practice of procurement has been transformed from analog into digital practice and the some entities have been deprived some of the previous responsibilities and set to operate in certain manageable levels to be well monitored by the government to reduce and finally end corruption and several other malpractices.

Being the case above, it is important to understand the way political regime change may bring changes on public procurement practice particularly in developing countries taking a case of Tanzania. Consequently, this study makes use of contract awarding theory and public policy theory to examine the relationship that exists between political regime change and public procurement practice in Tanzania. The main political regime change variables that the study concentrates on are government resource control, inclusion of digital system and reduction of duties on government entities because they are main areas that the current government focuses on. Thus, specifically the study is set to examine the implication of government resource control, inclusion of digital system and reduction of duties on government entities on public procurement practice in Tanzania.

Literature review

The study has been grounded by two main theories which are contract awarding theory and public policy theory. Contract awarding entails that the process and practice in awarding tenders announced to the public for issuing supplies by the entity in need (Keith et al, 2016). The theory asserts that the process and practice of procurement is competitive such that for tenders to be distributed on fair pattern among the public; they must be formally announced and competitors send their proposals with guidelines to be followed on competitive ground; such that the one with the excellent bid gets the prize and wins the tender and allowed to issue supplies as per the requirements and agreement of the client(s) (Benslimane et al, 2005).

Public policy theory on the other hand provides that that any action to be done by the government must constitute and being guided by formalized principles in form of rules and regulations shaping the pattern of behavior for that matter (Cohen, 2012). This is important since it is a means towards establishing the pattern of conduct and formalization of the activities to assure justice and fairness; as well as good conduct (Taro, 2014)). The theory suggests that all activities done by the government are governed by specific policies which directs the pattern of practices including procurement practices which are formulated by the government and can be changed anytime when need arise (Considine, 2005).

Despite that the study has been informed by previous studies such as Lewis and Roehrich (2009) that assessed contracts, relationships and integration in achieving procurement performance in the complexity situation. This study's findings indicated that the pattern of relationship, integration and contract performance depends on the policies available in the procurement practice in the specific area

provided by the government. This brings about the gap to be articulated in Tanzanian context since the country has been lacking clear institutional apparatus such that as regimes change; changes in policies and practices have been highly severe as well including in procurement practices in public entities which has necessitated the need to wage the study for that matter.

Caldwell et al (2009) also examined the impact of regime changes in public procurement practices. The study intended to assess the regime change influence on procurement activities in the government since cash injection by the government is massive with impact in the economy and the market at large. Findings from that study indicated that regime change has impact on the procurement activities since the policy of the government on income injection to the procurement practices depends on the policy which is set by the priorities of the specific regime in power. However, once changes occurs there is high chance on policy changes which has been evident in almost all administrations which has been having impact on procurement practices in the area because the injection pattern of income tend to vary.

Thus there is enough empirical evidence that provide basis for this study. It entails that there is a the gap to be envisaged in Tanzania since regime change has been taking place and still occurs due to the nature of the political system as being liberal democracy. With that, it may have been having some influence on the procurement practices. Thus, the study is being undertaken to assess the implication of political regime change in public procurement practices in Tanzania.

Methodology

The study adopted quantitative research design where survey was the main strategy of inquiry (Saunders et al, 2009). This is due to the fact that the study sought to generate knowledge using causal relationship approach between variables i.e. government resource control, inclusion of digital system and reduction of duties on government entities as independent variables and public procurement practice as dependent variable (Bryman & Bell, 2011). The study population consisted of all employees of Tanzania National Roads Agency (TANROADS) in Dar es Salaam main office and all its upcountry branches. TANROADS was specifically selected because the entity is among the largest government agencies undertaking operational tasks with massive and frequent procurement requirements which are large and comprise the use of massive resources.

Stratified sampling technique was used for the main reason that not all respondents in study's context had a chance to participate in the study (Bhattacharjee, 2012). The sampling framework comprised of only those that had experience, skills and knowledge on procurement practices in public entities. Therefore the unit of analysis was individuals i.e. procurement officers who deal with actual procurement tasks, and heads of units who facilitate the procurement operations such as remitting funds to cover procurement expenses and contacting the suppliers of procured items.

Structured questionnaire was used to gather primary data from 105 respondents where only 76 participants responded (Creswell, 2012). Secondary data was obtained through review of several documents in line with the study problem and hypotheses, and was specifically used to complement primary data. The collected information was subjected to quantitative data analysis where descriptive statistics, correlation and multiple regression techniques were used to examine the existing relationship between study variables. To measure accuracy of the study variables, validity test was conducted using pilot study of the questionnaire as the data collection instrument. Reliability test was performed to show the consistence of the variables using Cronbach Alpha test (*see*, Table 1). The test agreed that the study variables were reliable and consistent since all of them were above 0.7 (Trochin, 2000).

Table 1: Cronbach Alpha Test

Study Variables	Cronbach Alpha
Government Resource Control	0.872
Inclusion of Digital System	0.801
Reduction of Duties on Government Entities	0.890
Public Procurement Practices	0.769

Moreover, the whole process of data collection and analysis respected confidentiality of the respondents where by their credentials were treated with high level of confidentiality.

Results and analysis

Profile of respondents

Majority of those who participated in the study were young, holding a degree or more, had more than 5 years of work experience, located in Dar es salaam which is the head office and were male (*see*, Table 2). This indicates that the study employed right respondents who were well experienced, skilled and knowledgeable in the area of public procurement.

Table 2: Profile of respondents

S/N	Characteristics	Categories	No. of respondents
1	Age	21-30	26
		31-40	42
		41-50	5
		51-60	3
		Total	76
2	Gender	Male	47
		Female	29
		Total	76
3	Level of education	Diploma	14
		First Degree	43
		Masters	19
		Total	76

4	Work experience	1-5 years	29
		5-10 years	37
		10+ years	10
		Total	76
5	Location	Dar es salaam	36
		Dodoma	5
		Mwanza	12
		Arusha	13
		Mbeya	10
		Total	76

Mean and Standard Deviation

Mean and standard deviation were performed to find out which of the three independent variables had more influence on the dependent variable than others. Also standard deviation that sought to establish the level of dispersion pertaining to the views and opinions of the respondents in line with the study variables was conducted (*see*, Table 3).

Table 3: Mean and Standard Deviation

Study Variables	Mean	Standard Deviation	N
Public Procurement Practices	3.265	1.1243	76
Government Resource Control	3.783	1.1527	76
Inclusion of Digital System	3.558	1.4633	76
Reduction of Duties on Government Entities	3.402	1.3292	76

Findings as illustrated by Table 3 show that government resource control has the highest influence on public procurement practices since it has the highest mean value (i.e. 3.783) of all other variables. This entails that public procurement practices through regime change are strongly influenced by government resource control than other predicting variables in the set of data. Additionally, the standard deviation shows that variance between variables in the data results is close to each other with high minimal level. This implies that respondents' opinion and views regarding the study variables were close to each other.

Correlation Analysis and Multiple Regression

Correlation and multiple regression analyses were conducted as an inferential analysis to describe and illustrate the existing relationship between study variables. The inferential analysis is the testing of the whole and overall influence of independent variables on the dependent variable. In other words such a test shows how much the study hypotheses all together influence the dependent variable through model summary test as illustrated in Table 4.

Table 4: Model Summary Test

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	Change Statistics			Durbin-Watson
1	.769	.825	.820	51.926	.609	82.102	.000	1.688

Looking at the results in Table 4, it is noted that independent variables all together influence the dependent variable by 82.5%. This implies that government resource control, inclusion of digital system and reduction of duties on government entities all together have a very strong influence on procurement practices in Tanzania as a result of political regime change. This is to say that all study hypotheses were positive whereas the assumptions were well realized.

Then correlation analysis was conducted to identify which variables correlate best among predicting variables in the set of data as illustrated in Table 5.

Table 5: Correlation Analysis

		Public Procurement Practices	Government Resource Control	Inclusion of Digital System	Reduction of Duties on Government Entities
Person corr.	Public Procurement Practices	1	0.511	0.406	0.275
	Government Resource Control	0.511	1	0.015	0.061
	Inclusion of Digital System	0.406	0.012	1	0.111
	Reduction of Duties on Government Entities	0.275	0.109	0.111	1
Sig. (1-tailed)	Public Procurement Practices	1	0	0	0
	Government Resource Control	0	1	0.017	0.09
	Inclusion of Digital System	0.592	0.002	1	0.014
	Reduction of Duties on Government Entities	0	0.09	0.111	1
N	Public Procurement Practices	76	76	76	76
	Government Resource Control	76	76	76	76
	Inclusion of Digital System	76	76	76	76
	Reduction of Duties on Government Entities	76	76	76	76

****p<0.001, ***p<0.05, *p<0.1

Results in Table 5 indicate that the highest correlation is between public procurement practices and government resource control followed by inclusion of digital system. The implication of this result

is that public procurement practices are strongly influenced by government resource control as the predicting variable than other variables in the data set. Despite the fact that the correlation is significant and positive, yet still the coefficient is small which means there is no multicollinearity. This is a concern as a setback which was to be addressed by multiple regression analysis.

Multiple regression analysis was later conducted to ascertain the influence of each independent variable on the dependent variable, and to correct the multicollinearity error (*see*, Table 6).

Table 6: Multiple Regression Analysis

Model	Unstandardized coefficients		Standardized Coefficients	T	Sig.
	B	Std. error	Beta		
(constant)	-11.635	4.273		-1.142	.273
Government Resource Control	3.735	.625	.603	13.362	.000
Inclusion of Digital System	3.362	.312	.530	12.736	.000
Reduction of Duties on Government Entities	3.025	.201	.512	12.463	.000

Table 6 presents results on multiple regression analysis which shows the contribution of all independent variables in explaining the dependent variable. It is clear from the results that all three independent variables i.e. government resource control, inclusion of digital system and reduction of duties on government entities are all positive and statistically significant in influencing the public procurement practices. This implies that public procurement practices are strongly influenced by government resource control, inclusion of digital system and reduction of duties on government entities.

In that note, the study variables are well described and illustrated using multiple regression model which is stated as follows:

$$PPP = \beta_0 + \beta_1GRC + \beta_2IDS + \beta_3RDGE + e$$

Where by

PPP = Public Procurement Practices

β_0 = Constant factor

β_1GRC = Government Resource Control

β_2IDS = Inclusion of Digital System

β_3RDGE = Reduction of Duties on Government Entities

e = Random variable

Discussion

It is clear from the study’s results that the government resource control has strongest influence on public procurement practices. This finding corresponds with Kaikuye (2017) who stated that the regime change particularly the current one has issued several changes in the practices of procurement. Financial resources, for example, are all controlled and handled by the central government through the Exchequer control system whereas all procurement are thoroughly scrutinized annually with comprehensive assessment to assure that resources are not misused as it was before. Besides, Muga (2016) observed that the current regime in Tanzania has issued number of reforms especially on the

use and utilization of resources. All government entities are supposed to request for funds from the central government in all undertakings including procurement issues. This entails changes since in the past regime most entities had autonomy on procuring most of their requirements. With the current government any activity with fiscal implications is well monitored and controlled by the government specifically on financial resources.

In addition, the study indicated that inclusion of digital system has equally strong influence on public procurement practices. This observation agrees with Kimbwereza (2016) who noted that in Tanzania, specifically on public procurement practices, great transformation has been put in place especially the move towards e-procurement system as an initiative by the government. Currently, Epicor 10.0 system is being installed countrywide in all public entities at all levels to govern and monitor all procurement practices for smooth undertaking without malpractices. Also, URT (2016) specified that the current government has indeed instituted several major reforms and changes in public sector and organizations which aim to assure accuracy and clean practices in the government. Among many reforms, transformation towards e-procurement was foremost because manual procurement was an area that was characterized with massive corruption and all forms of malpractices. The reforms are essential to assure the total transformation in the government practices for that matter.

Moreover, the study showed that reduction of duties on government entities also has strong influence on public procurement practices. According to Kaikuye (2017), as the current government's reforms have reduced autonomy and duties in several government entities including, particularly in procurement activities. This is evident with payments that all government finances are owned and supervised by the central government whereas none of the entity is free to purchase and request for supplies on its own mandate, in both central and local government. This reduction of duties was necessary to enable easy control and monitoring of government entities towards value for money and performance.

Conclusion

Political regime change in Tanzania has implication on public procurement practice since it has been facilitating the government resource control, inclusion of digital system and reduction of duties on government entities positively to assure performance in the practice. Previous studies have shown massive weaknesses and shortcomings in the public procurement practices in Tanzania environment. Deus (2016) for instance showed how procurement ethics and code of conduct were far from practiced in public procurement in local government entities. Samson (2013) indicated the effects which have been culminated in public procurement practices as a result of limited and less compliance to procurement ethics. This study for that matter has greatly contributed to the dissemination of knowledge in line with the positive outcomes that have emanated to bring about changes in the public procurement system and practice in Tanzania which have transformed from the worst conditions to the betterments including assurance of government control on all of its financial resources, inclusion of e-procurement and the reduction of duties on government entities which has been fostering performance in the organizations.

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Conceptual Paper on Work Environment and Job Satisfaction: The Moderating Role of Perceived Organisation Support

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Abstract

The aim of this paper is to propose a conceptual model that explains the influence of work environment on teachers' job satisfaction and the moderating role of perceived organisation support on their relationship in public secondary schools in Tanzania. Despite the large number of studies on work environment, none has specifically addressed an integrated relational model of work environment, perceived organisation support, and job satisfaction among teachers in government secondary schools. Regardless of the number of empirical studies on work environment and teachers' job satisfaction; in developed and developing countries still faces major challenges including non-commitment, high absenteeism rates and many leaving their teaching profession to other jobs. Therefore, this conceptual paper sought to connect concepts of work environment and teachers' job satisfaction. Specifically, the paper explains concepts of work environment in connections of workplace facilities, professional development, recognition and the moderating role of perceived organization support on teachers' job satisfaction. The study was conducted through review of literatures of scholarly articles from Google Scholar. The review revealed that there are still inconclusive on the influences of work environment and teachers' job satisfaction. Thus, this study contributes to the literature by providing such a conceptual model that can be used to study the influence of work environment and teachers' job satisfaction.

Keywords: *Work environment, job satisfaction, perceived organization support.*

Introduction

Worldwide, Work environment and job satisfaction has been linked to many unfavourable outcomes that can be costly to organizations (Taiwo, 2010). Work environment and job satisfaction are essential for a successful secondary education system in enhancing teachers' efficiency, commitment, minimizing intention to leave and absenteeism (Shah, 2012). Organizations which are able to offer their employees a safe, pleasant, and supportive work environment, are better placed to satisfy them because they perceive organizational support positively (Asia, 2013). Despite the suitable work environment as a pre-requisite for improving efficiency and quality of output, teachers' job satisfaction remains a global challenge, and many countries are struggling with the issue (Naharuddin, 2013; Gitonga, 2015; Raziq & Maulabakhsh, 2015).

In developed countries, this concern has turned into on-going national debates as in Sweden statistics predicts that in ten years' time the greatest shortage of teachers will be in secondary education reaching a staggering number of 65,000 educators (Statistics Sweden, 2012; SNAHE, 2012). According to the Swedish Teachers Union's compilation of statistics from the Swedish Public Employment Service, vacancies in secondary school teachers in 2016 was 29% more than the year before, and around 40,000 teachers have abandoned the profession to work in other sectors (Dorozynska, 2017).

In the USA for instance, Ingersoll (2013) identified that every year about 15.7% of teachers leave the profession to another profession, while 40% of those teachers sponsored to further their studies are not willing to return back to teaching again. Out of the 3,252 teachers hired by the district of New York in

2010-2011, about 7.8% left teaching within the first year, while 16.3% left within the first two years (Mcadoo, 2013).

In England, the 2013 Teaching and Learning International Survey (TALIS) revealed that teachers who preferred to move to another school if possible was 8.2% which was higher than other comparable TALIS nations, 6.4% which were Australia, Alberta (Canada), New Zealand and the USA (Sam, 2017).

In developing countries, a survey conducted by the World Bank revealed that absenteeism rates ranging from 11% in Peru, 21% in Indonesia, 27% in Uganda, and 30% in Kenya (World Bank, 2010). In Ghana, about 33,185 teachers abandoned their teaching position to seek for other jobs (Ghana Business News, 2013). In Nigeria about 10% -15% of teachers are leaving their profession to other jobs within the first five years of engagement (Ekundayo, 2010). Tanzania is no exception either; since there have been frequent teachers' absenteeism, non-commitment to their jobs, and many quitting their profession to join other sectors (URT, 2014; HakiElimu, 2011), a clear indication of teachers' job dissatisfaction.

There is a growing body of literature that suggests that work environment can affect organizational and employee outcomes, such as satisfaction (Itunuoluwa & Clara, 2017). Job satisfaction has received considerable attention by researchers, in as much researchers have committed to research on employees' job satisfaction in many sectors (Muhammad, 2015). Empirical findings in education sector in particular teachers of government secondary schools indicates that, quite a number are still dissatisfied on their job. This is evident in the rate of frequent teachers' absenteeism, non-commitment to their jobs, and many quitting their profession to join other sectors (TAHOSA, 2012; Lyimo, 2014; URT, 2014; Msuya, 2016; Boniface, 2016). Perhaps this could be attributed to the inadequate studies on factors that can hinder teachers' job satisfaction in government secondary schools.

The purpose of this research is to provide an extensive review of the academic literature regarding the influence of work environment on teachers' job satisfaction and the moderating role of perceived organizational support in government secondary schools of Tanzania. This research is important because it can help leaders make better decisions about the work environment, the people who will use it, and the success of their organizations.

Literature review

Work environment, can be defined as a work location that takes a comprehensive approach which provide physical settings around a person, the social, cultural, economic, psychological, and professional atmosphere in which a person is supposed to interact with other individuals (Pravamayee, 2014). Also is defined as a work conditions that gives the satisfaction of workers, and which determine or enhances the efficiency, effectiveness, retention and commitment of employees of business organizations (Taiwo, 2010). Based on the above definitions of work environment, this study will use physical workplace facilities, recognition practices, and professional development as independent variables.

Workplace facilities are the internal and external office arrangement, temperature, ventilation, and the office work situation such as furniture, tools, communication, safety, and procedures (Hajjar et al., 2010). In this study, workplace facilities means teaching environment which include all facilities within the school surroundings including the physical location, infrastructure such as offices, furniture, tools, and houses.

Professional development is a process of creating a permanent change in an individual that improves the ability to perform job-related knowledge, complete current tasks, and give technical knowledge and skills needed on job (Niazi, 2011).It is a process of upgrading employees' skills and attitudes at all levels to maximize enterprise effectiveness (Koigi&Waiganjo, 2014). In this study, professional development means imparting knowledge to teachers that gives problem solving skills, creativity,

transmission of new ideas into teaching, as well as opportunity or problem findings on how teachers should be developed in their teaching profession, for satisfaction, commitment and adherence to their teaching profession.

Recognition practices is a process of timely formal or informal acknowledgement of an employee within an organization for well-doing; a person may receive mention or reward (Chepkwony,2014). It encourages and supports behaviour that contributes to the organization's goals, values and increase productivity as well as employee satisfaction (Danish, 2010). Recognition practices, monetary and non-monetary tend build and maintain an excellent business environment which is very important in retention of employees, and leading to job satisfaction (Nath, 2012). In this study, a recognition practice is anything of value whether in monetary or non-monetary; that a teacher receives from employer as an exchange for surpassing performance expectations.

Job satisfaction refers to the attitude and feelings people have about their work, and the extent to which job satisfied the needs and expectations of the employees. Positive and favourable attitudes towards the job indicate job satisfaction while negative and unfavourable attitudes towards the job indicate job dissatisfaction (Aziri, 2011). Job satisfaction described as any combination of psychological, physiological and environmental circumstances that cause a person truthfully to say I am satisfied with my job, since there is no conventional definition of the concept of job satisfaction although many scholars have studied it for a long time (Paper, 2016). In this study, job Satisfaction will refer to good feelings about teaching as a job that increases the morale of teachers and maintain their need to stay in the profession, their commitment to the job and their pride of being teachers.

Perceived organizational support (POS) refers as employees' perception or judgment of how much the organization values their contribution and cares about them, and they see their employment as a reciprocal exchange relationship (Hur, Han, Yoo, & Moon, 2015). Also it refers to the concept that how much the organization gives importance, and show concern about the well-being of employees (Neves, Eisenberger, & Neves, 2014). This study defines perceived organization support as; the support in terms of funds that buy facilities given to secondary school teachers by the education department office which is under the Municipal/District Executive Director in local government. The support will determine the degree of satisfaction of teachers in their job.

Herzberg's theory was developed by Frederick Herzberg in 1959. The theory explains the two sets of factors, which are intrinsic (motivators) and extrinsic (hygiene). The intrinsic factors include achievement, recognition, work tasks, responsibility, and advancement. These factors as identified by Herzberg leads to employee's job satisfaction. The extrinsic factors include organizational administration, supervision, working conditions, interpersonal relationships, salary, and status. These prevent dissatisfaction but cannot engender job satisfaction.

Herzberg's theory relates to the current study, since it assumes that the presence of motivator factors will boost employees' need of personal development and the need of feeling pleasant and contented which lead to job satisfaction. Therefore, in this study secondary school teachers need to be provided with professional development opportunities to fulfil the needs of personal development which leads to job satisfaction. Also teachers need to be provided with good workplace facilities to make them feel pleasant and comfortable. Moreover, teachers need to be given fair recognition practices which make them feel that are being valued by organization, and therefore, become satisfied with their job.

Organisational support theory was found by Eisenberger et al., (1986). It explains that employees develop a general perception concerning the extent to which the organization values their contributions and cares about their well-being. Perceived Organizational Support (POS) initiates a social exchange process where employees feel obligated to help the organization achieve its goals and objectives, and expect that increased efforts on the organization will lead to greater rewards (Eisenberger & Stinglhamber, 2011). This theory concurs with this study, since teachers would reciprocate such notion by working hard, being loyal, being committed and retained in the organization to help achieve its

goal while expecting value and care from the organization. Once POS is in place, it will increase job satisfaction, retention, and reduce or eliminate absenteeism.

Muhammad and Ahmed (2015) conducted a study on the impact of work environment on teachers' job satisfaction in private business universities in Pakistan. The purpose of the study was to check the relationship between work environment and teachers' job satisfaction in private business universities of Karachi. Generally, the study argued that there is significant correlation between work environment variables and teachers job satisfaction. The independent variables used were freedom of teachers, involvement of teachers, management policies, co-workers' relationships an employer – employee relationships, and teachers' job satisfaction used as a dependent variable.

Tio (2014) conducted a study on the impact of work environment towards employee job satisfaction: A case study in Gas industry in Indonesia. The purpose of the study was to examine and analyse the influence of the work environment condition on employee job satisfaction, and to provide insight into how to increase employee job satisfaction through the work environment. The result of the research showed that simultaneously work environment factors is significant towards the employee job satisfaction, however organizational environment does not have significant influence towards employee job satisfaction.

The independent variables of work environment used are human work environment (superior support, clarity information from superior, clear feedback from the superior, tolerance from superior, support of colleagues, teamwork) and organizational environment (organization culture, structure, administration and procedure). The study results revealed insignificance on organization environment.

Suleman and Hussain (2018) conducted a study on Job Satisfaction among Secondary-School-heads. The purpose of the study was to examine and compare the job satisfaction of male and female secondary-school heads working in public schools of Khyber Pakhtunkhwa-Pakistan. The results revealed that there was no significance difference between the job satisfaction of male and female secondary-school heads with respect to overall intrinsic as well as extrinsic factors. It also revealed that secondary-school heads were not satisfied with work environment, ability utilization, advancement, compensation, and supervision.

Nyamubi (2017) conducted a study on determinants of secondary school teachers' job satisfaction in Tanzania. It was conducted in eight secondary schools in two regions of Tanzania (Kilimanjaro and Lindi). The purpose of the study was to determine the factors of secondary school teachers' job satisfaction. This was a qualitative study and data was collected using focus group discussions. The study shows that job satisfaction among secondary school teachers in Tanzania is determined by their positive relationships with co-workers, students, parents, and respect of teachers' contribution to the society.

Raziq et al., (2015) conducted a study on Impact of Working Environment on Job Satisfaction. The objective of this study was to analyse the impact of working environment on employee job satisfaction. The study employed a quantitative methodology. Data was collected through a self-administered survey questionnaire. The questionnaire was adopted from a previous validated survey. The target population were educational institutes, banking sector and telecommunication industry operating in the city of Quetta, Pakistan. Simple random sampling is used for collection of data from 210 employees. The results indicate a positive relationship between working environment and employee job satisfaction.

Taiwo (2010) conducted a study on the influence of work environment on workers productivity : A case of selected oil and gas industry in Nigeria. The objective of the study was to analyse the impact of work environment on future worker's productivity. Primary data were used for this study that was generated through structured questionnaires with close ended questions. T-test was used to test the research hypotheses. The respondents were randomly chosen from four selected oil and gas industry in Lagos metropolis. The results of T-test indicate that employee productivity problems are within the work environment. Conducive work environment stimulates creativity of workers. Improvement in

work environment and bad working conditions contribute to low productivity of employees.

Gitonga (2015) conducted a study on the influence of work environment on organizational performance in government Ministries in Kenya. The objective of the study was to establish the influence of work environment on organizational performance in government ministries in Kenya. The target population was drawn from 6 government ministries based on the performance contracting reports of 2012. The total population was 7913 and the sample size was 367. Stratified random sampling technique was employed in selecting the sample. The study adopted descriptive research design and primary data was collected using a questionnaire in the selected government ministries. The study employed quantitative analysis techniques and the findings shows that the variables were significantly and positively influenced organizational performance in government ministries in Kenya.

Salunke (2015) conducted a study on Work environment and its effect on job satisfaction in cooperative sugar factories in Maharashtra, India. The purpose of the study was to investigate the relationship between work environment and job satisfaction of employee's in cooperative sugar factories. Review of literature provided a strong evidence of the relationship between the study variables. Analysis and interpretation of the data have empirically demonstrated that workload, stress, overtime, fatigue, boredom are some factors to increase job dissatisfaction. On the other hand good working condition, refreshment & recreation facility, health & safety facility, fun at workplace increase the degree of job satisfaction.

Zainie et al., (2015) conducted a study on the relationship between workplace environment and job performance in selected government offices in Shah Alam, Selangor. The purpose of this study was to examine the relationship between workplace environments and civil servants' job performance in Shah Alam, Selangor. Questionnaires were distributed with 100percent rate of return. The data gathered was analysed using Statistical Package for Social Science (SPSS) through descriptive statistic and Pearson Product Moment Correlation test. The findings found that two major elements in the workplace; workplace environment and job performance have a weak association. The finding of this study is very critical since it can help the employers in improving the worker satisfaction especially through adjusting the workplace environments in which as a result will increase the level of their job performance.

Moreover, Raziq et al., (2015) conducted a study on the impact of working environment on Job Satisfaction. The study revealed that workplace facilities have a great influence on employee's job satisfaction, attitudes, behaviours, and works performance because it keeps an employee satisfied in today's business world due to favourable workplace facilities. Several studies indicate that if workplace is not conducive due to factors such as poorly designed workstations, unsuitable office furniture, infrastructures, lack of ventilation, lighting, tools, and insufficient safety measures, etc; it increases job dissatisfaction. On the other hand a good workplace increases the degree of job satisfaction (Bangwal, Tiwari, & Chamola, 2017; Waqas, 2014; Zainie, Hamid, & Hassan, 2015).

Some previous studies indicate that professional development opportunities within every organization occurs at all levels of personnel, and may vary due to training needs so as to achieve high level of employee satisfaction, commitment, productivity and low level of turnover and absenteeism (Anwar & Shukur, 2015; Campus, 2013). Results show that there is a strong correlation between professional development opportunities and job satisfaction (Adesola et al., 2013; Chaudhary, 2016). However some scholars revealed that professional development opportunities were found to be the reasons influencing intention to quit since when employees are developed they become more marketable to join other organization (Latif et al., 2013; Vinesh, 2014).

Anwar & Shukur (2015) conducted a study on the impact of training and development on job satisfaction. The purpose of this study was to find out the impact of training and development on job satisfaction in private banks in Erbil. The researcher set two separate research hypothesis, the first research hypothesis which states that the training will have positive impact on job satisfaction

in private banks in Erbil and the second research hypothesis which states that the development will have positive impact on job satisfaction in private banks in Erbil. According to multiple regression analysis, the researcher found out that there is a positive relationship on training and development on job satisfaction.

Empirical studies on recognition practices revealed that, employees' perception of recognition practices is vital as it has psychological influence on their job satisfaction towards the organizational goals; if well utilized in the organization it boosts job satisfaction of employees, and increases commitment, retention, punctuality, lower absenteeism and turnover (Chepkwony, 2014; Shonubi et al., 2016). Also the acknowledgment of employee's contribution to the organization in the eyes of public; is a very important connection of organizational success as the result of employee job satisfaction (Waqas et al., 2014). Amarasena et al. (2015) emphasized that there is significant relationship between recognition practices and job satisfaction as study conducted on academic faculty members of state universities in Sri Lanka. However, other scholars hold different views that recognition has no significant relationship with teachers' job satisfaction (Alam et al., 2013; Danish, 2010).

Perceived organisational support on work environment and teachers' job satisfaction is very essential towards reducing turnover, increasing retention, commitment, punctuality, loyalty, and reducing absenteeism in an organisation (Krishnan & Mary, 2012). Some studies indicate that perceived organizational support has a strong and positive effect on job satisfaction (Francis & Schaffer, 2014). Other scholars have revealed that it has negative effect on intention to leave, and job satisfaction (Zumrah & Boyle, 2015).

Methodology

Several databases were searched using the keywords: work environment which includes workplace facilities, professional development and recognition practices. Job satisfaction and perceived organisational support were also searched. The databases utilized included Business Source Complete, Elsevier, JSTOR, and Pro Quest. The results were narrowed to academic journals and articles were further filtered by reading the abstracts and selecting only those papers that linked the work environment with employee job satisfaction of the different types of work environments, only work place facilities, professional development and recognition practices were selected. The remaining articles were read and further sorted by types of academic articles: conceptual, explanation, or empirical.

Analysis and interpretation

From literature databases, a total of 50 studies were included in this review. 38 of these were articles, 3 were book chapters, 8 were reports, and 1 dissertation. In short, 34 of the studies were excluded because they did not report on employees' job satisfaction and specifically on teachers' job satisfaction. Also 12 were excluded because they did not present a framework describing the construct. 4 studies remained because they were reporting on employees' job satisfaction in general and specifically on teachers' job satisfaction as follows:

Muhammad and Ahmed (2015) conducted a study but did not consider recognition practices, professional development as factors of work environment that may influence teachers' job satisfaction. Also the study did not consider the moderating role of perceived organisation support which is the gap for this study. This moderation variable might strengthen or weaken the relationship between working environment and job satisfaction. Furthermore, the study was conducted in private Universities of Pakistan not in public secondary schools whereby the work environment, systems and procedures are different. Therefore, the results cannot be generalized into other education institutions. Also the researcher suggested that variables and sample size should be increased in the future research to get the better results. In addition, the context in which the study was conducted is different from this study context.

Tio (2014) conducted a study but also did not consider the moderating role of perceived organisational support which is the gap for this study. This moderation variable might strengthen or weaken the relationship between working environment and job satisfaction. Moreover, the study was conducted in gas industry in Indonesia not in public secondary schools whereby the work environment, systems and procedures are different. Therefore, the results cannot be generalized into other public service institutions. Also the researcher suggested in the future research to differentiate sets of work environment variable for different types of work environment. For example, the sets of parameters needed to measure work environment for office workers is different with the sets of parameters needed to measure work environment for factory workers.

Also future research should adjust composition of work environment variable according to the business. Because different line of jobs or business might have different composition of work environment variable significance towards employee job satisfaction. Therefore, this study has accommodated the suggestions given above. In addition, the context at which the study was conducted is different from this study context.

Suleman and Hussain (2018) conducted a study but left out the recognition practices variable which is accommodated in this study. Since the study was limited to heads of schools only who have other fringe benefits and allowances than general teachers, further investigation is required as the results cannot be generalized to general teachers. Moreover, the study did not consider the moderating role of perceived organisation support which might strengthen or weaken the relationship.

Nyamubi (2017) conducted a study but it was limited in scope; it only looked on few factors without integrating working environment such as recognition practices, work place facilities and professional development which may influence teachers' job satisfaction in secondary schools. Yet again, it was a qualitative study which may need further quantitative research method to give a better insight on the subject matter. The present study focuses on quantitative methodology. In addition, the study did not consider the moderating role of perceived organisational support which is the gap of this study. This moderation variable may strengthen or weaken the relationship between working environment and job satisfaction.

Table 1: Summary of relevant empirical studies relating to the study

Study by:	Title	Purpose	Variable	Gap
Muhammad & Ahmed (2015)	The impact of work environment on job satisfaction in private business universities in Pakistan	To check the relationship between of work environment in private business universities of Karachi	Freedom of teachers, involvement of teachers, co-workers' r/ ships, employer – employee r/ hips(Ind.V) & JS (Dv)	Variables: workplace facilities, professional development opportunities and recognition practice as factors of work environment that may influence job satisfaction.

<p>Tio, (2014)</p>	<p>The impact of work environment towards employee job satisfaction: A case study in Gas industry in Indonesia.</p>	<p>To examine & analyse the influence of the work environment condition on employee job satisfaction</p>	<p>The human work environment & organizational environment (Independent Variable) and job satisfaction (Dependent variable)</p>	<p>Variables: Workplace facilities, Professional development, Recognition practices were not accommodated in this study.</p> <p>The study did not consider the moderating role of perceived organisational support.</p>
<p>Suleman & Hussain (2018)</p>	<p>Job satisfaction among Secondary-School-heads working in public schools of Khyber Pakhtunkhwa-Pakistan</p>	<p>To examine and compare the JS of male and female secondary-school heads</p>	<p>Ability utilization, compensation, and supervision</p>	<p>Variables: Workplace facilities, Professional development, Recognition practices were not accommodated in this study.</p> <p>The study did not consider the moderating role of perceived organisational support.</p> <p>Limited to heads of schools different from general teacher</p>
<p>Nyamubi (2017)</p>	<p>Determinants of Secondary. School Teachers' job satisfaction in Tanzania</p>	<p>To determine the factors of job satisfaction</p>	<p>Relationship with co-workers, students and parents</p>	<p>Limited in scope; few factors without integrating Workplace facilities, Professional development, Recognition practices.</p> <p>The study did not consider the moderating role of perceived organisational support.</p> <p>The study is qualitative in nature.</p>

Moreover, the review of literature in several studies indicates that if workplace is not conducive due to factors such as poorly designed workstations, unsuitable office furniture, infrastructures, lack of ventilation, lighting, tools, and insufficient safety measures, etc; it increases job dissatisfaction. On the other hand a good workplace increases the degree of job satisfaction (Bangwal, Tiwari, & Chamola, 2017; Waqas, 2014; Zainie, Hamid, & Hassan, 2015). According to Herzberg's Two Factor Theory and on the basis of previous research, the study assumes that:

H₁: There is a relationship between workplace facilities and teachers’ level of job satisfaction.

Professional development opportunities, the review literature signifies the positive and negative relationship on employee’s job satisfaction. Results show that there is a strong correlation between professional development opportunities and job satisfaction (Adesola et al., 2013; Chaudhary, 2016).; but according to Herzberg’s Two Factor Theory this study assumes that:

H₂: There is a relationship between professional development opportunities and teachers’ level of job satisfaction.

Moreover, from reviewed literature Amarasena et al., (2015) emphasized that there is significant relationship between recognition practices and job satisfaction as study conducted on academic faculty members of state universities in Sri Lanka. However, other scholars hold different views that recognition has no significant relationship with teachers’ job satisfaction (Alam et al., 2013; Danish, 2010). Therefore, according to Herzberg’s Two Factor Theory this study will have the assumption that:

H₃: There is relationship between recognition practices and teachers’ level of job satisfaction.

Reviewed literature on perceived organisational support indicate that, perceived organizational support has a strong and positive effect on job satisfaction (Francis & Schaffer, 2014). Other scholars have revealed that it has negative effect on intention to leave, and job satisfaction (Zumrah & Boyle, 2015). However, those studies in work environment on teachers’ job satisfaction did not consider the role of moderating variable such as perceived organisational support. Therefore, according to Organizational Support Theory, the following hypotheses have been developed:

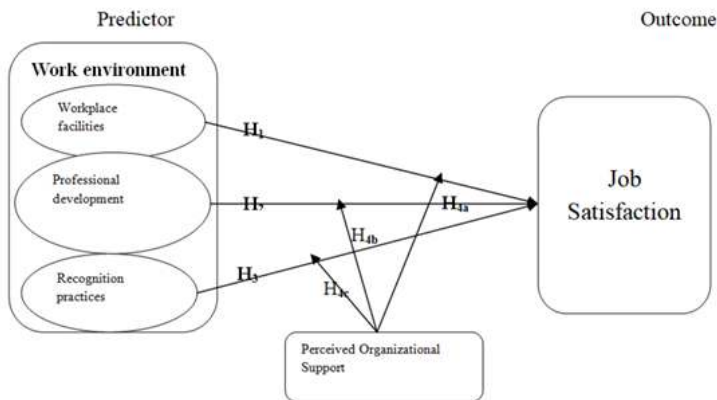
H_{4a}: Perceived Organizational Support as a moderating role strengthens the relationship between workplace facilities and teachers’ job satisfaction.

H_{4b}: Perceived Organizational Support as a moderating role strengthens the relationship between professional development opportunities and teachers’ job satisfaction.

H_{4c}: Perceived Organizational Support as a moderating role strengthens the relationship between recognition practices and teachers’ job satisfaction.

Based on the literature review, the study proposes the research model shown in Figure 1, which conceptualizes the relationship between work environment and job satisfaction, moderated by the perceived organisational support and could be employed in future empirical research. The independent variable in this research is the work environment and the dependent variable is the Job satisfaction. They are moderated by the role of perceived organisation support. Work environment includes workplace facilities, professional development opportunities, and recognition practices.

Fig 1: Conceptual Framework and Hypothesis Development



Source: Compiled from Theoretical and Empirical Literature Review

Conclusion and Suggestions for additional Research

The study attempts to contribute new knowledge to the existing literature on work environment and job satisfaction in Tanzania government secondary schools. It was hypothesized that work environment will have a direct significant impact on job satisfaction and that the perceived organisational support will moderate the relationship between them. The management can take steps to improve the working environment and perceived organisational support, to enhance employees' job satisfaction. It is strongly recommended that empirical research be carried out to establish the authenticity of these relationships, not only to enrich the existing literature and theory, but also to assist practitioners and human resource managers in government secondary schools, justifying their efforts in designing appropriate work environment and perceived organisation support and leading to employees' job satisfaction.

This review of the academic literature has shown that work environment can have a positive or negative effect on organizational success and the people who work there. According to the studies described above, work environment can influence employee outcomes such as satisfaction. The significance of this research is that it brings together, in one place, the vast amount of current academic literature on this subject and provides a great starting point for future research. This study is also beneficial for managers and leaders of organizations in that it can help them better understand the importance of work environment, and make more informed decisions regarding work environment and job satisfaction.

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Migrant Entrepreneur's Critical Success Factors in The South African Township Retailing Environments

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Abstract

South Africa is arguably the strongest economy on the African continent but certainly the most developed. It is no surprise that in view of the opportunities available in South Africa, the country has attracted foreign nationals to do business. Some nationals, Somali's and Ethiopians in particular, have had it hard when trading in the South African townships. They have been brutally beaten up and at times have their stores burnt down. It is intriguing why these foreign nationals strive with their stores when those of South Africans struggle or close down. To understand the critical success factors of migrant small business retailers in the townships. This paper is based on a study conducted in Cape Town's township to identify the critical success factors (financial management and control) of foreign national small business retailers. The data was collected from 75 participants (food and dry goods grocery small business entrepreneurs). A quantitative research methodology using a structured questionnaire as the research instrument was used. The methodology used on this study is a quantitative research methodology using a structured questionnaire as research instruments. Data was analysed using SPSS software. The study revealed that the majority of foreign national traders have business networks that assist them to fund their start-up capital requirements in their small business retailing endeavours. Migrant entrepreneur's critical success factors in small business retailing can be shared with South African locals in small business retailing so that they improve their own competitiveness alongside migrant entrepreneurs. In the township retailing environments the migrant entrepreneurs have succeeded where some former local small business retailers failed and that is caused by their critical success factors such as business networks and entrepreneurial culture.

Keywords: *small business retailers, foreign national traders, small business success factors, small business entrepreneurs, migrant entrepreneurs.*

Introduction

Charman, Peterson & Piper (2012:66) states that "in financial terms, the majority of foreign Spaza's equate to small size enterprises rather than micro-enterprises, as the scale of their operation and turnover is significantly greater than that of the average South African spaza". Furthermore, according to Charman (2012: 49) et al. "South African shops typically run on more individual and "survivalist" lines".

Hikam and Tengeh (2016) noted that Somali traders are successful in small business retailing because customers are central to their strategy. The authors also noted that the Somali traders extend credit to their customer on regular basis and they also ensure that stock is available and up to date to date to prevent the customers from going to rivals. The authors further noted that Somali traders offer better discounts for their customers and in some cases they offer free delivering customers who buy in large quantities. Hikam and Tengeh (2016) observed that key to the strategy of Somali traders is that they are able serve sweets, chips and other items to children to win their loyalty and that of their parents. The authors further observed that these traders have an ability to forge and maintain pleasurable relationships with the customers.

According to the 2004 department of Trade & Industry (DTI) SME annual policy review "a strong correlation has been shown to exist between being poor and working in informal retailing. Moreover, the high level of women's involvement in informal retailing highlights the policy significance of the sector".

The aim of this paper seeks to understand the critical success factors of the small business migrant

retailers in the township retailing environments. The paper will also look at what can the South African traders can learn from migrant traders in the retail sector in order to improve their own trading capabilities.

Literature review

Small Business Entrepreneurship

The GEM report for South Africa (2015/16: 5) noted that “South African early-stage entrepreneurs are considerably more innovative than their African counterparts”. However, South African entrepreneurs involved in early-stage entrepreneurial activities are far lower than the average for Africa (GEM report 2015/16). Williams (2007: 314) noted that “the complex ways in which these informal entrepreneurs explained their rationales for deciding to set up in business cannot be easily squeezed into one side or the other of this necessity/opportunity dichotomy”. Williams (2007) also argued that a more in-depth understanding of the diverse nature of informal entrepreneurship is required to transcend the dichotomy of looking at entrepreneurs as necessity or opportunity entrepreneurs when analysing them. For South African entrepreneurs to move from necessity to opportunistic stage of their entrepreneurial growth they need to be developed through training programmes (Preisendörfer, Bitz and Bezuidenhout, 2012). The authors further noted that such entrepreneurial programmes should not only be targeted those entrepreneurs in the start-up stages but also those who are trapped in the necessity stage for a long time. Entrepreneurs who are sole traders usually find themselves trapped in the daily activities of running a business with no time to attend training therefore upgrading their trading skills (Preisendörfer *et al.*, 2012). Strydom (2015: 466) noted that “The majority of these high turnover informal businesses were identified as being run by opportunity-driven entrepreneurs instead of necessity-driven entrepreneurs. Necessity entrepreneurs or unproductive entrepreneurs are people that are forced into entrepreneurship activities because of a lack of economic choices or who are using entrepreneurial activity as an instrument for survival or escaping from a situation of unemployment and poverty”.

The success of foreign national traders in townships environments is often attributed to their long working hours (therefore creating convenience for their customers) compared to their South African counterparts (Crush, Skinner and Chikanda, 2015). Foreign national retailers in small business retailing environment are known to be risk takers who rely on technology to interface with their suppliers and sometimes with their customers (Crush *et al.*, 2015). There is a need for entrepreneurial support for South African retailers which does not have to be financial in nature but tailored towards developing the informal retailers in the township retailing environments (Gwija, Erisia-Eke and Iwu, 2014).

Other than the youth another group that requires a targeted approach to entrepreneurial development in South Africa are the woman their contribution to output and value in entrepreneurship is substantial (Singh and Belwal, 2008). Singh and Belwal (2008: 124) further observed that “women entrepreneurship is not only necessary for their economic survival but also for strengthening the social system. Fostering women’s entrepreneurship development is therefore crucial for economic growth and development”. Shava and Smith (2014: 239) also said that “one of the aims and objectives of policymakers, especially in developing countries should specifically include the creating of a suitable environment for informal entrepreneurs regardless of where they operate from. Advantageous policies could assist informal entrepreneurs to take their entrepreneurial skills to higher levels as long as they realise that their efforts are making a difference to the community”. In South Africa entrepreneurship for women may mean emancipation from cultural constraints (Iwu and Nxopho, 2015).

However, South African small business retailers in township environments should really be concerned about the perceptions that they lack the skills set to manage small business retail stores and compete meaningfully with foreign national traders (Ntema and Marais, 2010).

Urban (2008:167) observe that “when interrogating the role of culture as an explanation of the economic success of the Asian Tigers countries, it was established that by economic criteria alone the

success of the Tigers could not be counted for, and that it took an East Asian instrument, the Chinese Value Survey (CVS), to find a true proof of the role of culture as an explanation for economic success". So the analysis found that culture contributed hugely in their economic success. Furthermore, Urban (2008:168) suggest that "entrepreneurship is a self-reinforcing process. Entrepreneurship leads to more entrepreneurship, and the degree of entrepreneurial activities is the outcome of a dynamic process in which social habits (entrepreneurial memory) are as important as legal and economic factors. Thus, entrepreneurs act as catalysts of economic activity, and the entrepreneurial history of a community is important". Urban (2008:169) states that "in terms of the cultural dimensions, a link between the individualism-collectivism dimension and national wealth of a country has been suggested, although the reverse causality, i.e. national wealth causing individualism, is more plausible and is statistically supported by research".

Strydom (2015: 466) noted that "informal businesses that keep track of business activities such as financial records, do budgeting, prepare cash flow statements and have procurement documentation have a higher proclivity for survival".

Small Business in South Africa

According to the World Bank Doing Business report (2016: 18) "globally, South Africa stands at 120 in the ranking of 189 economies on the ease of starting a business". This is despite having a regional average of 74.42 for the sub-Saharan Africa (Doing Business report, 2016). This shows how much work South Africa needs to do into order to improve its entrepreneurial culture when compared with other emerging economies. The Doing Business Report (2016: 19) "economies around the world have taken steps making it easier to start a business—streamlining procedures by setting up a one-stop shop, making procedures simpler or faster by introducing technology and reducing or eliminating minimum capital requirements". In the Global Entrepreneurship Monitor (GEM) survey South Africa does not feature among the sub-Saharan African countries with good early-stage entrepreneurial activities. The main reasons for South Africa not featuring is that its entrepreneurs lack sufficient capital for start-up and the poor business management skills while the country has no infrastructural systems to support early stage entrepreneurs (Iwu, Ezeuduj, Eresia-Eke and Tengeh, 2016). Therefore, business intervention model envisaged in this study should incorporate skilling of entrepreneurs and make provisions for structural support from the South African government.

A point is made by Urban (2008) that the collective level of commercial activity in any country is unclear and seriously inclined to cultural behaviours, for example there is a considerable variation among commercial rates of different groups, which may occur in spite of somewhat similar organisations and trying to study entrepreneurship without understanding the culture is an idle pursuit.

Gender Perspectives in Small Business Retailing

The issues of gender in the informal retailing sector are very important because women experience discrimination in this sector as they are viewed to be workers as opposed to being business owners (Crush, Skinner and Chikanda, 2015). Challenges of woman in the sector makes it difficult for them to thrive as entrepreneurs and build successful enterprises and one of those challenges being patriarchal domination (Crush *et al.*, 2015). Furthermore, Welsh and Esra, Memili, Kaciak and Ahmed (2013: 3) noted that "although industrialization and globalization have given female entrepreneurs' around the globe wider opportunities to start new businesses in a variety of fields, in Africa small businesses dominate because of the lower level of economic development".

In Africa, Senegal has the highest female entrepreneurship rate where at least 37% of woman (working age) have start-up businesses but compared to their male counterparts in that same economy women are 3% lower (GEM global monitor report, 2015/16). However, for countries to increase their pool of entrepreneurs Ligthelm (2013: 73) suggests that "small business support strategies, especially in developing countries with limited resources, should be focused on businesses with embedded

entrepreneurial acumen and hence the inherent dynamics to create and exploit new innovative economic opportunities”.

Porter (2015: 480) noted that “micro-entrepreneurship is an important engine of economic growth, but it is also an interesting and unique nexus of social practice. It represents the smallest unit of analysis where an individual, an idea, and the surrounding context meet and a unique new business is catalysed. Thus, it is a site of high creativity as well as a phase change from imagined to existent entity”. Small enterprises offer an entrepreneur a solid ground to learn to become creative through his or her own business idea and perhaps generate more new business from the original concept or expand the one small business (Porter, 2015).

Entrepreneurs in Africa should take comfort from the fact that even though Africa is coming from a modest economic base, the continent’s economy is rising in complexity of economic integration (Saville and White, 2015). This rise gives opportunity to entrepreneurs to source products from anywhere in the African continent through this economic integration which include the ease of payment methods within the continent (Saville and White, 2015). This is an opportunity for entrepreneurs in the small business retailing sector in South Africa to grow their business beyond South African borders.

South African government developed various small business development support systems which are not sector specific because of the very diverse nature of small business industry in South Africa (Woodward, Rolfe, Ligthelm and Guimaraes, 2011). These various sub-industries in the small business sector have huge potential to generate more employment and generate revenue for South African government but most of these small business sub-industries remain outside the formal economy (Woodward *et al.*, 2011).. Therefore, because they are unregulated, untaxed the South African government does not get any real benefit from them and vice versa these sub-industries do not get any real benefit from government support (Woodward, Rolfe, Ligthelm and Guimaraes, 2011).

Small Business Development Support

Small businesses may require a change of strategy through a new business model and sometimes need to be incubated more especially if there are investors involved. According to Masutha & Rogerson (2014: 226) businesses under incubation programmes require “the provision of a comprehensive and integrated business support service under one roof and focused mentorship programmes aimed at supporting new start-ups get off the ground”. Businesses under incubation require at times a conducive business environment at subsidised cost with a clear objective of making the business self-sustainable in the long run (Masutha & Rogerson, 2014). In South Africa the national government support for small enterprise development is an essential component of policy efforts seeking to restructure the economy for the benefit of the majority of citizens and move away from exclusionist policies of apartheid South Africa which benefited the minority of citizens (Masutha & Rogerson, 2014). For South African national government to implement the economic restructuring policies for empowerment and poverty alleviation, it might have to think about incubation programmes for small business industries that are under threat in order to save them such as the small business retailing, poultry industry and clothing industry in South Africa (Masutha & Rogerson, 2014).

Among other things the incubators should offer is the business support in form of accounting (monthly bookkeeping) & legal support, access to finance (which might be managed by the incubator), strategic marketing, management skills, networking opportunities, provision of training workshops and business registration (Masutha & Rogerson, 2014). At the end of the incubation programme entrepreneurs and businesses must be financially & legally compliant, have an astute financial intelligence skills, have a reinvigorated entrepreneurial spirit (for South Africa to develop entrepreneurial culture), have an impeccable work ethic and networking skills (Masutha & Rogerson, 2014).

Research methods and analysis

The aim of the study, identified as a gap in the literature is to understand the critical success factors of migrant entrepreneurs in the small business retailing sector. As a result two research questions were developed:

- What is the migrant small business retailers critical success factors in small business retailing?
- How does the migrant traders success factors assist them to succeed in small business retailing?

Location of the study: The two specific townships in Cape Town, Delft and Eindhoven were selected as the setting for this study. The two townships were chosen for this study since there was available data on the quantity of the traders operating in those two townships.

The population of this study: The population of this study comprised of all the migrant and local small business retailers trading in Delft and Eindhoven.

The sample of the study: The sample of the study comprised of 75 migrant small business retailers and a sample was obtained using simple random sampling technique. This sample size was targeted based on suggestions Sekeran and Bougi (2003).

Research Instrument: The research instrument used to collect the quantitative data was a closed-end questionnaire.

Data analysis

Data analysis begins with data relevancy, the variables and data must be problem specific. A researcher cannot draw useful conclusion from variables and data that are not relevant to the research objectives (Wegner 2007). In this study quantitative data was collected and analysed using SPSS. Descriptive statistical analysis was used to present the results of the study. Descriptive statistics assist in the summary and interpretation of data in order to reach the findings (de Vos et al., 2015:251). The findings are of value to researchers only if the information can be interpreted and used effectively (Wenger, 2007).

Validity and Reliability

Validity and reliability strategies for the quantitative research components include: applied sampling processes, reports on the number of respondents and non-respondents, descriptive analysis of all data, and reports on statistical significance testing (Creswell, 2014). For this study a sampling frame has been carefully chosen and representative sample selected to make sure that the study is valid, reliable and generalisable. According to de Vos et al. (2015:234) “Generalising the results of a study based on working with such a sample means that any other portion of the same population would yield the same observations”.

Ethical Considerations

The researcher adhered to all the codes of ethics stipulated by the University of KwaZulu-Natal (UKZN). Among other things the code of ethics covers matters relating to confidentiality, anonymity, and the ability of the respondents to withdraw at any time during the study without any negative implications. The researcher issued consent forms to each and every respondent.

Findings and results

The township retailing environments form part of South Africa’s informal economy and the Migrant entrepreneurs have eroded this market that was previously exclusive to South Africans. The study focused on the critical success factors of Migrant retailers in township retailing environments and how these factors can be replicated by South African local retailers in order to become more competitive in township retailing environments. Among these factors were the gender of traders, funding model for

the new stores, number of years in retailing business, stock management and the ownership structure of the business.

Table 4.1 depicting the gender of traders

		Frequency	Percent	Valid Percent	Cumulative Percent
	Female	19	25.3	25.3	25.3
	Male	56	74.7	74.7	100.0
	Total	75	100.0	100.0	

Table 4.1 shows the gender disparity of migrant traders in relation to ownership of small business retail stores. The table indicates that migrant male traders are the dominant group accounting for 74.7% of the respondents compared to their female counterparts.

Table 4.2 depicting the education level of traders

		Frequency	Percent	Valid Percent	Cumulative Percent
	B-Degree or Higher	4	5.3	5.3	5.3
	Diploma	6	8.0	8.0	13.3
	Grade 12	36	48.0	48.0	61.3
	Grade 7	16	21.3	21.3	82.7
	Grade 9	13	17.3	17.3	100.0
	Total	75	100.0	100.0	

Table 4.2 above indicates that migrant traders have some tertiary qualification including Bachelor's degrees (5.3%) and Diploma level (8%).

Table 4.3 depicting the number of years the business has been in operation

		Frequency	Percent	Valid Percent	Cumulative Percent
	Less than 3 years	40	53.3	53.3	53.3
	Between 3 - 5 Years	23	30.7	30.7	84.0
	Between 6 - 10 Years	8	10.7	10.7	94.7
	Between 11 - 15 Years	4	5.3	5.3	100.0
	Over 15 Years	0	0.0	0.0	0.0
	Total	75	100.0	100.0	

Table 4.3 indicate that the majority of migrant traders have less than 3 years of trading in the area, and 30.7% have between 3 and 5 years of trading in the area meaning that the majority (84%) of migrant traders have experience of less than 6 years of trading. Furthermore, the table 4.3 shows that none of migrant traders who have more than fifteen years of trading in the area.

Table 4.4 depicting the number of years the trader has been in business

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 3 years	16	21.3	21.3	21.3
Between 3 - 5 Years	24	32.0	32.0	53.3
Between 6 - 10 Years	22	29.3	29.3	82.6
Between 11 - 15 Years	7	9.3	9.3	92
Over 15 Years	6	8.0	8.0	100.0
Total	75	100.0	100.0	

Table 4.4 indicate that migrant traders have less than 3 years of business experience in trading, and 32.0% have between 3 and 5 years of business experience in trading meaning that the majority (53.4%) of migrant traders have business experience of less than 6 years of trading.

Table 4.5 depicting the management format of the trader's store

	Frequency	Percent	Valid Percent	Cumulative Percent
Full Owner	42	56.0	56.0	56.0
Manager	3	4.0	4.0	60.0
Owner Manager	15	20.0	20.0	80.0
Part Owner	15	20.0	20.0	100.0
Total	75	100.0	100.0	

Table 4.5 indicate that 56.0 % of migrant are full owners of their small business retail stores, and 20% are owner managers meaning that the majority (70.6%) of migrant traders have a direct ownership of their small business retail stores.

Table 4.6 depicting the area where the traders buy stock

	Frequency	Percent	Valid Percent	Cumulative Percent
Distribution Centre	5	6.7	6.7	6.7
Other - Auction	5	6.5	6.5	13.2
Other - Market	5	6.7	6.7	20.0
Retail Chain Store	3	4.0	4.0	24
Wholesale	57	76.0	76.0	100.0
Total	75	100.0	100.0	

Table 4.6 indicate that in 76% of migrant traders buy their stock from wholesalers, and meaning that the majority (76%) migrant traders prefer wholesalers are suppliers.

Table 4.7 depicting the number of times traders order stock

		Frequency	Percent	Valid Percent	Cumulative Percent
	Bi-Monthly	4	5.3	5.3	5.3
	Daily	13	17.3	17.3	22.7
	Monthly	9	12.0	12.0	34.7
	Weekly	49	65.3	65.3	100.0
	Total	75	100.0	100.0	

Table 4.7 indicate that 17.3% of migrant traders order their stock on a daily basis, and 65.3% orders their stock on a weekly basis meaning that the majority (65.5%) of migrant traders prefer ordering stock on a weekly basis.

Table 4.8 depicting whether or not traders buy stock in bulk

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	43	57.3	57.3	57.3
	Yes	32	42.7	42.7	100.0
	Total	75	100.0	100.0	

Table 4.8 indicate that 57.3% of migrant traders do not buy stock in bulk meaning that the majority (57.3%) of migrant traders do not prefer buying stock in bulks. Bulk buying is a cost saving method for retailers but it also ties the retailer’s cash flow on the stock item bought in bulk meaning that when you need to buy other out of stock items the retailer might not have enough cash flow to do so.

Table 4.9 depicting whether or not migrant traders offer additional services

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	49	65.3	65.3	65.3
	Yes	26	34.7	34.7	100.0
	Total	75	100.0	100.0	

Table 4.9 indicate that 65.3% of migrant traders do not offer additional services that are not part of their core business meaning that the majority (72.7%) migrant traders do not prefer not to offer addition services in their businesses.

Table 4.10 depicting whether trader’s own or rent their store site

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	28	37.3	37.3	37.3
	Yes	47	62.7	62.7	100.0
	Total	75	100.0	100.0	

Table 4.10 indicate that 62.7% of migrant traders rent their stores from South African locals. Furthermore, the table 4.10 revealed that 37.3% of migrant traders own their stores and therefore do not pay any rental. Rent is one of the high expense items in the income statement of retailers and a saving on rental can ease a cash flow of the trader.

Table 4.11 depicting whether or not migrant traders reside at the store site

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	52	69.3	69.3	69.3
	Yes	23	30.7	30.7	100.0
	Total	75	100.0	100.0	

Table 4.11 indicates that 69.3% of migrant traders do not reside in the store where they trade meaning that the majority (69.3%) of migrant traders also do not sleep in the premises where they trade. Residing on your business premises is a security risk for traders however when you reside in your premises you are able trade for longer hours.

Table 4.12 depicting the funding method of traders businesses

		Frequency	Percent	Valid Percent	Cumulative Percent
	Bank Loan	2	2.7	2.7	2.7
	Other Loan Service Provider	7	9.3	9.3	12.0
	Other – Credit Facility	1	1.3	1.3	13.3
	Other – Family	13	17.3	17.3	30.7
	Own Funds	52	69.3	69.3	100.0
	Total	75	100.0	100.0	

Table 4.12 indicate that 69.3% of migrant traders use their own funds to start a small retail business meaning that the majority (69.3%) of foreign traders use their own funds to start a small retail business. The tables indicate that it is a relatively small percentage of migrant traders that use other form of start-up funds such as bank loans or family loans. Funding is often viewed as a stumbling block for start-ups in small businesses. Therefore, potential new entrants who are either local or foreign national might be discouraged to start a small business retail due to lack of funding options.

Discussion

The study focused on migrant small business retailer's operational model. The study survey issues related to gender, level of education of the trader, number of years in business, number of years in business at that location, management format of the store, purchasing behaviour of the trader, and rental of the store.

The respondents we asked to indicate their gender and the study revealed that males are the dominant group (74.7%) compared to females among the traders. Singh and Belwal (2008: 124) further observed that "women entrepreneurship is not only necessary for their economic survival but also for strengthening the social system. Fostering women's entrepreneurship development is therefore crucial for economic growth and development". In South Africa entrepreneurship for women may mean emancipation from cultural constraints (Iwu and Nxopho, 2015). Therefore migrant traders need to be more inclusive so that the number of migrant female traders can increase.

The traders were asked about the number of years they have been trading in those two townships where data collected and most of them indicated that they haven there for less than three years. This means that most of migrant traders in the two townships where the study was conducted are new entrants.

The study revealed that migrant traders prefer to manage their own stores instead of employing another person to manage. Most stores are owner managed or part owner managed. Owner managed stores in the formal sector are usually more effectively managed than those managed by employed managers. However, the more stores you own as an owner manager the more you must employ managers to look after your other stores. Therefore, business growth comes with the fact that you then cannot manage all the store by yourself.

The study also revealed that most of foreign national traders prefer to buy their stock from wholesalers as opposed to the national franchise chain store supermarkets operating in the same environments as small business retailers. Migrant traders also prefer to place their stock orders on a weekly basis. Daily orders are a burden on the expenses since the traders must also pay for deliveries or pay transport fare if they fetch the items with public transport. These traders also prefer to buy in bulks. Bulk buying is a cost saving method for retailers but it also ties your cash flow on the stock item bought in bulk meaning that when you need to buy other out of stock items the retailer might not have enough cash flow to do so.

Traders were asked if they offer additional services in their stores (such as photocopying or airtime) and the study revealed that the majority of traders do not offer other services apart from grocery retailing. However among those who do offer additional services the study also revealed that Airtime is most popular service for additional revenue. This could mean that traders do not explore opportunities to attract customers to their business by offering additional services such as photocopying or delivery service.

The traders were asked if they own or rent their stores and the study revealed that most traders rent their stores. Rent is one of the high expense items in the income statement of retailers and a saving on rental can ease a cash flow of the trader.

The traders were asked if they live in their (meaning they sleep there at night) and the study revealed that most foreign national traders do reside in their business premises. Residing at the store means that migrant traders can traders for longer hours compared to the local South African traders. However, it must be noted that living in the store is both a security risk for traders and health risk for consumers.

Conclusion

Migrant entrepreneur's critical success factors in small business retailing can be shared with South African locals in small business retailing so that local South African traders can improve their own competitiveness. Local South African traders need to improve because their lack of success in this multi-billion rand industry means that the South Africa doesn't benefit as migrant traders are likely to send their profits to their countries of origin. Migrant traders are likely to employ other migrant as employees while local South African traders are likely to employ locals and their success can have a positive impact on the high level of unemployment in South Africa.

In the township retailing environments the migrant entrepreneurs have succeeded where some former local small business retailers failed and that is caused by their critical success factors such as business networks and entrepreneurial culture. The migrant trader's core differentiator is the business model they use as an entry strategy in the sector where they lower the prices until the competitor is out of business then normalise the prices. Migrant traders use their own funds to fund their start-ups which mean that even when their stores are destroyed by service delivery protesters or criminal elements in township environments they are able to get back to business faster than South African traders can do who rely on small business loans from family members.

There is a sense that migrant small business retailers have an opportunity formalise their small businesses. There is always a push to formalise the informal businesses so that governments can benefits from them though a tax base revenue. However, informal sectors differ across developing and developed economies. In most developed economies there is a clear support for small business

development unlike the developing economies where policies regulating small business development are not well-developed (Webb, Ireland, and Ketchen, Jr, 2014).

Migrant entrepreneur also have a different store layout which at times allows customers to “walk in” into the spaza shop while local entrepreneurs stores allows customers to buy through a window of the spaza shop (Basardien, 2014). Basardien (2014: 58) noted further noted that “the South African informal sector is still in its infancy and in order to sustain its potential, there is a need to provide support that empowers the participants in the sector”.

It is recommended that local South African traders organise themselves through a government guided effort in order learn from migrant traders. It is also recommended that local South African traders create business networks similar to those of migrant traders.

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Conceptual Model on the Effects Human Resource Management Practices on Retention of University Academic Staff

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Abstract

This paper sought to propose a conceptual model to examine the Human Resource Management practices and retention of academic staff in universities in Kenya. The paper is built on the premise that academic staff in Universities are leaving employment and joining the corporate sector or other public sectors while others are leaving for employment in developed or other developing countries. Academic staff being the foundations upon which Universities are built. Their intellectual, creative abilities, commitment and experiences are acquired over a long period of time and therefore it is difficult to replace them in case they leave employment. Therefore their retention in employment is very important. This paper specifically has the objective of proposing a model to examine the effects of Human Resource Management (HRM) Practices and retention of university academic staff. Through extensive review of empirical studies conducted this paper provides guiding framework to test the effect of Career development, Remuneration, and Quality of work life on the Retention of University academic staff and the role of Transformational leadership in moderating the relationship. This paper recommends a conceptual model that will guide future researchers in the area of Human Resource Management practices and retention of University academic staff.

Keywords: *Human resource, Retention, Career development, Remuneration, work life, leadership*

Introduction

The role of academic staff in Universities cannot be underestimated because through them work force is developed and delivered for the social, economic and technological innovation of any organization in a country (Ng'ethe, Iravo & Namusonge, 2012). The role of University academic staff is to support learning through their specialized knowledge and skills in teaching, research and training programs (Fullwood et al., 2013; Salesho & Ida, 2014). According to Pienaar and Bester (2008) academic staff in Universities are the foundation upon which universities are built and therefore their intellectual and creative abilities and commitment is dependent on by other organizations and therefore this makes it important for Universities to strategize on how to retain their academic staff.

In an era where skills and knowledge of employees are amongst the main competitive enablers, Organizations cannot ignore the significance of attracting and retaining Human Resource (HR) (Minchington, 2010; Saverio, Githui, & Ngure, 2018). HR retention has become a major challenge for organizations in today's highly competitive and dynamic market, this is as a result of globalization (Kibui et al., 2014). The HR retention challenge is to both the developed and developing countries (Saverio et al., 2018). In Africa the subject of staff retention has been explored extensively in the corporate sector however what remains largely under researched is staff retention in the Higher Education Institutions (HEIs) and especially the University section (Netswera et al., 2005; Ng'ethe et al., 2012 & Ng'ethe, 2014).

Retention of University academic staff attracts special attention because the academic staff members are leaving University employment for employments in other sectors and some are even leaving for

employment in other countries. Since the Universities play critical role in knowledge transfer through working with business and other organizations to support innovation, social and cultural enterprises as well as supporting learning through their teaching, research and training programmes' there is need to be retained in the Universities (Fullwood, et al, 2013: Salessho & Idah,2014). University academic staff members's intellectual, creative abilities and commitment are normally acquired over a long period of time, and are accompanied by extensive experiences which are at times are difficult to replace in case of turnover (Pienaar & Bester, 2008). Therefore there is need for Human Resource Management (HRM) practices to be put in place to help in retention of the academic staff in the Universities (Alnaqbi, 2011; Obwogi, 2013).

Human Resource Management (HRM) practices are set of internally consistent policies and practices designed and implemented to ensure that an organization's HR contribute to the achievement of its business objectives (Huselid & Becker, 2000).They help in shaping the employee's attitudes and behavior and therefore affecting the organizational outcome (Etebu, 2016). As the employer aims at achieving his goals the employees also have their own goals and the employer must fulfil them.

According to Herzberg Two -factor theory employees have two categories of needs, intrinsic which comes from within the work itself like achievement, recognition, the work done by the employee, responsibility and opportunities for growth or advancement. The other category is the extrinsic needs those that comes from the external things like remuneration, working conditions, supervision, company policies and relation to co-workers. When these needs are met employees are satisfied with their job, committed to their organization, and therefore decide to remain with their organization (Gawel, 1997).

Social Exchange Theory (SET) posits that human relationships are formed by the use of a subjective cost-benefit analysis and comparison of alternatives (Emerson, 1976) therefore the employee's attitudes and behavior are shaped by how he perceive the organizations investments in his individual needs. In the case of University academic staff they would compare other employment alternatives and make a come up with a perception of either their employer is competitive or not and therefore a decision would be made of either staying or leaving.

Globalization and the rapid pace at which new knowledge is created and utilized are among the recent developments that challenge retention of academic staff in Universities (Mburu, 2015).Globalization has made accessibility of information very easy among countries, companies, institutions and individuals. The information could be on recruitments, employee's welfare and other available opportunities in the world. Due to the ease of communication and transport employers are losing their employees to their competitors.

According to Kabaetsa et al. (2016) University of Botswana medical school in a period of 5 years 74 academic staff were recruited but 43% of them left the school while Hong et al. (2012) revealed that in a period of 5 years the African continent lost 20% of University academic staff to the developed countries. Osalusi et al. (2010) revealed that Nigerian Universities from 1980's through to the 21st century had lost its experienced academic staff to other African countries as well as Britain, America, France and German. A study by Theron et al.(2014) revealed that 34% of academic staff in South African Universities were considering quitting their current institution while 74.5% had previously sought for other jobs.

According to (Hailu et al., 2013) in Ethiopia, University of Addis Ababa in a period of 20 years between September 1991 and August 2011, 92.8% of academic staff left the University while in Uganda between the year 2010 and 2012 Makerere and Guru Universities lost 25 and 20 top academic staff respectively (Christopher & Gay, 2013). In Tanzania, Sokoine University of Agriculture lost over 20% of their senior academic staff (Abeli, 2010). In Kenya according to Ng'ethe (2014) in Kenyan universities 42.2% of academic staff were actively searching for an alternative employment and hence had intention to leave while 56.6% were in the institutions because they had lacked alternative employment. There is need for a study to be conducted to test the specific factors that enables

University to retain its academic staff. Most of the studies conducted have operationalized retention in general forgetting that University is different from companies and other institutions. This paper aims to review literature related to HRM practices and academic staff retention with an aim of establishing a conceptual model that would help solve the academic staff retention problem.

Most of the studies conducted on retention of University academic staff in have addressed different issues like performance, job satisfaction and commitment, quality of education etc. (Kipkebut, 2010; Obwogi,2013 ;Wainaina,2015 ;Mburu,2014;Tetty 2009; Owour ,2010, as cited by Nyahongo 2015; Waswa et al., 2008). This has demonstrated the existence of knowledge gap in the area of the role Transformational leadership in the relationship between HRM practices and retention of academic staff in Universities and therefore a conceptual model to be developed.

Theoretical background and review of literature

There are various theories that address the employee needs and have been advanced by a number of scholars as the basis of retention strategies in organizations. The specific theories that anchor this study are two, the Herzberg Two factor theory and Social exchange theory.

Herzberg's Two- Factor Theory

The Two-factor theory was originally developed by Herzberg in 1959. Herzberg identified two groups of factors as Motivation factors and Hygiene factors that affect job satisfaction. Bearing in mind that when employees are satisfied they end up staying with their employer longer because their needs are met. Herzberg two factor theory recognizes that employees have two categories of needs that operate within them and that both needs should be addressed for the employees to be satisfied and therefore motivated to make decision of staying or continuing to work for the organization. Employees have the need of personal development and the need of feeling pleasant and comfortable. Thus employees need to be provided with Career development opportunities for their personal development.

The University academic staff require support from their employer to conduct research, to attend conferences where they will meet their peers and people from the industries to share knowledge and update themselves. They also require financial and material support to attend workshops and trainings. If they are given such kind of support they would become motivated as they would use the avenues to acquire and disseminate new knowledge. It would also help the academic staff to acquire skills and attitude as they progress in their career. If these needs are fulfilled according to Herzberg, academic staff would be satisfied. This would be a motivation and would decide to stay in the University employment for long. Secondly the University academic staff would need competitive Remuneration and Quality of work life. According to Herzberg's theory these are termed as Hygiene factors that would make the employees feel pleasant and comfortable in their working environment. When these employees' Hygiene needs are met, they induce the feelings of being valued by organization and therefore create environment that would make them satisfied and motivated to do their work and decide to stay with the organization. Absence of these hygiene factors may lead to dissatisfaction and therefore decision to leave the organization.

If the University academic staff are remunerated competitively they will be satisfied and would work comfortably and be committed to their work with the understanding that in case they are sick their medical bills will be paid through their medical insurance cover. In case they have duties outside their work stations they will be compensated through the allowance policy thus resulting to the comfort of working in University. Quality of work life being important to the university academic staff is another hygiene factor that if provided makes the academic staff comfortable. For example the University academic staff work for long hours indoors and therefore they require offices that are comfortable in terms of the space, furnishings, tools and equipment. When it comes to decision making about the academic staff issues the University management is required to involve the academic staff in some decision making and especially those that affect them. By so doing the academic staff would feel that

they are recognized as important asset in University and thus decide to work comfortably thus deciding to stay in the University employment. Academic staff as human beings have their own personal and social issues those that require support from the employer and thus if they are supported they get feeling that they are valued and therefore satisfied with the employer and thus deciding to stay long in employment.

Social Exchange Theory (SET)

Social Exchange Theory (SET) was developed by a sociologists Homans (1958) and later was developed further by Peter Blau in 1964 and Richard Emerson in 1972 (Emerson, 1976). SET explains how people feel about their relationship with others based on their perception of; the balance between what they put into the relationship and what they get from it; the kind of relationship they deserve and the chances of having a better relationship with someone else (Cropanzano & Mitchell, 2005). SET is based on the notion of the reciprocity norm where individuals are obliged to reciprocate in some ways when others treat them well or reward them. SET is relevant to guide this study in the sense that it will help in understanding the link between HRM practices and employees' attitudes and behavioral outcomes. This study assumes that perceived investment in HRM practices (career development, remuneration, quality of work life and Transformational leadership) by the employees would cause attitudinal and behavioral outcome that is beneficial to the organization. This study assumption is that the academic staff would expect that the management would support them to attend and participate conferences, workshops and training the staff would reciprocate such investment by working hard, being loyal and committed and working longer for the University to help it to achieve its goal. The academic staff would also look at the work they do for the University and what they get back for the work they have done as compared to the other employees of same qualifications elsewhere not forgetting the kind of leadership employed by the University. The strength of SET is that it creates a positive feeling among the individual employees that are internally rewarding. SET appears more on an individual approach which is a strength as individual employees have different needs depending on their levels in employment.

Remuneration

Remuneration is compensation or reward an organization provides for employees in exchange for the work they perform that can be in monetary and non-monetary form (Armstrong, 2006; Dessler & Tan, 2006). Remuneration include salary or wage, benefits and incentives (Michael, 2017). Some of the remuneration is cash compensation of wages or salaries, retirement plans(employer contribution), employer paid health insurance, life insurance, travel allowance among others. According to the Herzberg (1959) theory, remuneration is one of the employees' extrinsic factors whose absence may cause employees dissatisfaction leading to demotivation and thus affecting the employees' loyalty, commitment, motivation and intention to stay with the organization. When employees are competitively remunerated they react with attitude and behavior that is beneficial to the organization since they feel that their efforts are appreciated. They tend to feel they are valued as assets in the organization and therefore reciprocate by being loyal and committed to serve the organization and this is in accordance with the social exchange theory (Cropanzano & Mitchell, 2005).

Career development

Career development is a formal approach taken by an organization to help its people to acquire skills, knowledge, abilities and experiences needed to perform current and future jobs (Heathfield, 2016; Mburu, 2015). Career development includes such as opportunities for employee training and development, performance management, coaching, mentoring, succession planning, key employee identification, tuition assistance and organization development (Heathfield, 2016). The main objective of career development is to enrich the organization's human resources for both the employees' and the organization's need, to motivate employees to reduce costs of the employee turnover (Kibui, Gachunga, & Namusonge, 2014).

According to Herzberg two factor theory when employees are provided with motivation factors like achievements, recognition, responsibility, advancement and growth their job satisfaction is enhanced and thus commitment leading to employee decision to stay with the organization. Basing on the Social Exchange Theory in employment relations, positive discretionary activities performed by the organization that benefit the employee would be taken as evidence that organization cared about ones wellbeing (Eisenberger, Fasolo, & Davis-LaMastro, 1990). For employee to appreciate the organization for valuing him, therefore he would decide to stick with the organization and work hard towards helping the organization to achieve its goal.

Quality of Work Life

Globally Quality of Work Life (QWL) has been a cause for concern in recent years (Mohamed & BedelKhalif, 2017). QWL touches on two factors namely work/work environment and employee welfare and wellbeing (Wyatt & Wah, 2001). Keith (1989) as cited in (Singh & Singh, 2015) refers QWL as the favorableness or un favorableness of job environment for people while Islam and Siengthai (2009) defined QWL as the favorable condition and environment of employees' welfare and management attitudes towards operational workers as well as employees in general. QWL being abroad concept, in this study will concentrate on work environment component because the other components have been much explored thus leaving work environment less studied. Due to the nature of work done by the academic staff the work environment component is important in the study. Work environment will refer to the physical and the psychosocial working environment that promotes the efficient performing of job tasks by employees (Massoudi & Samir, 2017). Work Environment touches on aspects such as space, tools and equipment, hours of work, internal employee support from the administration departments, safety in the work place, and requisite support from supervisors (Bushe, 2012). The physical work related factors are identified as occupational stressors that lead to employees' dissatisfaction and therefore decision to quit the organizations and this is supported by the Herzberg two factor theory. It is one among the hygiene factors that their absence causes dissatisfaction.

Transformational leadership

Transformational leadership is the interaction between leaders and followers where the leaders attempts to influence followers to achieve a common goal (Armstrong, 2006; Northouse, 2017; Voon, 2011). It can be said that Transformational leadership is getting people aligned and moving in one direction –the direction that makes the business to succeed. A leader's job is to help the others to make their contributions towards a shared goal, the leader has to create an environment that that determines the people's moods at the office and their mood in turn affects their productivity and level of engagement. The most prominent Transformational leaderships are Transformational and Transactional Transformational leadership (Burns, 1998).

The transformational leadership motivates and empowers employees leading them to have organizational attachment where employees are less likely to have the intention to quit their place of worker rather intent to stay. According to some studies (Nge'ethe, 2014 & Bhatti et al., 2012) employees leave leaders but not organization while Transactional leaders focus on task completion and employee compliance, and they rely quite heavily on organizational rewards and punishment to influence on employee performance (Burns 1998). This is in line with SET, meaning that when employees are motivated and empowered or demotivated, angered and demoralized they reciprocate by either being attached to the organization thus eliminating employee turnover or by deciding to leave the organization for a better organization that values them

Review of literature

A number of studies have been conducted in different countries on HRM practices and retention of employees however much of them have concentrated in exploring in depth the factors that determine or influence retention of university academic staff. A study has not been conducted to proof if this are

the factors that affect retention of University academic staff.

Salesho & Naile (2014) conducted a study in South African University whose purpose of was to examine factors that influence the poor retention rate of academic staff at selected universities in South Africa. The study used a survey design where primary data was used from 80 academic staff members who were sampled. Interactive model of descriptive data analysis was used. The research found out that Job satisfaction was the main factor keeping academic staff to the profession where Job satisfaction was linked to promotion, career growth and academic growth while Salary, heavy work load, poor mentoring and ambiguous promotion guidelines were the main reasons causing academic staff to leave their profession.

Oyagi & Kemu (2014) conducted a study in Tanzania on the motivation and retention of academic staff in selected public higher institutions of learning in Dar es-salaam whose purpose was to examine the relationship between motivation and retention of academic staff. The study was cross-sectional in nature where quantitative and qualitative approaches were applied. The study was guided by Motivational theories. The study revealed that there was a strong positive relationship between motivation and retention of academic staff. A study should be conducted to test whether Human resource management practices affect the retention of University academic staff.

Another study was conducted in South Africa, Theron et al. (2014) whose purpose was to investigate and validate the factors that influence retention of University academic staff in South Africa HEIs. The study applied quantitative research approach. Convenience sampling was applied. The study found out that factors leading to the academic staff intention to quit from South Africa universities were unhappiness with compensation, emotional recognition, promotional opportunities, career development and mentoring opportunities.

Osibanjo et al. (2014) did a study on compensation packages in Nigeria whose purpose was to examine the effect of compensation packages on employees' job performance and retention in a selected private University. The study applied case study research strategy and Mixed approach. Simple random sampling technique was applied in the study. The study findings revealed that there was a strong correlation between compensation and retention.

Ng'ethe (2014) conducted a study on the determinants of academic staff retention in public universities in Kenya. The purpose of the study was to establish determinants of academic staff retention in Kenyan public Universities. The study applied survey design. Qualitative and Quantitative research approach were applied. Descriptive data analysis and inferential statistics were used where the findings revealed that Transformational leadership and promotion influenced academic staff retention.

Makondo (2014) conducted a study on academics attraction and retention trends at a South African University whose purpose was to explore the attraction and retention of academics at a formally disadvantaged South African University. The study used qualitative study approach. The study was a case study where the results cannot be easily generalized to the population of other area that do not have similar political, economic and social environment. The study established that professional support, promotion by teaching, remuneration and teaching load were the four top ranked factors that attract and retain academics. The study helped to identify the factors of retention however the nature of relationship between the variables was not determined.

Shabane et al., (2017) did a study whose purpose was to determine whether transformational leadership played a moderating role in the relationship between satisfaction with remuneration and intention to stay among artisans employed in military. The study was quantitative in nature and survey design was applied. Purposive sampling was applied where 108 respondents were sampled from a population of 275. Transformational leadership was found to play a role in the relationship between satisfaction with remuneration and intention to stay. However the study by Shabane et al., (2017) was conducted in a military institution on artisans where else a study should be conducted in Universities on academic staff to ascertain if Transformational leadership has a moderating role between human resource practices

and retention of academic staff in Universities.

Another study Nazarian (2013) was conducted in Iran to investigate the moderating influence of Transformational leadership style and moderating effect of national culture and organizational size on culture –effectiveness relationship in Prwose sector organizations. The study applied quantitative approach where convenience sampling was applied but this study will apply random sampling technique. Transformational leadership style was found to have a partial moderating relationship between the organizational culture types and organizational effectiveness. However a study should be conducted to test the moderating role of Transformational leadership style between the relationship of HRM practices and retention of University academic staff.

Literature synthesis

Some scholars have argued that HRM practices affect retention of employees in organizations though the studies conducted were testing different variables on the retention. Some of the studies carried out tested employee retention and : job satisfaction, compensation and job performance, motivation, Intrinsic and Extrinsic factors, employee attraction and retention, factors of poor retention rate of academic staff among others (Michael, 2017; Michael et al.,2016; Osibanjo et al., 2014; Makondo,2014;Theron et al.,2014; Oyagi & Kembu,2014 Salesho &Naile,2014; Ng'ethe,2014) none of the studies examined the effects of HRM practices on University academic staff retention which this study recommends to be done to find out why University academic staff are leaving employment. Some scholars have revealed that there is a are relationship between HRM practices and employee retention however others hold different the views that the relationship is there though it is weak as some employees will still leave employment even though the HRM practices are in place (Mubarak et al., 2012; Ng'ethe, 2014). According to scholars (Bhatti et al., 2012; Ng'ethe, 2014; Amaeshi, 2014) employees leave organizations' supervisors but not the organization. Researchers (Alnaqbi, 2011; Bhatti, 2012; Govaerts et al., 2011; Khuong & Houng, 2015; Pun et al., 2016; Rehema, 2012; Wakabi, 2016) among others posits that leadership style is a key factor that affect organizational outcome including employee intention to stay or leave. Those studies informs this study that the type of leadership style employed by supervisors in organizations determines the employees' satisfaction and therefore their retention by the organization. Therefore this study finds it necessary to suggest a study to be conducted out to examine the moderating role of Transformational leadership style between remuneration, career development and quality of work life and University academic staff retention.

Conceptual Model and propositions

From the reviewed empirical studies this paper is structured around four major aspects that is remuneration, career development, quality of work life and transformational leadership style that are leading to conceptual model as shown by the Figure below.

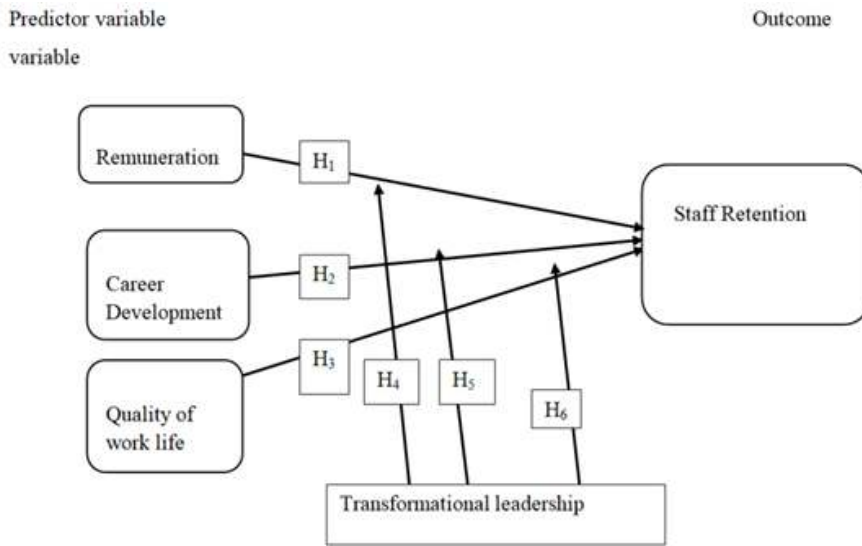


Figure 1 provides the conceptual model and propositions of the study.

The conceptual model gives the relationship between a dependent variable namely employee retention and three independent variables: Remuneration, Career development and Quality of work life through a moderating variable Transformational leadership style. The proposition from the literature review as indicated in the conceptual model is as follows:

Proposition 1: Competitive remuneration significantly influences retention of academic staff in Universities

Proposition 2: Career Development opportunities significantly influences Retention of academic staff in Universities

Proposition 3: Quality of work life significantly influences Retention of academic staff in Universities.

Proposition 4: Transformational leadership has a moderating effect in the relationship between Remuneration and retention.

Proposition 5: Transformational leadership has a moderating effect in the relationship between Career development and retention.

Proposition 6: Transformational leadership has a moderating effect in the relationship between quality of work life and retention.

Conclusion and Recommendations

This study aimed at developing a model to examine the role of Transformational leadership on the effect of Human Resource Management practices (Remuneration, Career development and Quality of work life) and retention of University academic staff. From the literature review it has been observed that most of the studies conducted have concentrated in finding the insight reasons why academic staff leave Universities and other studies have been conducted to find out what factors cause the academic staff to remain with their universities. None of those studies conducted examined the role of Transformational leadership between the relationship between HRM practices and retention of academic staff in Universities. Secondly the studies conducted used the general measurement for employee retention that is the intention stay and intention to leave forgetting that Universities are unique institutions and not like any other organization. Therefore this study recommends retention

to be measured using the specific factors that are relevant to the Universities. Therefore this study recommends that a study should be conducted to test the proposed conceptual model above.

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(Endnotes)

1. Article 13 of the Protocol on the Establishment of the East African Community Customs Union
2. Article 6 of the Protocol on Trade in the Southern African Development Community (SADC) region
3. Estimation using statistics from International Trade Center (ITC)
4. Sharma (2011) and Piermartini (2004) offer useful description of various export restriction measures
5. The higher the price, the stronger the welfare effect of volatility for consumers (HLPE, 2011).
6. Tanzania government made a commitment to ensure business-friendly environment for the investors in the agricultural sector, where among other things it promised to seek an alternative to export ban in cases of emergency (European Union, 2015).
7. Liefert et al. (2012), assuming a small country case, propose alternatives to export bans: permit farmers to export the excess after the conditional sale in the domestic markets at price lower than export prices; and conditional domestic sale of the required amount of output and offer free transferable export license for exportable proportion of output.
8. EAC borders regions refers to Tanzania regions that border any EAC country and peripheral regions are regions that are at least 500 kilometers away from any nearest EAC country border.
9. The 2007 HBS data covered 10,445 household including 2,605 households in EAC border regions and 2,082 households in peripheral regions.
10. Results for Dodoma, Morogoro, Singida, Tabora, Shinyanga, and Dar es Salaam regions are available on request.
11. There were 76 months with export ban and 73 months without export ban between February 2002 and June 2014.
12. The dummy variable (*EAC_border*) and the variable *dist* were omitted for multicollinearity reasons. We had to conduct the Wald test to confirm whether the coefficient of *lintp* and the EAC-border dummy or distance (*dist*), or the dummy for the export ban, are jointly and statistically different from zero. The test produced a significance level that is close to zero in all specifications (with EAC-border dummy, distance, and dummy for the export ban). We thus strongly accept that the estimated coefficients are significantly different from zero.

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