



International Conference of Business and Management in
Emerging Markets
ICBMEM 2017

SEPTEMBER 19-20TH, 2017-ARUSHA, TANZANIA

Conference Proceedings

ICBMEM 2017 CONFERENCE PROCEEDINGS

ICBMEM 2017

2017 International Conference of Business and Management in Emerging Markets

Theme: *Emerging Markets Now and Future: Exploring Trends, Opportunities, and Challenges*

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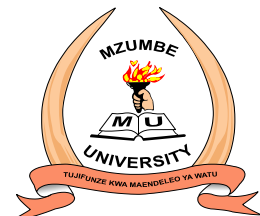
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2017 International Conference of Business and Management in Emerging Markets

ISBN 978-9976-5181-0-8

Conference Schedule

Tuesday, September, 19, 2017	
10:00-1430	Registration
1430-1630	Opening Ceremony
	Opening Speeches <ul style="list-style-type: none"> ▪ Vice Chancellor/Representative- Mzumbe University ▪ Vice Chancellor/Representative- NM-AIST ▪ Guest of honour

Wednesday 20 th , September, 2017				
09:30-1030	Venue A			
1030-1045	Coffee Break			
1045-1200	Venue A	Venue B	Venue C	D
1200-1300	Lunch			
1300-1400	Venue A	Venue B	Venue C	D
1400-1415	Coffee			
1415-1530	Venue A	Venue B	Venue C	D
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1800-2030	Closing Ceremony			

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ICBMEM 2017 SESSIONS

SESSION A0:

Crosscutting issues on Business and Management in Emerging Markets

SESSION A1-A3

PhD colloquium

Session: B1, B2, B3

Value Chains, Marketing and Entrepreneurship

Session: C1, C2, C3

Finance, Economics and Corporate Governance

Session: D1, D2, D3

Health, Policy and public administration

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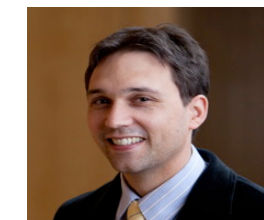
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University, Uk)

0930-1045, Tuesday, September 20th, 2017

SPECIAL SESSION [A0]

Special Session [A0] crosscutting issues on Business

and Management in Emerging markets

Meeting Room A

Special Session A0

0930-1045, Tuesday 19th, 2017/Meeting Room A

Session Chair: Prof Honest Ngowi

Industrialization in Emerging Markets: Selected Economic Issues and Perspectives in New Industrialization Move in Tanzania

Prof Honest Prosper Ngowi, Mzumbe University, Tanzania

Abstract

The paper dwells on industrialization in emerging markets in general with selected economic issues and perspectives in new industrialization move in Tanzania in particular. The focus is on the industrialization process in Tanzania from 1960s to the new move by the fifth phase government. It is noted in the paper that the industrialization move by the fifth phase government that came to office in late 2015 is not the first one in Tanzania. There have been several industrialization efforts almost just after the 1961 independence in general and the first development plan way back in 1964 in particular. The fifth phase government aims at having industries that will produce for mass domestic consumption and export excess products, create mass employment and use local raw materials. It is noted that many emerging markets have well developed industrial economies. Tanzania can learn from these economies when it comes to its new industrialization move as envisaged by the fifth phase government.

Key words: Industrialization, Emerging economies, Tanzania

International Business Management in Emerging Countries: Do we need new theories?

Prof Otto Andersen, Agder University, Norway

Policy Reflections in Tanzania and Africa

Dr Andrew Mushi, Mzumbe University, Tanzania

Dr Dominick Muya, Mzumbe University, Tanzania

SESSION [A1]-[D1]

Session [A1] PhD colloquium Room A

Session [B1] Value Chains, Marketing and Entrepreneurship Room B

Session [C1] Finance, Economic and Corporate Governance Room C

Session [D1] Health, Policy and Public administration Room D

Session A1

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: A

PhD Colloquium

Session Chair: Dr Kato Mushumbusi, Mzumbe University

The Legal Framework For Credit Accessibility And Advancement In Micro-Finance Institutions For Poverty Alleviation: A Critical Study Of SACCOS In Tanzania

Rosemary Mukama

Abstract

This study focuses on the legal framework for credit accessibility and advancement offered through micro-finance institutions with special attention to Savings and Credit Cooperative Societies (SACCOS) in Tanzania. The study falls under commercial law specifically banking and finance law. SACCOS are among principal providers of micro-finance services in Tanzania as equity-based institutions. SACCOS were established purposely to help in poverty reduction and poverty alleviation through provision of credit to low-income earners. As equity-based institutions, SACCOS form part of Tanzania financial system. However, SACCOS in Tanzania have not been able to transform into progressive and successful micro-finance entities able to provide adequate credit to the majority of credit seekers who are low-income earners.

Determinants of Technical Efficiency of Small Scale Sunflower Oil Processing Firms in Tanzania: One Stage Stochastic Frontier Approach

Anastasia Njiku, Mzumbe University, Tanzania

Madishetti Srinivas, Mzumbe University, Tanzania

Ganka Nyamsogoro, Mzumbe University, Tanzania

Abstract

Sunflower oil processing firms have recently captured the attention of many scholars due to their contributions along the value chain. They particularly provide nutritious and cholesterol free oil in both rural and urban areas. Despite of their unique contributions, 75% of them operate under capacity with steadily declining technical efficiency. This paper attempted therefore to find out the determinants of technical efficiency for sunflower oil processing firms in Tanzania. We used firm-level average production data for three years from 2013 to 2015. Such data were collected from a sample of 219 Sunflower oil processing firms in Dodoma and Singida using a questionnaire. The obtained data were analyzed using one Stage Stochastic Production Frontier with inefficiency effect model under Maximum Likelihood Estimate (MLE) technique. We found that Sunflower oil processing firms operate at 53% mean technical efficiency ranging from a minimum of 3.2% to maximum of 79.2 %. Capital and materials input factors of production contributed statistically significantly to the output of the firms under the study. In the same way, firm age, location, ownership type, age and education of the owner were found significant determinants of technical efficiency in sunflower oil processing firms in Tanzania. This calls for the government agencies like Small Industrial Development Organization (SIDO), Tanzania Food and Drugs Authority (TFDA) and Tanzania Bureau of Statistics (TBS) to promote economies of scale among sunflower oil processing firms. This would in turn encourage young and middle aged and educated entrepreneurs to individually own sunflower oil processing firm with strategic location for improved technical efficiency as the way forward to realize their full potentials.

Keywords: Determinants, technical efficiency, Small Scale sunflower oil processing, Stochastic Frontier Analysis, Maximum Likelihood Estimate

1. Introduction

The agro-processing firms have captured the attention of many scholars due their contributions along the value chain through expansion of forward and backward linkages in the economy (UNDP, 2012; Ekblom, 2016). They particularly increase incomes, improve the life standards and create jobs (UNDP, 2012; Ekblom, 2016). They also generate higher added value for agricultural commodities by converting raw material from agricultural farm to intermediate inputs or readily consumed products (Yodfiatfinda, 2012).

Sunflower oil processing firms are ones of emerging agro-processing industries in Tanzania with great potentials in providing nutritious and cholesterol free oil in both rural and urban areas (Ekblom, 2016). Despite the remarkable potentials, the processed sunflower oil is inadequate to cover the increasing gap of oil demand stimulated by population growth, township creation and improved standards of living (Haggblade *et al*, 2010). As a result, Tanzania continues to be a net importer of oil to cater for existing high demand. It is currently reported that, 75% of sunflower oil processing firms operate under capacity with steadily declining technical efficiency in Tanzania (Tisimia,2014).Additionally, most of sunflower oil processing firms are mainly of small scale, they often sell their products locally along highways and their products are of low standard in suiting international market (Mpeta, 2015).

Moreover, there has been limited empirical evidence in the academic literature on determinants of technical efficiency in sunflower oil processing firms. This is because of most of previous studies on technical efficiency focused on other manufacturing firms other than sunflower (Admassie & Matambalya, 2002; Wu et al., 2005; Niringiye et al., 2010; Charoenrat, 2012). In addition, previous studies on technical efficiency generalized their findings while efficiency is relative and specific to firm group and country (Ahmed et al., 2010). The applicability and generalization of their findings is questionable to other countries and sectors due to differences in infrastructure, cultural, general economic environment and digital divide of which sunflower oil processing firms in Tanzania is of no exceptional.

From the production theory point of view, firms are not fully efficient in maximizing outputs from factors of production hence low level of production is attained with varying efficiency levels among them. There exists a large gap between actual and expected production output level of sunflower oil. This is because of losses which might be due to random errors out of the control of the firm and possibly inefficiency use of the firm. This indicates the large gap between actual and expected production output level of sunflower oil s' resources. In the same vein, the resource based theory of the firm assumes that resources are always applied in the best way by the firm for the superior performance, ignoring how this is actually done. This claim of the theory has remained at the conceptual level as few empirical studies (Faruq & David 2010; Ahmed, 2013) are based on different manufacturing subsectors other than sunflower processing firms. As a result there is inadequate knowledge about the postulation to small scale firms, particularly sunflower oil processing firms in Tanzania. This paper therefore estimated the technical efficiency levels and their determinants to identify how well the firms utilize their scarce resources to maximize output focusing on sunflower oil agro-processing firms in Tanzania.

2. Literature Review

The conception of Technical efficiency has been explained by many scholars in various fields and sub sectors in different ways, but the main idea is centered on input- output relationship. It is either when the maximum quantity of output is obtained for a given set of inputs or when the minimum quantity of inputs is used to produce a given output level.

This relationship has been grounded from production theory which assumes full technical efficiency while specifying the production function of firms, but in reality a gap exists between theoretical assumption of full technical efficiency and empirical reality. It represents the level of achievement by the firm in utilizing the available inputs resources (capital, labour and material) for maximum outputs. Although the importance of efficient use of resources has long been recognized by firms, the actual output is less than what is postulated by the production function. They perform at their best practice (a frontier) which is used to emphasize the idea of maximality of the firm reflecting the current state of technology in the industry. Frontier defines the best combination of inputs that can be used to produce a maximum output. For this case, firms that operate on the frontier are considered technically efficient and those beneath the frontier are technically inefficient. These differences might be due technical inefficiencies or some unanticipated exogenous shocks outside the control of the firm.

Additionally, the resource based theory of the firm perceives organizations as bundles of resources which are combined to create organizational capabilities for

superior performance (Barney, 1991). In this light, we believe that efficiency utilization of input resources (capital, labour and materials) of the firm for maximum output depends on skills and capabilities possessed through firm specific factors like size, age, location, experience, age and education of the owner, ownership type and training of employees.

Most of the previous studies on technical efficiency used capital, labour and material as input factors of production and found statistically significant contributing to the output of the firm, measured in annual sales turnover (Admassie & Matambalya, 2002; Wu et al., 2005; Memon & Tahir, 2010). However, sales turnover of the firm is the function of many factors like price, advertisement and other marketing issue, thus it is not directly related with the technical efficiency of the firm. Contrary to previous studies, this study used the unit processed of sunflower oil as a proxy measure of output with similar input factors of production (capital, labour and material) to determine the technical efficiency level in sunflower oil processing firms.

The levels of technical efficiency of sunflower oil processing firms anticipated will indicate whether there would be losses in oil production that could be attributed to inefficiencies due to differences in firm specific factors or not.

2.1. Firm Specific Factors and Technical Efficiency of the firm.

Firm size

Theoretically, firm size influences technical efficiency. The theory of the passive learning model of firm dynamics by Jovanovic's (1982) predicts that larger firms are more efficient than smaller ones due to more acquired competence and experience in management. Empirically, the firm size is found previously to have a significant and positive relationship with firms' technical efficiency (Admassie & Matambalya, 2002; Niringiye, 2002; Amornkitvikai & Harvie, 2011; Charoenrat, 2013). On the other hand, Yang and Chen (2009); Le (2010) found a significant and negative relationship of firm size with firms' technical efficiency. There are still ambiguous results depending on countries and sectors analyzed.

Firm age

Firm age is believed to influence technical efficiency. Older firms are considered more efficient than younger ones due to gained experience from past operations. Empirically, a positive relationship between age and technical efficiency is noted due to learning acquired through production experience (Admassie & Matambalya, 2002; Batra & Tan, 2003; Amornkitvikai & Harvie, 2011). In contrary, firm age was reported being negatively related to technical efficiency (Le, 2010; Le and Harvie, 2010). For example, Niringiye *et al.*, (2010) pointed out that, young firms are more proactive, flexible and aggressive compared to old firms.

Ownership Structure

Ownership type especially sole proprietorship and partnership is reported previously to have positive relationship with firm's technical efficiency (Ha, 2006; Liu *et al.*, 2010). However, government and state owned firms were found negatively associated with the firm technical efficiency (Le & Harvie, 2010; Charoenrat, 2012). Regardless of the positive and negative association found previously, scholars failed to recommend the most suitable and efficient type of ownership.

Location of the firm

Different locations may affect the technical efficiency of the firm due to transport costs, infrastructure, spillover effects and natural resources (Niringiye *et al.*, 2010). Firms located in urban area perform better than those in rural areas (Charoenrat, 2012). This is because they are likely to have greater market and credit facilities access, higher managerial training and greater market opportunities. These views are supported empirically in the previous studies. For example, Le and Harvie (2010) revealed that, firms located in urban centres had lower technical efficiency compared to the ones in rural areas. Tran *et al.* (2008) likewise found that firms located in metropolitan areas are more technically efficient than their counterparts located in less developed areas. Thus, there is a noted inconclusive result on the influence of firm location on technical efficiency

Age of the Owner

It is believed that, as the person grows older, his/her sense of obligations also gains maturity and resultantly the individuals in the high age group possess more performance (Khan, Khan, Nawaz & Yar, 2013). This is theoretically supported by the decremental theory of aging which establishes the relationship between age and performance (Giniger *et al.*, 1983). Older owners of the firm are therefore expected to display more technical efficiency in their firms than younger ones. Empirically, age is positively and significantly related to work performance in other sectors than sunflower oil processing firms (Amangala, 2013; Met & Ali, 2014). On the other hand, Birren and Schaie (2001) did not find the significant positive relation between age and work performance. Conflicting results is previously found in other sectors other than sunflower oil processing firms.

Experience of the owner

It is believed that, owners with high working experience perform better than the ones with low/no working experience something applicable also in sunflower oil processing firms. As one acquire more work experience, s/he acquires more skills, techniques and methods, that improve performance capabilities (Katozai, 2005; Nsubuga, 2009). This means that, an increase in work experience results in higher job knowledge and task performance. Literature also reports that, performance of individuals differs from culture to culture and country to country depending upon the knowledge and experience of the firm owner (*ibid*).

Education level of the owner

Education level of the owner is expected to influence technical efficiency of the firm including sunflower oil processing firms. When an owner increases his/her education level, s/he gains more stock of human knowledge which consequently increases efficiency. This is even supported previously by Jude (2007) who revealed that, education of an individual plays a significant role in improving efficiency of the firm by aiding adoption of requisite technologies.

Training of the employees

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Firms with well trained work-force are likely to be more efficient because of their greater capability in absorbing and effectively utilizing new technology (Admassie and Matambalya, 2002; Zahir and Mokhtar, 2007; Amornkitvikai and Harvie, 2010, 2011; Charoenrat, 2012).

Based on theoretical and empirical arguments on conflicting and inconclusive evidences reported, we therefore hypothesized that:

H₁. Sunflower oil processing firms are fully technically efficient

H₂. Capital, labour and material contribute significantly to sunflower oil firms' output

H₃. Firm size, age, location, ownership type, training of employees, education level, experience and age of the owner influence technical efficiency in sunflower oil processing firms

3. Methodology

3.1 Study area

Dodoma and Singida regions were purposely selected as the study area to represent a major central agricultural corridor and processing potential of sunflower oil in Tanzania. The highest produced amount of sunflower seeds in this area led to predominance of processing firms along Dar-es salaam to lake zones and Arusha highways. However, they are of small-scale and 75% of them operate under capacity despite of their big number utilizing only 29% of their installed capacity (Tisimia, 2014). Also the selection of Dodoma and Singida region was also guided by study by Mpeti (2015) which revealed that the technical efficiency of sunflower seeds producers and processors in this area is inconclusive with steadily declining technical efficiency.

3.2 Data

A set of primary cross sectional firm-level average data was collected from 2013 to 2015 for 219 sunflower oil processing firms by using a questionnaire. The owner-managers were purposely selected and interviewed on important data particularly on the quantity produced on liters, price per liter, quantity of raw materials used and the price per bag, average daily wages for labour and the number of personnel in their respective firms as they deal with the business daily.

3.3 Model Specification

One stage stochastic production frontier with inefficiency effect model under a Maximum Likelihood Estimate (MLE) technique was used in estimating technical efficiency and their determinants for sunflower oil processing firms simultaneously (Battese & Coelli 1995). The MLE approach chooses those values of the parameters of the likelihood function that maximize the probability of observing the most precise estimates sample values of the random variables.

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Importantly, a series of hypothesis tests were conducted to specify the model that fit the data well either Cobb-Douglas or translog, the distribution of one sided error term and presence of inefficiency by using the generalized likelihood ratio statistic (LR) given by:

$$\lambda = -2[\ln\{L(H_0)\} - \ln\{L(H_1)\}] \quad \lambda = -2[\ln\{L(H_0)\} - \ln\{L(H_1)\}]$$

(1)

Where $\ln\{L(H_0)\}$ and $\ln\{L(H_1)\}$ are the values of the log-likelihood function under the null (H_0) and alternative (H_1) hypotheses. The results of LR values computed from equation (1) above were compared with critical values from Kodde and Palm table (1996) for valid and reliable model decision. This suggested that Cobb Douglas production function fit the data well and thus we fail to reject the null hypothesis, a frontier is Cobb-Douglas. Thus, Cobb Douglas stochastic frontier functions being a suitable production function, its operational model have been specified as:

$$\ln Y_i = \beta_0 + \beta_1 \ln x_{1i} + \beta_2 \ln x_{2i} + \beta_3 \ln x_{3i} + V_i - U_i$$

(2)

Where

Y_i = Total output of sunflower oil originally captured in Liters

X_1 = Total Capital invested originally captured in Tshs)

X_2 = Total Materials used originally in Tshs

X_3 = Labour cost used originally in Tshs

V_i = random error term with normal distribution $N(0, \sigma^2)$

U_i = a non- negative random variable called technical inefficiency associated with the processing firm

\ln = the natural logarithm

$\beta_0 - \beta_1$ = coefficients to be estimated

The deviation from actual maximum output (U_i) in equation 2 above became the measure of inefficiency, the point of interest for this empirical work. It is measured as the function of firm specific factors as specified in the operational equation below.

$$U_i = \alpha_0 + \alpha_1 Z_{1i} + \alpha_2 Z_{2i} + \alpha_3 Z_{3i} + \alpha_4 Z_{4i} + \alpha_5 Z_{5i} + \alpha_6 Z_{6i} + \alpha_7 Z_{7i} + \alpha_8 Z_{8i}$$

(3)

Where U_i = the inefficiency term

Z_1 = Firm age measured in number of years since establishment

Z_2 = Firm size measured in number of employees

Z_3 = Ownership type dummy whether sole proprietor (1) or partnership (0)

Z_4 = Experience measured in years (prior and current work experience)

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Z5 = Education of the owner in qualification levels

Z6 = Location of the firm dummy whether in Singida (1) or Dodoma (0)

Z7 = Training of employees whether trained (1) or not trained (0)

Z₈ = Age of the owner in years

α_0 -8 = estimated inefficiency model coefficients.

Parameters in equation (2) and (3) were jointly estimated in a single stage under Maximum Likelihood Estimate technique, indicating the frontier model for contribution of input to output of the firm and the inefficiency model for factors of inefficiency.

4.0 Empirical Results and Discussion

Prior to the main findings of the study, the summary results of the hypothesis tested on the selection of suitable production function, the distribution of one sided error term and presence of inefficiency in sunflower oil processing firms are presented in table 4.1 below

Table 4.1. Log likelihood Test for underlying Hypothesis

Null Hypothesis	df	λ	Critical Values	Decision
1. $H_0: \beta_{ij}=0$ (frontier is Cobb Douglas)	6	10.014	11.911	Do not reject
2. $H_0: \mu = 0$.(Half Normal)	1	6.034	3.841	Rejected
3. $H_0: \gamma = 0, \gamma = \delta_0 = \delta_1 = \dots = \delta_6 = 0$ (no inefficiency effect)	6	38.982	11.911	Rejected

The results on table 4.1 above indicate that hypothesis 1 was not rejected to mean that Cobb Douglas production function fits the data well. Hypothesis 2 was rejected to imply that inefficiency effect is stochastic with an exponential distribution. Finally, hypothesis 3 was also rejected to imply the presence of inefficiency in sunflower oil processing firms.

4.1 Determinants of Technical Efficiency

Table 4.2 below show the parameters of stochastic frontier and inefficiency effect model simultaneously estimated under Maximum Likelihood Estimate (MLE) technique. The upper part represents the frontier model parameters revealing the contribution of inputs (capital, labour and material) to output of the firms while the lower part indicates the inefficiency model parameters for inefficiency/efficiency factors respectively.

LogUnitProduced	Parameter	Coefficient	Std. Error	z	P> z
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Table 4. 2. Maximum Likelihood Estimates of the parameters for both stochastic

Production frontier and Inefficiency effect model.

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Frontier model					
Constant	β_0	4.563	2.252	2.03	0.043 **
LogCapital	β_1	0.792	0.048	16.60	0.001**
LogMaterials	β_2	- 0.126	0.052	- 2.43	0.015**
LogLabour	β_3	0.179	0.128	1.39	0.164
Inefficiency model					
Constant	α_0	-31.061	15.007	- 2.07	0.038**
Location(Singida)	α_1	-9.438	4.708	-2.00	0.045**
FirmSize	α_2	- 0.279	0. 441	- 0.63	0.527
Firm Age	α_3	2.205	1.024	2.15	0.032**
Experience	α_4	- 0.235	0.361	-0.65	0.514
Ownership (Sole proprietorship)	α_5	-11.399	5.692	-2.001	0.047**
Education Level	α_6	-11.420	5.584	-2.04	0.041**
Training Of Employees(Trained)	α_7	- 48.56217	867.727	- 0.06	0.955
AgeOfOwner	α_8	0.309	0.150	2.06	0.039**
#observations		219			
Wald chi2(4)		11.48			
Prob > chi2		0.0094			
Log likelihood		-294.882			
Variance parameters					
	σu^2	0.889			
	λ	0.769			
	γ	0.744			
Technical Efficiency levels	Mean	0. 529			
	Mini	0. 032			
	Max	0.792			

4.1.1 Frontier Model

The results in table 4.2 above indicate that capital contributes positively and significantly to output of the firms at 5% while material contributes negatively but significantly. A positive direction of capital imply that it is an important determinant of the output in sunflower oil processing firms, 1% increase in capital will result into an increase in output level by 0.792%. On the other hand, a negative coefficient of

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material imply over commitment of materials by sunflower oil processing firms in the production, 1% increase in material will result in a decrease in output of the firm by 0.126%. This is due to seasonality nature of harvested seeds revealed from the field. Sunflower seeds are reserved to the farmers before even ready for harvest and purchased during harvesting season regardless of their quality. We also found that sunflower oil processing firms operate at a mean technical efficiency of about 53 % ranges from a minimum of 3.2 % to a maximum of 79.2 %. This implies that are opportunity to increase their current level of output by 47 % on average at the same level of inputs and technology.

Additionally, the estimated variance parameters represented by sigma squared (σ^2), Lambda (λ) and gamma (γ) as indicated in table 4.2 support the presence of inefficiency. The value of the sigma square (σ^2), is large of 0.88 significantly different from zero to imply goodness of fit and correctness of the distributional form assumed for the composite error term. This is supported by the greater value of lambda (λ) of 0.769 indicating the dominant share of one- sided error term, u. Also the quite large value of gamma (γ) of about 0.744 justifies that a greater part of residual variation in output among small scale sunflower oil processing firm is associated with the firm inefficiency rather than measurement errors. Thus, the dominance of one sided error component in the model mean further that the average production function (Ordinary Least Square, OLS) is inadequate in representing the data.

4.1.2 Inefficiency Model

Conversely, a negative sign on the inefficiency effect model parameter means that the variables reduce inefficiency while the reverse is true for a positive sign. The results in table 4. 2 above indicate that location of the firm, ownership type and education level of the owner related negatively while firm age and age of the owner related positively but significantly to the inefficiency model for sunflower oil processing firms as explained below:

4.3.1 Location of the firm

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Location of the firm contributes negatively and significantly to the inefficiency of sunflower oil processing to imply that technical inefficiency decreases with location of the firm. Since the location was captured as dummy 1 for a sunflower oil processing firm operating in Singida and 0 for those located in Dodoma. Keeping Dodoma as a reference category, the negative sign with location imply that sunflower oil processing firms located in Singida are more likely to reduce inefficiency as compared to those in Dodoma. This is due to high production of sunflower seeds across districts as the region is ranked the highest (TEOSA, 2012). Also they are strategically located in township/municipal areas mainly along Mwanza -Arusha and Dar-es-Salaam high ways where there are higher chances of access to technical and managerial training, educational services and market opportunities particularly passengers who purchase oil along the road and at Singida bus terminal. In addition there are improved infrastructure and transport networks connecting districts for easy access and transport of raw materials and availability of electricity and water supplies to facilitate processing of sunflower oil as well. Likewise, these firms have greater access to labour, information and communication technology infrastructure. These study findings are in line with the study by Tran et al. (2008), Le and Harvie (2010) and Charoenrat (2012).

4.3.2. Ownership type

The legal ownership of the firm was captured as dummy 1 for sole proprietorship and 0 for partnership, thus as compared to partnership, sole proprietorship revealed a negative and significant relationship with technical inefficiency of sunflower oil processing to imply that inefficiency of sunflower oil processing firms' decreases with type. Although a partnership type of ownership, have the benefits of allowing the owner to draw on resources and expertise of co-partners, share risk and management skills and solve barriers to doing business collectively but a sole proprietor has a complete control within the parameters of the law and decision-making power over a business. The findings are in line with the study by Ha (2006).

4.3.3. Education level of the owner

Education level of the owner revealed negative and statistically significant relationship with the inefficiency effect model as theoretically expected. This means that technical inefficiency in sunflower oil processing firms decreases with the education level of the owner. This implies further that one additional year of schooling enhances the technical efficiency of the sunflower oil processor on great extent. In the same way, education level enhances the stock of human knowledge which consequently increases efficiency. This findings are in line with the study by Jude(2007) on technical efficiency of rice producers in Uganda which revealed that education of an individual plays a significant role in improving efficiency of the firm by aiding adoption of requisite technologies. Well educated owners are expected to make rational decisions that improve efficiency. Most of the sunflower oil firms are owner managed with highly centralized decision making power thus education of the owners positively influence the efficiency of the firm independently of the work force capabilities.

4.3.4 Firm age

The results indicate that, firm age is positively and statistically significant related with technical inefficiency in sunflower oil processing firms. This implies that inefficiency in sunflower oil processing firms increases with age of the firm. Therefore older processing firms are less efficient than younger firms. Older firms may have more experience but this can be offset by greater indifference through possession of older machinery as most of them own single refined machines rather than double refined ones. It becomes too expensive for them to fragment the old machines (single refined) and hence efficiency decreases.

The findings of this study conform with the findings by Le and Harvie (2010), Niringiye et al. (2010), and Amornkitvikai (2011) on the technical efficiency of other manufacturing firms while contrasting with the study findings by Admassie and Matambalya (2002); Batra and Tan (2003); Amornkitvikai and Harvie (2011). This might be due to differences in nature of the firms involved in the study.

4.3.5 Age of the owner

The age of the owner was included to control age difference and found to be positively and statistically significant related to the technical inefficiency in sunflower oil processing firms. This implies that inefficiency in sunflower oil processing firms increases with age of the owner. This can be contributed by poor mobility and low production motives despite of their greater practical problem solving ability. In other word, they grow older and get past their productive age. Also their flexibility and willingness to make fundamental strategic change of business directions diminishes. These results are also consistent with studies in other sectors conducted in Tanzania which revealed that majority of small scale business owners are younger than 40 years (Hawassi, 2006; Isaga, 2012; Tundui, 2012).

However, experience of the owner, firm size and training of employees were not statistically significant determinant of technical efficiency but had negative sign with inefficiency model.

5.0 Conclusion and Policy Implication.

This study examined the determinants of technical efficiency among small-scale sunflower oil processing firms in Tanzania using a One Stage Stochastic Production Frontier based on Cob-Douglas function with inefficiency model under MLE .It was revealed that sunflower oil processing firms operate at the average technical efficiency level of about 53% with capital and materials input contributing significantly to the output. This implies the level of sunflower oil can be improved by 47% under the same inputs and technology. The high value of capital elasticity in the stochastic production frontier highlight that capital specifically operational machines contribute greatly in sunflower oil processing firms. Also a high level of heterogeneity observed on technical efficiency levels among sunflower oil processing firms from the lowest of 3.2% to highest of 79.2 % is contributed by location of the firm ,education level of the owners, ownership type, firm age.

Efficiency enhancing policy measures can therefore be considered by the government agencies like Small Industrial Development Organisation (SIDO), Tanzania Food and Drugs Authority (TFDA) and Tanzania Beaural of Statistics (TBS), particularly by creating enabling environment through designing and

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clustering industrial areas, ensure availability of quality materials and promoting economies of scale among sunflower oil processing firms in Tanzania. These would in turn encourage younger firms, educated, young and middle aged processors to individually own and locate their sunflower oil processing in the designed industrial areas for improved technical efficiency as the way forward to realize their full potentials.

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Modelling Strategic Entrepreneurship, Competitive Advantage and SMEs Performance in Emerging Economies: A Literature Review

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Abstract

Small and Medium Enterprises (SMEs) are important in promoting socio-economic development. However, SMEs in emerging economies like Tanzania are faced by various problems including but not limited to lack of entrepreneurial culture which hamper their growth and thus retard their contribution to the economic and social welfare of the entrepreneurs and the nation at large. Entrepreneurial culture may be promoted through strategic entrepreneurship which is the synergy of entrepreneurship and strategic management. In accordance to the Resource Based Theory; entrepreneurial orientation, strategic resources management and learning orientation have been adopted as components of strategic entrepreneurship that enhance opportunity-seeking and advantage-seeking actions which eventually promote SMEs performance. Competitive advantage has been adopted as a mediating variable. While this study acknowledges the efforts invested by past studies in developing models on strategic entrepreneurship and SMEs performance, there still exist some conceptual gaps viz. there is no consensus on the components constituting strategic entrepreneurship, the direct influence of the strategic entrepreneurship components studied so far may not enhance both opportunity-seeking and advantage-seeking actions and the mediating effect of competitive advantage on strategic entrepreneurship and SMEs performance is not yet extensively studied. In an attempt to address these knowledge gaps, the model has been developed and recommended for use in future studies.

Keywords: Competitive advantage, emerging economies, SMEs performance, Resource Based Theory, strategic entrepreneurship.

Introduction

Small and Medium Enterprises (SMEs) play an important role in promoting socio-economic development through creation of employment and income generation (Fatoki, 2012; Mata & Aliyu, 2014; Nur et al., 2014; URT, 2003). Despite the importance to socio-economic development, SMEs in emerging economies like Tanzania are faced by various problems that hamper their growth and thus retard their contribution to the economic and social welfare of the entrepreneurs and a nation at large. Mashenene and Rumanyika (2014) found that inadequate business training, insufficient capital and anti-entrepreneurial 'culture are critical constraints which hamper the potential growth of SMEs in Tanzania. While business training and insufficient capital constraints can be tackled by external stakeholders like academic institutions and financial institutions respectively, anti-entrepreneurial culture remains at the heart of the firm to be addressed by the employed individuals. It is the problem that calls for interventions as SMEs ought to embrace entrepreneurial culture to

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survive in business environment with stiff competitions, scarce resources and fast changing technologies.

Entrepreneurial culture may be promoted through strategic entrepreneurship; the synergy of entrepreneurship and strategic management which involves both opportunity-seeking and advantage-seeking actions (Dogan, 2015; Hitt et al., 2001; Kraus & Kauraren, 2009). Researchers have argued that strategic entrepreneurship is a new field for business and management literature (Dogan, 2015; Foss & Lyngsie, 2011; Gelard & Ghazi, 2014). Strategic entrepreneurship is characterized by a new management philosophy that promotes strategic agility, flexibility, creativity, and continuous innovation (Kraus & Kauraren, 2009).

Despite the growing consensus among scholars that strategic entrepreneurship promotes SMEs performance through simultaneous integration of opportunity-seeking and advantage-seeking actions, literature lacks its validated measure thus selection of elements constituting strategic entrepreneurship is a persisting challenge as it is not yet agreed on the components of strategic entrepreneurship (Foss & Lyngsie, 2011; Gerald & Ghazi, 2014; Chai & Sa, 2016), Herath & Mahmood, 2013, Kantur, 2016). Lack of consensus in selecting components of strategic entrepreneurship alerts a need to further select more components in attempts to enhance both opportunity-seeking and advantage-seeking actions. This study has adopted learning orientation, strategic resources management and entrepreneurial orientation as components of strategic entrepreneurship. Competitive advantage has been adopted as a mediating variable between strategic entrepreneurship and SMEs performance.

Although the direct influence of learning orientation and entrepreneurial orientation on SMEs performance has been vastly studied (Grinstein, 2008) as in works of Shehu and Abdullah (2014), Chenuos and Maru (2015), Protcko and Dornberger (2014), Amin (2015) and Suliyanto and Rahab (2012); such direct influence may not enhance both opportunity-seeking and advantage-seeking actions, this situation paves avenues to study the indirect influence of the components on SMEs performance (Grinstein, 2008; Ireland et al., 2003).

Despite the importance of competitive advantage as described in the Resource Based Theory (Theriou et al., 2009), the mediation effect of competitive advantage on the relationship between strategic entrepreneurship and SMEs performance is not yet extensively studied but rather assumed (Mahmood & Hanafi, 2013a; Mahmood & Hanafi, 2013b) hence a need to obtain empirical evidence on that mediation effect.

This study is an attempt to develop the strategic entrepreneurship, competitive advantage and SMEs performance model through integration of models developed in past studies.

The Resource Based Theory

The Resource Based Theory which is a composite theory derived from the Resource Based View and Knowledge Based View. It postulates that competitive advantage of a firm which leads to firm performance is a result of knowledge management capabilities, firm resources and strategy (Theriou et al., 2009).

The Resource Based View suggests that firm's competitive advantage and superior performance emanate from firm specific resources and capabilities that are costly to be copied by rivals and indeed such resources are valuable, rare, imperfectly imitable and non-substitutable, thus, the strategy of the firm to carry out its business depends on the available resources (Barney, 1991). However, the Resource Based View falls short on how and why certain firms have competitive advantage in situations of rapid and unpredictable change i.e. dynamic environment (Teece et al., 1997) and hence the introduction of the Knowledge Based View.

The Knowledge Based View is an extension of the Resource Based View (Grant, 1996). While the Resource Based View considers knowledge as a generic resource, the Knowledge Based View considers it as an intangible and dynamic strategic

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resource that does not depreciate and a primary source of all other firm resources and strategies (Curado, 2006). According to Pemberton and Stonehouse (2000) cited in Theriou et al. (2009), the Knowledge Based View postulates that competitive advantage is governed by the capability of firms to develop new knowledge based assets that create core competencies. The strategy of the firm depends on the available knowledge capabilities. The Knowledge Based View assumes that knowledge is the critical input in production and primary source of value (Grant, 1996). However, building of distinctive capabilities and core competencies within firms calls for knowledge management processes of creating, acquiring, storing, sharing and deploying knowledge, thus, firms should first build knowledge management capabilities so as to gain abilities of creating other necessary distinct capabilities and core competencies (Pemberton & Stonehouse, 2000 cited in Theriou et al., 2009).

The Resource Based Theory conceptual framework consists three independent variables viz. knowledge management capabilities, strategy and resources. Both Resource Based View and Knowledge Based View advocate that firm's competitive advantage and strategy depend on the resources owned and controlled by the firm for better performance. Firm resources include but not limited to assets, capabilities, organizational processes, firm attributes, the information and knowledge (Barney, 1991).

Earlier models

This study acknowledges the efforts invested by past studies in developing models aimed at enhancing both opportunity-seeking and advantage-seeking actions in promoting SMEs performance. Strategic entrepreneurship being a new field lacks validated components, this situation may result into carrying over explanatory components such as entrepreneurial orientation from the established entrepreneurship literature (Foss & Lyngsie, 2011). This idea was supported by Chai and Sa (2016) who proposed use of entrepreneurial orientation, entrepreneurial values and knowledge creation process as components of strategic entrepreneurship in future studies. The main shortcoming of Chai and Sa's (2016) model is the exclusion of competitive advantage and strategy variables. Competitive advantage is a mediating variable between strategic entrepreneurship and SMEs performance while the strategy is an important component of strategic entrepreneurship (Ireland et al., 2003; Theriou et al., 2009).

Ireland et al. (2003) developed a model consisting four key components of strategic entrepreneurship viz. entrepreneurial mind-set, entrepreneurial culture and entrepreneurial leadership, strategic resources management and applying creativity and developing innovation. The notable pitfall of Ireland et al.'s (2003) model is the sequential relationship of the proposed components rather than the simultaneous relationship which integrates both opportunity-seeking and advantage-seeking actions (Chai & Sa, 2016). Empirical test on the Ireland et al.'s (2003) model revealed that entrepreneurial mind-set and innovation are important components of strategic entrepreneurship (Gelard & Ghazi, 2014) thus entrepreneurial orientation has a potential of being a component of strategic entrepreneurship.

Herath and Mahmood (2013) proposed a model consisting of learning orientation, market orientation and entrepreneurial orientation as components of strategic entrepreneurship. Like in the case of Chai and Sa's (2016) model, the main drawback of Herath and Mahmood's (2013) model are exclusion of competitive advantage and strategy variables.

This study blends the Ireland et al.'s (2003), Herath and Mahmood's (2013) and Chai and Sa's (2016) models by adopting learning orientation, strategic resources management and entrepreneurial orientation as components of strategic entrepreneurship. Competitive advantage is adopted as a mediating variable.

Model development

This study hypothesizes that strategic entrepreneurship is composed of learning orientation, strategic resources management and entrepreneurial orientation as independent variables, SMEs performance is the dependent variable and competitive Advantage is a mediating variable.

Strategic entrepreneurship

Hitt et al. (2001) defined strategic entrepreneurship as the integration of opportunity-seeking and advantage-seeking behaviour perspectives in developing and taking actions designed to create wealth; likewise, Karadal (2013) cited in Dogan (2015) defined strategic entrepreneurship as the integration of entrepreneurial and strategic perspectives in application of the actions designed to create wealth. Both definitions point out that strategic entrepreneurship is aimed at creation of wealth through application of actions viz. opportunity-seeking (entrepreneurship) and advantage-seeking (strategic management) actions.

This study has adopted learning orientation, strategic resources management and entrepreneurial orientation as components of strategic entrepreneurship as recommended by Calantone et al. (2002), Grinstein (2008), Herath and Mahmood (2013) and Ireland et al. (2003). Adoption of strategic entrepreneurship components is justified in the following grounds; first, learning orientation which is centred on creation and utilization of knowledge represents the knowledge management capabilities; second, strategic resources management represents the strategy that is centred on effective utilization of resources and third, entrepreneurial orientation represents the firm intangible resources.

Learning orientation

Learning orientation refers to organization-wide activity of creating and using knowledge to enhance competitive advantage; it is a firm's degree of commitment to learning, shared vision, open-mindedness and intra-organisational knowledge sharing (Calantone et al., 2002). Martinette and Obenchain-Leeson (2012) contended that learning orientation influences firm's competitive advantage.

The influence of learning orientation on SMEs performance has been reported by some researchers (Amin, 2015; Calantone et al., 2002; Eshlaghy & Maatofi, 2011; Mahmood & Hanafi, 2013a; Yeni, 2015). However, some studies have reported no significant influence of learning orientation on SMEs performance like in the work of Nybakk (2012). These mixed results call for further research across different industries.

Strategic resources management

Strategic resources management occurs when deployment of resources facilitates the simultaneous and integrated use of opportunity-seeking and advantage-seeking actions (Ireland et al., 2003). Possession of valuable, rare, perfectly imitable and non-substitutable resources (Barney, 1991) without effective management of such resources is likely to suppress attainment of competitive advantage. In order to benefit from such resources, firms ought to adopt strategic resources management approach. Past studies have suggested that firm's competitive advantage is influenced by strategic resources management (Ireland et al., 2003; Dogan, 2015; Foss & Lyngsie, 2011).

Strategic resources management can be measured using various indicators including but not limited to structuring resource portfolio, bundling resources to form capabilities and leveraging those capabilities to facilitate simultaneous and integrated opportunity-seeking and advantage-seeking actions to create wealth (Ireland et al., 2003). The influence of strategic resources management on SMEs performance has been suggested in past studies like in the work of Ireland et al. (2003), Dogan (2015) and Foss and Lyngsie (2011).

Entrepreneurial orientation

Entrepreneurial orientation refers to 'processes, practices, and decision-making activities that lead to new entry' (Lumpkin & Dess, 1996, p.136). Entrepreneurial orientation aims at identifying and exploiting opportunities. It constitutes five dimensions viz. autonomy, innovativeness, risk taking, pro-activeness and competitive aggressiveness (Lumpkin & Dess, 1996). Earlier works used three dimensions viz. innovation, pro-activeness and risk taking to measure entrepreneurial orientation (Miller, 1983 cited in Zulkfli & Rosli, 2013). Use of five dimensions facilitates wider exploration of entrepreneurial orientation component. Empirical studies have shown that entrepreneurial orientation influences competitive advantage of a firm (Mustafa et al., 2015).

Although some studies have found partial influence of entrepreneurial orientation on SMEs performance like in the work of Chenuos and Maru (2015a), Okangi and Letmathe (2015), most researchers tend to agree that entrepreneurial orientation influences SMEs performance (Amin, 2015; Amin et al., 2016; Bengesi, 2013; Campos & Valenzuela, 2013; Fatoki, 2012; Mahmood & Hanafi, 2013a; Mata & Aliyu, 2014; Rauch et al., 2009; Yeni, 2015; Zehir, 2015; Zulkifli & Rosli, 2013).

Competitive advantage

Competitive advantage refers to the firm's superiority in terms of market performance that enables the firm to outperform its competitors (Safarnia et al., 2011). Competitive advantage occurs when a firm implements a value creating strategy that is not concurrently implemented by rivals (Barney, 1991).

Competitive advantage can be achieved through various strategies such as marketing differentiation strategy, innovation differentiation strategy and low-cost strategy (Safarnia et al., 2011). These strategies can be described in different perspectives: firstly, marketing differentiation strategy involves provision of uniqueness and points of differences on marketing activities such as improving firm image, customer service, advertising, promotions and distributions; secondly, innovation differentiation strategy ensures uniqueness and superiority in functionality, design, performance and consumption performance and thirdly, low cost strategy facilitates acquisition of low cost products through superior refinement, exploitation and control of facilities and resources (Ibid). Competitive advantage can be measured using various dimensions such as differentiated products, market sensing, collaboration with partners, focus on high value customers, market responsiveness, customers as assets, information transparency and supply chain leadership (Ramaswami et al., 2006).

However, the effect of competitive advantage on SMEs performance is not yet extensively studied (Mahmood & Hanafi, 2013a; Mahmood & Hanafi, 2013b). Some studies which have attempted to study that influence have been facing a challenge of using different measures. It has been demonstrated that SMEs performance is positively influenced by the firm's competitive advantage (Ismail et al., 2010; Majeed, 2011; Muafi & Roostika, 2014; Wijetunge, 2011).

SMEs performance

SMEs performance can be defined using its measures. Unfortunately, there is no consensus among scholars on generic SMEs performance measures (Mahmood & Hanafi, 2013a; Mahmood & Hanafi, 2013b). Firm owners or managers combine both financial and non-financial approaches to measure performance (Chong, 2008). Financial performance measures include but not limited to growth in revenue and growth in number of employees, non-financial performance measures include but not limited to customers' satisfaction and growth in customers' base and market (Ibid). According to Maduekwe and Kamala (2016), sales growth, cash flows and operating income were found to be the top three financial performance measures and response time to customers, customers' satisfaction and percentage of repeat customers were found to be the top three non-financial performance measures.

Various SMEs performance measures have been used in studies conducted in Tanzania such as employment growth, wage bills, sales growth, profit growth, return on assets and return on investment (Bengesi, 2013); sales, assets, employment (Isaga, 2012) and profits (Okangi & Letmathe, 2015). Other SMEs performance measures are profitability, sales, cash-flow, market share, asset level, number of employees, number of branches and overall realization of firm's objective (Philemon & Kessy, 2016) and sales growth, market growth, firm growth, financial performance and market share (Tumsifu, 2013).

However, the top three performance measures used by manufacturing SMEs in Tanzania with their extent of use in brackets are turnover (97.3%), profitability (97.0%) and number of customers (76.4%) (URT, 2012).

Model presentation

Figure 1 represents the relationships between the independent, dependent and mediating variables. The model depicts the direct influence of learning orientation, strategic resources management and entrepreneurial orientation on SMEs performance, the indirect influence of learning orientation and entrepreneurial orientation through strategic resources management on SMEs performance and the indirect influence of learning orientation through entrepreneurial orientation on SMEs performance. The competitive advantage variable mediates strategic entrepreneurship components and SMEs performance.

The proposed model is relevant in two grounds; first, the proposed components have not been collectively and intensively studied in the past, thus the model is in line with recommendations of Calantone et al. (2002), Chai and Sa (2016), Grinstein (2008), Herath and Mahmood (2013) and Ireland et al. (2003); second, the model is compatible with the Resource Based Theory.

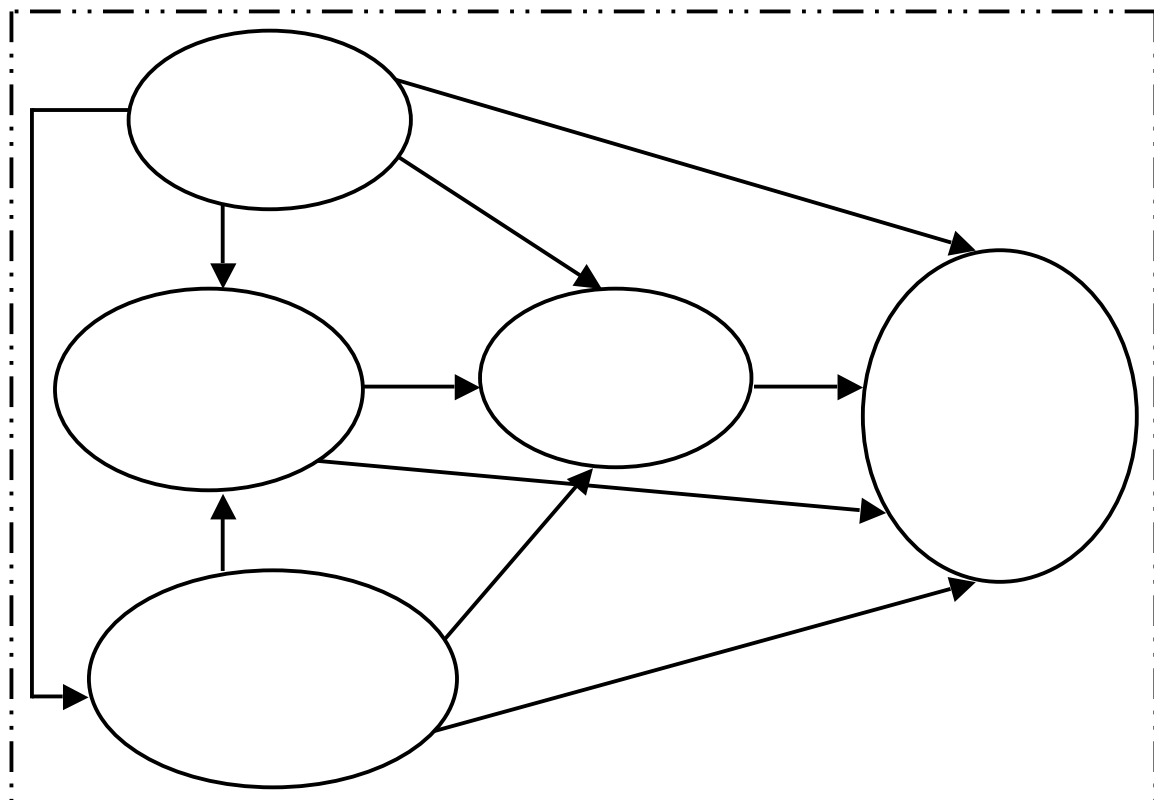


Figure 1. Proposed strategic entrepreneurship and SMEs performance model
Source: Researchers' construct based on literature review

Conclusion and recommendation

This work has reviewed the existing literature related to the influence of strategic entrepreneurship on SMEs performance under the mediation of competitive advantage. It has operationalized the Resource Based Theory into workable model that represents the direct and indirect influence of learning orientation, strategic resources management and entrepreneurial orientation on SMEs performance and competitive advantage as a mediating variable.

The study has contributed to existing strategic entrepreneurship and SMEs performance literature in three ways; first, it has introduced strategic resources management as a firm's strategy (Ireland et al., 2003) to be combined with learning orientation and entrepreneurial orientation which are intangible resources. This combination is proposed in a bid to enhance both opportunity-seeking and advantage-seeking actions. The authors have found no evidence on the use of this combination in past studies.

Second, the study has proposed determination of direct and indirect influence of strategic entrepreneurship components on SMEs performance as opposed to past studies which have been concentrating more on direct influence (Grinstein, 2008). The indirect influence are expected to better enhance opportunity-seeking and advantage-seeking actions than the direct influence.

Third, the study has introduced competitive advantage as a mediating variable between strategic entrepreneurship and SMEs performance in accordance with the Resource Based Theory (Theriou et al., 2009). Literature is in deficit of studies investigating the mediating effect of competitive advantage (Mahmood & Hanafi, 2013a; Mahmood & Hanafi, 2013b).

The authors recommend the proposed model to be applied in future studies using real world data across different industries.

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Session B1

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: B

Value chains, Marketing and Entrepreneurship

Session Chair: Prof Otto Andersen, Agder University

Potentials and Limitations of SMEs product upgrading through partnership with Large scale Processors: Lessons from the Sunflower Oil Industry in Central Tanzania

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Faraja Mgulambwa, Mzumbe University, Tanzania

Abstract

Linkages between small, medium (SMEs) and large-scale enterprises have been associated with benefits arising from technological transfer, product upgrading and high value market access. However, such linkages do not occur spontaneously. So far such relationships have been mostly linked with foreign multinational corporations outsourcing the services of SMEs in developing economies. This study examined the potentials and barriers to partnership between SMEs and local large scale processors of sunflower oil in Tanzania. The study was exploratory in nature, and adopted a case study design. Envisaged benefit by the small enterprises were access to double refined facilities that would enable product quality improvement, accreditation and hence access to high value market. Large scale firms would benefit through increased capacity utilization, currently affected by inadequate seed production.

A total of seven SMEs and two large sunflower oil processing enterprises were investigated through in depth interviews with the owners and/or managers. Cross case analysis was used to assess the potentials and barriers for partnership.

The study found out that despite possible benefits that could be obtained by firms of both sides from linking, currently such linkages are very tangential. Barriers to linkage included existence of a secured and segmented market for crude sunflower oil at the lower end market, inadequate enforcement of food standards by regulatory authorities, lack of trust and absence of an institutional system that would promote partnership, and lack of or inadequate cooperation amongst the SMEs to facilitate economies of scale in such possible partnership.

The main implication of these results is that the process of partnership between large processors and SMEs has to start with strategic partnerships amongst the SMEs themselves to enhance their bargaining power and bring about economies of scale. Enforcement of compliance to food standards is also necessary.

Factors For Value For Money For Pharmaceutical Supply Chain: Perspective From Public Sector Actors

Rodrick Kakiziba, Mzumbe University, Tanzania

Geraldine Rasheli, Mzumbe University, Tanzania

Abstract

Background; Public procurement including procurement of pharmaceutical in Tanzania is regulated by Public procurement Act 2016 and its regulation of 2016. The overall subject of the legal framework for procurement of pharmaceuticals is to make essential M&MS available to all Tanzanians at all time with good quality, proven effectiveness and acceptable safety at the a price that individual and community can afford when these are needed to prevent, cure or reduce illness and suffering. However, not much has been documented on procurement principals, specifically value for money for procured pharmaceuticals through private suppliers.

Aim; The study examined VFM for procured pharmaceuticals through Private Suppliers (PS), specifically finding out whether the pharmaceuticals are effectively, efficiently and economically procured.

Method; The sample was drawn from Muhimbili National Hospital staff. Econometric analysis i.e. Multiple Linear Regression, Correlation analysis and ANOVA were used to find out significant factors for value for money.

Results; It was found out that all factors i.e. economically; effectiveness and efficiency in procured pharmaceuticals are significant factors for VFM for the hospitals having statistical significance value of 0.000. The findings revealed that, increasing one unit of one of these factors (economic, effective and efficiency) would bring a significant increase in VFM. Therefore it is important to manage all three factors for achieving value for money for privately procured pharmaceuticals.

Further studies could focus on other elements of public procurement principles such as transparency in managing procurement of pharmaceuticals and competition among bidders

Investigating the links between customers information management and form's competitive advantage: a comparative study of Tour operators in India and Tanzania

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Abstract

Emanating from the famous phrase "Information is power" This study investigated the link between customer information management and Firm competitive advantage using tour operators in Tanzania and India. This comparative study was carried out

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in the city of Bangalore in Karnataka state and in Tanzania we conducted the study in the cities of Arusha, Dar es Salaam and Kilimanjaro involving 250 tour operators in both countries.

The study used SEM-structural equation modelling which is regarded as the most robust multivariate analysis in terms of measuring both forward and backward relationship of the variables. One of its usefulness ahead of the other techniques is its ability to measure the relationships which are not obvious. It was found that, there is a link between database marketing application and firm's competitive advantage by looking at the basic model fit and the indicator variables such as AGFI, GFI, CFI, RAMSEA & CIM/DF were all passed the criteria for best fit. The findings further show that, there is performance differential between the Tour Operators who have invested money into collecting, analysing and applying customers information than those without. This is to say customers information management is both marketing strategy and corporate strategy for the organizations as it can be applied to achieve competitive advantage.

Comparatively, firms in India are a bit ahead of their counterparts in Tanzania in terms of applying the concept. This could be explained by the level of technological advancement between the two countries. The rest of the findings are discussed and presented in the main text of this research study.

The Impact of e-Business Technology in the Simplification of Marketing activities in Tanzanian; A case of Dar es Salaam Region

Augustino Lukwaro, Scan-Tanzania Co. Ltd

Ahadi Mmbughu, Ministry of Agriculture, Tanzania

Zainab Ndullah, PPF, Tanzania

Abstract

The intended study will evaluate the impact on the marketing sector in Tanzania brought by the electronic business technology. Properly designed and executed, e-business technology enables businesses to quickly and effectively implement geographical expansion. As such, businesses have an opportunity with minimal investment to have a national and global market presence almost overnight.

The researchers will assess the extent to which e-business has brought positive impacts in the marketing industry of Tanzania. Some of the researchers, who have investigated and written on the issue, have noted failure of e-business transactions in Tanzania. This is because currently Tanzania has proved its participation on the e-business mostly by transacting with foreign suppliers such as e-bay, Amazon as well as ali express.

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The researchers will review the theoretical and empirical literature pertaining to e-business technology in developing countries.

The study will focus on Dar es Salaam region, and respondents from the business community will be selected to answer the research questions based on a 4-point Likert Scale questionnaire. The responses will be analyzed using descriptive statistics. The researcher will use secondary data to provide additional insights related to the findings. The study will make recommendations regarding the improved application of e-business technology in Tanzania.

Session C1

1045-1200/Wednesday, September 20th, 2017/Meeting Room: C

Finance, Economics and corporate governance

Session Chair: Dr. Gabriel Komba, Mzumbe University, Tanzania

Resistance to Use Electronic Fiscal Devices (EFDs) in Tanzania: Reasons and Solutions for Traders in Rukwa Region

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Mkikima Faraji², Mzumbe University, Tanzania

Abstract

There are a number of issues related to the use of Electronic Fiscal Devices (EFDs) among traders in Tanzania. These include but are not limited to awareness, benefits, challenges and resistance in using the EFDs. The study on which this paper is based identified some of these issues among traders in Rukwa region in Tanzania. A case study design was adopted involving 77 traders out of 324 users of EFDs who were selected using simple random sampling. It also involved six (6) officers out of 18 operational staff of the Tanzania Revenue Authority (TRA) in Rukwa. Primary data were collected using questionnaires and interviews. Secondary data were obtained from various literature including various TRA reports. Data was analysed using descriptive statistics obtained from use of Statistical Package for Social Sciences (SPSS).

Findings revealed major reasons for resistance to use EFDs are; higher acquisition and maintenance costs; inadequate education about EFDs; unavailability of suppliers to offer technical assistance and lastly traders' motive to evade taxes. Recommendations to overcome the resistance include reduction of prices and cost of EFD machines, EFDs to be issued free by the government; provision of adequate and proper education and awareness programs using various media; strengthening usage of EFDs in major cities; ensuring high quality of EFD machines and ensuring that EFD machines suppliers and technicians are available all over the country.

Key words: Electronic Fiscal Devices, Taxation, Tanzania Revenue Authority

1. Introduction and background

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The study on which this paper is based aimed at identifying and assessing reasons for resistance of using Electronic Fiscal Devices (EFDs) among traders in Tanzania. The target group was traders in Rukwa Region in Tanzania. EFDs are small machines that are used to automatically determine amount of Value Added Tax (VAT) payable to the government (Niosi 1994). These devices are designed to ensure that all transactions performed by individuals and organizations are reported to the tax authority (Nyasha, et.al 2014).

EFDs may also mean a machine designed for use in business for efficient management controls in areas of sales analysis and stock control system which conforms to the requirements specified in regulations (Siraji, 2015). EFDs were first introduced in European countries in late 1980s. Their technological benefits accelerated inception in other countries. EFDs were introduced in African countries from 1994 to 2010 (Casey & Castro, 2012).

The Government of Tanzania in the view to enhance collection of Value Added Tax (VAT), improve voluntary tax compliance in a most effective way introduced these machines in two phases. The first phase was in 2009/2010 fiscal year, which targeted VAT registrants. The second phase was in 2012/2013 fiscal year which included non VAT registrants who attained sales threshold of Tanzanian Shillings3 14,000,000 per annum (Kirongo, 2014).

The Parliament of Tanzania enacted two regulations to enforce usage of EFDs in the country. These are the VAT Act (Electronic Fiscal Devices) Regulations 2010 which was enacted in 2010 and The Income Tax Act (Electronic Fiscal Devices) Regulations of 2012. The Government also enacted VAT Act 2014 and Tax Administration Act, 2015 which also have provisions that enforce traders to use EFDs.

Three types of EFDs were introduced in Tanzania including; Electronic Tax Register (ETR) used by small businesses; Electronic Fiscal Printer (EFP) used by fuel filling stations and point of sale, which also uses other systems to control their sales; lastly Electronic Signature Device (ESD) which is used by big businesses with special accounting packages.

Like in many other countries, traders in Tanzania resisted to use EFDs. In Kenya during introduction of EFDs many traders and general public rejected using them; several cases were brought in court against EFDs defaulters (Weru, et.al, 2013). Several researches were conducted assessing benefits and limitations of EFDs including but not limited to (Clive, 2011;Weru et al; 2013 and Yunusu, 2015). However these studies have not researched reasons for traders' resistance to use EFDs. This study on which this paper is based aimed at identifying and assessing reasons for resistance of traders to use EFD machines in Tanzania with a case study of traders in Rukwa region.

2. Literature review

Tax is a compulsory contribution imposed by governments to its citizens for provisions of public goods and services. It is among the most important sources of government revenue. Taxation is an instrument in the hands of the government for transferring purchasing power from individuals to government (Gebre, 2006 in Mohammed and Gela, 2014)

³ One USD was equivalent to about 2300 Tanzanian Shillings in June 2017 when this paper was written

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Tax Assessment and collection has been among the challenges facing many African countries for years. Challenge begins with fairness in tax assessment which has brought many objection cases to court. Makinyika, (2012) noted that; Tax administration in Tanzania is unclear and tax officers are considered to shoulder wider personal judgment in interpretation of the tax law, for example they may allow or disallow expenses as claimed by taxpayer.

In the quest to promote fairness in tax assessment and administration which in turn lead to voluntary tax compliance, the government of Tanzania through TRA has deployed several techniques to ensure the much taxes are collected, those techniques includes; division of tax centres into small manageable portions called blocks and further intensify the Block Management system (BMS); Tax Audits and surveillance checks; VAT control verification; management of Tax arrears, Revenue get-way system, and use electronic cash registers to mention some few.

The government of Tanzania performed a major reform in the year 1998 by introducing VAT to replace the non performing sales Tax, Stamp duty and entertainment Tax which were introduced in 1967 and become most contributing tax between 1980s to 1990s(Jorgen, 2001). The drop in performance of sales tax by 1990s triggered the government to introduce VAT with the view to expand the tax base which ultimately aimed at increasing collection, encourage export, easy administration, and reduce tax evasion and avoidance (Jorgen, 2001).

The single rate of VAT of 20% was adopted from July 1998 to June 2009, but later reduced to eighteen per cent, new rates of zero and exempted came on with effect from 2009 (Siriak, 2010). VAT performed well in the first six years of implementation, but later the performance was adverse in the following three years (Marandu, 2004). In the view to increase performance of Value Added Tax the government decided to introduce VAT on petroleum products which boosted the performance from 2001/02.

According to Bevan, (2012) TRA was experiencing a notable loss in revenue from VAT and import duty. This was due to incompleteness of methods adopted to collect these taxes. The drastic collapse in VAT performance led to countries like Kenya, Malawi and Zimbabwe alongside Tanzania to introduce EFDs. Kenyan Government introduced EFDs in 2005 mainly to reduce falsification and malpractices which led to loss of government revenue (Weru, et al. 2013).

EFDs were first introduced in Tanzania in 2010. It targeted 17,000 VAT registered traders in phase I and phase II (scheduled to start in July, 2013) aimed to enrol 200,000 non VAT registered traders who attained sales turnover of Shillings 14,000,000 per annum (Kirongo, 2014).

The main aim of introduction of EFD machines in Tanzania was to enhance VAT compliance and easy operation of the VAT law by TRA (Melkiory, 2011). Trend indicated an increase in VAT collections since EFDs were introduced in 2009/2010 year of income, table below show details.

Table 1: VAT Collection performance report from 2009 to 2015

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Department	Figures in Million Tzs					
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Domestic Revenue	49,783	58,207	86,282	90,254	95,790	108,316
Customs&Excise	259,071	327,207	391,662	433,043	500,183	581,441
Large Taxpayer	122,522	135,591	166,124	217,155	221,126	246,675
Total	431,376	521,005	644,068	740,452	817,099	936,432

Source: Tanzania Revenue Authority Tax reports, modified by Author

Despite the government reporting positive trend in revenue collection yearly since introduction of EFD machines, TRA on the other had has been encountering challenges implementing EFDs usage (Kironko, 2014). Traders in the country are in major crisis with the government questioning the quality, performance and cost of the EFD machines.

Electronic Fiscal Devices are devices with wide variety of technological features that revenue administrations can use to help monitoring business transactions (Chamshama, 2015). They are small machines or portable computers that are used to automatically determine amount of Value Added Tax (VAT) payable to the government (Niosi 1994). Three types of EFD machines were introduced in Tanzania; kind of these machines vary with size of business and use of special computer packages. Type of machines introduced in Tanzania includes: - Electronic Tax Registers (ETRs), Electronic Fiscal Printer (EFPs) and Electronic Signature devices (ESDs). These are briefly described below.

a) Electronic Tax Register (ETR) Also called the 'Fiscal till'

Electronic Tax Registers are small machines that resemble to Electronic Cash Registers (Swardt, 2015). Electronic Tax registers are cash registers with fiscal memory, which has a special, read only memory built into to store tax information at the time of sale (Rathus and Nevid, 1987)

These machines are useful in stand-alone businesses, which are not connected to specialized computer packages. Different to Electronic cash registers ETRs contain a fiscal memory that classify goods, charge tax and transmit the information to TRA server. The fiscal memory cannot be distorted, neither by breaking for loss of power. They are restricted to be accessed by personnel from the tax administration only and are enabled to General Pocket Radio System (GPRS) with ability to send information in the mobile network. Major weakness of ETR is that it cannot process a refund of goods returned (Swardt, 2015).

b) Electronic Fiscal Printer

This is more advanced compared to ETR and can be used simultaneously with computer package. Printers contain a fiscal memory that possesses same features as ETRs. EFP work with existing computer package to generate fiscal receipt; also maintains fiscal information for the revenue authority. They carry the same security features described for ETRs (Swardt, 2015).

c) Electronic Signature Devices (ESDs)

Electronic Signature Device is a device that provides a unique electronic signature" to an invoice. The ESD is configured into the computer network alongside selling packages, and when making a sell selling package issues invoice which is automatically captured by ESD and insert a unique long set of number and letters known as electronic signature, each of the signatures carries unique set of numbers (Swardt, 2015).

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Resistance of using EFDs

Despite advantages of using EFDs among traders and the government at large, there has been series of strikes against using these machines. With phase I of implementation succeeded by a good margin, phase II brought faced many challenges (Kirongo, 2014). Little or no culture, among Tanzanian to demand receipts for goods or services purchased, and denial by traders to issue receipts during the sale or issue under-valued receipt (Mohamed, 2015). Other problems including EFDs users delay to report failure (contrary to the requirement of regulation), delay by suppliers to service the faulted machines, and network problems in remote areas (Kirongo, 2014).

Taxpayers also claimed the following; inadequate training provided by TRA on operation of EFD machines; EFD suppliers' negligence to ensure smooth installation and frequent maintenance of machines; network problems where traders fail to submit summary of daily, monthly and annual report (z-report); complications of using EFD along with traders accounting packages; poor quality machines and paper rolls which issue faint fiscal receipts; while all these shortfalls are penalised by TRA, measures were not taken by TRA smooth operations (Melkiory, 2011).

Traders have gone into crisis across the Country; they denied opening their businesses until EFD problems are resolved. The Government held a meeting with the Association of Traders (Jumuiya ya Wafanya Biashara Tanzania-JWT), among other things to sort EFDs related problems.

The government established the Regional and District EFDs committee which among other members includes Regional Commissioners as chairperson of the committee; other members are TRA regional Managers; Regional Police Commander; Regional Administrative Secretary; Chairperson of Tanzania Chamber of Commerce Industries and Agriculture (TCCIA); Members of Parliament. The committee is responsible to address problems associated with EFDs in their respective regions.

Several researches have been conducted in light of Electronic Fiscal Devices effectiveness, limitations and general benefits to government, traders and public at large. For instance the research conducted by Kenya Revenue Authority to evaluate the effectiveness of electronic tax registers in collection of the Value Added Tax, which found that about 91% of companies in motor industry in Kenya have acquired EFDs and their operational staff have supported these machines. This implies that only 9% of companies were still using the manual methods, therefore EFDs are widely accepted by this group of traders. (Nyasha, et, al. 2014)

Since introduction of EFDs in 2004, Kenyan government has experienced notable increase in revenue collection. By the 2007 financial year revenue collection had increased by 15 Billion Kenyan Shillings, while compliance level increased by 5%. However, despite a positive trend in tax collection and compliance level which was main aim of Kenyan government to introduce EFDs, there were challenges like: - resistance among traders and officers to use EFDs, lack of awareness among traders and revenue officers. (Weru, et, al. 2013).

The above study further obtained that; from the survey conducted in Nairobi with a sample of about 500 traders, indicated that about 70% of respondents pointed out that EFD machines were user friendly, the other 20% were in between, while the

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remaining 10% complained the complexity of using machines. Major concern of traders was that, EFD machines were breaking down frequently. It was also noted that, in event machines are not working properly only 15% of customers were given receipts after making purchases after machines were brought into order, the remaining 85% were not given, which lead to loss of government revenue.

From the above study, Kenyan government had introduced EFDs for the main aim of enhancing tax revenue collection and improve compliance level, which both were attained by 15 billion Kenyan Shillings and 5 per cent respectively in just three years after EFDs introduction . Traders had also accepted EFDs by 70% (of 500 sampled traders), this means that EFDs were useful in Kenya. However, the government faced several challenges including resistance of traders to use EFD machines, therefore Kenyan government had to invest on public education about the benefits of EFDs to traders, public and the government, this being long a term solution of challenges emerged during the study.

Naibei & Siringi, (2011), undertook an evaluation of impact of Electronic Tax Registers towards tax compliance in Kisumu City, they tested three hypotheses which are:- tracing the positive relationship between use of ETRs and tax compliance, testing relationship between frequent inspections and its role in promoting tax compliance among private traders, and testing existence of adverse relationship between level of income of private firms with VAT compliance. The first two hypotheses accepted by ($R=0.0622, P<0.05$) and ($R=0.15, P<0.05$) Respectively, while the third one rejected by ($R=-0.0077, P>0.05$).

From analysis above, researchers obtained the positive relationship between EFDs and tax compliance level, thus Introduction of EFDs was one hand of promoting tax compliance. The study also indicated that frequent surveillance checks on trader's business enhance compliance in private sector, although this may lead to additional administrative cost to the government, but at least until when voluntary compliance level is enhanced this appears to be appropriate approach. On the other hand, negative relationship between income level and VAT compliance exists because, VAT is indirect tax by which payer does not feel the burden of paying thus, people of different levels of income consume at different levels and pay proportionate tax.

The study conducted by Lumumba et.al,(2010), revealed that, timely filling of VAT returns in Kenya was attributed by introduction of Electronic Tax Register (ETR), the ETR has also led to the improvement of sales audit and stock taking. Besides reducing tax-reporting burden to taxpayers, the machines has promoted efficient and effective tax collection to the government, cost of tax administration were declined considerably.

Traders mentioned benefits accrued from ETRs including;- increased efficiency in sales audit, stock taking, sales collection, easy processing of tax returns and reduce risk of prosecution. Despite benefits accrued above, traders about (34%) argued to have not benefited from ETRs pointing out the following reasons;- ETRs were not suiting their business , machines produce inaccurate records and results, and also some businesses already have software in place which contradict with ETRs.

From the study above, it is noted that despite benefits accrued by both traders and the Kenyan government since introducing ETRs, there are challenges that have to be dealt with, possible alternatives could be education amongs traders and the

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general public, diversify the ETR systems which will accommodate various forms of businesses like hotels, petrol stations and other services oriented firms.

Casey & Castro, (2012) undertook study in about 19 countries which have adopted using EFDs World-wide; the study concluded that, there was a weakness by almost all countries adopting the use of EFDs, no single country could establish an assessment of changes in compliance behaviour attributed solely on the use of these devices, comparing the situation before and after its introduction. Tax authorities regularly measure compliance and analyse trends, but contribution of EFDs have never been assessed independently as a contribution to the country's gross domestic product (GDP).

In this study, one hypothesis was developed assuming that, adoption of EFDs has a direct response to combat non-tax compliance. On replies it was noted that, EFDs alone cannot stand as a measure of improvement in compliance level neither increases revenues collection. Introduction of EFDs require authorities to undertake considerable efforts in respect of understanding associated costs to the authorities (identify technology, selection of devices, and monitoring their use) and to the taxpayers in addressing the legal requirements to use them.

From the above study it can be construed that, adoption of EFDs by surveyed countries cannot be viewed as a sole measure to combat non-compliance behaviour, neither a way to attain efficiency and effective tax collection. Countries should adopt several other ways of improving compliance and collection to be coupled with EFDs since their sole contribution cannot be identified independently.

3. Traders Resistance to Use EFDs in Rukwa Region

Findings on assessment of the reasons for resistance of using EFDs among traders in Rukwa region are presented in this part of the paper. Reasons for resistance of using EFD machines among traders in Rukwa region are outlined in what follows.

Table 2: A Summary of Reasons for resistance of using EFD machines

	Reasons for Resistance of using EFDs			
	Yes	Frequency(%)	No	Frequency (%)
Higher cost of EFDs	44	44 (57.14)	33	33 (42.86)
Lack of EFDs education	40	40 (51.95)	37	37 (48.05)
Hiding actual sales	5	5 (6.49)	72	72 (93.51)
Fear of rise in tax liability	4	4 (5.19)	73	73 (94.81)
Tax evasion motive	6	6 (7.79)	71	71 (92.21)
High maintenance cost	63	63 (81.82)	14	14 (18.18)
EFDs are complicated	14	14 (18.18)	63	63 (81.82)
Power problems (electricity)	10	10 (12.99)	67	67 (87.01)

Source: Field data, May, 2017

From above field data, several reasons for resistance to use EFD machines in Rukwa region were identified by traders, each respondent was free to mention whichever reason he/she find fit. There were multiple reasons mentioned by respondents.

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3.1. High Cost of EFD machines

The first reason was high cost of EFDs which was mentioned by 44 (57.14%) respondents out of 77 sampled, other 33 (42.86%) did not mention it as a reason for resistance of using EFD machines. However majority of them mentioned it as major reason for resistance, thus attention has to be taken on it.

3.2. Lack/ insufficient education about EFD machines to traders

Lack of EFDs education was the other reason, 40 (51.95%) respondents mentioned it, while other 37 (48.05%) did not mention it.

3.3. Hiding (suppressing) actual sales

Hiding (suppressing actual) sales was another reason, it was mentioned by 5 (6.49%) of respondents, while majority 72 (93.51%) ignored it, from the data it can be construed that traders do not consider it to be reason for failure/resistance to use EFDs.

3.4. Fear of raising tax liability

Fear of rise in Tax liability; 4 (5.19%) traders pointed out as a reason for resistance to use EFD machines, while the total majority 73 (94.81%) denied that fact. Therefore to traders fear of rise in Tax liability is not the reason for resistance to use EFD machines.

3.5. Tax evasion motive

Another reason mentioned by respondent during filling questionnaires was, Tax evasion motive; this was mentioned by 6 (7.79%) respondents out of 77 who filled questionnaires, other 71 (91.21%) did not point out this as a reason for failure/resistance to use EFD machines. Substantially, on traders view point Tax evasion motive is not one of reasons for failing to use EFDs.

3.6. High maintenance costs

High maintenance cost is another reason mentioned on the field, 63 (81.82%) respondents mentioned this as a reason, while the remaining 14 (18.18%) of 77 respondents did not mention. The majority pointed out this as a reason for resistance to use EFD machines.

3.7. Complications of using EFD machines

Out of 77 respondents 14 (18.18%) mentioned complications of using EFD machines as one of reasons for resistance to use them, meanwhile other 63 (81.82%) other respondents denied that fact, therefore majority of respondents did not point out complications of using EFD machines as concrete reason for resistance to use them.

3.8. Power outage problem

Power outage problem is another reason mentioned by respondents on the field, out of 77 respondents 10 (12.99%) mentioned power outage problem as one of reasons for resistance of using EFD machines, while other 67 (87.01%) ignored that as being the reason for failure to use EFDs. Majority of respondents denied the fact that power was one of major reasons for resistance to use EFD machines.

Reasons for resistance to use EFD machines according to TRA officers

Several other reasons were mentioned by TRA officers including; high cost of purchasing and maintenance of EFD machines and the overall quality of machines; fear of traders to reveal their actual income to avoid paying taxes; insufficient education to traders on use of EFD machines; and lastly fear of traders to reduce their profit base by paying more taxes to the government.

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According to TRA, major reason for resistance of using EFD machines among traders is fear that EFD machines to disclose their hidden sales turnover which will be taxes properly, other reason particularly by Rukwa traders is the claim that when they purchase goods/services in Dar es salaam receipts are not issued to them, therefore their input Taxes are denied. The manager was quoted as follows:-

“One major reason traders resist using EFD machines on my view is that; they fear to disclose hidden sales turnover which will be taxed accordingly. Other reason specifically by Rukwa traders is the claim that they are not given receipt when purchasing in Dar es Salaam as a result input tax from such purchases are denied”.

Summary of the reasons

In summary, three major reasons were mentioned by majority respondents as being reason for resistance to use EFD machines among traders in the study area which are; High price of machines which was supported by 57.14% of all respondents, lack of education about EFD machines supported by 51.95% of respondents, and majority of respondents (81.82%) mentioned higher maintenance cost as being reason for resistance to use EFD machines.

Assessment of the reasons for resistance of using EFDs among traders in Tanzania According to traders (respondents) major reasons for resistance of using EFD machines are: - Higher prices of machines which is supported by 57.14% of respondents; Lack/insufficient education among traders on use and benefits of EFD machines supported by 51.95% of respondents; and the most mentioned reason is higher maintenance costs which has been supported by 81.82% of respondents, these results are according to table 4.9.

TRA officers on the other hand pointed the same major reasons for trader's resistance; almost all of them mentioned higher prices of EFD machines and lack of education as major reasons for resistance of using EFD machines in the country. However, other persistent reasons claimed by officers are; fear to reveal their actual sales turnover in pursuit of minimizing tax liability.

Nyang'au, et, al. (2015) in their study on factors affecting utilization of Electronic Tax Registers (ETR) in Kenya mentioned the same three major factors that are; lack of user training which was supported by 59% of respondents; 67% of respondents argued that suppliers of machines were not available to maintain them after selling; lastly majority respondents claimed that ETR machines brought about additional running costs to their business. Another study was carried by (Siraji, 2015) revealed the same setbacks for traders to use EFD machines.

In addition to above elucidated reasons, several others were pronounced including; power outage problem suggested by 12.99% of respondents; EFD machines complications reported by 18.18% of respondents; and tax evasion motive. Although these factors were highlighted by minority respondents but they have to be taken into account in quest of improving compliance in the use of EFD machines.

Indeed, reasons for resistance of using EFD machines are apparent and similar as several other studies have concluded; Therefore, as a way forward to remedy the situation more emphasis should be drawn in favour of building capacity among traders by educating and cut-down the EFD associated costs rather that imposing penalty for failure to use them.

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4. Solutions proposed by traders on the use of EFD machines

In what follows, solutions to overcome EFD challenges in Tanzania as stipulated by traders who were involved in the study are highlighted.

4.1. Reduction of the price of EFD machines

A total of 36 (46.75%) out of 77 traders suggested that price of EFD machines to be reduced as one of solutions to overcome EFD challenges in the country, while 41 (53.25%) others did not suggest for price reduction.

4.2. EFD machines to be issued free

A total of 39 (50.65%) traders suggested that EFD machines are to be issued by the government to traders for free, 38 (49.35%) others did not suggest that. Since simple majority suggested that EFD machines are to be given free, thus the government should consider that.

4.3. EFD machines to be used by all traders

Few (6 equivalents to 7.79%) out of 77 respondents suggested that EFD machines to be used by all traders in the country, majority of them (71 equivalents to 92.21%) did not mention that to be one of suggestions to overcome EFD challenges.

4.4. Government intervention

Only 2 (2.60%) traders out of 77 called for government interventions as a suggestion on the use of EFD machines, 75 (97.40%) others (majority) were not in favour of government intervention.

4.5. Remove penalty for failure and EFDs offences

Majority (54 equivalents to 70.13%) traders suggested that the penalty charged against offenders of EFDs to be removed as one of suggestions to curb EFD challenges, remaining 23 (29.87%) did not mention that suggestion.

4.6. Provide more EFDs education

A total of 43 (55.84%) out of 77 respondents called for provision of more EFDs education by TRA as one of solutions to hinder EFDs usage challenges, the remaining 34 (44.16%) did not consider that suggestion. TRA therefore has to provide more education to the taxpayers and general public at large.

4.7. Give holiday to traders

About 2 (2.60%) respondents suggested that, the government should weave usage of EFD at all, while 75 (97.40%) others were not in favour of that suggestion.

4.8. Suggestions to overcome EFDs challenges by TRA Officers

Among challenges faced by the region and nation at large in enforcing usage of EFD machines are: - inadequate education by traders and their customers on the importance of paying Taxes; Inadequate staff to enforce use of EFD machines; resistance to use machines by traders in claim of higher prices of machines; network and power problems limit EFDs usage especially by remote traders; inadequate political support from the government; and lastly lack of technical support from suppliers of machines as the law requires them to open outlets everywhere in the country, but currently speaking only one supplier has office at Sumbawanga, according to Acting Regional Manager TRA Rukwa.

A total of 5 (83.3%) out of 6 officers provided their suggestions on the possible alternatives to overcome EFD machines challenges in the country, remaining 1 (16.67%) respondent did not suggest anything. The following suggestions were

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presented by TRA officers; EFD machines has to be offered by the government to traders free of charge; Put more emphasis on EFD machines education through various media; EFD machines has to be sold at a reasonably fair price; TRA has to enhance monitoring of EFD usage in major cities; Reviewing EFD machines systems to curb network and power problems, and also monitor EFDs maintenance costs; Lastly ensure proper EFDs kind is used in accordance to business sector.

Possible suggestions on remedies to address EFD machines problems as quoted from Acting Regional Manager Rukwa are:- reduction of prices of EFD machines as claimed by traders; provide more education to stakeholders on importance of EFD machines and paying taxes as well; political support from the government; and ensure that quality of EFD machines is monitored frequently.

Table 3: Summary of suggestions to overcome EFD machine challenges

Suggestions to overcome EFD machines challenges				
	Yes	Frequency(%)	No	Frequency (%)
Reduce price of EFD machines	36	36 (46.75)	41	41 (53.25)
EFDs to be issued free	39	39 (50.65)	38	38 (49.35)
EFDs to be used by all traders	6	6 (7.79)	71	71 (92.21)
Government intervention	2	2 (2.60)	75	75 (97.40)
Remove penalty for failure to use	54	54 (70.13)	23	23 (29.87)
Peovide more EFDs education	43	43 (55.84)	34	34 (44.16)
Give holiday to traders	2	2 (2.60)	75	75 (97.40)

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Source: Field Data, May 2017

5. Conclusion, Policy implications and Recommendations

5.1. Conclusion

EFD machines in Tanzania were first introduced in the 2010 financial year, despite showing positive trend in the first years of implementation with VAT registered first enrolled into the system; the second phase for its implementation with non-VAT registered traders to be enrolled faced several challenges, based on findings from this study the following are conclusions.

- (i) Reasons for resistance of using EFDs machines are largely associate with the cost of EFD purchasing and continous maintenance of machines and lack of awareness among traders on the use of EFDs. If above mentioned reasons are addressed resistance will be minimised to larger extent.
- (ii) Benefits of using EFD machines to the government and traders; despite trader's failure to support most benefits highlighted, but impliedly EFD machines have sales time for them to prepare returns, and records keeping has been improved a lot with machines able to communicate information direct to TRA. To the government EFD machines has guaranteed proper records, increased revenue collections, promoted Tax compliance are reduce overall Tax evasion.
- (iii) Level of awareness of using EFD machines to traders is still not sufficient enough to promote maximum usage of these machines as most traders need frequent training and sensitisation programs. However, TRA has succeeded to impart EFD skills to officers who are day to day enforcers of EFDs usage.

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- (iv) Most challenges faced by traders and the government on usage of EFD machines are; the cost of purchasing and maintenance of machines, awareness on the use of machines, quality of machines and commitment of suppliers of machines, loophole for tempering with EFD system and strikes on the use of machines.
- (v) Suggestions on alternatives to overcome resistance/challenges are; reduction of price of machines and maintenance cost of machines, place suppliers countrywise to offer after sale services, offer machines to traders freely, overall education and training on use of EFD machines to officers, traders and public at large by use of various platform.

5.2. Policy Implications

The government should strengthen revenue policies by incorporating awareness programs among stakeholders as the first priority; EFDs education should be spread to government and public sector, its implementation should not be solely left as TRA responsibility rather should be enforced by each sector, and organisation whether public or private and TRA will be overall enforcers. The policy should also consider to re-evaluate the cost of EFDs machines and stern measures to enforce suppliers to perform their responsibility promptly and timely. Overall Tax education should be motivated at grass-root level through establishment of school Tax clubs, Tax laboratories, and countrywise Tax campaign.

5.3. Recommendations

- a) Cost of purchase and maintenance of EFD machines, lack of awareness and inadequate technical support from suppliers of machines are most reasons led to resistance of using these machines. In a quest to minimise or eliminate resistances the government has to deal this above challenges thoroughly.
- b) Enforcement of using EFD machines should be intensified in major cities and at the port of entry. For example Dar es salaam as a source of all suppliers sold in other regions, if fiscal receipt is not fully issued at the source which cutter as input tax to be claimed by trader from upcountry regions, eventually this traders will not issue actual receipt to final users and therefore VAT collected will be very minimal.
- c) The quality of machines and suppliers obligations should be reviewed in order to curb the problem of frequent breakdown of machines and also to hold suppliers responsible whenever they fail to maintain faulted machines within required time.

5.4. Need for Further Study

The study informing this paper was about assessment of reasons for resistance of using EFDs among traders in Tanzania, Case of Rukwa region. It is proposed that similar studies to be carried at other region in Tanzania and even beyond.

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The Effects Of Board Attributes On Corporate Perfomance: Evidence From East African Frontier Markets

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Abstract

Research Question/Issue: Best corporate governance practices are arguably not universal due to fundamental differences on the environments under which firms operates. This study examines the hypothesized effect of a few selected variables of board of directors on corporate performance of firms listed on the East African frontier markets.

Research Findings/Insights: This study uses all 47 non-financial firms listed on the East African exchanges between 2000 and 2013. Our results show that the size of the board has positive (negative) effect on the market value (operating performance). The presence of foreigners, civil servants, and members with more than masters' degree in the board plays a positive role on the operating performance of the firms (where the agency and resource dependence theories apply). With regard to ownership variables, we find that the largest shareholders destroy the value of the firms. Furthermore, the findings reveal that institutional and the largest shareholders impacts positively the operating performance of the listed firms.

Theoretical/Academic Implications: Our results indicate that research is needed for generating a theoretical model that explains how boards of directors in frontier markets perform their roles.

Practitioner/Policy Implications: We show that in a business climate where ownership is largely dominated by few shareholders, the so called best governance mechanisms does not work as in developed markets.

Introduction

The literature on internal corporate governance mechanisms and firm performance has persistently been focusing on the developed capital markets. Studies that have explored this topic include those of Demsetz and Lehn (1985); Demsetz and

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Villalonga (2001); Cui and Mak (2002); Denis and McConnell (2003); Hillman and Dalziel, 2003; Daily et al. (2003); and Nicholson and Kiel (2007). In the recent past, however, frontier equity-markets (FEMs) have surfaced as eye-catching investment destinations attracting the interest of a wide range of stakeholders, including; regulators, academicians and both retail and professional investors ((Nellor, 2008; Berger et al., 2011; IMF, 2011; FTSE, 2014). The main reasons for the growing interests despite the higher risks, is that FEMs provide greater returns potentials, and are uncorrelated with other markets, thus, further opportunities for diversification (Girard and Sinha, 2008; IMF, 2011). In spite of these benefits, the investment dynamics in these markets are not well understood. In other words, the traditional investment considerations may not be relevant in the FEMs environment which is essentially different from that of developed markets. Clearly, this shows there is a need for formally admitting the analysis of FEMs into the conventional academic thinking and research. This study contributes to fill this gap, by examining the impact of selected board of directors (BoD) variables on the corporate performance of the listed firms in the East African (EA) FEMs.

Except for the Nairobi Securities market (NSE), stock exchanges in the rest of the *East African Community* (EAC) member states were established following the structural reform programs and extensive financial systems liberalization of the mid-1990s. These programs were motivated by the support from development partners, including the multilateral institutions - the International Monetary Fund (IMF), World Bank (WB), and bilateral donor countries. It is during this period of economic reforms that these countries also embarked on the privatization of the state-owned enterprises (SOEs), most of which had unsatisfactory economic performance. Although privatisation was expected to be carried out through the stock exchanges, that is, the sale of shares to the general public to spread ownership, only a small number of the companies ended up being listed. One of the reasons was that, in many cases, governments chose the private or trade sale approach; whereby shares were sold to “core or strategic investors.”

A strategic-investor is usually a large multinational company that has a long-term strategic focus on an undertaking. Since most of these SOEs were in financial difficulties, the governments preferred to sell them to strategic-investors who would turn them around. For example, by injecting in the businesses more capital, provision of quality management, develop workforce capacity in terms of knowledge and skills, improve technology, customer service, to mention a few. As a consequence of selling to the strategic-investors, a few big shareholders own a large proportion of the shares of the privatized SOEs. This is also the case with most of the other companies listed on the EAC exchanges which were not previously state owned. Thus, there are restricted shares left available in the market for the other investors to trade freely (Dahlquist et al., 2003). This can explain why these frontier markets are not vibrant; since they have a very small investor base, suffer from infrequent trading and therefore, illiquid, and lack adequate supply of securities.

Despite these and other defining characteristics, regulatory authorities in the EAC region are striving to improve the quality of institutional and policy frameworks to create a conducive investment climate. Crucially, the regulators are aiming at improving the effectiveness of corporate governance by encouraging listed companies to adopt and implement best practices to meet the standards needed to attract the attention and capital flows from a diverse investor base. However, these best practices or codes were designed in advanced economies and may not be applicable to underdeveloped markets.

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There is evidence that the EA countries compare consistently unfavourably to other countries in the scores of key areas of corporate governance. For example, the recent World Economic Forum reports (WEF, 2012, 2013) reveal that the ranking of the global competitive index (GCI)⁴ for the EA countries is very low (see, Table 1). It is, therefore, expected to observe a wide inter-firm variation in governance behaviour in these markets (Shleifer and Vishny, 1997). Under such circumstances, the literature indicates that, corporate governance practices should matter more when investors are making investing decisions (La Porta et al., 1999; La Porta et al., 2000; Black, 2001; Klapper and Love, 2004; Morey et al., 2009).

Table 1: Rankings on the Global Competitiveness Index in the Survey of 144 Countries

Country	2012-13							2013-14						
	PR	EBF	SARS	ECB	PMSI	SIP	GCI	PR	EBF	SARS	ECB	PMSI	SIP	GCI
USA	42	29	37	23	33	5	7	33	32	36	15	27	6	5
UK	5	12	13	15	16	10	8	4	12	16	21	15	10	10
South Africa	26	48	1	1	2	10	52	20	37	1	1	1	10	53
Botswana	46	37	50	42	44	39	79	41	39	48	50	50	41	74
Kenya	110	102	81	79	87	80	106	86	78	86	74	82	84	96
Tanzania	106	109	114	78	94	80	120	97	122	127	102	110	84	125
Uganda	80	89	105	48	97	110	123	107	98	118	67	117	116	129

Source: World Economic Forum: *The Global Competitiveness Report*

Note: PR = Property rights; EBF = Ethical behaviour of firms; SARS = Strength of auditing and reporting standards; ECB = Efficacy of corporate boards; PMSI = Protection of minority shareholders' interests; SIP = Strength of investor protection, 1 - 10 (Best); and GCI = Global Competitiveness Index

⁴ Since 2005, the World Economic Forum has been publishing, on yearly basis, the Global Competitive Report (GCR) which ranks countries based on the Global Competitive Index (GCI). The GCI is a comprehensive tool that measures the microeconomic and macroeconomic foundations of national competitiveness.

The World Economic Forum (2012, 2013) defines "competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be reached by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates".

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Our study is also motivated by the deliberate efforts undertaken by the regulators to directly or indirectly improve corporate governance practices in the EA markets in order to attract foreign investors from developed countries to invigorate the markets by bringing in more capital. Our study is unique because of the assumed importance of the strategic-investors or big private shareholders (permitting certain ownership structures) on improving the performance of these firms makes the implementation of best corporate governance practices questionable (La Porta et al., 1999; Gibson, 2003). In particular, this kind of ownership dominance may result in failure by the BoD to execute properly their functions. A well-functioning board is responsible for, first, mitigating the agency costs, and reducing the cost of capital (Fama and Jensen, 1983; Hillman and Dalziel, 2003). Second, the BoD expected to provide advice and key resources to the company by linking it to the external environment (Daily et al., 2003). In addition, the board has the duty to ensure that the firm complies with applicable laws and regulations (Denis and McConnell, 2003). Since these two functions are not mutually exclusive and that in most cases, big owners have more representatives on the boards; we argue in this paper that this ownership characteristic in EAC exchanges may impact the functioning of the BoD. That is, the boards may be focusing more on monitoring the behaviour of managers to ensure that they operate in the best interest of the core or big shareholders. To the best of our knowledge, there is no single study that has investigated whether the presence BoD in frontier markets have effect corporate performance. This research, therefore, employs a long span dataset of listed companies from the three EA countries⁵ to address the following question:

- Does the attributes of board of directors of firms listed in the EA frontier markets affect firm performance?

Briefly, our results provide different conclusions based on the dependent variable used. The study finds that the size of the board has positive effects on performance as measured by the Tobin's Q. Likewise; the result indicates that the proportion of ownership by the largest shareholder has negative effects on the market values of the listed stocks.

The financial results based on ROA show that board size negatively affects the operating performance of listed companies. The findings further indicate that the presence of foreigners and civil servants (or politicians) on the BoD has significant positive association with firm performance. Academic qualification, on the other hand, has little or no impact on ROA. The study also finds that there is little or no association between ROA and ownership by institutional investors and the largest shareholder. In addition, foreign ownership has no significant relationship with ROA.

The remainder of the paper is structured as follows. The next section presents a brief overview of the corporate governance legislations of the three EA countries included in the study. The following section provides the literature review and development of the research hypotheses. Then we describe the data sources and the methodology. Then, we report the empirical results and discussion of the findings. We provide the summary and conclusions in the last section.

⁵ These are Kenya, Tanzania and Uganda. These countries were chosen for this research because they in the process of establishing a regional exchange with operations in each of the partner states. The regional integration initiative began in 1997 with the establishment of the East African Securities Regulators Association (EASRA). During that time Rwanda and Burundi did not have stock markets. The implementation progress is promising, as the common market is likely to take off in a year or two (EASEA, 2015).

Corporate Governance Laws and Codes in the EA Markets

The EA markets have opened up to the international investment community. Consequently, improvement of the corporate governance practices to be compatible with those in developed economies has been directly or indirectly high in the agenda. However, it is well known that there are many hindrances in Africa that frustrate the efforts to improve governance mechanisms. By Western economies' standards, the financial markets are considered as being underdeveloped. Rossouw (2005) also points out that the legal and regulatory systems in many African countries are not properly functioning. This includes weak protection of shareholder and creditor rights, and lack of enforcement of legal rights by the judicial system (Wanyama et al., 2009; Claessens and Yurtoglu, 2013). Moreover, these countries lack the overall disclosure, transparency and market discipline related to better governance practices to the extent of deterring more private companies to list in the stock exchanges that exist. Furthermore, the governments are perceived to be highly bureaucratic and corrupt (Kaufmann et al., 2011).

The three countries are former colonies of the United Kingdom and are members of the Commonwealth. This means that their legal and judicial systems are based on British common law. In addition, the Kenya's capital market development is more advanced compared with her counterparts. In order to facilitate the regional integration agenda, therefore, the legal and regulatory frameworks in Tanzania and Uganda, do not deviate too much from that of Kenyan securities law (Dmitry et al., 2008). Moreover, like other African countries, the EAC member states governance approaches heavily relies on the OECD principles, the South African King's report, and the commonwealth Association for corporate governance pronouncements (Rossouw, 2005; Wanyama et al., 2009; Waweru, 2014a). The next subsection discusses the institutional setting of each of the three countries in relation to corporate governance.

Corporate Governance in Kenya

The revised Companies Act, 2009 is the main source of law on corporate governance in Kenya. The Act stipulates the basic structure and primary rules of running companies. It also contains provisions that establish the position of director, duties, and matters-related shareholders' protection. Apart from the companies Act, Waweru (2014a) and Barako et al. (2006) points out that Kenya produced and published her first national code, the Private Sector Corporate Governance Trust (PSCGT) in 2000. These guidelines were to be adopted voluntarily, by implementing the "comply or explain" enforcement concept. The key recommendations of the PSCGT among others, included; companies to establish audit committees composed of non-executive directors, improvement of the quality of financial reporting, and extending the scope and duties of external auditors.

According to Barako et al. (2006), the PSCGT contributed substantially in the development of the guidelines on good corporate governance practices by public companies that were issued by the Capital Market Authority (CMA) in 2002. Implementation of these guidelines was mandatory for all listed companies in Kenya. The guideline mainly deals with issues related to the board and the role of good corporate governance on performance. Others include; shareholders value maximization and rights (Barako et al., 2006; Gakeri, 2013; Waweru, 2014a). Moreover, the Nairobi Stock Exchange provides and maintains the listing requirements for all listed companies. In addition, statutes dealing with professional

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bodies like lawyers, accountants, and public secretaries also have an impact on standards of good corporate governance (Musikali, 2008).

Corporate Governance in Tanzania

There are two main legislations that deal with corporate governance issues in Tanzania. The Companies Act, 2002 contains several provisions on the statutory duties and responsibilities of directors. The provisions are in line with the duties prescribed under common law. The Capital Market and Securities (CMS) Act, 1994 (as amended by Act No. 4 of 1997), read together with its regulations and rules; provide the foundations for corporate governance practices. The CMS Act, 1994 among other things, regulates access to business, conduct of business, and disclosure by both investee companies and market operators. The regulations are designed to ensure transparency, stability, and integrity as well as investor protection.

The corporate governance system of Tanzania can be seen as a hybrid version of the market-based approach. In addition to the statutory rules of corporate behaviour contained in the company law, Tanzania developed her own national code on corporate governance in 2002 (Kibola, 2002; The Committee, 2001; Kaduma, 2002). The recommended "Guidelines on corporate governance practices by public listed companies in Tanzania" among other things, emphasizes the need for boards to ensure that their entities comply with all good governance practices, relevant laws and regulations, and auditing and financial reporting standards (Kibola, 2002). The Bank of Tanzania (BOT) issued guidelines for boards of directors of banks and financial institutions in 2008. The guidelines stipulate the duties and responsibilities, composition and conduct, and the committees of the board.

Corporate Governance in Uganda

The corporate governance reforms in Uganda have gone through a number of steps. In 1993, the Government of Uganda enacted the Public Enterprises Reform and Divestiture (PERD) Statute to operationalise the Government's PERD Statute (1991) and its Action plan. PERD targeted to privatize more than 100 SOEs (Wanyama et al., 2013). Then, in 1996 the Capital Markets Authority (CMA) of Uganda was established following the enactment of the Capital Markets Authority Act, 2000 (Revised). In exercising its powers, the CMA issued the Capital Markets Corporate Governance Guidelines, 2003. In section 2 of Part I of the guidelines, it is stipulated that the CMA developed the guidelines as a minimum standard for good corporate governance practices by public companies and issuers of corporate debt in Uganda. Among other relevant issues, the guidelines cover best practices related to the board composition, separation of the roles and responsibilities of the chairperson and the Chief Executive, rights of shareholders and the roles of audit committees. These guidelines, however, are not mandatory.

Moreover, the Institute of Corporate Governance of Uganda (ICGU) was incorporated in 1998, and its membership is open to both corporate entities and individuals. In 2001, the ICGU published the Recommended Guidelines for Corporate Governance. These guidelines are not mandatory, but they contain the basic framework for corporate governance such as best practices related to boards of directors, shareholders, regulatory bodies, investors and other stakeholders. However, the ICGU recommends them to be used by all corporate entities in Uganda regardless of their form of ownership or size. This is because both public and private sectors are equally affected by corruption, bad leadership, public

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mistrust and lack of transparency and integrity, to mention a few (Wanyama et al., 2013).

In addition, the Uganda Securities Exchange listing requirements direct issuers to comply not only with the listing rules of the exchange but also with the laws (e.g. the Companies Act) and requirements of various regulatory and supervisory authorities (e.g. the CMA). The Central Bank, on the other hand, through the Financial Institutions Act (FIA), 2004, has made corporate governance compulsory for financial institutions. The FIA sets the minimum number of board members, and requires all directors to be fit and proper persons. The Act provides for disclosure requirements, establishment of audit committees and duties of the internal and external auditor to the Central Bank, among others.

Related Literature and Hypotheses development

Board Structure

The firms listed in the EAC exchanges are expected be managed professionally in order to attract investor confidence and safeguard the publics' interest. With this hindsight, most of these firms, have been appointing BoD with certain attributes. Board characteristics studied comprise board size, and board diversity. In the subsequent subsections we develop the theoretical associations between these characteristics and firm performance (definitions and measurements of all variables are provided in Appendix 1).

Board Size

The size of the BoD is one of the important determinants of its effectiveness, although it is not clear as to what size is optimal. Argument in favour of small board sizes, indicate that it is quite difficult to organize and coordinate large groups of people. It also argued that, when the size of the board is large, it increases costs to the firm, and lengthens the time to resolve issues due to squabbles. Other scholars assert that the size of the BoD depends on purposes it is chosen for (Yermack, 1996; Lipton and Lorsch, 1992; Hermalin and Weisbach, 2003). According to the agency view, smaller boards are more effective if the firm needs the BoD for monitoring roles. On the other hand, the resource dependence theoretical perspective suggests that larger boards are useful when the firm seeks quality of advice (Dalton et al., 1999; Coles et al., 2008).

However, it is argued that the breadths of services offered by small boards are limited. This may manifest, for example, when small boards fail to monitor effectively managers because they have fewer members to allocate to different committees (Yermack, 1996; Lipton and Lorsch, 1992; Klein, 1998, 2002). One can therefore suggest that big firms with complex operational structures, and depend on external sources of financing should require large the boards, for more effective discharge of both the monitoring responsibility and provision of advising role (Dalton et al., 1999; Anderson et al., 2004). Most of the listed firms in the EA exchanges do not have complex operational structures, but they still have higher chances of growing and expanding even across boundaries. It is thus hypothesized that:

Hypothesis 1: Board size positively affects firm performance

Board Diversity

Despite receiving considerable attention, empirical evidence concerning the benefits of board diversity provides mixed results. For instance, Watson et al. (1993)

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contends that heterogeneous boards have long-term impact on the objectives of the firm; Pelted et al. (1999) report that diversity has detrimental effects on firm performance. Majority, however, concur with the view that diversity plays an important role in shaping the functioning of the board. It creates different culture, new mind set, equality and fairness, enhance competence profile, and new perspectives on the boardroom (Rose, 2007).

Similarly, other studies examine the diversity of directors in terms of international versus local profiles. Consistent with the resource dependence theory, the BoD with a combination of local with foreign members may benefit from a number of opportunities. These include; attracting capital from foreign investors, market expansion to foreign countries, and exposure to skills and expertise that is not available locally (Oxelheim and Randøy, 2003). As Fairchild et al. (2014) contend, the presence of foreign members on the BoD serves as a means of breaking away information asymmetries and monitoring gap that exist between the domestic and foreign investors. Gulamhussen and Guerreiro (2009) found that there is an association between BoD with foreign members and reduction in operating and total costs. They attribute this observation with the enhanced monitoring role and the influence of the foreigners on the adoption of efficient strategic and operational practices. Therefore:

Hypothesis 2a: Foreigners on the BoD positively affect firm performance

The attractiveness of an individual to be appointed as an outside member of a BoD is determined by his or her depth and breadth of his or her human and social capital, which is critical to discharging the board's resource provision function (Hillman and Dalziel, 2003; Daily et al., 2003; Hillman, 2005). It is common to find listed companies on the EA stock markets having appointed currently-serving or retired senior civil servants and/or politician as outside directors on their boards. From resource dependence perspective, placing government officials on the board aims to capitalize on valuable non-business perspectives that they bring to an organization. These include their networks and linkages to other government officials and decision-makers, legitimacy to the firm, expertise, counsel and advice about the public policy environment (Pfeffer, 1973, 1972; Lester et al., 2008). They can also be used to influence the shaping of policies, laws and regulations, and even its enforcement (Berglof and Claessens, 2004).

The institutional theory, on the other hand, suggests that the appointment of this kind of outside directors could be seen as a bandwagon effect. This is because the majority of these officials have built their internal career in traditional government bureaucratic systems and lack business acumen, they may not be necessary effective in monitoring and controlling management thus fail to improve firm performance (Peng, 2004; Muth and Donaldson, 2002). In partially SOEs directors may be appointed by the state not on merit but purely on political ground (Rossouw, 2005; Wanyama et al., 2009). Past research, however, strongly suggests that firms with government officials on their boardrooms perform better than those without (e.g. Hillman, 2005). This is consistent with Pfeffer (1972) who contends that creation of linkages with main sources of external dependence helps to reduce risks and uncertainty, which in turn impacts firms' operations. Since the government is the key source of uncertainty for firms in terms of policy and regulations, companies that choose to appoint politicians on boards, can avoid some transaction costs such as those of securing information about political decisions and ultimately improve performance (Hillman, 2005; Lester et al., 2008). Therefore:

Hypothesis 2b: Civil servants (or politicians) on the BoD positively affect firm Performance

As stated earlier, the attractiveness of an individual as a director candidate is determined by a set of unique attributes and resources that he or she can bring into the organization (Hillman and Dalziel, 2003; Lester et al., 2008). We believe that boardrooms composed of directors with different education attainment qualifications can benefit from the diversity of individuals' knowledge, expertise, skills and cognition abilities (Anderson et al., 2011). Directors with higher levels of education are assumed to be more adaptive and innovative. Possession of these qualities may in turn create value to the firm. Prior research on this phenomenon is not yet confirmed. Rose (2007) find educational qualification has no impact on firm performance. She further contends that since the work carried out on the boards is not discipline specific, a university degree or equivalent skills may be sufficient to understand information received from the management. Similarly, Anderson et al. (2004) do not find significant difference in monitoring among academics and other occupations. On the contrary, Murphy (2007) and Anderson et al. (2011) found that educational qualification had a positive impact on firm performance. Therefore:

Hypothesis 2c: Directors with Msc and PhD on the BoD positively affect firm performance

Ownership Structure

In this sub-section we examine three important ownership variables that are most common in companies listed in EA frontier markets.

Foreign ownership

The reason why adherence to the best practices has become a top item on the agenda is to enable listed companies in EA exchanges to be able to attract both domestic and foreign investors. Increased participation of foreigner investors is expected to enhance not only liquidity in the markets but also values of the firms. In addition, when foreign investors participate, they are more likely to perform arms-length monitoring through their board representatives (Oxelheim and Randøy, 2003; Gulamhussen and Guerreiro, 2009). Moreover, investors from overseas where companies are vigorously governed are experienced. They are better positioned to influence key institutions and regulators to take actions to enhance governance practices. Thus:

Hypothesis 3: Foreign ownership is positively associated with firm performance

Institutional Ownership

Institutional investors normally hold significant proportion of the share capital of companies compared to other investors in countries where ownership is dispersed (see also; Ozkan, 2007). Accordingly, the presence of institutional investors may be instrumental in ameliorating the agency problem. Firms with substantial participation by institutional investors are expected to pursue activities that are aligned with creating shareholders' wealth. Like other blockholders, institutional investors are better positioned to improve monitoring by exercising their powers to remove managers who go against their interests or basing on managerial performance. This is possible because they are well-informed and have the tools to acquire such a kind of information (Tong and Ning, 2004). They can also improve managerial accountability by increasing their representation as outsiders on the board (Mak and

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Li, 2001), or indirectly by withdrawing their stake in the firm (Gillan and Starks, 2005).

Empirical findings pertaining to the oversight role of institutional investors are rather mixed. Faccio and Lasfer (2000) analyzed the monitoring role of pension funds in UK. They found that the role that institutional investor play in minimizing agency conflicts is weak. Furthermore, they reported no significant relationship between institutional ownership and firm performance. Other authors including McConnell and Servaes (1990), Smith (1996), and Ackert and Athanassakos (2003) on the contrary, reported that the control exercised by institutional owners has a significant positive effect on firm performance. On the other hand, Cronqvist and Nilsson (2003) found that the presence of institutional owners had no significant relationship on firm value.

As stated earlier, in the EA frontier markets, the largest shareholders own more than 50% of the issued share capital. The ownership by institutional investors, thus does not give them sufficient power to exert influence over the company's affairs. This presents an interesting case warranting a further investigation of the role that institutional investors play on firm performance. It is hypothesized that:

Hypothesis 4: Ownership by institutional investors is positively associated with firm performance

Ownership by the Largest Shareholder

Some external governance mechanisms in frontier markets are underdeveloped or do not exist (e.g. hostile takeovers). The agency theory postulates that, in such a kind of environment, block ownership may be an important governance mechanism for monitoring the management (Shleifer and Vishny, 1997). Blockholders are active in mitigating the agency conflicts either directly by monitoring management performance (Mak and Li, 2001), or indirectly by withdrawing their stake in the firm (Gillan and Starks, 2005). The reasons why big investors have incentives to exercise the monitoring role are: the amount of investment they make is significant (Tong and Ning, 2004); they are more informed because they have the necessary resources to enable them access different information they need (Mak and Li, 2001), and more importantly, is the fact that the benefits exceed the related costs.

Empirical studies on the relationship between ownership concentration and firm performance offer mixed results. A study conducted by Demsetz and Lehn (1985) finds no significant positive relationship. Tam and Tan (2007) find a negative relation between ownership concentration and firm performance. Studies like those of Holderness and Sheehan (1988); Sarkar and Sarkar (2000); and Khanna and Palepu (2000) largely support the notion that ownership concentration increases the firm value. We, therefore, extend this logic of concentrated ownership, to hypothesize that:

Hypothesis 5: Ownership by the largest shareholder is positively associated with firm performance

Control Variables

Previous studies have shown that firm characteristics influence in different ways both, the performance of the firm and its governance mechanisms. For example, Wintoki et al. (2012) argue that the scope and complexity of operations, as well as the monitoring costs and manager's private benefits are among the determinants of a firm's board structure. We, therefore, include several control variables that have

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been commonly used in literature in order to minimize the possible misspecification in our analysis (Tam and Tan, 2007; Black et al., 2012).

We include *firm size*, for a number of reasons. It may cause governance practices to change, e.g. board structure, due to the increased complexity of the firm's operations (Wintoki et al., 2012). Larger firms may perform better because they possess many resources to enable them to capitalize on the economies of scale. They are also more capable of adopting and implementing good governance systems, since they are well-equipped with the facilities.

Similar to prior studies, such as Black et al. (2012) and Fairchild et al. (2014) we control for *leverage*, because firms with a high debt ratio may be financially constrained and should be less able to perform better. Moreover, debt providers may be motivated to provide close monitoring and hence pressurize the companies to adopt governance practices that best suit their interests.

Performance is also related to the firm's *profitability* and *growth* prospects (Yermack, 1996; Black et al., 2012). We control for profitability when Tobin's Q is used as the dependent variables because it influences market valuation. Similarly, growth level may have a significant impact on both governance mechanisms and financial performance. For example, small boards may be more appropriate for high-growth companies because they facilitate fast decision making. Likewise, we include year, sector (as classified by the NSE, see Table 2) and exchange dummies in the analyses to reflect their influence on governance mechanisms and performance.

Measuring Firm Performance

The concept of concept of corporate performance has always been on the financial context and there exist several measures (see also; Denis and McConnell, 2003). Accounting-based and market-based measures are, however, the most important measures used to evaluate overall aspects of firm's performance. The accounting proxies portray the historical operating performance of the company to generate profits in terms of the capital employed. That is, they indicate the extent to which the agents have effectively and efficiently utilized the resources entrusted to them. In this study, we use the return on asset (ROA) as a proxy for the operating performance.

The market-based measures, on the other hand, are forward-looking and focus on the shareholder-value maximization objective of the firm. They reflect the present value of future streams of cash flows or the expected long-term performance of the firm by the shareholders. In the current study, we apply the most widely used market-based measure of performance (La Porta et al., 2000; Doidge et al., 2004; Ammann et al., 2011) - the Tobin's Q. The main reason of employing this valuation measure is that it is an integrated approach. It includes all important elements that are used in most of the other valuation measures – that is, number of shares outstanding and share price - that capture investor's expectations into a single value.

Data and Methodology

The following sub-sections describes the sources of data, and the methodology employed in the analyses.

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Data Sources and Collection

This study draws its sample from non-financial companies primarily listed on the three frontier stock markets in the EA countries. The duration of the study covers from 2000 to 2013, to match with when the first equity was listed and floated in the USE. To address the widely documented problem of unavailability of data in many African stock markets; we used the websites of each stock exchange in the region to obtain the list of all quoted companies. From this initial sample, we excluded all firms operating in the banking and financial related sectors. The reason is that their accounting treatments of certain line items in financial statements are different. Moreover, they have additional requirements and governance structures that are regulated by monetary authorities. In addition, the omission of financial firms is consistent with the analyses done in similar previous studies. Our final sample consists of 47 firms drawn from seven industries as classified by the NSE. This includes both active and failed or other companies that have left the market, thus making our data set survivorship bias free. Out these, 33 companies are listed in the NSE, the largest stock market in the region. The stock markets of Tanzania and Uganda are very small, with nine and four companies in the sample respectively. In total, we had 482 firm-year observations, see Table 2.

Table 2: Summary of Firm-Year Observations

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Panel A: Observations by Stock Exchange															
DSE	4	4	5	6	6	6	7	7	7	7	8	8	9	9	93
NSE	4	4	7	24	27	27	31	33	34	34	33	33	32	29	352
USE	0	2	2	2	2	3	3	3	3	3	3	3	4	4	37
Total	8	10	14	32	35	36	41	43	44	44	44	44	45	42	482
Panel B: Observations by Industry Categorization															
Agriculture	0	0	0	5	5	5	5	6	6	6	6	6	5	3	58
Automobiles & Accessories	0	0	0	2	3	3	3	3	3	3	3	3	3	3	32
Commercial and Services	1	1	3	6	6	7	9	9	9	9	9	9	10	10	98
Construction and Allied	2	3	4	6	7	7	8	8	8	8	9	9	9	9	97
Energy and Petroleum	1	1	2	4	4	4	5	5	5	5	5	5	6	6	58

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Manufacturing and Allied	4	5	5	9	10	10	11	11	11	11	10	10	10	10	1
Telecommunication and Technology	0	0	0	0	0	0	0	1	2	2	2	2	2	1	1
Total	8	10	14	32	35	36	41	43	44	44	44	44	45	42	4

Data for ownership and board characteristics were hand-picked from the published annual reports of the respective companies. The reports, however, were obtained from various websites, including the company's own. Annual reports for all companies listed on the DSE, for example, were downloaded from the exchange's website, <http://www.dse.co.tz>. The annual reports for companies listed on the NSE for the years 2003 to 2012, were available for downloading on Capital markets Authority (CMA) of Kenya's website, <http://www.cma.or.ke>. We also used the African Financials website (<http://www.africanfinancials.com>). This website boasts itself as the world's largest portal of free African investor documents. It has a large collection of annual reports for listed companies in Africa. Despite using different websites, yet still there were some missing annual reports for some years for some companies. We did not drop off from the sample firms with missing information. Instead, we retained whichever part, before or after the gap, that had many consecutive observations.

Data for year-end market prices, foreign exchange rates and accounting related variables, on the other hand, were obtained from the Bloomberg database. In cases where some data were missing, we picked them manually from the published annual reports to fill the gaps. It is important to note, however, that the annual reports are prepared in local currency, while the information downloaded from Bloomberg was in US dollars. To put them in a common currency, we translated the local currency data into US dollar using the yearly average foreign exchange rates.

The Estimation Methodology

As stated earlier, most of the corporate governance variables' data were hand-picked. It was therefore, important to examine the data for the presence of extreme observations that would unduly influence the empirical results before any analyses was conducted. The following variables; ROA, Tobin's Q, presence of senior civil servants on the board, the level of schooling, sales growth, leverage and profitability, had observations that are unrepresentative of the studied population. The top and bottom 5% extreme values for these variables were winsorized to address the problem of extreme observations (see also; Ammann et al., 2011). Winsorization of outliers is appealing because the data maintains its population features and ensures generalizability of the findings to the entire population (Hair et al., 2006).

Furthermore, the researcher used histograms to examine visually the shape of data distribution for each variable. A normal curve was also superimposed on the distributions to assess the normality of the variables. The examination showed that the distributions of Tobin's Q and board size were non-normal. This necessitated a further normalization of these variables by logarithmic transformation.

Our conceptual model summarized as:

$$Performance = f(\text{board structure, ownership structure, control variables}) \quad (1)$$

Using econometrical notations, equation (1) can be stated as:

$$y_{i,t} = \beta_0 + \beta_n \sum BOD_{n,i,t} + \beta_k \sum OWN_{k,i,t} + \beta_q \sum CTRL_{q,i,t} + \varepsilon_{i,t} \quad (2)$$

where y represents the financial performance (ROA) or value (Tobin's Q) of firm i at time t ; BOD refers to the board structure components; OWN refers to the ownership structure components; $CTRL$ are the control variables; $n, k, \text{ and } q = 1, \dots, N$ and $\varepsilon_{i,t}$ is an error term. Given the dynamic nature, and structure of the data, a panel data methodology was considered to be the most appropriate for carrying out the analyses as it addresses the heterogeneity concerns that exist between the firms and the explanatory variables (Bond, 2002).

To address the endogeneity concern, the study employs the fixed-effects (FE) and the random-effects (RE)-two-stage least square-instrumental variable (RE-2SLS-IV) transformations in the analyses. According to Wooldridge (2009) if omitted variables are correlated with other variables in the model; the FE estimator provides a means to control for or remove the effects of time-invariant differences (or unobserved effects) and thus mitigating the endogeneity problem (see also; Yermack, 1996; Bai et al., 2004; Love, 2011). The random-effect (RE), on the other hand, assumes that the unobserved variables are uncorrelated with all observed variables. RE estimator, therefore, allows the effects of time invariant variables to be estimated in the model. However, the researcher may need to specify all firm-specific effects having or not having influence on the predictors. In practice, this may not be possible, hence leading to omitted variable bias. Furthermore, the RE estimator assumes that the observed heterogeneity is uncorrelated with all independent variables, be it fixed over time or not.

It is well documented in the literature that it is practically difficult to identify valid and purely exogenous instruments in corporate governance and performance relationships. Some studies, such as those by Bhagat and Bolton (2008), and Wintoki et al. (2012), however, have treated board and ownership structures as endogenous variables and used their lagged values as instruments. The idea is that current and previous period's governance simultaneously determines firm performance. This study follows the same approach. It employs the Durbin–Wu–Hausman (augmented regression) a variant of the Hausman test to assess whether the corporate governance regressors used throughout the study are endogenous.

The econometric literature points out that the IV/2SLS regression is most biased and suffers from severe size distortions when the instruments are weak (excluded instruments only weakly correlated with included endogenous regressors). In the light of this, it was appropriate to initially examine the strength of the instruments. The test involves assessing the goodness-of-fit of the “first stage” regressions relating each endogenous regressor to the entire set of instruments. Accordingly, we adopt the Stock et al. (2002) criteria, which suggest that the F statistic greater than

10 makes inferences based on the 2SLS estimator reliable for a just-identified model.

Results and Discussion

Descriptive Results

Table 3 presents the whole sample summary statistics of the main variables used throughout the analysis. The firms have a mean (median) *ROA* of 12% (9%) and *tq* of 1.58 (1.28) respectively. This indicates that, on average, EA investors anticipate companies from this industry to have higher intrinsic values. This is because, a Tobin's *q* value greater than one suggests that a company makes financially sensible investments.

The evidence in Table 3 further suggests that listed firms in EAC exchanges tend to have concentrated ownership. On average (median), 50% (51%) of the total issued share capital is owned by the largest shareholder. This observation is largely explained by the privatization strategies that governments in the EAC used. Since most of the SOEs were ailing when they were privatized, the governments were looking for investors who could turn them around by investing a significant amount of money in exchange of the company's issued shares. The same reason applies to the observed percentage of ownership by foreign investors in Table 3. That is, it reflects the effect of the economic reforms and the privatization across the EAC member states. The shares that the governments retained after the privatized SOEs were sold to local institutional (with mean 51% and median 63%) and retail investors.

Table 3: Descriptive Summary Statistics - Whole Sample

Variable	N	Me an	Std De v	Mi n	25 th	50th	75th	Ma x	Skew ness	Kurt osis
<i>Dependent variables</i>										
Return on Assets (ROA)	482	0.12	0.11	-0.04	0.04	0.09	0.18	0.38	0.89	3.10
Tobin's Q (tq)	482	1.58	0.90	0.60	0.89	1.28	1.97	3.72	1.13	3.22
<i>Independent variables</i>										
Board size (bsize)	482	10.36	3.37	3.00	8.00	10.00	13.00	22.00	0.39	2.79
Proportion of foreigners on the board (bfgn)	482	0.28	0.22	0.00	0.10	0.27	0.44	1.00	0.38	2.36
Proportion of civil servants on the board	488	0.12	0.14	0.00	0.00	0.09	0.20	0.50	1.20	3.73

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(civ)	2									
Proportion of members with masters or higher (ed)	4 8 2	0.3 5	0.2 4	0.0 0	0. 17	0.3 3	0.5 0	1.0 0	0.48	2.60
Largest shareholder (big)	4 8 2	0.5 0	0.1 7	0.1 2	0. 36	0.5 1	0.6 3	0.7 7	-0.32	2.32
Foreign ownership (fown)	4 8 2	0.3 0	0.2 9	0.0 0	0. 04	0.1 7	0.6 0	0.9 4	0.61	1.87
Institutional ownership (inst)	4 8 2	0.5 1	0.3 2	0.0 0	0. 18	0.6 3	0.7 8	0.9 7	-0.42	1.64
Control Variables										
Firm size (fsize)	4 8 2	2.6 8	2.2 1	- 2.9 6	1. 83	2.9 5	4.1 7	6.7 3	-0.67	2.98
Sales growth (sgr)	4 8 2	0.1 0	0.1 6	- 0.2 2	0. 01	0.1 1	0.1 9	0.4 7	0.13	3.10
Leverage (lev)	4 8 2	0.1 6	0.1 7	0.0 0	0. 00	0.1 1	0.3 0	0.5 4	0.76	2.31
Profitability (prof)	4 8 2	0.1 0	0.1 0	- 0.0 5	0. 03	0.0 7	0.1 5	0.3 3	0.79	3.04

Notes: This table provides summary statistics for the data employed throughout the analysis. Data for ownership and board characteristics were hand-picked from the published annual reports of the respective companies. The data for year-end market prices, and accounting variables, were obtained from the Bloomberg database. Appendix 1 provides the operational definitions of the variables.

Table 3 shows that the average board size is 10 members, with a minimum of three and maximum of 22. This is higher than recommended number of seven to eight members (Lipton and Lorsch, 1992; Jensen, 1993; Hermalin and Weisbach, 2003). It further shows that the representation of foreigners on the boards, averages 28% and the maximum proportion is 100%. This level of participation of foreigners on corporate boards is something that should be expected. It is a reflection of the influence of the highly concentrated ownership, for both the privatized SOEs that were sold to strategic investors and other privately owned companies. It can be construed from these findings that ownership by biggest shareholders is the primary governance mechanism of the EA listed companies. Alternatively, these results may reflect the fact that foreign board members bring certain skills and expertise that business operations in the three industries mentioned above need but are not available locally.

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The proportion of senior civil servants or political leaders on the boards in Table 3 is averaging 12% (maximum 50%). For privatized SOEs, the board members represent the interests of the governments. For other public companies, the appointment of civil servants on their boards may be interpreted as a ploy to protect the businesses against political risks, but also for lobbying purpose. Table 3 also provides information about the level of education of the board members. It indicates that, on average, 35% (maximum 100%) have a master's degree or above. This may reflect that education qualification is an important attribute for appointments of board members.

Table 4: Pairwise Correlations Matrix

Variable	ROA	tq	big	Fown	inst	bsize	bfgn	civ
ROA	1.0000							
tq	0.5491*	1.0000						
big	0.2704*	0.1488*	1.0000					
fown	0.2532*	0.1240*	-0.0793	1.0000				
inst	0.3189*	0.0955*	0.2462*	0.2145*	1.0000			
bsize	-0.1577*	0.0281	-0.0269	0.0344	-0.0502	1.0000		
bfgn	0.2659*	0.1352*	0.2296*	0.2041*	0.2357*	-0.1090*	1.0000	
civ	0.1316*	-0.0364	-0.0823	0.0734	-0.0134	0.3904*	-0.1814*	1.0000
ed	0.2957*	0.1658*	0.2413*	-0.0040	0.2183*	0.1753*	0.0535	0.2567*
fsize	-0.3929*	-0.1375*	-0.0707	-0.1397*	-0.2499*	0.4399*	-0.2429*	0.0424
sgr	0.1480*	0.0998*	-0.0861	-0.0528	0.0288	-0.0107	0.0681	-0.0441
lev	-0.3944*	-0.1691*	-0.2855*	-0.0889	-0.1869*	0.2252*	-0.0548	0.1576*
prof	0.9476*	0.5404*	0.2911*	0.2338*	0.3161*	-0.1276*	0.2732*	0.0878

Notes: This table presents the pairwise correlation matrix for the data employed in the analysis. The data were hand-picked from the published annual reports of the respective companies. The data for variables, were obtained from the Bloomberg database. Variable definitions and measurements

In Table 4 we report the pairwise correlation matrix for the variables employed in the analysis. The purpose of examining this relationship is twofold. Firstly, is to identify the degree of interaction between the variables. We note several important observations. The correlation between measures of firm performance and firm size, and leverage is negative and strongly significant. Board size is negatively and significantly correlated with *ROA*, but positively correlated with *tq* and insignificant.

The relationship between *ROA* and board size suggests that companies with large board size have lower current profitability.

Table 4 further shows that largest shareholder, foreign ownership, institutional ownership, proportion of foreigners on the board, proportion of members with masters or higher and sales growth are strongly positively correlated with the proxies of firm performance. These findings validate our earlier assertions. That if ownership is concentrated in the hands of few shareholders, there is close alignment of interest which ultimately affects firm value. Given the huge investment that they have put in these companies, largest investors, are compelled to maintain a dominating voice in the company's strategies, policies and decisions.

The same applies to the foreign and institutional investors. That is, they may be influential in the monitoring and advisory roles which can help firms to avoid over-reliance on concentrated ownership (Young et al., 2008). The proportion of senior civil servants on the board has strong positive correlation with roa , but negatively correlated with tq . Consistent with the resource dependence theory, the findings suggest the presence of government officials or politicians on the boards facilitates access to crucial resources the firms need to enhance operations and performance (Daily et al., 2003; Okpara, 2011; Hillman and Dalziel, 2003).

The second purpose of examining correlation is to identify the presence of the multicollinearity problem in the data. According to Hair et al. (2006), high correlation equal to 0.9 or above is an indication of substantial collinearity. The correlation between roa and $profit$ in Table 4 is greater than this cut-off point and highly significant. This variable was not included in the roa regression. The magnitudes of the correlation coefficients for the remaining variables indicate that there is no multicollinearity problem.

Analysis of Board and Ownership Variables on Performance Proxies

Table 5 present the findings of equation (2). As stated earlier, the study employed the DWH approach to test whether the independent variables representing governance mechanism are endogenous. The results showed that when performance is measured by the Tobin's Q, all the explanatory variables should be considered as exogenous. With respect to the ROA, the DWH results indicated that the presence of foreigners On the board and foreign ownership should be treated as endogenous variables in the model.

Likewise, the Hausman test rejected the null hypothesis that the individual specific effects or errors are not correlated with the regressors for the Tobin's Q model, but failed to reject the same hypothesis for the ROA model. The study, therefore, employed the pooled FE regression to estimate the relationship between the governance variables and Tobin's Q. We also used the RE-2SLS-IV approach to estimate the ROA model. In each case, we included the control variables.

Results Based on Tobin's Q

Consistent with hypothesis 1, the estimations in Table 5 show that the board size has a statistically significant positive relationship with Tobin's Q as an approximation of market valuation. The evidence supports the school of thought that large boards enhance the performance of a firm. It could be argued that firms from EAC states need larger boards with a range of expertise because they seek for the quality of advice (Dalton et al., 1999; Coles et al., 2008). Another explanation for the larger board sizes can be attributed to the dominant ownership structure in the region. For the privatised SOEs for example, the big investors, the governments and other stakeholders need to protect their interests and therefore, appoint their representatives and make them bigger. These findings, however, contradicts other studies that suggest that having a relatively small board, makes it effective in monitoring the activities of top management for the best interests of the firm's stakeholders (Jensen, 1993; Yermack, 1996).

To investigate the optimal size of the board, we included a squared term of the board size variable in the model. Both the linear and quadratic terms were statistically

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insignificant. This implies that the relationship between Tobin's Q and board size is not curvilinear. We, therefore, dropped the later.

The results in Table 5 indicate that the presence of foreigners on the board is negatively related to performance and not significant. This observation disputes hypothesis 2a and is not consistent with the resource dependency theory. The evidence implies presence of foreigners on the boards of firms from EAC frontier markets do not bring any significant difference in terms of exposure to skills and expertise, mitigation of information asymmetry, and reduction in operating costs as the literature shows (Oxelheim and Randøy, 2003; Gulamhussen and Guerreiro, 2009; Fairchild et al., 2014).

Table 5: Regression Results

Variables	Tobin's Q Coefficients	ROA Coefficients
Board size	0.208^{***} (0.075)	0.070^{***} (0.018)
Foreigners on the board	-0.061 (0.159)	0.166^{***} (0.048)
Civil servants on the board	-0.355 (0.290)	0.238^{***} (0.057)
Education	-0.132 (0.128)	0.054[*] (0.028)
Largest shareholder	-0.361^{***} (0.122)	0.052[*] (0.029)
Foreign ownership	-0.024 (0.122)	0.015 (0.033)
Institutional ownership	0.004 (0.084)	0.033[*] (0.018)
Firm size	-0.083^{**} (0.034)	-0.008 (0.007)
Sales growth	0.007 (0.088)	0.109^{***} (0.021)
Leverage	0.489^{***} (0.139)	0.144^{***} (0.030)
Profitability	1.086^{***} (0.237)	-
Constant	-0.295 (0.211)	0.115 (0.075)
Year dummies	Yes	Yes
Exchange dummies		
<i>Uganda Securities Exchange</i>	No	0.015 (0.052)
<i>Nairobi Securities Exchange</i>	No	0.022 (0.049)
Industry	No	Yes
Observations	482	435
Number of groups	47	47

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R ²	0.1249	0.4826
Adj. R ²	0.0810	0.4494
F-test	8.12^{***}	6.17^{***}
Breusch-Pagan Lagrange Multiplier (LM) test χ^2	374.71^{***}	235.29^{***}
Hausman test χ^2	38.96^{***}	16.45
Durbin-Wu-Hausman F-test	-	4.10^{**}
First stage F-test	-	2577.71^{***}
	FE	RE-2SLS-IV

Notes: This table presents the results of pooled panel regression with fixed effects estimations of Tobin's Q and the random effects 2SLS-IV estimates of ROA on various governance mechanisms and control variables. * p < 0.10, ** p < 0.05, *** p < 0.01. Robust standard errors are reported in parentheses. The null hypothesis for the Breusch-Pagan Lagrange multiplier (LM) test is that variances across entities are zero (Var (u) = 0). If the test is rejected at the 5% level, it means there is a panel effect, and thus the OLS model is not appropriate. The null hypothesis for the Hausman test is the individual specific effects of the regressors are not correlated with the error term. If the hypothesis is not rejected at the 5% level it means that the random effect model is more efficient than the fixed effects model. The Durbin–Wu–Hausman (augmented regression) test for endogeneity tests the null that the variable in question is exogenous. A rejection of the null hypothesis implies that compared to an IV regression, the OLS is not an appropriate estimation technique, and that the variable in question should be treated as endogenous. Appendix 1 provides the operational definitions of the variables.

Table 5 further shows that coefficients for civil servants' presence on the board room lead to a discount in firm valuation. The finding contradicts our expectation as stated in hypothesis 2b. The results also disagree with the resource dependence viewpoint and the findings from past research (Hillman and Dalziel, 2003; Hillman, 2005; Lester et al., 2008). It was expected that these government officials would bring to the firms valuable resources such as networking and linkages that would be vital for improving business operations. The finding seems to support the reasoning from the institutional theory that the appointment of civil servants onto the boards is a bandwagon effect. That is, since they are used to bureaucratic systems, they do not have business acumen, and that their appointment is based on political grounds, it is unlikely that they will be effective in discharging the monitoring and controlling functions (see also, Muth and Donaldson, 2002; Peng, 2004; Rossouw, 2005; Wanyama et al., 2009).

Hypothesis 2c suggested that directors with MSc and PhD on the BoD positively affect firm performance. Table 5 shows that the coefficient for education has an insignificant negative effect on Tobin's Q. The results do not offer support for our conjecture. An interpretation to this is that, possession of higher academic qualifications does not seem to create value for listed companies in the EA frontier markets. The findings are consistent with previous studies such as those by Anderson et al. (2004) and Rose (2007), but not consistent with (Ehikioya, 2009)

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who found a significant relationship between board skill and price earnings ratio and return on equity. However, they contradict the resource dependency theory which views board members with such academic qualities are important beneficial to the firms in terms of the mix of skills and cognition abilities (Anderson et al., 2011).

We further examine the influence of ownership by foreigners on Tobin's Q. The coefficient is negative and insignificant; meaning that hypothesis 3 is rejected. The lack of a meaningful relationship between issuing shares to foreign-investors and market valuation is surprisingly interesting. It implies that the market does not appreciate the role foreign investors in monitoring the companies, and hence creating value for the shareholders. In other words, the presence of foreigners in the EA listed companies does not signal to investors any potential for higher performance. This observation contradicts one of the main motives of adopting and promoting good governance practices by many African markets. That is, to make the countries appealing destinations for attracting capital flows from within the region and abroad (see also; Wanyama et al., 2009; Rossouw, 2005; Wanyama et al., 2013; Waweru, 2014a, b). Hence, increase the value of local companies and reduce the cost of capital (Bekaert and Harvey, 2000; Bekaert et al., 2002).

Another explanation as to why there is no evidence to support our conjecture that the participation of foreigners positively influences firm performance relates to trading restrictions. Apart from companies that were/are strategically owned by foreign companies, foreigners' participation in the stock exchanges was not substantial during the period under study. For example, it is until recently, when the government of Tanzania removed the regulation that restricted the levels of each stock's ownership to a total of 60%. Coupled with the fact that most of the firms are controlled by larger shareholders, only a few of the issued shares can be freely available to foreign-investors, thus, making them unable to exert influence on any key decisions (Young et al., 2008). Our results are also not consistent with those of Bai et al. (2004), who reported that foreign ownership positively affected market valuation.

The coefficients for institutional ownership in Table 5 provide no evidence in support of hypothesis 4. According to the literature, institutional investors play three major roles in the firm's corporate governance (Al-Najjar, 2010). From the agency theory perspective, large institutional investors' acts as monitoring devices – since they are better positioned to monitor the performance of the management and hence minimize the agency conflicts (Jensen, 1986; Pound, 1988; Gillan and Starks, 2005). From the bankruptcy theory, institutional investors can avoid investing in a firm with high business risk or provide intensive monitoring to minimize the bankruptcy costs. And from the signalling perspective, the ownership by institutional investors may serve as a signal to the market about the future performance of the firm (Gillan and Starks, 2005). The lack of significant effect is consistent with the prediction of the conflict-of-interest, and the strategic-alignment hypotheses proposed by Pound (1988). That is, given the concentrated ownership structure prevailing in the companies listed in EAC exchanges, the institutional investors may find there is little or no incentives to play their monitoring role. Such a decision may have detrimental effect to the value of the firm. This result is in line with Faccio and Lasfer (2000) who found no significant relationship between institutional ownership and firm performance.

The estimates presented in Table 5 show that the biggest owner has a significant and negative effect on Tobin's Q. This observation is not consistent with our

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hypothesis 5. For the majority of the privatized SOEs, the strategic investors are foreign corporations. As stated earlier, privatization was instigated to facilitate the restructuring of the ailing SOEs with the main motive to improve performance of the enterprises. For other public companies, the majority shareholder could be the founders. Our findings suggest that the largest shareholders in EAC listed companies are not concerned with improving the market values of the firms. According to Mínguez-Vera and Martín-Ugedo (2007), a negative effect of high ownership is an indication of a poorly developed capital market. In such a situation, using the level of ownership as a control mechanism for disciplining the management may not be effective. Another explanation for the negative relationship could be the conflict-of-interest, and strategic-alignment hypothesis. Whereby, the owners and the management cooperate for mutual benefit of each other (Pound, 1988; McConnell and Servaes, 1990). Previous studies that reported consistent findings include Faccio and Lasfer (2000) and Tam and Tan (2007). This result is not consistent with Ehikioya (2009) in Nigeria, who found ownership concentration to exhibit a significant positive relationship with all measures of performance employed in the study.

With respect to the control variables, Table 5 reveals that firm size has a significantly negative effect on performance. The negative coefficient indicates that smaller firms tend to have higher market values. Previous studies reporting similar evidence include; Hermalin and Weisbach (1991), Bhagat and Black (2002), and Mínguez-Vera and Martín-Ugedo (2007). The coefficient for sales growth is negative and insignificant. This is not consistent with the view that the firm's growth prospects affect its value (see also; Black et al., 2012).

Table 5 further shows that leverage has a strongly significant positive effect on Tobin's Q. The findings suggest that high levered firms have higher values. This is consistent with Modigliani and Miller (1963) with respect to tax shields on corporate income, and Ross (1977) and Jensen (1986) with respect to signalling and free cash-flow hypotheses respectively. The positive relationship between leverage and Tobin's Q is in line with McConnell and Servaes (1990) in the US, Davies et al. (2005) in the UK; and Ehikioya (2009) in Nigeria. The results are contrary to Demsetz and Villalonga (2001) and Cui and Mak (2002) who found a negative effect in the American market. The coefficient for profitability is significantly positive. This is not surprising because Tobin's Q is related to current profitability of the firm (see also; Black et al., 2012).

Results based on ROA

Hypothesis 1 suggests a positive relationship between board size and firm performance. The evidence presented in Table 5 reveals that the coefficient of board size is negative and very significant, thus opposing our conjecture. The negative sign implies that larger board sizes have an adverse impact on the operational performance of the companies listed in the EAC exchanges. Moreover, this observation is in line with the assertion that as board increases in size, its efficiency in terms of discharging the monitoring and advisory roles reduces (Yermack, 1996; Lipton and Lorsch, 1992; Hermalin and Weisbach, 2003). The study also investigated whether the size of the board has a non-linear effect on performance by including the squared to term of the board size variable in the model. Both the linear and quadratic terms were statistically insignificant. We, therefore, dropped the later.

Hypothesis 2a suggests that presence of foreigners on BoD positively affects firm performance. Table 5 indicates that the estimate of foreigners on the board is

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positive and strongly significant, thus supporting this conjecture. That is, the operating performance (ROA) of listed firms with foreign directors on their boards in the EAC markets is 17% higher than that of firms without. It is worth of a note; however, that, most of these foreign directors represent the larger shareholders such as the *strategic investors*, in the case of privatized SOEs. They, therefore, have every incentive to ensure that the resources that the parent company has invested yields sufficient returns. The findings, nevertheless, are not in line with those of Masulis et al. (2012), who found a negative relationship between ROA and presence of foreign directors on the board.

The study also investigates the effect of the presence of senior civil servants (or politicians) on the board on ROA. Consistent with our conjecture, in hypothesis 2b and the resource dependence theory, the regression coefficient in Table 5 is positive and highly significant. This result implies that firms prefer to appoint this type of directors on their boards in order to create linkages with the government, which is an important source of external dependency (Pfeffer, 1972). This is because the government's policies, regulations and enforcements shape the external environment in which businesses operate. In the developing world and in African frontier markets, in particular, this is a major source of risk and uncertainty, because of the weak legal and regulatory framework (La Porta et al., 1997, 1998; Rossouw, 2005; Wanyama et al., 2009; Wanyama et al., 2013; Claessens and Yurtoglu, 2013). Therefore, creating linkages with the government reduce transaction costs of securing information concerning important political decisions, lobbying, risk and uncertainty, and ultimately enhance operating performance. The findings are consistent with prior studies such as those by Hillman (2005) and Lester et al. (2008).

Although marginally significant, the findings in Table 5 concerning the effect of education on ROA, are in line with the prediction of hypothesis 2c. Consistent with the resource dependency theory, the results show that, all else being equal, firms with a mix of skills and expertise of directors with higher levels of education perform better than counterparts without. Similar findings are reported by Murphy (2007), and Anderson et al. (2011). It is interesting to note that these results are largely different from those of Tobin's Q regression. The explanation for this observation is that the focus of directors in EAC listed companies is to protect the interests of the shareholders whom they represent. And in most cases, this is the larger shareholders or block-holders that own huge stakes of the issued share capital.

Hypothesis 3 states that foreign ownership is positively associated with firm performance. The evidence presented in Table 5 does not support this proposition. As stated earlier, this finding is surprising as it contradicts the main motive of attracting foreign investors by African frontier markets. Which among others, given their level of involvement and influence, it was expected that their presence would be reflected in enhancing both operational performance and market valuation.

The results for institutional ownership in Table 5 marginally support hypothesis 4. That is, ownership by ownership by institutional-investors is positively associated with ROA. This could mean that, institutional investors in EAC exchanges are, to a certain, extent concerned with profitability in contrast to market values of the firms in which they invest. In other words, the existence of institutional ownership may be a signal of good operating performance and higher likelihood of dividend payment (Jensen, 1986; Zeckhauser and Pound, 1990; Short et al., 2002; Grinstein and Michaely, 2005; Amidu and Abor, 2006). The finding is consistent with Al-Najjar

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(2010) who reported that investors in Jordan consider firm's profitability as one of the factors when they take their investment decisions.

The evidence presented in Table 5 does not provide sufficient evidence to support hypothesis 5. The coefficient for the largest shareholder is positive but marginally significant at the 10% level. The opposite signs in the ROA and Tobin's Q estimations are inconsistent with the overall correlation between the two variables in our sample (see Table 4). The interpretation for this finding could be that, the main shareholders of the EAC firms are more concerned with the operational performance rather than the market values. In other words, the larger shareholder may be taking advantage of minor shareholders by engaging into business deals that are advantageous to them but not the overall interests of the firms they control. This result is consistent with Demsetz and Lehn (1985) who found no significant relationship between ownership concentration and accounting profit rates.

With respect to control variables, Table 5 shows that firm size has no significant association with ROA. On the other hand, sales growth has a significant positive coefficient. This means that sales growth determines the operating performance of the firms listed on the EAC exchanges. The finding supports the argument that managers pursue sales growth because it allows them to sustain profitability. Consistent with the agency theory and strategic-alignment hypothesis, the implication of this finding is similar to those of the largest shareholder and institutional ownership. As stated earlier, the evidence suggests that main focus of these big investors is on the profitability of the firms and not shareholder's value creation. The incentive for managers to pursue sales growth, on the other hand, is to increase their powers by increasing the resources under their control.

Furthermore, the findings on leverage have opposite signs in ROA and Tobin's Q regressions. Generally, the results suggest that smaller firms with low leverage have higher ROA. This evidence is consistent with the findings by Demsetz and Villalonga (2001) and Cui and Mak (2002) who found a negative effect in the American market. However, as stated earlier, the evidence contradicts the long-standing theories such as the Modigliani and Miller (1963) with respect to the capital structure irrelevance principle. Finally, we included the exchange dummy variables in the regression model to control for the exchange specific trends. The estimates reported in Table 5 shows that there is no statistical difference in terms of operating performance by companies listed in either of the stock exchanges with reference to the DSE.

Conclusion

The summary of the results on the effects of corporate governance mechanisms on firm performance is presented in Table 6. The summary shows conflicting results depending on the performance measurement (i.e. the dependent variable) used (see also, Mollah et al., 2012). With regard to hypothesis 1, the result for Tobin's Q is consistent with our expectation and is econometrically significant. There is therefore, strong evidence to conclude that board size directly influences the market performance of the firms listed in the EAC frontier markets. The ROA result, on the hand, is negative and significant, thus do not support hypothesis 1. This result, however, supports the school of thought that small boards are effective in monitoring the operating performance.

Table 6: Summary of the Tested Hypotheses

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Hypothesis No.	Proposition	Tobin's Q			ROA				
		F E	Sign	Remarks	2SL S-IV	Sign	Remarks		
Board Structure									
Hypothesis 1	Board size positively affects firm performance	S	+	A	S	-	NA		
Hypothesis 2(a)	Foreigners on board of directors positively affect firm performance	NS	-	NA	S	+	A		
Hypothesis 2(b)	Civil servants (or politicians) on board of directors positively affect firm Performance	NS	-	NA	S	+	A		
Hypothesis 2(c)	Directors with MSc and PhD on the board of directors positively affect firm performance	NS	-	NA	S	+	PA		
Ownership Structure									
Hypothesis 3	Foreign ownership is positively associated with firm performance	NS	-	NA	NS	+	NA		
Hypothesis 4	Ownership by institutional investors is positively associated with firm performance	NS	+	NA	S	+	PA		
Hypothesis 5	Ownership by the largest shareholder is positively associated with firm performance	S	-	NA	S	+	PA		

Source: Derived from the analysis reported in Tables 1.5 and 1.6; S = Significant at 5% level; NS = Not Significant; A = Accepted; NA = Not Accepted; PA = Partially Accepted

The evidence in Table 6 shows that the presence of foreigners on the boards does not affect the market values of the listed companies as measured by Tobin's Q. This result disagrees with our conjecture in hypothesis 2a. However, the relationship is strongly significant and consistent with the proposed relationship when performance is measured by ROA. Based on this evidence, the study concludes that the effect of foreign board members in the companies listed in EAC exchanges is only observed in the operating performance rather than in the market valuation of the firms. The same conclusion is reached with respect to the presence of civil servants on the corporate boards. That is, the finding offers strong support to hypothesis 2b when performance is measured by ROA.

The Tobin's Q summary presented in Table 6 shows that our results do not support hypothesis 2c. The finding for ROA, on the contrary, partially accepts our conjecture. The results lead to the conclusion that board members with masters' degree or above have little or no influence of on improving company's performance. The summary further indicates that there is no significant relationship between foreign

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ownership and both measures of performance – the Tobin's Q and ROA. Hence hypothesis 3 is rejected.

The summary in Table 6 also shows that there is no significant association between institutional investors and Tobin's Q. The finding does not support hypothesis 4. The ROA result, however, is partially significant. Based on the results; therefore, this study concludes that institutional ownership in the companies listed in EA exchanges has little or no influence of on firm performance.

The study also evaluated the effect of ownership by the largest shareholder on the firm's performance. Contrary to hypothesis 5, the summary for Tobin's Q is negative and strongly significant. The finding points to the lack of incentive by dominant shareholders on improving market values of the firms. With regard to ROA, the summary shows there is partially significant evidence in support of hypothesis 5. Accordingly, it is concluded that the ownership by the largest shareholder in the companies listed in the EA exchanges negatively affects the market values of stocks. In terms of operating performance; however, the biggest owners have little or no influence.

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Appendix 1: Variable Definitions and Measurement

Variable	Measure	Hypo. Sign	Source
Dependent variables			
Return on assets (ROA)	The proportion of profit before interest and tax (EBIT) over total assets employed		Klapper and Love, 2004; Ehikioya, 2009
Tobin's Q (tq)	Market value of equity (MVE) plus book value of assets (BVA) minus book value of equity (BVE), and then divide the whole thing by BVA		La Porta et al., 2000; Klapper and Love, 2004; Ehikioya, 2009; Ammann et al., 2011
Independent Variables			
Board structure variables			
Board size (bsize)	Natural log of the total number of board members	+	Yermack, 1996; Coles et al., 2008; Ehikioya, 2009
Foreigners on the board (bfgn)	Proportion of foreigners to the total number of board members	+	Oxelheim and Randoy, 2003
Senior civil servants or politicians (civ)	Proportion of senior civil servants (or politicians) to total number of board members	+	Muth and Donaldson, 2002; Peng, 2004; Hillman, 2005; Rossouw, 2005; Lester et al., 2008; Wanyama et al., 2009
Academic Qualification (ed)	Proportion of directors with masters' degree and directors with PhD to total number of board members	+	Anderson et al., 2004; Murphy, 2007; Rose, 2007; Ehikioya, 2009; Anderson et al., 2011
Ownership structure variables			
Largest shareholder (big)	Proportion of shares held by the biggest shareholder	+	Holderness and Sheehan, 1988; McConnell and Servaes, 1990; Khanna and Palepu, 2000; Sarkar and Sarkar, 2000; Bai et al., 2004; Minguez-Vera and Martin-Ugedo, 2007; Tam and Tan, 2007; Oxelheim and Randøy, 2003
Foreign ownership (fown)	Proportion of shares held by foreign investors	+	Dahlquist, et al., 2003; Bai et al., 2004; Peng, 2004; Young et al., 2008
Institutional ownership (inst)	Proportion of shares held by institutional investors	+	McConnell and Servaes, 1990; Mak and Li, 2001; Dahlquist, et a., 2003; Tong and Ning, 2004
Other Variables			
Firm size (fsize)	Logarithm of total assets	+	Klapper and Love, 2004; Ehikioya, 2009
Sales growth (sgr)	We measure sales growth rate as the percentage growth in total sales		Klapper and Love, 2004
Leverage (lev)	Debt-ratio is calculated as total debt divided by book value of total assets	-	Tong and Ning, 2004; Ehikioya, 2009
Profitability (prof)	We use net income over total assets to measure profitability		Black et al., 2012
Industry sector (dsec)	We include six sector dummy variables to control for the effects of industry-specific factors as categorized by the		Ehikioya, 2009

NSE

Year (yr) We include year dummy variables to control for board and ownership structure trends

Stock exchange (dexch) We include three stock exchange dummy variables to control for the country specific effects

Acquaintance of Financial Risk and Economic Efficiency in Tanzanian Commercial Banks

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Abstract

Financial risks and economic efficiency associations are very limited, especially in Tanzania commercial banks. The aim of this study is to investigate the association of the financial risks and economic efficiency of commercial banks in Tanzania. The economic efficiency under investigation is stochastic cost efficiency and stochastic revenue efficiency, while financial risk is the average of financial risks. The study uses the instrumental variable regression of fixed effect to work with two-stage least squares of simultaneous equations. By using unbalanced panel data of 21 commercial banks from 2003 to 2012, the results show that by using both stochastic cost efficiency and stochastic revenue efficiency, financial risk is significant. Additionally, in view of economic efficiency in the risk equation, stochastic cost efficiency and stochastic revenue efficiency are significant. The implication of the study's outcomes is that the links of financial risk and economic efficiency exists. Therefore, the commercial banks and the bank supervisors should minimize risk and maximize efficiency to conserve banks operation.

Key words: Financial risk, economic efficiency, simultaneous equation model and commercial banks

1. Introduction

Banking sector is the significant financial industry that contributes about 165.4% in term of domestic credit as percentage of

worldly GDP.⁶ Owing to its' contribution, it should have successful performance. In fact, banking sector mostly faces the

⁶ See world banks database

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problem of financial crunch that are largely affect its setups, and performance hence disintegrates the worldly financial system (Shah, 2010).⁷

In view of the fact, Tanzanian commercial banks play very important position. Due to their position, they are expected to be efficient in economic performance that is determined by cost and revenue but the circumstances turn out to be otherwise. The Costs of almost all commercial banks has increased continuously from 2003 to 2012. For instance the costs of Large bank like NBC incessantly has increased by 128,958 mil, major international banks like Standard Chartered has increased by 79,104 mil and small banks like PBZ has increased by 14,381 million (BOT, 2012). Thus have led to increase risk hence further profit decline. Profit decline also because they have reduced lending which is one of the main activities in Tanzania commercial banks. Tanzania commercial banking is inefficient due to influence of internal and external factors such as off balance sheet, capital, inflation, real interest rates and GDP growth.⁸

⁷ See Christie and Campbell (2010), Tanzania.

⁸ Reduction of GD growth in Tanzania; from 7.4 in 2008 to 6.4 in 2011 interrupt depositing and lending for banks. The condition makes the commercial banks to raise interest margin to increase net income that has reduced opportunity of obtaining fund and has increased undue loan (IMF, 2010). Inflation also distress exchange rates that possibly reduce revenue in Tanzania commercial banks (business times, 2010). The value of Tanzania shillings per USD1 decline from Tshs 1163.95 in 2005 to Tsh1675.80 in October 2013. This has increased cost and reduced revenue of the banks. See more in Eusebius, 2011 & EABI, 2011.

2. Literature review

Many studies express great importance of commercial banks on the financial system (Cicea and Hincu, 2009). Due to its importance, worthy economic efficiency should be assessed. Currently, economic efficiency is growing to be central theme for discussion to many scholars in and outside of the Tanzania as economic efficiency concept come from the economist based on the economic objective of optimization of rational individual. The optimization is constructive by profit or/and revenue maximization and cost minimization given input and output prices (Farrell (1957, Coelli et al., 2005). Economic efficiency measurement techniques are divided into non-parametric and parametric approaches (Coelli et al., 2005). The parametric approach requires the specification and estimation of a cost function, profit/revenue function or production function with the inclusion errors arise due to misspecification of the function and the underlying stochastic method, which is economic efficiency measurement technique used in this study, especially the stochastic frontier approach (SFA), (Berger and Humphrey, 1997, Tahir and Haroun, 2008: Mohamad et al., 2008; Lensink and Meesters, 2014, Abdallah et al., 2014).

The Stochastic Frontier Approach presenting as non-linear programming technique decomposes random error terms and the production unit inefficiency and considers the existence of exogenous shocks (Aigner, Lovell and Schmidt, 1977, Battese and Coelli, 1992; Tahir and Haroun, 2010; Md Baten and Kamil, 2010; Mohamad et al., 2008; Lensink and Meesters, 2014). The technique assumes the deviations from the frontier are from management and outside management control factors. It differentiates inefficient term from random component by making explicit assumptions about distribution such as random error component is normally distributed and inefficient error term is half normally distributed (Coelli et al., 2005).

Significance of SFA in measuring performance induce many scholar to offer their view by evaluating banks economic performance based on SFA (Rao, 2005; Tahir and Haroun, 2008; Mohamad et al., 2008; Idialu and Yomere ,

2010; Jiang and Yao, 2011; Manlagnit 2011; Md Baten and Kamil, 2011; Lensink and Meesters, 2014). Concentration of these literatures is on cost efficiency, profit efficiency and revenue efficiency.

Generally, based on the theoretical outlook, performance and financial risk are interrelated (Santomero, 1997). Empirical literatures have worked with theoretical concept to show relation on economic efficiency (performance) and financial risk. Based on their views each component is important to be appraising to the other to sustain the operation of the business. Miller and Bromiley (1990), on cross-sectional of 493 firms of two periods observed banks performance has negative relation with risks. Boermans (2011) on his study regarding firm performance under financial constraints and risks: recent evidence from micro finance clients in Tanzania has shown a strong negative connection between financial constraints, risk and Profits. Performance and financial risk empirical relation is specifically presented below;

Commencing with credit risk, according to Chijoriga (2011), Credit risk is very hazardous risk because it is the source of the ruthless bank failures to compare with liquidity risk. Berger and DeYoung (1997) on their study on Problem Loans and Cost Efficiency in Commercial Banks observed declining of cost efficiency is caused by occurrence of problem loans. Ariff and Can (2008) observed credit risk in the form of loan to assets and loan loss provision (credit risk) has negative influence on Chinese banks efficiency. Dimitropoulos et al., (2010) in multivariate regression to test impact of earnings and cash flow on stock return study, also found that credit risk has a negative and significant influence on return-earnings. Rozzani and Abdul Rahman (2013) on their study observed that profit efficiency possible improved for conventional banks with the percentage decline of credit risk whereas the efficiency for Islamic banks is not influenced. Moreover, Interest rate risk is bank specific variable that affect banks efficiency. Real exchange rate volatility has a strong negative effect on investment and profit, (Bleaney and Greenaway, 2000). Moreover, on liquidity risk Aikaeli (2008), on his study on Commercial Banks Efficiency in Tanzania

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found excess liquidity is positively related with x-inefficiency index in the Tanzania's banking firm validate to show excess liquidity in banks increase quick inefficiency. The above observation has mixed results due to different types of financial risks factors. But this study assumes negative relation of financial risk to performance.

Inversely, poor economic efficiency of the banks is the source of banks financial risk. Kwan and Eisenbeis (1997) on Bank Risk, Capitalization, and Operating Efficiency found Inefficiency is significantly positive influence bad loan for firms in two Quartiles that is 2nd and 4th Quartile. The meaning of his finding is supplementary credit risk is caused by increasing inefficiency or declining efficiency. According to Fiordelisi et al., (2011) higher bank risk is caused by lower cost and revenue bank efficiency. This shows negative granger relationship between risk and bank efficient both cost and revenue efficiency. Haneef et al., (2012), underlined inefficient banks are more likely to experience high level of problem loans.

Other than risks determinant, failure or success of commercial banks is determined by other internal and external bank factors as in many researchers observation such as off balance sheet items, inflation, and real interest rates.

The increased OBS activities may lead to large loss if the banks fail to manage activities properly.⁹ Lieu et al. (2005) observed higher cost efficiency is generated from increasing OBS activities for large banks. Restrepo-Tob'ón and Kumbhakar (2013) by using stochastic frontier as efficiency measurement found Banks is likely to have more cost inefficient and less revenue inefficient when off-balance sheet activities are high in the banking operation. On the other way their study shows that high off-balance sheet activities leads to less cost efficient and more revenue efficient. Moreover, according to Pasiouras et al., (2008) inflation has significant positive relation with cost and revenue inefficiency. This means that inflation reduce cost and profit efficiency. Tan and Floros

(2012) observed there is a positive relationship between bank profitability, Cost efficiency, banking sector development, stock market development and inflation in China. Additionally, Yu and Gan (2010) observed real interest rate is not statistically significant influence in banking growth in Malaysia.

Financial risks are determined by internal and external variables of the commercial bank as well (Al-Samad., 2010). This study concentrates with capitalization and GDP growth. According to Jacques and Nigro (1997) for 2,570 U.S. FDIC insured commercial banks by using 3SLS to estimate the simultaneous equation model from 1990 to 1991, changes in risk and capital are negatively associated. Negative relationship between capital and risk is in line with moral hazard hypotheses (DemirgucKunt and Kane, 2002, Goddard et al., 2004).

Distinctively, Kithinji (2010) propounded that one of the key credit risk basis is low capital. Contrary, Al-Samad (2010), on an investigation on credit risk, macroeconomic variables and bank specific factors in Jordan Bank observed strong profit and capital essential to the instability of the return in a bank with high risk index level that signified positive and significance affiliation between capital and credit risk. Additionally, In Berger and Bouwman (2006) by using the liquidity creation measures to analyse the effect of bank capital on liquidity creation, an issue of significant research and policy relevance, observed negative relation between liquidity risk. According to Pasiouras and Kosmidou (2007) banks with high capital-asset ratios are considered relatively safer in the event liquidation. This is the same as Kosmidou (2008) observation that shows well capitalized bank face lower risk of going liquidation. Cucinelli (2013) on the determinants of Bank Liquidity Risk within the context of Euro area by OLS regression based on panel data observed banks with higher capitalization have lower liquidity risk on long horizon. Furthermore, Ballester et al., (2009) realised interest rate risks are positively determined by capital but insignificant. On the other hand, Fiordelisi et al., (2011) found no sufficient and strong confirmation of capital effect on risk.

⁹ Off-balance sheet activities are the one of bank specific variables of the commercial bank. The off balance sheet activities are divided into two division, non-interest income and derivatives activities of banks divided by total assets (Rachdi, 2013). Increasing off balance sheet may increases profit efficiency once the banks expand investments

Additionally, using an advanced panel data technique, Das and Ghosh (2007), in their study on the determinants of the credit risk of banks in emerging economies in Indian state-owned banks, for the period 1994 to 2005, revealed that GDP growth has a crucial influence on problem loans. According to Albertazzi and Gambacorta (2009) results showed negative relation between GDP growth and credit risk. Castro (2012) on the macroeconomic determinants of the credit risk in the banking system for Greece, Ireland, Portugal, Spain and Italy from 1997q1 to 2011q3, using dynamic panel data approaches, found that credit risk increased due to the decrease in GDP growth.

The above literatures did not show simultaneous relation between economic efficiency and financial risk. Therefore this study aims to show simultaneous relation between economic efficiency and financial risk.

3. Methodology

This study uses simultaneous equation model to measure relationship between economic efficiency and financial risk.

Simultaneous Equation Model Specification

Much of the empirical literatures applied a simple linear model, GLS, GMM or probit model to show the impact of individual risks on the performance of banks except study conducted by Md Amin et al., 2014 but it has concentrated on relationship of financial risk and financial performance. Their study is deficiency by ignoring economic efficiency because economic efficiency considers utilization of resources to maximize return and minimize costs. To achieve the objectives of the research, this study estimates bank risk and economic efficiency by submitting an application of the simultaneous equation model (Schendel and Patton, 1978). The fixed effect model is estimated through instrumental variable estimation, which solves equation by equation by applying the two-stage least squares method (2SLS) to examine the reciprocal of the model to solve the endogeneity problem (Theil, 1953; Basmann,

1957). Two stage least square is applied by using instrumental estimation (IV) to examine reciprocal of the model that solve the problem of standard deviation of error term and coefficient to be not equal to zero. The study assumes that the error term has constant variance, and that the errors are not correlated within the equations. From 2SLS, stage one acquires and approximates the reduced form equations, and sets aside the fixed values for the dependent variables by using OLS, while stage two estimates the structural equation (Baltagi, 2010). Then, Stage two constructs IV estimators of the parameters of interest by estimating the structural equation by applying instrumental variable to get unbiased influence of independent variables to dependent variables. The structural equations and reduced form of the equations are presented below:

The structural equations

$$\begin{aligned} (ce/re)_{it} &= \beta_0 + \beta_1(fr)^{1/2}_{it} + \beta_2 obs_{it} + \beta_3 infr_{it} + \beta_4 rir_{it} + \mu_{1it} \dots \dots \dots 1 \\ (fr)^{1/2}_{it} &= \alpha_0 + \alpha_1(ce/re)_{it} + \alpha_2 lncap_{it} + \alpha_3 gdp_{it} + \mu_{2it} \dots \dots \dots 2 \end{aligned}$$

The reduced form of the equations

$$\begin{aligned} (ce/re)_{it} &= \pi_{10} + \pi_{11} obs_{it} + \pi_{12} infr_{it} + \pi_{13} rir_{it} + \pi_{14} lncap_{it} + \pi_{15} gdp_{it} + \mu_{11it} \dots \dots \dots 3 \\ (fr)^{1/2}_{it} &= \pi_{20} + \pi_{21} obs_{it} + \pi_{22} infr_{it} + \pi_{23} rir_{it} + \pi_{24} lncap_{it} + \pi_{25} gdp_{it} + \mu_{12it} \dots \dots \dots 4 \end{aligned}$$

Where,

ce/re_{it} = cost efficiency of i for year t and revenue efficiency of bank i for year t.

fr_{it} = financial risk of bank i at time t

infr_t = inflation rate of consumer price index at time t

cap_{it} = capital of bank i for year t

obs_{it} = off balance sheet activities of bank i for year t

gdp_t = GDP growth of the country at time t

rir_t = real interest rate of the market at time t

α, β and π = Coefficients of the variables

μ_{it} = error term of bank i at time t

t = 1, ..., T, is the tth time period.

i = 1, ..., N, is the ith cross-sectional component.

For the purpose of estimating the simultaneous equations, soundness and consistence of the

equations and instruments are confirmed by using the Durbin-Wu-Hausman test and the Sargan test.

Definition of Variables

All the equations include the dependent and/or endogenous and instrumental variables.

Dependent variables and/or endogenous variables

This study use stochastic frontier approach to measure economic efficiency of the commercial bank that considers product mix (Farell, 1957). The study efficiency models are in the form of stochastic cost frontier and stochastic revenue frontier as generated by Aigner, Lovell and Schmidt (1977) and Meeusem and Van Den Broek (1977).

Stochastic cost frontier approach

The cost frontier efficiency measures the best conduct of the banks' operation that produces equal output in the similar exogenous conditions with minimum cost (Berger and Mester, 1997). Error term is included in the cost equation to discriminate between cost inefficiencies and unsystematic cost fluctuations. The cost equation is as shown below:

$$TC_{it} = f(D_{it}, P_{it}, L_{it}) + u_{it} + v_{it} \dots\dots\dots 2$$

Where D_{it} is the total deposits of the bank i at time t , P_{it} is the personal expenses of the bank i at time t and L_{it} is the total loan of bank i at time t , u_{it} denotes an inefficiency factor that may raise costs above the best practice level that captures the difference between the efficient level of cost for given output levels and input prices and the actual level of cost. u_{it} capture the effect of inefficiency relative to the stochastic cost frontier that is assumed to be half normally distributed. v_{it} denotes the random error term that for the time being may provide high or low costs to the bank. Translog Cost function is used to find estimation of the variables and efficiency score of each commercial banks (Coelli et al., 2005). Translog Cost function is used to offer precise output of the data because it allows expansion of the number of variables. To measures the

cost efficiency for bank i , the ratio between the minimum cost (C_{min}) required to produce output in the bank and the actual cost (C_i) is presented as shown here under:

$$Cost\ eff = \frac{TC_{min}}{TC_i} = \frac{\exp\{D,P,L\} * \exp(\ln u_{min})}{\exp\{D,P,L\} * \exp(\ln u_i)} = \dots\dots\dots 5$$

where u_{min} is the minimum u_i across banks in the sample.

Stochastic Revenue frontier approach

The total revenue substitutes total cost from the cost function but other variables remain the same or we can say production function is applied. The equation is illuminating as shown below;

$$R_{it} = f(D_{it}, P_{it},) + u_{it} - v_{it} \dots\dots\dots 7$$

Where R is the total revenue, D_{it} is the total deposits of the bank i at time t , P_{it} is the personal expenses the bank i at time t , u_{it} denotes an inefficiency factor that may reduce revenue below the best practice level that captures the difference between the efficient level of revenue for given input prices and the actual level of revenue and v_{it} denotes the random error term that for the time being may provide high or low revenue to the bank. Translog revenue function is used in finding estimation of the variables and efficiency amount of the commercial banks. To measures the revenue efficiency for bank i , the ratio between the actual revenue (R_i) and the maximum revenue (R_{max}) required to produce output in the bank is presented as shown here under:

$$Rev\ eff = \frac{R_i}{R_{max}} = \frac{\exp\{D,P\} * \exp(\ln u_i)}{\exp\{D,P\} * \exp(\ln u_{max})} \dots\dots\dots 10$$

Where u_{max} is the maximum u_i across banks.

All parameters in the equations are estimated using the maximum likelihood parameter estimation (Battese & Coelli, 1995). Variance parameters of the log-likelihood function are reparametrized as $\lambda^2 = \sigma_u^2 / \sigma_v^2 \geq 0$

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Moreover, in another simultaneous equation, the dependent variable is financial risk. This shows that the degree of risk reaction in the bank depends on economic efficiency (Yudistira, 2004; Castro, 2012). It is calculated as follows:

$$FR = CR + LR + IRR/3$$

FR is financial risk, CR is credit risk,¹⁰ LR is liquidity risk¹¹ and IRR is interest rate risk.¹²

Generally, the average financial risk is expected to have a negative impact on bank's efficiency.

All the dependent variables become an endogenous variable in another equation.¹³

This is because the occurrence of risk usually reduces efficiency and high efficiency reduces risk. Therefore, it needs to be evaluated continuously to minimize risk and maximize economic efficiency.

Instrumental Variables

The instruments for the efficiency equation are off balance sheet items, inflation rate, and real interest rate. In financial risk equation, the instruments are GDP growth and bank capital.¹⁴ Off balance sheet items is estimated to have a positive influence on economic performance. When off balance sheet activities are managed properly, the bank efficiency might increase; otherwise, the bank incurs an unexpected loss that reduces efficiency. An inflation rate and interest rates are estimated to have a negative influence on economic performance. Capital and GDP growth are

estimated to have a negative association with the bank's financial risk (Casstro, 2012). These variables are measured in the form of ratios because in Tanzania there is different structure of commercial banks, therefore for the sake of analysis this research place all commercial banks in the same levels (Samad, 2004).

Table 1
Simultaneous equation Variables and their measurement and influence

Variable and its notation	Measure	Expected influence
Cost Efficiency	$\frac{\exp\{f(D, P, I)\} \exp(\ln u_{min})}{\exp\{f(D, P, I)\} \exp(\ln u_i)} \frac{u_{min}}{u_i}$	
Revenue Efficiency	$\frac{R_i}{R_{max}} \frac{\exp\{f(D, P)\} \exp(\ln u_i)}{\exp\{f(D, P)\} \exp(\ln u_{max})}$	
Financial risk (fr)	(creditrisk+liquidityrisk+interest rate risk/3)	- and +
Off balance sheet (obs)	Off balance sheet items/ total assets	+
Inflation rate(infr)	Consumer price index	-
Real interest rate (rir)	Real interest rate	-
Capital of the bank (cap)	Equity capital/total assets	-
GDP growth (gdpg)	sum of gross value added by all resident producers in the economy + taxes – subsidies	-

4. Analysis and Discussion

Table 2 below recapitulates the regression of efficiency and financial risk equations from the simultaneous estimation.

In the ordinary least squares result of efficiency equation shows financial risk is positively and significantly connected with all variables except real interest rates and GDP growth, which are insignificant to both CE and RE. Moreover, Ordinary least squares outcome of financial risk equation shows CE and RE are positively and significantly connected with INF and insignificant with OBS. It is also CE and RE is negative significantly influenced with RIR and CAP. CE and RE is positively insignificant with GDPG.

In the instrumental variable results of financial risk equation show that CE and RE have significant and positive influence on financial

¹⁰ Credit risk is a non-performing loan to the total loan (Thiagarajan and Ramachandran, 2011).

¹¹ The liquidity risk liquidity gap is divided by total assets See Basel II (1999).

¹² Interest rate risk is measured by interest risk factors by dividing the total loans by total deposits (Dimitropoulos et al., 2010).

¹³ Endogenous variables are variables that are determined within the system, such as financial risks and economic efficiency.

¹⁴ - The off balance sheet is the sum of the total contingent account and off balance sheet exposure divided by total assets (Ballester et al., 2009; Berger and Bawman, 2009; Tafri et al., 2009).

- Inflation is the percentage of consumer price index.

- The real interest rate is the lending interest rate adjusted for inflation, as measured by the GDP deflator.

- Bank capital is measured as a bank's ratio of equity to total assets (Yudistira, 2004; Tafri et al., 2009).

- GDP growth is measured as the annual percentage growth rate of GDP at market prices based on constant local currency (i.e., 2000 per US dollar) (Castro, 2012).

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risk. This result is contrary with the observations of Fiordelisi et al. (2011). The implication of the study is that the commercial banks might face high risk when CE and RE is high, and low risk when CE and RE is low. This is because CE and RE increase is the one way of increasing revenue that can increase investment and lending. Investment and lending may perhaps increase financial risk.

Based on the results, capital has a positive significant influence on financial risk for both CE and RE. The results contradict the findings of Pasiouras and Kosmidou (2007), Kosmidou (2008), Kithinji (2010), Cucinelli (2013) and Fiordelisi et al. (2011). The result implies that capital in the commercial banks in Tanzania has an influence to financial activities increase such as lending that might increase possibility of nonperforming loan that increase financial risk. The high capital may also lead to increasing scope and scale that causes management difficulties in managing business activities such as lending that leads to financial risk increasing. Financial risk increases due to capital increase in the banks operation seems to be moral hazard problem. Additionally, Lending increases leads; the possibility of borrowers to fail paying the amount due and on time and liquidity increases leads the possibility of losing profit when additional liquid amount could be invested. This might increase possibility of financial risk.

GDP growth rate has a positive insignificant influence on financial risk for both CE and RE. The result is not consistent with Das and Ghosh (2007) and Castro (2012). The results imply that GDP growth is unimportant in influencing financial risk.

In the instrumental variable results of CE and RE, financial risk has a negative significant influence on CE and RE. This result is consistent with the view offered by, Aikaeli (2008), Ariff and Can (2008), Boermans (2011) view. This implies that increasing financial risk might be caused by the failure of borrowers in paying the amount due, and investment loss and high insurance cost that lead to cost efficiency and revenue efficiency disruption in Tanzanian commercial banks.

The off balance sheet has a positive insignificant influence on CE. The result shows off balance sheet activities is not necessary variable on influencing CE. In the revenue efficiency, off balance sheet has a positive significant influence on RE. The study is in line with Restrepo-Tob'on and Kumbhakar's (2013) observation. The result infers that off balance sheet activities improve the banks' activities that increase quick additional revenue in the commercial banking operation that increase Revenue Efficiency.

Table 2 – Economic efficiency and financial risk Equation – CE and RE

	FR-OLS	CE-IV	CE-OLS	FR-IV	FR-OLS	RE-IV	RE-OLS	FR-IV
Ce/Re				1.09 (0.00)***				2.00 (0.00)***
Fr		(0.13) (0.005)** *				(0.05) (0.04)**		
Obs	0.33 (0.00)***	0.34 (0.113)	(0.006) (0.54)		0.33 (0.00)***	0.019 (0.08)*	0.004 (0.51)	
Rir	0.38 (.131)	(0.20) (0.00)***	(0.28) (0.00)***		0.39 (0.131)	(0.13) (0.00)***	(0.16) (0.00)***	

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Inf	0.009 (0.00)***	0.00 (0.00)***	0.007 (0.00)***		0.009 (0.00)***	0.005 (0.00)***	0.004 (0.00)***	
Lcap	.13 (0.00)***		(0.019) (0.00)***	0.17 (0.00)***	0.127 (0.00)***		(0.01) (0.01)***	0.17 (0.00)***
Gdpg	2.76 (0.21)		0.54 (0.193)	2.61 (0.26)	2.78 (0.21)		0.26 (0.28)	3.30 (0.15)
Cons	0.85 (0.00)***	(1.39) (0.00)***	1.22 (0.00)***	(0.13) (0.83)	0.85 (0.00)***	0.76 (0.00)***	0.69 (0.00)***	(0.24) (0.65)
R-sq:within		0.5		0.15		0.61		0.19
F-statistics	17.93		73.78		17.93		84.91	
Wald chi2(3)		430111		13656.1		465988.0 8		14167.6
corr(u_i, Xb)		0.13 (0.00)***		0.74 (0.00)***	(0.125) (0.00)***			0.77 (0.00)***
Prob>chi2								
Endogeneity test-P-Value								
Overidentification test (x2=)								

Note: *, **, * significant at 1%, 5% and 10%, respectively.**

The inflation rate has positive and significant influence on both CE and RE. This result is in line with Tan and Floros's (2012) but contradicts Pasiouras et al. (2008). The result infers when inflation rate increase in Tanzania and management of the banks predict it and find the way to minimise its cost, it increase Cost Efficiency. Banks management can minimize cost by reducing interest rates payments to depositors that takes large portion

of Tanzanian commercial banks activities. Increasing of inflation rate leads cost of operating business to rise up. To cover increased cost, commercial banks increase interest revenue from borrowers that increase Revenue Efficiency.

The real interest rate has negative significant influence to CE. The reason being that bank transactions, such as lending transaction

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increases towards the move of customer to the bank when its lending interest rate is lower than the market interest rates. This raises the cost of banking operations by increasing the cost of lending supervision by employing more workers and/or experts that increase CE. When bank's lending interest rate is smaller than the market lending interest rate, bank's lending transactions increase towards move of customers to the bank. This leads to the possibility of customer default on paying principal and interest that reduces Revenue Efficiency.

Robustness test

The Durbin-Wu-Hausman test is used for checking the strength of the endogenous variables by examining the best estimator between OLS and IV. The test based on the null hypothesis of no endogeneity problem in the model. χ^2 distribution is used to accept or reject the hypothesis. The results in table 2 shows that at 5%, the null hypotheses is rejected and it is concluded that it is better to use the instrumental variable than OLS for CE and RE in all equations. Furthermore, the Sargan test for the over identification test has been done under the null hypothesis that the instruments are weak. The results from tables 2 shows that the study can reject the null hypothesis, meaning that all instruments are valid and not weak, since the critical value of χ^2 exceeds the statistical value for both CE and RE in all equations. From these test we can conclude that the model is robust.

5. Conclusion

Studying the simultaneous influence of financial risk and economic performance with their determinants is of great importance to the scholars and financial systems of Tanzania and Africa as a whole. Based on the results of the empirical analysis, financial risk and performance have a significant influence on

each other. Therefore, this study concludes that a financial risk acquaintance with the economic performance of commercial banks in Tanzania exists. For that reason, the commercial banks in Tanzania should concentrate on instantaneous financial risk and economic performance trade off to maintain the continuation of businesses. The banks should also improve financial and human resources by employing current and more advanced technology with the minimum cost. The banks have to accumulate a reasonable combination of capital structure and allocate accurately to reduce financial loss and maximize revenue.

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Session D1

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: D

Health, Policy and Public administration

Session Chair: Dr.Andrew Mushi, Mzumbe University

National-local level policy nexus in the promotion of local engagement in the development process and enterprise

Faisal H. Issa, Mzumbe University, Tanzania

Lucy Masoi, Mzumbe University, Tanzania

Abstract

National governments set policies which affect local level development to influence the pace and content of development initiatives at local level. Since the mid-1980s, policies at national level have unleashed local energy to promote increased civil society engagement in the development processes. Much effort has been seen in the social development arena shadowing efforts to promote local enterprise through business development services. The latter seem to attract less attention of policy makers and implementing agencies. National level organs set to promote enterprise and to support the business agenda have been expected to catalyze local enterprise though what has been happening appear to be either minimal or lacked focus or consistency. The desired integration of efforts between national and local governmental bodies and the civil society is yet to be observed and show mixed results. Additionally, frequent policy changes affecting the balance of power and authority between the national and local level authorities impact less positively local capacity to promote enterprise. It is observed that a better integration of efforts between the different actors, increased capacity of local authorities and local bodies, local initiatives to surmount local challenges and to fill policy attributed gaps are necessary for promoting local enterprise

M-Learning Platform for Increasing Health Knowledge among Nurses in Tanzania: Design, Implementation and Approaches Applied.

Henry Mollel, Mzumbe University, Tanzania

Pius Chaya, Amref Health Africa, Tanzania

Abstracts

Background: M-Learning project was designed by Amref Tanzania to improve competences of nurses and midwives through increasing access to information including sexual and reproductive health and to provide services to both adults as well as young people. This paper examines the m-learning platform uptake, its implications to nurses and midwives on reaction and learning, and challenges. It is argued that m-learning platform can be a very useful and effective tool for improving competences of nurses and midwives if appropriately designed and implemented.

Method: A survey was conducted in 6 regions [Dar es Salaam, Kilimanjaro, Tanga, Mtwara, Mbeya and Dodoma] where institutions implementing m-learning were located- to collect data from 428 students, 9 trained trainers, 9 platform coordinators, and 9 principals of health training institutions. Data collection was preceded by desk reviews which informed development of questionnaire and interview guides- for each specific category of respondents. Active and dormant users were randomly selected whereby a sample of up to 30% per site was selected. Training of Trainees (TOTs), Coordinator, Mentors, District Nursing Officer, school principal and IT officers were purposively and conveniently selected.. Quantitative data were entered into SPSS version 19 and descriptively analysed. Qualitative data were transcribed and entered into the computer software immediately (daily) after data collection- translated into English and thematically analysed. The overall analysis was guided by Kirkpatrick Evaluation model-level 1 and 2.

Results: There have been variations in the uptake of the program among members- Out of the 428 trained nurses and midwives, 108 were active users and 320 dormant users having either stopped using the platform or did not use at all. There was strong agreement from majority of students [nurses and midwives] and stakeholders that the platform was relevant and useful. In the knowledge and skills test comprising of 5 questions conducted to active users- 76% score 3-4 marks and 17% scored 5 out of 5- indicating effectiveness of the platform. Dormant users were influenced by lack of mobile phone, lack of appropriate mobile form for program, for not received the password, failures of some passwords and inadequate technical support.

Conclusion: The m-learning platform is relevant, useful and effective in updating and improving knowledge and skills of nurses and midwives. It can be convenient and reliable means of enhancing competences and performance of health professionals at schools and work where time and resources to access learning materials is limited-

if effectively designed, prepared, implemented, and frequently monitored and improved.

Challenges of International Human Resource Management in International Business

Stella Malangalila Kinemo, Mzumbe, Tanzania

Abstract

Scholars in human resource management (HRM) are increasingly recognizing the challenges of international human resource management in international business. International Human resource management (IHRM) aims at managing organizational human resources at international level to achieve organizational objectives at international level. IHRM includes typical HRM functions such as recruitment, selection, training and development, performance appraisal and dismissal done at international level. Drawing on documentary source and using real cases the paper starts by explaining the concept of human resources management; next the paper provides importance of HRM in business. Third, the paper highlights managerial functions and operative functions of the HR manager in businesses. Fourth, the paper argue that issues such as differences between cultures, legal systems, technological factors, and economic systems in the host country, labor laws and compensation types are the major challenges to international Human resource management. Adoption of the country differences in HRM is among of the strategies put forward to strengthen human resource managers in international businesses.

Key words: Human resource management, International Human Resource Management , International businesses.

Holding local leaders and local service provision to account: exploring the evolution of political institutions and poverty reduction in response to a local governance performance index (LGPI) in Tanzania

Dr Andrew Mushi-Mzumbe University

Abstract

In 2012 the former director of the Foundation for Civil Society (FCS) in Tanzania, John Ulanga, posed the question of whether a local governance performance index might stimulate greater public engagement in holding local leaders and institutions to account for their performance in delivering services and reducing poverty in Tanzania.

To respond to this question, the University of Mzumbe, in partnership with the FCS and the International NGO Training and Resource Centre (INTRAC) (UK), began to research the viability and value of such an index at the district level in Tanzania. The Overseas Development Institute (ODI) in London joined the project in 2015.

Phase 1 of the project undertook qualitative research in two districts (Mvomero and Kigoma Ujiji) to explore the possibility for creating a set of indicators for a local governance index at the District level.

Scoping interviews and fieldwork identified that indicators and definitions of performance are not universally agreed. We found that perceptions of performance and blame for failure varied according to the different stakeholders.

Following this realisation a period of in-depth interviews were undertaken designed to track lines of accountability and service delivery from the village level to the national level. .

In phase 2 we had two aims: (i) To refine the indicators. This was done through with targeted respondents .In this phase we worked closely with district Government, local civil society organisations and the locals. This was done through: Focus group discussion; reflective interview and small workshops. (ii) To collect baseline data. We gathered data against as many indicators as possible, drawing on data from the different stakeholders; supplemented by field researchers.

1300-1400/ Wednesday, September 20th, 2017

SESSION [A2]-[D2]

Session [A2] PhD colloquium Room A

Session [B2] Value Chains, Marketing and Entrepreneurship Room B

Session [C2] Finance, Economic and Corporate Governance Room C

Session [D2] Health, Policy and Public administration Room D

Session A2

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: A

PhD Colloquim

Session Chair: Prof Otto Andersen, Agder University

The influence of Owner-Manager functional competencies on Market Share for small restaurant in Dodoma, Tanzania

Ruth Elias, Mzumbe University, Tanzania

Leonard Wilhelm, Mzumbe University, Tanzania

Joshua Mwakujonga, Mzumbe University, Tanzania

Abstract

Significance contribution of small restaurant business in building labour opportunities for unskilled individuals, provide affordable meals to low income earners and provide income for owner-managers is acknowledge worldwide. Despite of the importance contribution of small restaurants businesses to the society, they are facing insufficient market share due to intensive competition. Likewise, the reviewed literature on small restaurant market share and owner-manager functional competence has revealed mixed evidence. Therefore, this paper aims to find out the influence of owner-manager competencies for executing functional role within small restaurants as sources of increasing market share. To discover the significance relationship of the independent and dependent variables, 192 small restaurant businesses located in Dodoma town were surveyed using structured questionnaires. Market share as a dependent variable was measured in three ordered categories as decreased, stable and increased. Simple random sampling was used to select the business from the list of all licensed small restaurant businesses in Dodoma municipal. Ordinal regression analysis with proportional odd was applied in analysing the data collected. The results disclose a positive and significant relationship between the use of modern technology, special knowledge in cooking and delivery of food to customer places as functional competencies in influencing the possibilities of increasing market share within the small restaurant businesses in Dodoma municipality. However, designing the environment and being transparent to customers were not significant in explaining market share of small restaurant businesses.

Generally, the study revealed that owner-manager functional competencies contribute to increase market share of the small restaurant businesses. Importantly,

findings of this study are essential for owner-managers especially in capitalizing their scarce resources owned. Therefore, the use of modern technology, special knowledge in cooking and delivery of food to customer places should be taken into consideration for increased market share of small restaurant businesses.

Key words

Owner-manager, competencies, market share, small restaurant business

1. Introduction

Small restaurant businesses have been recognized as important sector in providing food for urban people (Frazer, 2012; Jenkins, 2015). They provide food categories in a convenient way (Jenkins, 2015). The sector has significance contribution to individual and to the society in general, that is, it builds labour opportunities particularly for unskilled individuals, and provides income for owner-managers (Khan, 2010). Previous studies have reported that, the restaurant business is the second largest employer in most of the countries (Frazer, 2012; Mustapha *et al*, 2014).

Despite of the significance of small restaurant businesses to the society, they are facing small market share, as a result over 60% of small restaurants business were reported to collapse within the first 3 years of operation (Frazer, 2012; Jenkins, 2015). major initiatives for the improvement for the survival of small restaurant businesses seems to rely on financial competencies of owner-managers (Ahmad, 2007). Together with that, policies and regulations emphasis were on location, premise design, sanitation, hygiene and storage facilities. However, small market share in small restaurant businesses seems to persist. On the other hand, literature show that, failure or success of many small businesses depend on enterprise competencies (same as owner-managers competencies) (Kandampully *et al*, 2001; Batsakis, 2014).

Due to the responsibility and roles played by owner-managers to the success of any business and nature of the restaurant business, owner-manager functional competencies are very important in satisfying customers. However, about 1% of small business owner-managers receive specific/functional practical training packages in relation to their businesses (Schreiner 2001). major problem is that, most of the owner-managers initiate this type of business without specific knowledge/functional competencies (Thapa, 2007).

Several studies recognized the significance of top managers for the success of restaurant businesses (Jenkins, 2015; Mustapha *et al*, 2014; Sabir *et al*, 2014; Frazer, 2012). However, augments were focused on large restaurant businesses in developed countries. The re-assess of these literatures shows little confirmation on owner-manager competency in the functional/specific areas within the industry. This is the research gap to be filled. Therefore, this study focuses on examining the influence of owner-manager functional competencies on market share of small restaurant business.

2. Theory of entrepreneurial competencies

Generally, the theory of entrepreneurial competencies proposed by Bird's (1995) shows that entrepreneurial/owner-manager competencies are a mechanism which influences the chances of achieving business success and performance. Bird (1995) defines entrepreneurial competencies as underlying characteristics such as specific

knowledge, motives, traits, self-images, social roles and skills which result in venture birth, survival and/or success. The theory insist that, businesses can only be best attained its high success through right and special capabilities. In relation to this study, Ahmad *et al.*, (2010) show that, low entrepreneurial capabilities of owner-manager reduce the number of customers from the business. Furthermore, owner-manager capabilities are related to creating venture strategies that make the business healthier. Freel (1999) notes that, competencies deficiencies within small businesses - for example, poor design of business environment, low quality of food offered, insufficient marketing, and poor organization of resources are related to reduction of customers within the business. This kind of explanation might make important understanding on why some businesses fail within few months or years of initiation, while others survive, perform and grow.

3. Literature review

Earlier studies have identified owner-manager functional competencies in restaurant businesses such as to demonstrate appropriate use of modern equipment to complete the task, demonstrate special knowledge in cooking, the ability to deliver food to customer's place, the ability to cook and demonstrate in front of customer and redesign restaurant environment (Khan, 2010). In this study, the influence of owner-manager functional competencies on the market share of smallrestaurant businesses has been examined. These competencies were chosen because they have been documented to influence customers to buy (Khan, 2010).

3.1 Using modern processing equipments

There is a consensus among researchers that, use of modern processing equipments forms competitive advantage for the small restaurant businesses to increase customers (Ainin *et al* 2010; Irefin *et al*, 2012; Ngwiri, 2016). According to Irefin *et al*, (2012) many businesses are utilizing modern processing equipments around the world to reduce costs, improving competence, increasing speed, but also providing improved customer services. As noted by Ngwiri, (2016), using modern processing equipments in the restaurant business acknowledges noticeable increase in terms of customers and returns. However, research on the subject has been limited in small restaurant business which suffers from less financial resources and qualified employees to have the modern processing equipments within their businesses (Ainin *et al* 2010).

H 1: There is a significant relationship between using modern processing equipment and market share of small restaurant businesses.

3.2 Using special knowledge in cooking

There is a large volume of published studies describing the role of special knowledge in cooking in a small restaurant on providing quality food for the customers (Ahmad *et al.*, 2013; Sefian *et al.*, 2013; Hanaysha, 2016). In the study which set out to determinant of quality food, Ahmad *et al.*, (2013) found that, quality food and services influence the behavior of consumers towards purchasing in the small restaurants businesses. This explains that, when a customer wants to dine outside home, they think of unique and quality food cooked by professional individuals. This tells us that, factor greatly found to influence manners of dinning outside intention in most literature include the unique food (Sefian *et al.*, 2013). Delicious food is a reason proposed as determinants of consumer attitude towards selective food restaurants (Hanaysha, 2016). However, in this research the question has been raised about the

owner-manager special knowledge in cooking as most of small restaurant businesses initiated without taking into consideration of owner-manager special knowledge of cooking. Larger restaurant businesses tend to invest heavily in special chefs who are specialized in cooking whereas small sized may have less financial resources to do so. Furthermore, quality of food is subjective to individual as some determine food with different ingredients as the quality food, others healthier food as the quality food.

H 2: There is a significant relationship between using special knowledge in cooking and market share of small restaurant businesses.

3.3 Delivery of food service to customers

In recent years, there has been an increasing amount of literature on the influence of delivery service of food to customers on restaurant market share. A number of authors have reported that, delivery of food to customer's places have been facilitated by the customer being busy in office or elsewhere and they are more careful about the health and restaurants environments (Sabir *et al.*, 2014). According to Wallin, (1998) delivery of food to customers place work as marketing ways used to gain new customers. Similarly, Wallin, (1998) found that, deliveries of food help to gain new marketplace that were essentially not accessible to the restaurant. Deliveries of food build good relationships with customers by providing an exceptional food delivery experience. Ryu *et al.* (2010) shows that, customers nowadays are increasingly put the best on saving time compared to earlier days. However, research has consistently shown that deliveries of food to customer's location are very competitive as more of the take away food sectors and large restaurant do the same. There is also an increasing concern that in small restaurant businesses delivery of food is very challenging as they lack qualified and enough number of employees. That makes offering of those services unprofessional.

H 3: There is a significant and positive relationship between delivery service of food and market share of small restaurants businesses.

3.4 Visibility during preparation of food

In literature it has been argued that, visual information is of advantage in awareness and decision making (Rule and Ambady, 2008; Tsay, 2014), also to control customer judgment for the product (Tsay, 2014). In the study by Buell and Norton (2011), they found that economic and psychological benefits can be achieved by visibility during preparation of food to customer. Furthermore, according to Parasuraman *et al.*, (1985), food preparation in a visible environment to customers may strongly influence customer service perceptions. However, a major problem with this kind of application is challenges of having enough premises to prepare food and operate openly. This problem is more experienced in small restaurant whereby they do not afford to pay for the large premise, besides they run out of finances.

H 4: There is a significant relationship between visibility during preparation of food to customers and market share of small restaurants businesses

3.5 Design of restaurant environments

Physical restaurant environment has proved an important factor in increasing market share of restaurant businesses. According to Walter and Edvardsson (2012); Ryu, *et al.*, (2010), physical environment of the restaurant has become important driver for

an increase in market share in a restaurant industry. Although, the primarily purpose of the restaurant is to provide food, but still customers today want to enhance their quality of life and enjoy relaxed eating space, thus innovation in food value alone will not necessary enough to convince customers (Horng, Chou, Liu, & Tsai, 2013). Many studies indicated that making the environment more enjoyable and modern is important for a restaurant success (Reimer & Kuehn, 2005; Wakefield & Blodgett, 1996). As well, Kotler (1973) indicated that environment of a restaurant can be as much vital as the food itself. Physical business surroundings of the restaurant have a great power on the representation of the restaurant and can act positively or negatively for the market share of the restaurant.

H2.5 Redesign business environment have significantly influences with the market share of small restaurants businesses.

4. Methodology

The present study used mixed methods approach and an explanatory sequential design (Creswell & Plano Clark, 2011; Creswell *et al*, 2003). Fieldwork was done in two sequential but separate phases of quantitative and qualitative data collection. The study employed, a cross sectional survey design in the sense that, data was collected at one point in time and the researcher had no control over the variable in terms of being able to control or influences them (Thietart *et al.*, 2003). Small restaurant business was selected randomly to reduce biasness. Structured questionnaire was the major data collection tool used. Interview schedule was administered to the owner-manager of the small restaurant businesses to get information to compliment the information received from the quantitative part. Self administering method was used due to its high response rate as compared to mail, distribution or telephone interview. By understanding variation in researcher ability to be expressive (Packer, 2011), care was taken to provide the owner-manager freedom and avoid researcher influence (Saunders, Lewis & Thornhill 2003). In case of communicational failure between the researcher and owner-manager on some incidences creating relationship before an interview was a way forward (Dominic, 2014). Therefore, quantitative analysis was used to analyses 192 small restaurants businesses in Dodoma Urban.

Ordinal logistic model was used to find the influence of owner-manager functional competencies and market share of small restaurant businesses. Since the assumption of proportional odds model fits the data, then the Ordinal logistic model was used. The score test for the null hypothesis of constant slope gave a chi- square = 13.217, df = 8, and p-value = 0.109. This indicates that the proportional odds assumption holds. Since the market share has three levels as increased, stable and decreased and the fact that there is a natural ordering to these response levels, we found this type of modeling was appropriate to assess the influence of owner-manager competencies on market share. Furthermore, the analysis taken into consideration of trend effect/the effect of order of independent variable since they have been captured in levels of occurring.

5. Empirical results

This section provides the results on the effect of owner-manager functional competencies on market share of small restaurant businesses. Table 4.1 presents the results obtained from the analysis of owner-manager functional competencies.

Table 4.1: Results of the Ordinal logistic model for competencies variables used to execute functional role

	Parameter	Estimate	Standard Error	Wald Chi Square	Odds ratios (OR)	P-Value
	Intercept1	-0.441	0.788	0.312		0.576
	Intercept2	2.522	0.802	9.895		0.002
1	Application of modern processing facilities	0.694	0.141	24.384	2	0.001
2	Food delivery services	0.445	0.176	6.393	1.56	0.01
3	special knowledge in food preparation	0.286	0.139	4.234	1.33	0.04

The result obtained from the initial analysis revealed that, on the influence of owner-manager functional competencies, by considering all five predictor variables measuring the owner-manager functional competencies, the results of ordinal logistic model showed that, the effect of visibility during preparation of food ($p=0.525$) and designing restaurant environment ($p=0.225$) were not significantly associated with market share of small restaurant businesses in Dodoma municipal. That means, being transparency and redesign business environment were not a determinant of market share. Consequently, were removed from the last model.

In contrast, the level of market share was significantly influenced by offering delivery services ($p=0.01$), application of modern processing facilities ($p= 0.001$), special knowledge in cooking ($p = 0.04$). The score test for the null hypothesis of constant slope gave a chi- square = 5.5601, $df = 3$, p -value = 0.1351. We therefore fail to reject the null hypothesis (i.e., that the ordinal logistic regression assumption holds).

The results of the final model presented in table 4.1 revealed that, the odds ratio of small restaurants to have an increased in market share versus stable or decreased for unit increase in frequencies of using modern processing equipments is 2. This indicating that, the chance of having increased market share instead of stable or decreased increase with increase in frequency of using modern processing equipments. As constrained by the proportional odds model, this is also the odds ratio for small restaurants to have an increased or stable market share versus decreased market share. We therefore, fail to reject the null hypothesis

The results also showed that the likelihood of having increased instead of stable or decreased market share was positively associated with frequency of delivering food services with odd ratio (OR= 1.56). Thus increase in frequencies of delivering food services increases the probability of having increased instead of stable or decreased market share. This finding is also true for chance of getting increased or stable instead of decreased market share. This means that, small restaurant businesses

which have the service delivery of food to customer have higher chance of increasing market share. We therefore, fail to reject the null hypothesis.

Among significant predictors of market share, the model showed that the odds ratio for both increased versus stable or decreased market share, and increased or stable versus decreased market share increases for unit increase in level of applying special knowledge in cooking is 1.33. This indicating that, the chance of having increased market share instead of stable or decreased increase with increase in frequency of level of applying special knowledge in cooking. We therefore, fail to reject the null hypothesis.

6. Discussion

The present study was designed to determine the influence of owner-manager functional competencies on market share of small restaurant businesses. This article involves five independent variables application of modern processing equipments, specialization in cooking, food deliver service to customer's location, being transparent to customers, and redesign business environment. Among all these five variables, three variables were found to influence market share of small restaurant businesses. The variables that found significance are discussed below

The current study has found that, using modern processing equipments had a positive effect on market share of small restaurant businesses. This result suggests that frequencies of using modern processing equipments provide the small restaurant businesses the abilities which are needed in order to increase market share. Owner-manager during discussions narrated that, use of modern equipments increasing speed of food preparation and make employees work easier especially for those who work behind the counter, while help to advance the superiority of the food being made. These findings is in agreement with Ngwiri, (2016); Irefin *et al*, (2012) findings which showed that the use of modern processing equipments increase number of customers.

On response to special knowledge in food preparation, this study agree that this variable is the determinant of the market share of the small restaurants in the study area. During interview, owner-manager confirms that, the most important service that a customer expects to receive when dining out is a good selection of delicious and well presented food. It is important that food should be simple and good tasting, made with quality ingredients to attract more customers. This study produced the results which confirm the findings of Hanaysha, (2016); Mustapha *et al.*, (2014); Tabassum and Rahman, (2012). However, the findings of the current study do not support the previous research.

Another important finding was delivery of food to customer places which is a determinant of market share within small restaurant businesses. During discussion with owner-manager, it was found that, all services from restaurant businesses are designed to favor the necessity of the consumers. The delivery of food becomes more significant because of increasing value of time in a society. Providing delivery service increase market share of the restaurant by the fact that, customer feels that they have considered. This argument corresponds to Sabir *et al.*, (2014), who revealed that the majority of the customers are busy in office or elsewhere therefore many individuals like to save time by ordering food to their working places.

In an opposing way, there was no evidence to support the significant influence of visibility during preparation of food to the customers on the market share of small restaurant businesses. Although this study differ from Ambarly, (2008); Tsay, (2014) that, visual information is of vital in understanding and decision making with power to pressure and even control customer judgment of the food. An explanation for these results may be most of the customers are low income earners and they cannot afford to pay for more than the price of food. It could well be assumed that, they do not need extra service which could contribute to the price increase. This finding may also be due to the fact that over half (51%) of the small restaurant businesses in our sample had the capital below five million; this dictates the nature of operations they have. Besides most of these businesses have tight spaces in town and in most cases, they are cooking from home or other areas, thus making it hard to be transparent when preparing food. Therefore, visibility during preparation of food to customers is not of importance on the increase of market share.

Previous research indicates that the owner-manager frequency of designing restaurant environment has a significant influence in market share of small restaurant businesses (Chen and Hsieh 2011; Sienny & Serli, 2010). In this study, even though the frequencies of designing business environment is positively related to market share of small restaurant businesses, the power of this relationship is not statistically significant. This suggests that the frequency of designing business environment does not matter in explaining the market share of small restaurant businesses in the study area. In fact, this is unexpected and raises vital question regarding the importance of the restaurant physical environment. However, during the interview with owner-manager we found that, the lack of significance could be due to the fact that the majority of the customers like take away food and some use delivery services to their offices. Indeed, in our study owner-managers confirms that majority of the customers were using delivery services or take away food. Therefore, make the frequencies designing of the restaurant businesses not of much importance on the increase of market share.

7. Conclusion and recommendation

Owner-manager functional competencies in this study include use of modern processing facilities, special knowledge in preparation of food, delivery of food to customer's location, the visibility to customers and design restaurant environment. Findings shows that, all competencies were influencing market share of small restaurant business except designing restaurant environment and visibility to customer were found insignificant to market share. Generally, the results showed that, ordinal regression model was statistically significant with p less than the conventional value. Meaning that, functional competencies significantly influenced market share at 5% level of significance. The findings are in line with Bailey & Mitchell (2007), Izquierdo et al., (2005), Benzing et al., (2005), Chu et al., (2007), Sidek & Mohamad (2014). Therefore, capitalizing on those significance competencies in small restaurant businesses in Dodoma municipality can lead to increase market share.

8. Implication of the study

There is, therefore, definite need for improving the use of modern processing equipments in small restaurant businesses. With the use of modern equipments in

the business; the business can perform successful and increase its market share. Moreover, more business supportive centers should be made available to provide necessary training on the use and importance of incorporating modern equipments on the small restaurant businesses which will facilitate increase of customers.

Demonstrate special knowledge in cooking method found to be significant on market share. This information can be used to develop targeted interventions aimed at improving the market share of small restaurant businesses. This key policy priority should therefore be to plan for the long-term training of owner-managers on special knowledge on cooking methods and ingredients. Furthermore, owner-manager also might form their cooking club to educate each other on new technique of cooking. In this clubs they can call successful person from restaurant sector and give a brief explanation on what to do.

Another important practical implication is that, small restaurant business needs to at least maintain the overall service of food delivery to customer's location. The small restaurants need to raise the service levels that pleasure the customer but at the same time generate new expectations in the minds of the consumers. The small restaurant can advance more on delivery service to ensure the preferred service level. This should be done through empowering restaurant employees to look for ways to create the delivery service knowledge a remarkable one for their customers.

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Formulation And Implementation Of Strategic Plan In The Technical Higher Education Institutions In Tanzania

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ABSTRACT

This study explored the formulation and implementation of strategic plan (SP) in the Technical Higher Education Institutions. Data were collected using interview from three chief planning officers sampled by purposive technique. The collected data were analyzed using interpretative approach. The study found that, long range plan was used before SP introduction. The planning officers, management and the council were found to participate mainly in the SP formulation leaving behind the staff just for implementation. The main challenges facing SP implementation include poor knowledge of staff and inadequate funding from the government and other sources.

Key Words: Strategic Plan, Formulation, Implementation, Technical Higher Education Institutions

1. INTRODUCTION

The Strategic Plan (SP) has been introduced recently in organizations to ensure that employees of the organization are working toward the same organization's goals and direction (Gitonga, 2013). This implies that, the employees' motivation and performance in the organizations usually relate to the mission, vision, objectives, strategies and values of the organization which are all reflected in the SP (Richard et al., 2009b).

Over time, the concept and practice of SP has been adopted globally across private and public sectors because of its supposed influence to work performance (Arasa & K'Obonyo, 2012; Owolabi & Makinde, 2012). The SP as a management tool has then gained sustained prominence in the management of public services as it helps an organization focus its energy on its objectives (Gitonga, 2013). The SP has become therefore an essential condition for performance in different countries of the world regardless of their level of economic development (Suklev & Debarliev, 2012).

Like many other developing countries, Tanzania has acknowledged the importance of SP for the realization of her organizations' performance. The SP was therefore introduced in 2002 in all ministries and public organizations whereby such ministries and organizations were obliged to develop SP to chart out their broad directions (Baker, Bliss, Chung, & Reynolds, 2013). The public organizations were therefore increasingly being required to embrace SP as part of their management techniques after its introduction in Tanzania.

Several studies (e.g. Ahamed, 2015; Arasa & K'Obonyo, 2012) about SP were done. However, most of those studies were done mostly in purely business sectors (i.e. production, manufacturing, finance and banking, etc.) and not in education sector. The studies stressed SP formulation, implementation and its influence on performance. The SP dimensions used in the previous studies lacked staff participation aspect especially in the formulation process. It must be remembered that, the staff are the principal implementers of the SP in the organization hence should be involved since the SP formulation process. Equally, the previous studies

did not indicate anything about the staff knowledge on the formulated SP in the organizations. Likewise, the contents of the formulated SP in the organizations were not also attended previously. Currently, there are budget constraints in several government-owned organizations and institutions hence it was essential to explore on other challenges of SP apart from budget constraints.

Recently, one empirical study (Owolabi & Makinde, 2012) was done in education sector. The study concluded that SP is beneficial to organisations in achieving set goals. The study recommended that, higher education institutions and other corporate organisations alike, should engage in SP in order to enhance corporate performance. This study seems to be not comprehensive in the sense that, it covered only one university (Babcock University a private university in Nigeria). It considered participation of only management in SP without considering staff participation (Owolabi & Makinde, 2012:pg. 39).

Since the higher education institutions are also part of what is happening in the world, their shift to SP was very important to clearly define the purpose of the institutions in a mission statement, provide a framework for decision making throughout the institution, reveal and clarify future opportunities and threats, provide a basis for measuring performance and increase productivity from increased efficiency and effectiveness (Owolabi & Makinde, 2012).

One of the higher education institutions in Tanzania includes technical higher education institutions (THEIs). The THEIs share the same history as they have similar operating characteristics and the same history. Emphatically, since they have similar relatively operating characteristics and went through similar transformation process in becoming higher education institutions; they would likely to have similar formulation and implementation process of SP done by the department of planning office under the deputy vice chancellor planning, finance and administration. This study therefore intended to explore on the formulation and implementation of SP in the THEIs in Tanzania.

2. LITERATURE REVIEW

As organizations mature and become more multifaceted, the need for SP becomes greater as it makes all the staff within the organization understand the vision, mission, direction, objectives and core values of their business; it further makes the organization more relevant and responsive to the community needs; it provides the framework for evaluating results and impact; and it finally facilitates the organization to focus into the future orderly and systematically (Njoroge, 2013).

SP emerged when several institutions became concerned with achieving lucidity of purpose. SP was essential for the institutions as they possessed scarce resources to address the performance requirements in their environmental situations (Moxley, 2004). SP offered institutions a way to accomplish focus in their respective environment full of considerable change, turmoil and uncertainty and other several emerging challenges (Moxley, 2004). A SP is a set of processes embarked on for developing a variety of strategies in achieving the organizational direction (Tapinos et al., 2005). This therefore calls for formulation of strategies at three levels: corporate, business and functional level (Njeru, Stephen & Wambui, 2013).

SP is the part of the large strategic management process which includes environmental scanning, strategy formulation, strategy implementation, evaluation and control (Wheelen & Hunger, 2008). Strategy formulation is the process that brings about Strategic Plans often referred to as long range planning and is concerned with developing a corporation's Mission, Objectives Strategies and Policies (Byrnes, 2009).

Several literatures (Koonz & Wehrich, 2010; Wheelen & Hunger, 2008; Byrnes, 2009) pointed out various tasks involved in the SP preparation. These tasks include statement of vision, statement of mission, statement of values, formulation of goals and objectives, choice of corporate strategies, and drawing action plans.

The process of formulation and implementation of strategic plans in the public sector is similar to the existing process of setting objectives, scanning, selecting strategies, implementation and evaluation in the private sector (Atow-zahir, 2012).

SP implementation is defined as activity of putting strategies and policies into concrete actions in the short term (Li Chen, 2005) and this SP implementation is operationalized by organizational programme, budget programme, and source of control (Ibrahim et al., 2012). If the vision statement, mission statement, strategies and activities for achieving the objectives are successfully executed, they can shape and transform performance in an organization (Richard et al., 2009). Effective execution of strategic plan in the organization enables the entire organization and the stakeholders to acquaint themselves with the undertaking of the organization (Simmerson, 2011).

There is a significant relationship between strategy implementation and performance of the firms and (Ibrahim et al., 2012). This means that, implementing SP is a double-edged sword because it simultaneously generates expected performance gain and unexpected performance loss. Elements that require consideration during the implementation process include annual objectives, policies, resource allocation, management of conflict, organization structure, managing resistance to change, and organizational culture (Levine & Strauss, 2009).

A good implementation of strategic plan is dependent on the learning and development environment for employees who are the true foot soldiers of implementation and that learning is driven by openness, collaboration, equity, trust, continuous improvement and risk taking (Mintzberg, 2004).

3. METHODOLOGY

The main respondents of this study were the chief planning officers of the THEIs who are the key informants of anything about SP in their respective institutions. The planning officers were sampled using purposive sampling technique. The main methods used to obtain information of this study were semi-structured and unstructured interview formats. The participants were asked to provide elaborated accounts about SP formulation and implementation. Such accounts and information were easily facilitated by providing the participants a list of questions before the interview (Hill *et al.*, 1997). Another data collection method used by the researcher was qualitative observational methods by making extensive use of SP formulation meeting minutes, memos and the previous and current SP documents following the researcher's interpretations and reactions (Timulak & Elliott, 2005).

The analysis of the main objective "*exploring on how SP is formulated and implemented in the THEIs*" based on linguistic data by applying meaning-based forms of data analysis (Polkinghorne, 1983). The main research question "*how is SP formulated and implemented in the THEIs?*" attended here was open-ended and exploratory in nature i.e. needed to employ qualitative data collection and analysis strategies (Timulak, & Elliott, 2005) whereas participants were flexible and encouraged to communicate their experiences and elaborate on their accounts regarding the SP formulation and implementation. The format of such qualitative data was mastered by verbal accounts or descriptions in words, and observations which were put into writings and texts.

The analysis of the collected data was done by firstly transcribed verbatim. This pre-analysis influenced future steps of the analysis to get the unfolded relevancies. In so doing, the whole collected data set were initially read to get the whole picture of the studied SP formulation and implementation which in turn led to emerging of initial insights and understandings. Furthermore, it was during or after this stage the initial editing of the data often took place and some obvious redundancies, repetitions, and unimportant digressions were omitted.

Overwhelmingly, the data were analyzed using interpretative approach by testing the assumptions without reproducing them as the researcher's own but understanding the respondents' responses and views and interpreting them accordingly (Charmaz, 2006).

4. FINDINGS

4.1 The Introduction of SP in the THEIs

The SP is the recent issue in Tanzania and was introduced in 2002 for the purpose of charting out broad directions (Baker, Bliss, Chung, & Reynolds, 2013). Specifically, the SP was generally introduced in the surveyed THEIs between 2005 and 2007. SP was introduced in the surveyed THEIs when the government urged all of its institutions to adopt and adapt the SP in order to chart out their broad directions. This finding is even consistent to what was found previously by Baker, Bliss, Chung and Reynolds (2013) who stressed that, ministries and organizations were obliged to develop SP to chart out their broad directions.

"...I remember between 2005 and 2007, the government through the concerned ministry by then directed all of its technical institutions to prepare necessary SP so that they can chart out their broad directions hence our institution obeyed the directives" (Interview with Chief Planning Officer [CPO] A on 2nd December, 2015).

Furthermore, it was the time when the surveyed THEIs were promoted to higher education institutions according to the 2005 Act. In their promotions, the regulatory boards such as the National Council for Technical Education (NACTE) and Tanzania Commission for Universities (TCU) required SP as one of the significant documents in their promotions. This means that, the process of transformation and promotion of the THEIs became one of the catalysts for them to have SP.

"Our institution was then in the process of being promoted to be the higher learning education institution hence the regulatory boards like NACTE and TCU required some necessary documents for registration; one of them being Five Years SP..." (Interview with CPO C on 17th December, 2015).

The SP was found also as the reference point for doing annual budgeting and planning process in the surveyed THEIs. It always facilitated the annual budgeting and planning process different from when there was no SP. Whatever budgets forecast and planning done in such THEIs is directed and driven by the available SP.

"...the SP introduction reasonably facilitated the budgeting and planning process of our institution; it became always the reference point as we do annual budgeting and planning process..." (Interview with CPO B on 9th December, 2015).

When it comes to preparation and formulation, the planning and budgeting officers initiate the process before it goes further to other concerned parties like management, council and necessary stakeholders. The need for SP preparation and formulation is raised by the planning and budgeting office simply because it is the office which mainly monitors and deals with planning and budget issues of the institution. Any alerting issue concerning planning is cautioned and absorbed by the

planning office. SP process was is therefore part and parcel of the office and it is the same office that initiates any process regarding SP.

“It is always the planning and budgeting office that initiates the SP preparation and formulation process in our institution before it goes to other parties like management, council and other stakeholders”. (Interview with CPO C on 9th December, 2015).

It was established that long range plan and institutions’ annual plans were used before the introduction of SP in the surveyed THEIs. It must be remembered that, there is a difference between long range and strategic plan. While closely related to long-range planning, strategic planning is generally considered to place a greater emphasis on strategies – on how the organization will achieve its vision – while long-range planning places greater emphasis on determining the vision (Bititci, et al., 2011).

“...we used long range plan before SP introduction. SP was somehow new and alerting to the institution hence we had to take time learning and instructing the management about it for knowledge purpose...” (Interview with CPO B on 5th December, 2015).

4.2 Staff Participation in the SP Formulation

Principally, it is the management and the council who participate in SP formulation leaving behind the staff waiting just for implementation. This was even supported by the noted poor knowledge of the staff on SP. The staff were found implementing the SP they are not aware of. Staff participation in SP increases their motivation, strengthen their capabilities and skills and become more productive in the implementation process (Phillips & Moutinho, 2000).

“In general, none deny the absence of participation of staff in the formulation of SP in our institution. Staff’s participation was mainly found in SP implementation” (Interview with CPO C on 17th December, 2015).

Staff’s participation was found not taking place in the THEIs due to the daily song of no budgets and funds; and sometimes due to the pressures from the external parties including the ministry and TCU. Involving staff needed budgets and consume time while the external pressures do not take into account of professionalism of strategic management that requires even partial/full participation and involvement from the staff of the given institutions. The management is sometimes advised by the planning office on the need to involve the staff yet it (management) cannot agree as the worry of time and budget. This is even supported by Njeru, Stephen, and Wambui, (2013) who found that, employee motivation, availability of funds, support by top school leadership, government policy and employee being the barriers for staff to participate in the formulation of strategic plans.

“I really doubt to say that the staff participated in the formulation of especially the previous and current SP. The staff had no any inputs in the preparation of SP and the management had never surveyed any input from them (staff) due to budget constraints and time limitation” (Interview with CPO B on 9th December, 2015).

The planning and budgeting officers identify the need for the SP but going on or not with the process depend on the approval from the management. When the management approves the SP need from the planning and budgeting office, the preparation and formulation commences which again is commenced by the office (i.e. planning and budgeting office). When the SP document is prepared, it is presented to the management meeting in which the comments, suggestions, views, and opinions are given and noted by the planning office. The planning and budgeting office incorporate the comments given and eventually approved by the management

ready to be submitted and presented to the council meeting. When the council approves the SP document, its implementation commences. In short, the planning and budgeting officers participate before, during and after preparation and formulation process of SP. The management participates partially before and fully during and after formulation. The council participates partially during and after the formulation of SP.

“...the planning and budgeting officers participate fully before, during and after preparation while the management and the council participate partially before and fully during and after formulation process of SP...”(Interview with CPO C on 17th December, 2015).

In exploring the nature (how) of participation in the formulation and preparation of SP in the surveyed institutions, it was discovered that, there were several means used by the participants to participate in the formulation and preparation of SP. These found means included letters and/or memos, meetings, mails, text messages and or calls, presentations and discussions, interviews and questionnaires. The style of preparation and formulation of SP depends on the means and who participated. In fact, the general style of SP preparation and formulation was downward, beginning from the management to the staff.

The planning and budgeting officers receive and work upon the command to prepare the SP document through memos/letters; after preparing it; they present it to the management through the meeting. The management through that meeting discuss (give views and comments) the presented document. After the management's comments incorporated by the planning and budgeting officers, the management go through the document and approve it ready for the council meeting. The council then goes through the SP document through the council meeting, give its comments and lastly approve it for its implementation in the institution.

...it is through memos, letters and meetings the management, council and planning officers formulate and prepare the SP...” (Interview with CPO B on 9th December, 2015).

4.3 Steps of SP Formulation in the THEIs

It was generally found that the THEIs follow some steps in the preparation and formulation of SP. These steps include putting forward firstly the SP process, previous SP performance review, situational analysis, environmental scanning and stakeholders' analysis, highlighting and reviewing the strategic mandate, vision, mission, core values and functions of the institution, detailing and reviewing the strategic objectives, targets, strategies and the implementation action plan/key performance indicators and presenting the monitoring and evaluation system of the strategic plan. These results are supported by K'Obonyo and Arasa (2012) found strategic planning steps being defining firm's corporate purpose, scanning of business environment, and identification of firm's strategic issues, strategy choice and setting up of implementation, evaluation and control systems.

“Principally we pinpointed the process of strategic planning, highlighting the strategic mandate, vision, mission, values and functions of the institution, doing environmental scanning constituting of external and internal environment, detailing the strategic objectives, targets, strategies and the implementation action plan and presenting the monitoring and evaluation system of the strategic plan” (Interview with CPO A on 2nd December, 2015).

4.4 SP Implementation in the THEIs

Generally, it was noted that the staff don't refer to SP when feeling OPRAS due to the poor knowledge they have on the formulated SP; however they are assigned the tasks and responsibilities from the SP. *"Most of our staff don't know about the institution SP and they don't refer it when feeling their OPRAS forms rather they refer to their job descriptions"* (Interview with CPO A on 2nd December, 2015).

Furthermore, the THEIs allocate policies, programmes, budgets and resources in the implementation of SP; however the staff are not trained and instructed on SP for the purpose of implementation. It is very difficult for staff to enjoy implementing the SP while they are not well prepared for the implementation. In short, the staff are neither trained, motivated nor sensitized on SP preparation, formulation and implementation our institution" These results are contrary to what was previously insisted by Owino and Oloko (2015) that: SP implementation should entail specifying the organization's mission, vision and objectives, developing policies and plans, projects and programmes and should go hand in hand with prior staff building capacity.

"It is true that the institution put forward the programmes for implementing the SP but the key implementers (staff) are not well prepared even by training them on the SP itself" (Interview with CPO B on 9th December, 2015).

It has been hard and is rarely done by the planning and budgeting office to distribute the SP document to the staff for the purpose of reading and understanding well. This is because of budget constraints and lack of enough funds for producing enough copies for staff.

"...bad enough when the funds for photocopying the SP documents for the staff are asked from the management, the daily song of no funds is sung and sometimes very few copies are available in the library.." (Interview with CPO C on 17th December, 2015).

The management, planning and budgeting office does not provide the feedback on the SP implementation sometimes to the staff and the institution does not celebrate the implementation of SP.

...there is neither formal launching nor celebration for the formulated and implemented SP respectively..." (Interview with CPO B on 9th December, 2015).

4.5 Major SP Contents/Issues in the THEIs

Exploring what are the major issues addressed in the SPs of the THEIs in Tanzania, it was found that their SPs comprise of strategies for successful transition to fully fledged universities. This means the strategies of THEIs in exploiting opportunities for their growth and expansion. *"Mainly, our SP was developed with the main issues of strengthening a transition period to become a fully fledged University"* (Interview with CPO A on 2nd December, 2015).

The other issue was the strategy for enhancing the institutions' capacity. That capacity comprised of physical and human resources, collaboration and partnerships with stakeholders, working and learning environment, administration and management.

...apart from other issues, our SP is aiming to optimizing the use of existing physical and human resources and build effective partnerships with stakeholders..." (Interview with CPO B on 9th December, 2015).

The strategy for addressing cross-cutting issues was another major issue attended in the SP of THEIs. The identified cross-cutting issues in the SP of the THEIs included particularly gender equity, HIV/AIDS and environment in the technical education and training curricula; and promoting effective entrepreneurship and usage

of appropriate technology that meet national and international needs and standards through skills and practical oriented Training, Research and Consultancy”.

“...our institution SP also covers the cross-cutting issues particularly gender equity, HIV/AIDS, environment, entrepreneurship and usage of appropriate technology...” (Interview with CPO C on 17th December, 2015).

In addition to other foresaid issues, strategy for accessibility, quality, relevance, and equity in provision of technical education and training is also addressed.

“...strengthening administration and management of technical education and training is one of the issues we stressed in our SP” Interview with CPO B on 9th December, 2015).

4.6 SP as the Factor for Performance

This part aimed at exploring if the SP is found to be one of the factors for staff performance. In so doing, the SP was found being the factor for staff to perform in their respective institutions. However, such SP would become the critical factor if these staff participate and get involved from preparation, formulation and eventually implementation. Their participation and involvement would make them feel typically the part of the SP hence motivated, inspired and committed to implement through their routine performance in the institution.

“...the SP helps the staff to perform but depends on how they have been made part of the SP and the extent to which they are sensitized, motivated and trained by the management”... (Interview with CPO C on 17th December, 2015).

The SP facilitates the staff performance through preparation of detailed annual operation plans linked to medium term expenditure framework (MTEF) and resources available, identifying and implementing their SMART quarterly targets, and the sometimes employees are appraised using the annual work plans which are included in the OPRAS forms and these plans are extracted from the SP. The present and the future our institution is now focused from the SP. The SP influences the performance by identifying the goals and strategies of achieving them. The SP also facilitates the acquiring of supportive funds for institution from various stakeholders.

“...SP now facilitates easily the preparation of detailed annual operation plans linked to medium term expenditure framework (MTEF) and resources available for the immediate year; and it also portrays the Specific, Measurable, Achievable and Time framed (SMART) quarterly targets...” Interview with CPO B on 9th December, 2015).

Generally the SP serves as a guiding framework that defines the overall goals, sets broad objectives, and guides the operations of our institution. It provides a framework through which we shall apply our strengths, tackle our weaknesses, exploit the opportunities, and confront threats that may occur in our operating environment (MUST Five Years Rolling SP, 2012/2012-2016-2017).

4.7 Challenges facing the implementation of SP in the THEIs

In reality, the implementation of the previous and current SP has been challenging. This is because of several found challenges facing the SP implementation in the THEIs. Poor knowledge of the prepared SP among the staff of the surveyed THEIs is one of the noted challenges. Since the staff do not get involved in the preparation and formulation of the SP, they become unaware of any prepared SP in their institutions. There were no noted workshops, consultation meetings, written submissions, questionnaires, etc. done to staff as the means of involving them in the SP formulation. Additionally, the SP contents is not known by the staff as they are not given opportunities to see, read or even listen to the presentations about the SP.

“...failure to involve our staff in the SP formulation process makes them in turn unaware of SP. When comes to implementation, the uninvolved staff feel not owning the SP...” (Interview with CPO C on 17th December, 2015).

Inadequate funding from the government and other sources is another challenge. Recently, there has been much reduction of the government financial support to the THEIs and other government owned institutions. Financial allocations are done during budgeting and planning process but the amounts allocated are not released by the government. The institutions are also facing the financial crisis as the lack of research projects. Various strategies of achieving the SP objectives are identified and well put forward. When it comes to SP implementation, it becomes challenging as there are no funds and financial resources. The same financial challenge in turn contributes to the lack of enough physical and human resources. The same institutions are facing shortage of academic and non-academic staff, classrooms and lecture theatres, offices, workshop and laboratory equipment.

“...in reality, the implementation of the previous and current SP has been challenging due to inadequate funding and support from the government...” Interview with CPO B on 9th December, 2015).

Political and government policies, underutilization of teaching and learning resources in most areas of specialization due to lower students/staff ratios, gender imbalance amongst students and staff, few formal research activities and inadequate infrastructures for teaching, research and community service provision are other challenges facing THEIs.

“...underutilization of teaching and learning resources, lower students/staff ratios; gender imbalance amongst students and staff; inadequate infrastructures; shortage of office space; and congestion of students in the classrooms are the principal challenges facing the implementation of SP in our institution...”(Interview with CPO A on 2nd December, 2015).

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LGAs Regulations and Licensing Compliance for Rural SMEs in the Rural Areas in Tanzania

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Abstract

Income generated by the government from License in Tanzania helps in funding public expenditure as well as creating conducive environment for both rural and urban SMEs development. However rural based SMEs are constrained largely by the problems associated with the LGAs regulations relative to their urban counterpart. LGAs regulation imposes high cost to small businesses and this could be mainly because rural SMEs are less license compliance in comparison with urban SMEs or because urban SMEs know how to evade the authorities and properly manage the challenges and costs of non compliance. Such cost may affect the establishment and growth and competitiveness of rural SMEs, more so in the rural areas as opposed to the urban. Given these costs of compliance and non compliance, it becomes vital to review the regulation factors required to enable smooth establishment and growth of local SMEs. This desk top library study aims at reviewing the general LGAs regulations that apply in SMEs establishment focusing on license compliance and non compliance. In addition, this study will highlights the effects of such LGAs regulations on rural SMEs since the regulation is important factor required in establishment and growth of rural based SMEs. The focus of LGA regulation is motivated by the fact that rural SMEs conduct their businesses under the jurisdiction of LGAs and LGAs regulation have costs whether SME comply or not. Therefore, this study would help to persuade the stakeholders to design and reform measures that could align the licensing process to SMEs in a more effective manner.

Keywords: LGAs regulations, License Compliance, Rural SMEs

Session B2

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: B

Value chains, Marketing and Entrepreneurship

Session Chair: Dr Geraldine Arbogast, Agder University

Why local contractors are not competing adequately in bidding large construction projects? Perspectives from local contractors in Dar es salaam, Tanzania

Laurian Pauli Gidozi, Mzumbe University, Tanzania

Geraldine Rasheli, Mzumbe University, Tanzania

Abstract

Despite the improvement shown by local contractors in the industry and the benefits of using local contractors in various projects, still foreign contractors get a large share of large projects and leave the local contractors with low value contracts. The bidding process has been one of the challenges toward awarding large value contracts. This paper aimed at examining barriers facing local contractors in bidding large construction projects. A Transaction Cost Approach was used. Primary data was collected from class one, two, three and four contractors. Key informants included regulatory bodies specifically Public Procurement Regulatory Authority (PPRA) and Contractors Registration Board (CRT), academicians and consultants. Also secondary sources were reviewed. These included data from National Bureau of Statistics-NBS, Public Procurement Act-PPA, Public Procurement Regulatory Authority-PPRA and Contractors Registration Board. Descriptive analysis was used. The study revealed that most of local contractors have little knowledge on how to prepare the financial proposals. Also most of the local contractors lack important skills and experience on project management for large projects. It was also found out that most of the local contractors lack specialized equipment needed for the large construction projects. It was also revealed that the bidding process favor foreign contractors for large construction projects. It is recommended that government could a provision requiring those awarded contracts in large projects to give part of the work to local contractors in order to enhance skills and experience. Special and low cost loans to local contractors could enhance their ability in competing for large construction projects.

Growth of Banking Sector in Tanzania: The case of CRDB BANK PLC

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Viren Mukesh Bhikha, Mzumbe University, Tanzania

Abstract

The objective of the study informing this paper was to look into the growth of banking sector in Tanzania, taking CRDB Bank Plc (CRDB) as a case. Specifically, the study looked to establish the factors that led to the growth of CRDB, the challenges it encountered and solutions applied to these challenges. The study employed both the qualitative and quantitative data approach. Primary data were obtained through questionnaires while secondary data were from various publications of Bank of Tanzania (BoT), National Bureau of Statistics (NBS) and CRDB. The study used the content analysis method to interpret the findings. The findings of the study revealed that financial factors, clientele effects, human resource / management factors, marketing factors and government effects were all significant to CRDB's growth. The challenges faced by CRDB in its growth path were established together with the remedial actions to solve these challenges. The study recommends that for banks aiming to grow in the market, what factors it needs to concentrate on (financial, clients, marketing, human resource and government factors) and also how to strategize itself in regards to cash flows, human assets, client base, marketing functions and laws and regulations of the government in place.

Key words: CRDB, Banking sector, Growth, Tanzania

1. Introduction

The financial institution sector is the lifeline of modern trade and commerce as it provides sources of finance (Wandiba, 2012). Banks are the dominant force in the financial sector as they play the role of financial intermediation in the country by accepting deposits from the lenders and channeling them to borrowers, who utilize such funds to stimulate economic activities. Having a role of an intermediary between borrowers and lenders, banks (especially commercial banks) can positively contribute to the health and stability of economy (Levine, 1997).

Banking sector in Tanzania has experienced many changes since independence from Britain in 1961. It began by the establishment of the BoT Act, 1965, that was passed by the National Assembly in December 1965 and the bank was opened by the first President of Tanzania Mwalimu Julius Nyerere on June 14, 1966. Over the last two decades the banking sector has seen many changes by the enactment and

subsequent reviews of Banking and Financial Institutions Act (BFIA) 2006, Foreign Exchange Act 1992 and the BoT Act 2006. The growth of the sector has been remarkable from five banks in 1990s to forty-one fully fledged commercial banks, three financial institutions, twelve community banks, four deposit taking microfinance banks, two private credit reference bureaus and three financial leasing companies which are supervised and licensed by BoT as of 30th June 2016¹⁵.

The sector is filled with various kinds of banks which offer varied kinds of services to its customers. The most significant are the commercial banks which forms the bulk of the sector. One such commercial bank in Tanzania that has been able to withstand changes in the sector and continue to strive for growth is CRDB. It is a leading, wholly-owned private commercial bank, established on July 1st 1996 and has grown and prospered over the years to become the most innovative, first choice and trusted bank in the country. The bank has been present since the colonial-era and has seen many overhauls. Prior to 1996 the bank was a public institution with majority of shares held by the government of the United Republic of Tanzania. The privatisation succession of CRDB in 1996 was a result of the liberalization of the banking industry in Tanzania which had set out regulations that banks and financial institutions needed to abide by.

CRDB today, is among the largest bank in Tanzania in terms of assets and deposits, and its subsidiaries together, provide a complete array of banking and financial services for corporates, SME's, retail businesses, treasury, premier, agent banking and microfinance. It is a public limited company incorporated under the Companies act 2002 and listed on the Dar es Salaam Stock Exchange (DSE) since 2009. The shareholding structure comprises of both corporate and individual shareholders. CRDB has three subsidiaries namely CRDB Microfinance Limited, CRDB Insurance Brokers Limited (both operating in Tanzania) and CRDB Bank Burundi S.A.

2. Statement of the Research Problem:

Following macroeconomic instability experienced in the 1970s and 1980s, Tanzanian government took deliberate efforts to reform the economy in the late 1980s, with the intention to introduce a market based economy. Pursuant to this goal, in 1988 a commission of enquiry (Nyirabu commission) was formed to address the problems facing the financial sector at that time. On the basis of the recommendations of the commission, BoT embarked on a series of reforms in the 1990s, in an effort to liberalize the financial sector by the enactment of the BFIA in 1991 which allowed the entrance of private sector (both local and foreign) into the Tanzanian financial system¹⁶.

¹⁵ BoT Banking Supervision (www.bot.go.tz/BankingSupervision)

¹⁶ BoT Publication - Tanzania Mainland's 50 years of independence

The reforms led to the entrance of private and foreign banks in Tanzania, and led the growth of the sector from five to sixty-five regulated institutions by BoT. It is against this background that this research is aimed at answering the question: how did the banking sector grow exceptionally in Tanzania. The research will be aimed at studying the case of CRDB which has been present in the business since the reforms were initiated in Tanzania. In line with the growth of the banking sector, CRDB has also been able to achieve significant growth, as highlighted in the tables 1 and 2 below:

Table 1: Banking Sector Highlights TZS Millions

Financial Highlights	1966	1991	2015	% Increase 1991 to 2015
Total Assets	1,327.3	474,030.9	28,459,690.9	5,903.8%
Total Liabilities	1,292.1	463,036.7	24,657,042.0	5,225.1%
Deposits	927.3	151,459.7	20,066,269.4	13,148.6%

Source: 50th Anniversary publication of the BoT.

Table 1 highlights the growth of the banking sector from the time BoT was opened in 1966 till 1991, when economic reforms took place and then subsequently to the present situation as at 2015. This shows how beneficial the reforms were in 1991, as the real growth took place between 1991 and 2015 where total assets in the sector grew by 5,903.8%, total liabilities grew by 5,225.1% and deposits grew by 13,148.6%.

Table 2: CRDB Bank Highlights TZS Billions

Financial Highlights	1998	2015	% Growth
Total Assets	103.0	5,407.8	5,150%
Loans	29.8	3,342.4	11,116%
Deposits	80.4	4,246.2	5,181%
Shareholder’s Fund	10.6	687.4	6,385%

Net Interest Income	6.4	390.6	6,003%
Profit Before Tax	2.8	128.9	4,504%

Source: Annual Report 1998 and 2015 of CRDB

Table 2 highlights the growth of CRDB from the year 1998 to 2015. The total assets grew by 5,150% from Tshs 103 billion in 1998 to Tshs 5,407 billion in 2015. Similarly, loans grew by 11,116%, deposits grew by 5,181%, shareholder's fund grew by 6,385%, net interest income grew by 6,003% and profit before tax grew by 4,504%. This shows the efforts that have been put in by CRDB to achieve such growth. In looking at these figures, it will be of potential interest to study what were the factors that led to such growth of CRDB, the challenges it encountered in its growth path and the remedial actions sought to address the challenges.

2. Theoretical and Empirical backgrounds:

2.1 Theoretical review:

Penrose (1959) in the theory of the growth of the firm, led to the genesis of resource-based view of the firm. The study emphasized that enterprising managers is one condition without which a firm's continued growth is precluded. Also the firm's human resource provides both a motivation to expand and a limit to its growth rate. The critical roles played by managers and entrepreneurial management teams are interacting with the firm's resources, subjectively perceiving and creating new uses for resources, and driving the rate and direction of the firm's growth and strategic experimentation.

Kobler et al (2015), in a paper focusing on growth in banking through profitable growth as basis for long-term competitive success. The paper considered three key questions: How do banks create profitable growth that will add to their value? Having achieved growth, how do they sustain it? And how do they establish a growth-oriented culture? The paper focused on the aftermath of the financial crisis in 2008, and what banks should do to return to the same profitable growth before the financial crisis hit. According to Kobler et al (2015), there is a four-stage growth cycle that banks should adopt and maintain. The first stage is to identify and define an appropriate growth target for the bank. The second stage is to identify potential areas for growth. The third stage is constructing an optimal portfolio of investments, through the risk and return measurement and the fourth stage is to execute the chosen growth strategy successfully by investing in the selected project portfolio¹⁷.

Zhuang et al (2009), in a paper discussed the theoretical and empirical literature on the role of financial sector development, with a view to deepening understanding of

¹⁷ Kobler et al (2015), Deloitte Consulting Switzerland

the rationale of development assistance to the financial sector of developing countries. The review led to the following broad conclusions: Firstly, financial sector development plays a vital role in facilitating economic growth and poverty reduction. Secondly, financial sector development provides access to finance by microenterprises, small and medium-sized enterprises (SMEs), and vulnerable groups. Thirdly, the role of financial sector development in facilitating growth and supporting poverty reduction is largely accepted. Fourthly, financial sector development and innovation will bring risks. The financial sector facilitates economic growth, reduces poverty and provides access to finance.

2.2. Empirical Review:

Wandiba (2012) studied factors determining the growth of commercial banks in Kenya, found that financial factors, human resource factors, technological factors, management factors, government factors, government support factors, and entrepreneurship factors play significant role towards the growth of banks in Kenya.

Ruttoh (2011) surveyed factors influencing customer growth of commercial banks in major towns in Kenya. The study concluded that number of factors influences customer growth of commercial banks like products and services pricing, customer service, regulations and policies and the technology. The study concluded that fair pricing of products, good customer service, protection from the regulator and technological innovations tends to pull the customers towards the bank.

Bies (1971) studied the determinants of commercial banks growth with reference to large banks in the Eight Federal Reserve District, USA. The strength of the local economy and prevailing legal restrictions have an important influence on the growth of commercial banks. The major determinants of a bank size and growth are the scale of operations, demand for services, economies of scale and legal restrictions.

Aikaeli (2008) in a paper on commercial banks efficiency in Tanzania described the efficiency status of banks in Tanzania. A bank's efficiency in providing services to its customers forms the basis of its growth. The study highlights the efficiency status of commercial banks in Tanzania, which is a major determinant if a bank wants to achieve growth.

Duraj and Moci (2015) empirically investigated the determinants of profitability on the financial institutions in Albania, especially commercial banks. Determinants of a bank's profitability can be internal and external factors. Internal factors are those that are influenced by banks management policy objectives, whereas external factors are not influenced by it. The study concluded that profitability of Albanian banks is not only influenced by management decisions (internal factors) but also to changes in the external macro-economic environment (external factors) such as GDP and inflation.

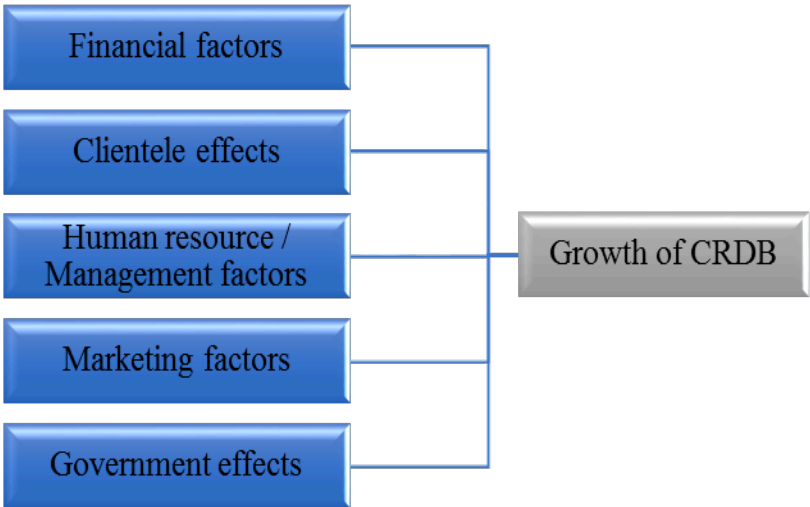
Badun (2009) empirically reviewed the financial intermediation by banks and economic growth. The study concluded that there are still quite a few unresolved issues in the link between financial intermediation by banks and economic growth. The major challenge has been the lack of appropriate data. However, a key question still remains unanswered: “if finance matters for growth, why do some countries have financial systems that spur economic growth and others do not?”

Awole (2016) empirically studied the determinants of commercial banks’ deposit growth (evidence from Ethiopia). The study determined the linkages of the internal and external factors on the banks’ deposit growth. The internal factors were bank branches, deposit interest rates, loan to deposit ratio and lagged bank deposit. The external factors were money supply growth, inflation rate and per capita income growth.

2.3 Conceptual Framework

A framework of this study is shown in the figure 1 below depicting the relationship between the independent and dependent variable.

Figure 1: Conceptual framework



Source: Researcher (2017)

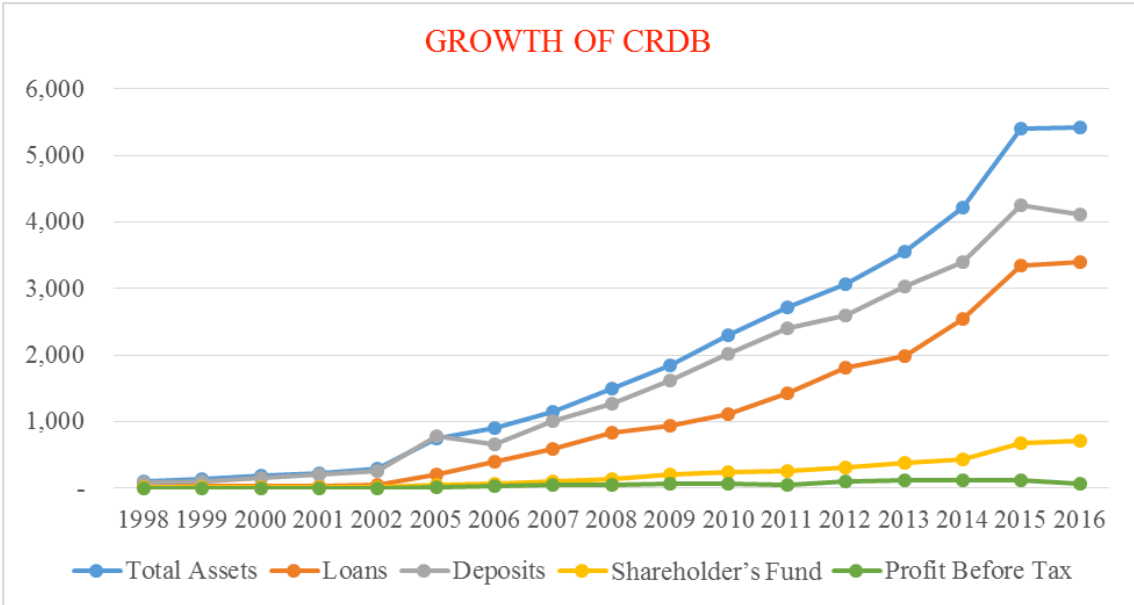
3. Methodology:

The researcher adopted both of the known research approaches, the qualitative and quantitative research approaches. Qualitative research is descriptive and is concerned with subjective assessment of attitudes, opinions and behaviour (Ruttoh, 2011). The quantitative approach was through looking at various figures and charts, and analysing the growth CRDB has achieved in numerical terms.

As the research was a case study of CRDB, it focused on its growth over the years. The study focused on the growth of CRDB in all the aspects like assets, staffs, deposits, branches, technology, ATM, customers, products etc. Majority of population involved the staff of CRDB to get the required information. Other respondents were employees of other banks operating in Tanzania and customers of CRDB.

The researcher pre-identified set of factors that can determine a bank’s growth. These factors are financial factors, clientele effect, human resource / management factor, marketing factor and government effect. The identified factors were the independent variables for the study, through which the questionnaire was designed to get the appropriate responses. The dependant variable was the growth of CRDB.

Figure 2: Growth of CRDB Amount in TZS Billions.



Source: Researcher’s analysis (2017)

Figure 2 shows the growth CRDB has achieved from 1998 to 2016 in terms of total assets, loans, deposits, shareholder funds and profit before tax. The graph shows that it has strived to grow consistently over the years in those areas. This highlights also the need to study the reasons behind such a growth.

Primary data were collected through questionnaire delivered to well informed staffs of CRDB. The head counts of CRDB staffs in Tanzania are 2,760. This count includes support staffs also. For the purpose of this study, questionnaires were submitted to sample of the CRDB population, which were the operations staffs and leaving aside the support staffs. The sample size of 40 questionnaires was considered enough for the purpose of the study, due to the use of quantitative data also. Secondary data was obtained from various publications from CRDB to analyze the figures which shows its growth. CRDB also publishes information online regarding the bank, like investor briefings, fact sheets, investor relation information, financial reports, annual

reports and others. Also the publications of BoT and NBS were useful for the research.

The data collected from the respondents was coded, entered into the computer and analyzed using the MS-Excel (2013) software. Looking at the kind of primary data from the respondents, a conceptual content analysis method was used. Nachmias & Nachmias (1996) defines content analysis as a telephone for making inferences by systematically and objectively identifying specified characteristics of messages and using the same approach to relate trends. The data has been further analysed and presented using the tables, graphs charts and percentages.

4. Research findings, analysis and discussion

A minimum of 40 questionnaires were submitted to staffs of CRDB and some customers. As the study used both the quantitative and qualitative data, the collection of qualitative data was limited to 40 questionnaires as the other part was covered from the quantitative data. From the targeted population of 40 respondents, a total of 27 responded. This added up to a response rate of 67.5% which was considerably sufficient to guarantee representative findings. According to Bell (2005), a response rate of 60% is adequate to permit data analysis.

According to the qualitative data collection from the questionnaires, 70% of the respondents were male while 30% were female. Also about 75% of the respondents were experienced in the banking sector with the length of service of above 6 years. The data analysis also revealed that about 80% of the respondents were senior members of the bank and therefore were in a better position to answer the questions properly. The respondents were also academically well informed as most of them were university / professionally educated with better qualifications of post-graduate and master's degrees.

4.1 Factors determining the bank's growth

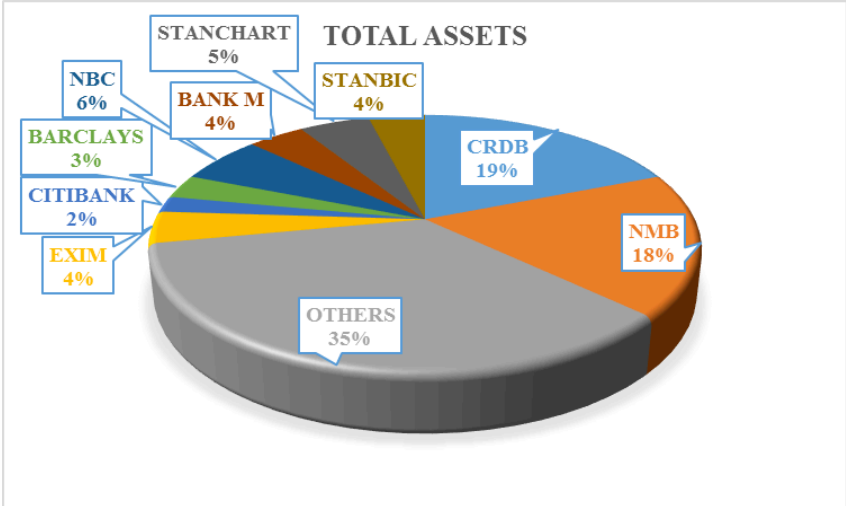
There are a number of factors that determine growth of banks. They include the following:

i. Financial factors

According to the research, financial factors were very significant to CRDB growth. Good cash flow management, adequate capital, investments and deposits were good measure of the financial factors. The study revealed that about 78% of the respondents agree that good cash flow management influenced CRDB's growth from great to very great extent. The study also revealed that almost 96% agree that adequate capital was significant for CRDB's growth, from moderate to very great extent. Investments – loans, T-bill / bonds, placements was also crucial for CRDB's growth, as about 85% of the respondents were of opinion that it signifies growth from great to very great extent. Banking business is fully dependent on deposits, as the

extent of opinion was around 93% on a great to very great extent. This shows that financial factors played a significant role in CRDB's growth. Backing it up with the quantitative data, the figure 3 and 4 below shows the market share of CRDB as at December 2016, comparing with the share of other top banks in Tanzania:

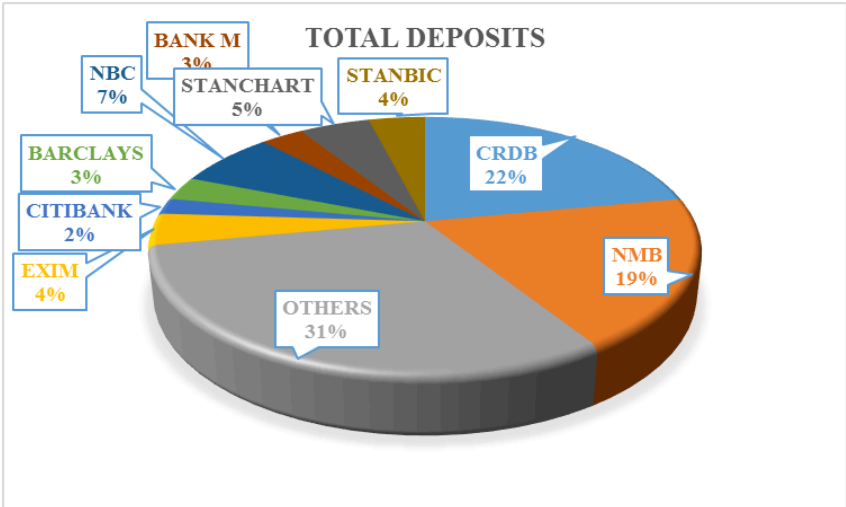
Figure 3: Market share by total assets



Source: CRDB Q4 Investor Presentation – CRDB Website (www.crdbbank.com).

Figure 3 shows that CRDB has a market share of 19% in terms of total assets. This means it is the largest bank in Tanzania in terms of total assets, followed slightly by NMB at 18%. The rest of the group are quite far behind these top two.

Figure 4: Market share by total assets



Source: CRDB Q4 Investor Presentation – CRDB Website (www.crdbbank.com).

Figure 4 shows that CRDB has a market share of 22% in terms of total deposits. This means it is the largest bank in Tanzania in terms of deposit base, followed by NMB at 19%. The rest of the group are quite far also behind these top two.

ii. Clientele effect

According to the research, clientele effects were also significant to CRDB's growth. Improved customer care, efficient service delivery, broad range of clients and introduction of new products / product development were good measure of the clients' effect. 93% of respondents were of opinion that improved customer care was significant to a bank's growth. Also about 96% of the respondents were of opinion that efficient service deliveries brought CRDB's growth. 81% of the respondents felt that having broad range of clients played a big role in growth. The study also revealed that introduction of new products / product development was also important for CRDB's growth, as almost 89% of the respondents were of opinion that offering good products helps attract customers to the bank. Therefore, maintaining and satisfying the clients is hugely important.

iii. Human resource / Management factor

According to the research, human resource / management factors were also of significant importance to CRDB's growth. Clear vision and direction for the bank, experience of the management team, skilled workforce, employee satisfaction and productivity and job safety / security were good measure of the human effects. 96% of the respondents were of opinion that clear vision and direction for the bank was important for growth from great to very great extent. Experience of the management team factor showed that 100% of the respondents were of opinion that experienced and competent management team can lead a bank towards growth with moderate to very great extent.

Skilled workforce was needed to make a bank grow in addition to a competent management team. About 93% of the respondents were of opinion that skilled workforce can make a bank grow with great to very great extent. Response on employee satisfaction and productivity revealed that 89% said that it influenced growth from great to very great extent. Job safety / security was also important for growth. About 96% of the respondents said that it influenced growth with moderate to very great extent. All in all, human resource / management factors in combination were hugely important for CRDB growth.

iv. Marketing factors

According to the research, marketing factors were significant to a CRDB's growth. Customer satisfaction, high quality products, competitive pricing and technological advancement were good measure of the marketing factors. According to the research, 63% of the respondents were of opinion that customer satisfaction influences growth to a very great extent. 85% of the respondents were of opinion that

high quality products helps in luring a client towards the bank, from great to a very great extent. According to the research, all 100% of the respondents were of opinion that competitive pricing was very important to CRDB's growth, with moderate to very great extent. According to the research, 89% of the respondents said that technological advancement was crucial to banks growth from great to very great extent. The marketing factors also determine CRDB's growth to great extent and the need to establish competent marketing strategies.

v. Government effects

According to the research, government effects were significant to a bank's growth too. Political safety and stability, central bank regulations and government assistance were good measure of the effects of the government policies on bank's growth. According to the research, 74% of the respondents provided their opinions that political safety and stability determines bank's growth from great to very great extent. The study also revealed that 70% of the respondents felt that central bank regulations make bank grow with great to very great extents. The study also revealed that 74% of the respondents were of opinion that government assistance is needed to propel growth. Thus, the effects of the government policies were crucial in determining CRDB's growth.

4.2. Challenges faced by CRDB

The challenges that CRDB faced in its growth path are discussed as below.

i. Competition

The study revealed that almost 89% of the respondents said that competition affect a banks growth with moderate to a very great extent. CRDB has faced lots of competition right from pre-1996 era to the era post-1996 when restructuring took place. The pre-1996 era was prone to constant overhauls, however after restructuring in 1996, CRDB has faced constant competition with the likes of NBC, NMB and other banks in Tanzania due to emergence of many banks in the country.

ii. Government regulations

The study revealed that almost 60% of the respondents said that government regulations affected CRDB's growth with moderate to a great extent. This shows that it is not a major challenge in determining growth of CRDB, as it has been able to follow the policies of the governments properly. The policies of the government are prone to changes, and CRDB had to cope with it. Also the regulations of the BOT are also prone to changes, with constant revisions taking place due to changes in the market situations.

iii. Client base

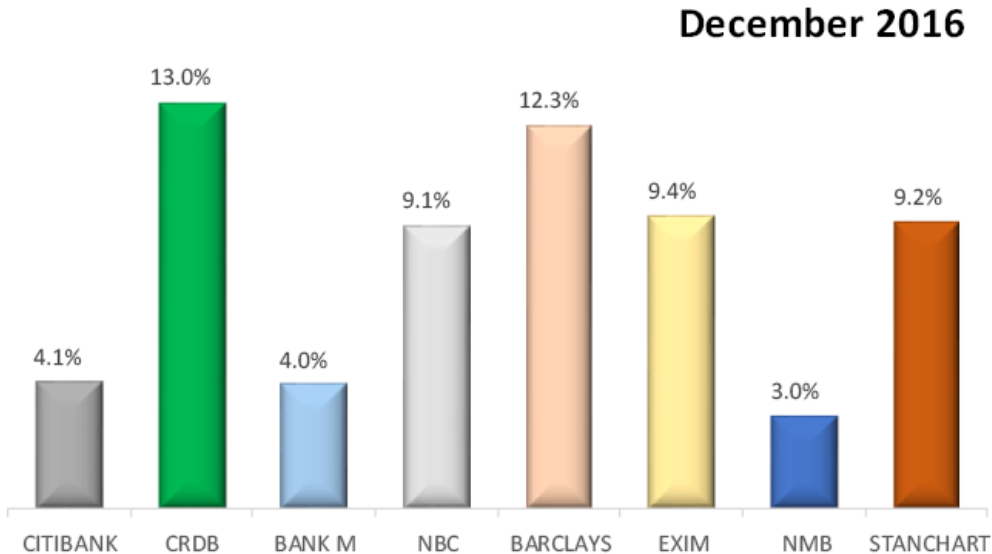
The study revealed that almost 52% of the respondents said that client base affect CRDB's growth with great to a very great extent. The findings also suggested that opinions on effects of client base are divided among the little extent to very great

extent. The major problem here is that Tanzania’s population still has little access to banking services. So there is constant competition between many banks for small population seeking banking services. Client base is needed to build deposits, and this has been a challenge to CRDB.

iv. Non-performing loans

The study revealed that almost 63% of the respondents said that NPL’s affected CRDB’s growth with great to a very great extent. This is the major issue facing all the banks in the country. CRDB has also faced this problem because the banking business is mostly dependent on loan it issues. If the borrowers fails to repay, then the banks has to set aside part of its profits as provisions and also the liquidity position of banks get affected. As of December 2016, CRDB ratio is 13% NPL to gross loans against the BoT benchmark of 5%. The CRDB NPL ratio for 2015 was 7%. This means there has been a challenge in maintaining the ratio of NPL in 2016. The below figure 5 shows the top banks NPL as at December 2016:

Figure 5: NPL for top banks in Tanzania



Source: CRDB Q4 Investor Presentation – CRDB Website (www.crdbbank.com).

v. Availability of skilled workers

The study revealed that only 33% of the respondents were of opinion that availability of skilled workers affected CRDB’s growth. The rest said that it is not important for CRDB’s growth. Banking skills are built from experience, as there is only one trainer in Tanzania for banking studies that is Tanzania Institute of Bankers. CRDB has faced problem recruiting potential staffs.

vi. Stable funding sources

The study revealed that only 44.44% of the respondents said that stable funding sources were important for CRDB's growth to great extent. The rests feel that it is not important for CRDB's growth with not at all to moderate extent. To manage banking business effectively, there should always be constant source of funds in form of deposits, loan repayments, equities and others. Unable to have these sources, a bank has to opt for borrowings which are costly. CRDB has faced many challenges to fund its business.

4.3. Remedial actions sought for the challenges

The questionnaire also sought respondents to provide the remedies to the challenges identified for CRDB in its growth path.

Remedies to challenge 1:

According to the respondents, the challenge of competition can be tackled by:

- i. Customer satisfaction; through fulfilling the needs of the customers, good customer care and improved services. This will make customers to attract towards the bank and make the client base grow.
- ii. High quality products on offer; provide products of high quality, technologically advanced, attractively priced, innovative products, creativity and constant improvements. This will attract customers and help curb the competition.
- iii. Analyse competition; constant monitoring in the market helps achieve the means to curb competition when arise. This is like building the roof before it rains. Perform a SWOT analysis and manage the competition accordingly.

Remedies to challenge 2:

According to the respondents, the challenge of government regulations can be tackled by:

- i. Awareness to government regulations; by working hand in hand with the government and adopting its process properly. This will minimise any risks arising from abiding with the regulations.
- ii. Compliance; with the regulations set by the Government and all its agencies, especially BoT. The BoT sets out guidelines and regulations to which all banks and financial institutions must comply with, failure to it may result in penalties or more stricter actions which might hamper the bank's operations. To avoid any such measure, all the regulations must be abided by.
- iii. Flexibility to regulation changes; establish the banking process well in advance to avoid any unnecessary effects when there are changes to regulations. Design a flexible system to cope with the challenges whenever it arises.

Remedies to challenge 3:

According to the respondents, the challenge of client base can be tackled by:

- i. Introduce innovative products; to attract clients towards the bank. Introduce new and technologically advanced products, as well as diversifying products to meet the needs of various segments of the society. This will attract customers and make the client base grow.
- ii. Keep pricing competitive; so that clients can invest their funds into the banks. Clients are craving for good returns on their investment, so keeping rates favourable than the competitors helps attract client toward the bank.
- iii. Advertisement and promotions; to make the services known to the general public, as ultimately the target is to attract public to save their funds into the bank. Launching of awareness programmes also helps in attracting the investors and builds the image in the segments.
- iv. Customer satisfaction; is crucial to the clients not only in attracting them to the bank but also to maintain the relationship for the future. Constant improvements and strong customer relations makes the customers loyal to the bank.
- v. Expand network; to reach various segments of the societies. This is by increasing the branch network, usage of ATM and PoS, mobile branches, use of agents, mobile banking and other technologies that attracts clients towards the bank. The more the reach the more clients are attracted. Banking services in Tanzania is mostly available in urban areas while rural areas lack the provision of these services. Targeting country-wide can expand the reach to all the population.

Remedies to challenge 4:

According to the respondents, the challenge of NPL can be tackled by:

- i. Improving credit administrations; by checking loan applications properly, screening customers, advising customers properly and scrutinizing of applications properly. Loans are issued after satisfaction that the borrower requires funds and is able to generate enough revenues to meet the dues. Failure to follow the credit administration regulations of the BOT usually creates the problem of NPL. To curb this challenge, credit administrations needs to be really strong.
- ii. Strong recovery team; who can work tirelessly to recover the loans. Employing skilled workers with sufficient background on recoveries as well creating strong recovery policies to curb the NPL challenge. Sitting with the borrowers to know their problem and advise them on the way forward, usually on restructurings.
- iii. Constant monitoring; of the facilities issued and be alert when any irregularity occurs. Being active makes the staffs alert whenever small anomalies occur and avoids the loans to grow very bad. The clients will also feel satisfied whenever the team reaches out to them on anomalies.

Remedies to challenge 5:

According to the respondents, the challenge of availability of skilled workers can be tackled by:

- i. Training; makes employees skills to grow and perform their jobs better. Training staffs will usually motivate them to attain skills rather than hiring from outside. This is because the in-house staffs are usually up to date with the internal policies.
- ii. Hire qualified staffs; who specialises in the respective position available. They will need minor training to become up to date with the bank policies and procedures. Recruiting potential staffs, retentions, attractions, better remunerations and a well-defined organisational structure helps maintain less labour turnovers and curb the challenges from staff issues.

Remedies to challenge 6:

According to the respondents, the challenge of stable funding sources can be tackled by:

- i. Competitive deposit products; will enhance deposits, especially the current-saving account concept. Deposits brings constant source of funds which spur the banking activities. Issuing products will help in generating attractive deposits.
- ii. Good use of banks assets; to finance the beneficial activities. Putting everything in one basket is harmful, so diversifying assets is important. Keeping liquid assets by holding balances and interbank placing which generates interest, and it is also less risky. Holding huge loan portfolio is prone to risk, as chances of default are high. This also damages the liquidity position of a bank. Therefore managing assets properly is very important to ensure funds are available when need arises.
- iii. Strong capital base; to fund the assets. Banks do not rely only on deposits to finance its assets; it also uses the shareholders' funds to finance the assets. However there are huge differences between capital base of a bank and its deposit base, so majority of reliance is on deposits. Profits made by a bank are usually utilised to finance growth, by investing in latest technologies, expansion and improve services. Also listing on stock exchange ensures the bank shares are traded freely and generates funds. Therefore a strong capital base will spur the growth.

Source: Researcher (2017)

5. Conclusions

According to the findings of this study, it can be concluded that financial factors, clientele effects, human resource / management factors, marketing factors and government effects played a significant role towards the growth of CRDB.

The most important financial factors were good cash flow management and deposits. Other financial factors like adequate capital and investments were of lesser importance. The important clientele effect was the improved customer care and efficient service delivery. Clients prefer those banks that can provide services in faster, efficient and courteous ways. Other factors like broad range of clients and banking products were less important

The most important human resource / management factors were clear vision and direction for the bank, experience of the management team and skilled workforce. Other factors like employee satisfaction and productivity and job safety / security were of less importance. The most important marketing factors were customer satisfaction and technological advancement. Other factors like high quality products and competitive pricing were less important. The most important government effects were political safety and stability and government assistance. Other factor like central bank regulations was less important.

It can also be concluded that the important challenges faced by CRDB in its growth path were competition and NPL, while government regulations, client base, availability of skilled workers and stable funding sources were less important of a challenge. It can also be concluded that the remedial actions to solving the above challenges were customer satisfaction, high quality products, through analysing competition, awareness to government regulations, compliance, being flexible to changes with the regulations, introducing innovative products, keeping competitive prices, advertisement and promotions, customer satisfaction, expanding network reach, improving credit administrations, keeping a strong recovery team, constant monitoring of the loans, trainings, hiring qualified staffs, competitive deposits product, good use of banks assets and keeping a strong capital base.

6. Policy recommendations

The most important financial factors were good cash flow management and deposits. Therefore, the study recommends that banks should aim to build their deposits base to a relatively high size so that it can have the financial muscle to invest into beneficial activities. This will also assist to reinforce its cash flow position. The banks should also aim to improve its customer service and service delivery functions by increasing commitment to customer satisfaction and maintaining good relations with clients. Ultimately, these are the clients who will invest their valuable funds into the banks.

The banks should also aim to put in a strong human resource base to carry out the mission and vision of the banks. These are the people who will invest their valuable knowledge and hard work to achieve this mission and vision. The management practices should be of benefit to the banks, and banks should also manage their staffs properly.

The banks should also be active in marketing itself to the market. It should be active in research and development, strive for technological edge above competitors, offer high quality products at reasonable prices, so that customer can be satisfied and attracted towards the banks. Banks should aim at introducing new products in keeping in mind the ever changing needs of the customers. The banks should also conduct business in a legal manner and avoid any misuse of the laws of the country

in place. Adhering to the policies and practices set by the government is strongly advised.

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Rural entrepreneurship in Tanzania: Analysis of the factors for the business model adaptation

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Abstract

In the quest for becoming an emerging economy by 2025, Tanzania is currently creating enabling business environments for business enterprises which operates in the manufacturing sub-sector. The inclusion of such initiatives in rural Tanzania, have the potential for stimulating rural economy through rural entrepreneurship. Micro and Small Enterprises (MSEs) are the latent stimulants of rural development through utilization of endowed natural resources in the rural areas. Rural MSEs exploits business opportunities in the challenging business environments.

Roads, power energy and telecommunication services are the fundamental amenities for the rural MSEs which operates in the manufacturing sub-sector. Uneven distribution of basic amenities is one the concerns in the rural areas. The disparities of the basic amenities causes dissimilarities in the opportunities and/or the challenges to MSEs in the rural areas. Rural MSEs adapts their business models to exploit business opportunities in the constrained business environments.

This research paper analyses the factors for the business model adaptations by rural MSEs in the wood furniture manufacturing industry. The dynamic capabilities literature and the elements of the business model canvas anchors this study.

Mvomero district, Tanzania is the study location for this qualitative research. By using the emancipatory action research method, this study involves wood furniture manufacturing MSEs as research participants. It consists of 11 rural MSEs which are engaged in the business model adaptation. 5 group discussions and 6 interviews are the employed data gathering methods. Collected data are interpretatively analyzed after data transcription and coding. The NVivo 10 software is the data analysis tool.

Study finds that skills, structural flexibility, strategies and procedures of rural MSEs are the factors for the business model adaptations. Other factors are commitment and motivation of rural MSEs towards business model adaptations. However, the skills of rural entrepreneurs plays the prominent role in the business model adaptation. Findings of this research may be interesting to rural MSEs, academics, MSEs development stimulating organizations and rural development supporting entities.

The influence of E-Banking on customers satisfaction in banking industry: The case of Barclays Bank Tanzania

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Abstract

This study investigates whether bank customers in Tanzania recognizes Electronic banking services and consequently adapt to use it in their daily banking activities. Furthermore, the study scrutinizes factors influencing adoption of Electronic banking in Africa especially in Tanzania. To accomplish this, the study collected and analyzed data from a sample of one hundred customers [100] that have accounts with Barclays bank, who were selected on convenience basis, and a sample of 40 Barclays bank staff that were selected using the purposively sampling. The study made use of questionnaires and interviews to collect data.

The data shows that more than 85 percent of customers' respondents are aware with Electronic banking services and products offered by Barclays bank Tanzania, and more than 64 percent responded to using Electronic banking. A binary logit model is used to study factors that influencing customers' decision to adopt Electronic banking. The theoretical and conceptual perception of customer satisfaction shows that the higher the level of service provided, the higher the satisfaction linked with product or services being provided. The Tanzanian commercial banks need to help their customers overcome constraints they face on adopting E-banking that lead to customer satisfaction, since customer satisfaction is the key for commercial banks to stay alive in the market competition. Furthermore, commercial banks should improve their E –banking product and services marketing initiatives, so as to create more awareness to their customers.

Keywords: E-banking, E-banking usage, awareness, and adoption, and customers satisfaction.

Session C2

1045-1200/Wednesday, September, 2017/Meeting Room: C

Finance, Economics and corporate governance

Session Chair: Dr. Nsubili Isaga, Mzumbe University

Asymmetry Exchange Rate Pass-through to Domestic Prices in Net Oil Exporting and Importing Countries

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Harold Ngalawa, University of KwaZulu-Natal, South Africa

Abstract

The study employs monthly time series data set ranging from January 2000 to December 2014 and utilizes a nonlinear ARDL (NARDL) estimation approach to evaluate the short and long run dynamics of the probable asymmetry in exchange rate pass-through to domestic prices in net oil-importing and exporting countries. Its pre-estimation analysis indicates the likelihood of a relatively more inflationary trend in oil producing economy, but the inflationary implications of 2007/2008 global financial crisis seems more pronounced in the oil-importing countries. Empirically, it finds that despite the slightly differences in the magnitudes of the exchange rate pass-through to import prices across the two economies, the incompleteness of the pass-through seems consistent for both economies irrespective of the dimension of the pass-through. However, the probable of the pass-through been asymmetric in nature is rather more significantly pronounced in the net oil exporting economies. More importantly, the second stage pass-through of exchange rate tends to be more sensitive to structural break especially in the net oil-importing economy. It concludes that the asymmetry nature of the pass-through is likely to be more viable in the net oil-importing countries. Nevertheless, typical oil producing economies namely; Algeria, Nigeria, and Russia must be mindful of monetary policy that enhances excessive negative asymmetry of exchange rate pass-through (i.e. devaluation of exchange rate). Rather they should strengthen their domestic production capacity by investing more on capital inputs and the technical knowledge of their unproductive large labour size to curb importation of inflation mainly due to their over reliance on imported goods and services.

Output Response To Stock Market Indicators In Some Selected Emerging Markets

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Abstract

This study estimates the response of the overall economic activities to the stock market variables in some emerging economies. The main objective is to ascertain the extent to which the growth of economic activities in the stock market affects or translates to the variation in output bearing in mind the peculiarity of each country and the level of capital market development. Empirical evidence in the literature shows the existence of a positive correlation between stock market development and economic growth (Levine and Zervos, 1998). Similar studies which have examined this nexus include Mohtadi and Agarwal (2004) Mazur and Alexander (2001), and Beck and Levine (2003), using different indicators such as stock market development, market capitalization ratio, turnover ratio, and total value traded share ratio among others. However, there is no general consensus on the relationship between the different approaches employed.

Research Problem

Theoretically, a well-developed stock market should lead to economic growth through increased saving and investment. Has stock market indicators contributed to output growth? To what extent has expansion in the stock market lead to an expansion in economic activities? This study, therefore, investigates the impacts of stock market indicators on output.

Methodology

Based on theoretical underpinnings, the empirical approach to this paper follows the principles of some earlier studies and hinged on dynamic panel method. In order to avoid biased results, heterogeneity is controlled for. The GMM estimators developed by Arellano and Bond (1991) would be employed. This is to address the endogeneity and the possibility of omitted variables. The variables in the model include market capitalization, turnover ratio, the number of listed company and the Gross domestic product for ten emerging economies.

Expected Results

We postulate that high stock market indicators should impact strongly on output. However, we expect different levels of impacts on different economies on the basis of the level of stock market development.

Conclusion.

The aim of this study is to examine the output response to the stock market indicators while ascertaining the direction of causality and the impact of the stock market variable on economic activities.

Determinants Of Capital Structure: Evidence From Banking Sector In Tanzania

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Abstract

Banking sector plays significant role in maintaining and raising economic growth as well as development in both developed and developing countries including Tanzania. Financially, every bank struggles to determine an appropriate leverage level which ensures that it continues with its operations as a going concern and giving right decision to risks affecting banking sector. Regardless of these struggles still banks are challenged on how to finance its operations with the proper optimal mix of debt and equity so as to maximise the bank value and minimise the cost of capital. This study seeks to explore the factors determining the capital structure of banking sector of Tanzania. A panel data set of 10 banks for the period of 2011 to 2015 was selected to fulfil the objective of this study. The regression analysis was employed to examine the determinants of the capital structure of banking sector in Tanzania. The research findings showed that the Bank size and growth opportunities have direct impact on leverage, whereas, age, tangibility and profitability have a negative association with leverage. These outcomes are in line with corporate finance theories such as Trade-Off Theory, Agency Cost Theory and Pecking Order Theory. This study certifies that banking sector has determinants similar to non-financial sector, so, this study will help financial analysts and managers in understanding the dynamics and underlying premises on capital structure of banking sector of Tanzania.

Additionally, the research findings show that Banks seemed to have more total liabilities (mainly contributed by deposits by 90%) as compared to its equity. Hence, this evidences that banks are more leveraged because they use more debts (86%) and only 14% of equity to finance its assets and overall investments as well as daily operations. Furthermore, the banking sector also has remained adequately capitalised during the period of study. The ratios of Core capital and Total capital to Total Risk Weighted Assets and off Balance sheet Exposures were 22 percent and 22.9 percent respectively more than the required minimum capital adequacy ratios set by the Bank of Tanzania (banks' regulator) of 10% and 12% for core and total capital respectively.

1. INTRODUCTION

How firms choose their capital structure? This question has remained unanswered for the long time (Myers, 1984). Since capital structure is the combination of debt and equity capital maintained by the firm in financing its operations. Then, for many decades it has been difficult to know exactly the proportion of debts and equity in financing the business. However the financing criteria depend on the nature and industry/sector in which the business operates (Abor, 2008). Since then, there has been increasing motives/interest to know what determines the capital structure of the firm which can increase/maximise the shareholders' wealth and minimise the cost of capital and which can help the firm to maintain and increase ability to operate in strong and competitive environment (Goyal, 2013). Because it is very hard to know exactly the mix of debt and equity each firm makes its own choice on how to mix debt and equity in financing its own operations.

The manager always thinks the firm's proper way of combining them (debt and equity) so as to maximise the value of the firm and in addition, the manager must be aware of the financing theory because any decision which may lead to inappropriate mix of debt and equity financing employed affects the performance and survival of the firm (Badu, 2012). Since 1958 after the development of irrelevant theory by Modigliani and Miller on capital structure many literatures have been written on capital structure selection but still there is no satisfying answer questioned by Myers many years ago since 1984 (How firms choose their capital structure?). Similarly, banking sector as other business entities plays great and important roles in encouraging economic growth and development. However banking sectors are not performing well in developing countries including Tanzania and the problem falls in the area of financing and capital structure this is because banks depend more on their roles and functions in resources transformations and business financing. Globally about 75% of the businesses get their financing requirements from banking sector (Mishkin, 2008). However, the developing countries taking Tanzania as an example banking sector commands about 80% of the financial assets in the economy (Bank of Tanzania (BOT), 2009b). Hence, banking sector has a great influence on capital allocation, risk sharing and economic growth (Freixas and Rochet, 1997). This is because bank capital depends on deposits taking capacity as well as loans which is provided to the economy. Hence it is believed that the higher the capital ratio the higher the chance to provide a safety net to prevent insolvency and low capital limits banks to raise capital in case of credit crunch (Marini, 2003). Since banking sectors are very crucial in raising the national economy, several literatures have been done on bank capital level and capital structure.

Saunders, John and Berlin (1996) accept that banks are reluctant in raising equity capital. Among of the causes is that the corporate finance doctrines seems not to fit well with the banking sectors following the nature of its activities and this is because Banks are highly leveraged as compared to non-financial firms (Berger, DeYoung, Flannery, Lee, and Öztekin, 2008; Chang and Lee, 2009; Zingales and Rajan, 1995). Moreover Banks intend to maintain just a regulatory capital level and because their deposits are secured, they tend to secure many deposits from the public without disturbing capital position (Berlin, 2011). Therefore, having a good knowledge (understanding) on how the banks finance their operations then there is a great need to know exactly their determinants of capital structure and available risks which can

affect their leverage (total debts to total assets ratio) in the changing environments due to globalisation. Once the banks place more concentration on the factors which determines capital structure and being aware of the affecting factors (risks) it may be very easy for them to know how they (banks) are going to finance their operations.

Furthermore, due to an increase in competition in banking sectors following the technological advancement and other major changes in the financial and banks' monetary environments forces the managers to act critically on the choice of the capital structure so as to cover on those costs and move on with the normal operations and ensure banks' going concern operations. This is due to fact that wrong mix between debt and equity in financing firm's operations may affect firm's performance as well as survival (Fisseha, 2010 and Anarfo, 2015). The banks' ability to carry out their stakeholders' requirements (needs) is closely related to their capital structure. However, the literature by Modigliani and Miller (1958) on capital structure has become significant and crucial subject matter in corporate finance theory (decision on how business is financed using either debt or equity or the combination of the two). Hence an action of how business is financed is very important to both the firm's manager and the fund providers for the survival and proper performance of the firm. Therefore, this study intended to highlight and answer the question of what are the determinants of capital structure choice which influence leverage in banking sector in Tanzania for the five consecutive years of operation from 2011 to 2015 so as to know the actual trend of its operation.

1.1 STATEMENT OF THE PROBLEM

It is known that banking sector plays significant role in maintaining and raising economic growth as well as development in both developed and developing countries including Tanzania. Hence, it provides both banking services to the public like mobilising deposits, saving and providing loans to the people to finance their business and also provides non-banking services through corporate social responsibility. Financially, every bank struggles to determine an appropriate leverage level which ensures that it continues with its operations as a going concern and giving right decision to risks affecting banking sector (Goyal, 2013). Regardless of these struggles still banks are challenged on how to finance its operations with the proper optimal mix of debt and equity so as to maximise the bank value and minimise the cost of capital. This is important because if not used with great care the choice may result to bankruptcy endangering the survival of the bank. Therefore this gives a chance to rise of the questions asking what determines the firm's capital structure? (Myer, 1984).

Answering these questions one must examine the determinants of capital structure and capital compositions of the particular bank. Although there are have been many studies highlighting the determinant capital structure choice in banks but most of them have been conducted in developed countries that have stable economy like America and United kingdom something which does not reveal the reality in developing countries including Tanzania where sometimes the economy is not stable. For the case of Tanzania most of the available literatures highlight on capital structure versus firm's performance. Therefore, this study examined the determinants of capital structure (Bank size, age, profitability, tangibility and growth) and how they relate to bank leverage.

1.2 RESEARCH OBJECTIVES

- i. To examine the determinants of capital structure choice in Tanzanian Banks

- ii. To examine the relationship between the determinants of capital structure choice and the Banks' leverage in Tanzanian banking sector

1.3 RESEARCH QUESTIONS

- i. What are the determinants of capital structure choice in Tanzanian Banks?
- ii. What are the relationship between the determinants of capital structure choice and Banks' leverage in Tanzanian banking sector?

2. LITERATURE REVIEW

2.1 Theoretical literature review

The capital structure irrelevant theorem

The initial theory of capital structure was first developed in 1958 by economists Franco Modigliani and Merton Miller known as MM Theory. The "Irrelevance Theory" showed that a firm's value is independent of its ratio of debt to equity financing with the assumptions that: (i) neutral taxes; (ii) no capital market frictions (that is to say no transaction costs, asset trade restrictions or bankruptcy costs); (iii) symmetric access to credit markets (that is to say firms and investors can borrow or lend at the same rate); and (iv) firm financial policy reveals no information. In their 1963 paper, Modigliani and Miller relaxed the assumptions by introducing taxes into their model in which case the method of financing becomes relevant (Malayah Tamba Chieyoe, 2011). The conclusion is that if a firm wants to maximise its value then it should be financed by debt only. Therefore, the propositions are extended to contain tax shield, which affect the market capitalisation and the expected return on equity.

The tradeoff theory

This theory came into existence in 1965 by The Modigliani and Miller where they hinted that the most favourable level of capital structure can be determined using benefits and costs associated with debt financing. This would be more like a balance between tax shield from interest expense and the cost associated with financial distress. The trade-off theory of capital structure highlights that organisations with better profitability have to favour debt financing rather than equity financing to take benefits from the tax shield. However, different researchers have grouped the trade-off theories into two main groups namely static trade-off theory and dynamic trade-off theory (Brennan and Schwartz, 1984; Jensen, 1986; Jensen and Meckling, 1976; Kane, Marcus, and McDonald, 1984). The static trade-off theory affirms that business firms have optimal capital structures, which they determine by trading off the costs against benefits of using debt and equity. One of the benefits of use of debt is the advantage of a debt tax shield. The dynamic theory considers the effect of tax savings in the use of debt. The firm's leverage responds less to short-run equity fluctuations and more to long-run value changes (Fischer, Heinkel, and Zechner, 1989; Goldstein, Ju, & Leland, 2001; Strebulaev, 2007).

Pecking order theory

Myers and Majluf came up with this theory in 1984. The theory is more used by financial managers as compared to the trade-off theory. The pecking order theory underlying assumption is that there exists asymmetric information among the managers of the firm and outside stakeholders. It is assumed that managers who work on behalf of the company's stakeholders have better information than the company's stakeholder and other investors.

Hashemi (2013) argues that, the pecking order theory is the theory which highlights that the financial managers are more interested in rising new capital. According to this theory, managers have no intentions of using external financing either debt or equity because their first choice is to use internal financing or retained earnings in financing their investments by injecting their own money. But when the firm has no enough internal resources it can opt for external financing as the second option or alternative. However, in issuing external financing, the financial managers prefer debt to equity financing because debt is a safer security and less risky than equity. Moreover, the theory also allows issuing equity when the capacity of debt is full used (Myers and Majluf, 1984).

Agency theory

The agency cost theory of capital structure rises from the principal-agent relationship (Jensen and Meckling, 1976). In order to moderate managerial behaviour, debt financing can be used to mediate the conflict of interest which exists between shareholders and managers on one hand and also between shareholder and bondholders on the other hand. The conflict of interest is mediated because managers get debt discipline which will cause them to align their goals to shareholders goals. Jensen and Meckling (1976) argue that, managers do not always pursue shareholders interest. To mitigate this problem, the leverage ratio should increase (Pinegar and Wilbricht, 1989). This will force the managers to invest in profitable ventures that will be of benefit to the shareholders. If they decide to invest in non-profitable businesses or investment and are not able to pay interest on debt, then the bondholders will file for bankruptcy and they will lose their jobs. The contribution of the Agency cost theory is that, leverage firms are better for shareholders as debt can be used to monitor managerial behaviour (Boodhoo, 2009). Thus, higher leverage is expected to lower agency cost, reduce managerial inefficiency and thereby enhancing firm and managerial performance (Aghion, Dewatripont, and Rey, 1999). The main responsibility of managers is to manage the firm in such a way that it will yield returns to shareholders. But most of the time manager do not seek to maximise shareholders wealth but rather seek to maximise managerial utility.

The theory of bank capital structure

The Bank capital theory highlights that a banking firm's assets and functions are different from non-banking firms because they do not suffer from asymmetric information costs (Gorton and Pennacchi, 1988). In addition, past evidence shows that bank capital structure is completely determined by regulatory capital requirements and not related to standard determinants of capital structure (Slovik and Cournède, 2011). As per this theory, Banks may be faced with difficulties rectifying or adjusting their capital structure in tough times because they will have no enough cash (shortage) to settle or pay down deposits and committed off balance sheet cash outflows (Gropp and Heider, 2010). In addition, this theory states that banks hold capital only just because it is mandatory for them to do so as required by the regulatory authorities. And hence the capital structure is determined by the bank capital requirements set by the regulatory authority.

This theory also argues that bank capital structure base on the reality that banks always hold high leverage ratio which makes these banks seem unique or special. Unlike non-financial firms, banks liabilities may be changed or converted into assets and in some circumstances make part of collateral such as time deposits. The bank

liabilities are actually results of banking activities. In the meantime, regulations require that bank capital ratio should be maintained by banks given different levels of risk and non-compliance will lead to the bank to be subjected to penalties, and may be liquidated. Thus, on a daily basis, banks struggle to make the capital ratios look better to the eyes of regulators.

2.2 Empirical review

Empirical literature review on firms' capital structure choice

Firms' capital structure choice always depends on determinants of capital structure. Different factors or indicators have been employed and used to determine firms' capital structure choice. These statements have been supported by different researchers as shown below;

According to Chang, Lee, A. C., and Lee, C. F (2009) who modified the variables from the study done by Titman and Wessel (1988) put a summary and came up with eight factors (determinants of capital structure) which determine capital structure choice namely assets collateral value, size, growth, profitability, uniqueness, non-debt tax shields, earnings volatility and industry classification. However, this study did not base on the banking firms but on non-financial firms, but later the researcher suggested that these factors can be used even in financial firms including banks.

The study by Yu (2000) highlights that the main factors which determine capital structure choice in banking firms include: bank size, liquidity and profitability. Furthermore the researcher hinted out that the higher the liquidity the banks having the less the capital ratios for banks and that bank size correlates negatively with bank capital ratios. Salawu (2007) conducted a study in banking firms in Nigeria examined that factors which lead to capital structure choice in order of importance included ownership structure and management control, growth opportunity, profitability, size of the firm, uniqueness of the firm, and its reputation, risk and cost of financial distress, earnings per share, tangibility, tax economies associated by debt financing and issuing cost. These determinants of capital structure were the main factors for capital structure choice in banking firms in Nigeria as per Salawu, but the study did not employ any of financial indicators found in the banks' statements of financial position because of nature of the study being qualitative. Also Brown and Octavia (2010) showed that bank's capital structure can be either shown by book or market leverage ratios which can be examined in linear relationship by factors like market to book value, profitability, regulatory capital, dividends, assets risk and economic growth.

Gropp and Heider (2010) also included market to book value ratio, profitability, bank size, collateral and dividends payers among factors which determine capital structure choice in banks.

However, Myers and Majluf (1984) also argue that the firm's capital structure choice depends on the determinants of the capital structure. For instance, according to Hashemi (2013) argues with the pecking order theory that managers' first choice of financing is always internal financing or retained earnings which shows that the firm is not willing to employ either debt financing nor equity but is able to inject its own money to finance the project. But if the internal financing fails the second option is to use external financing choice by equity or debt. In addition Hashemi argues that debt financing as external choice source is better because it is of safer security and less risky than equity.

Brennan and Schwartz (1984) who supported Modigliani and Miller (1965) hinted out that many firms prefer debt than equity financing because of the tax shield given by debt, and that they tend to be more leveraged when they generate more profit. In addition, profitable firms always prefer debt financing due to less associated bankruptcy costs. This also has been supported by several studies including Grop and Heider (2009) who argued that high profit give more funds to the firms for their own investments purposes hence firms do not feel obligation to raise debt.

Titman and Wessel (1988) who examined determinant of capital structure choice argues that capital choice depends on determinants of capital structure. Where they found that firms with more tangible assets as collateral, large size in terms of total assets and firms with many number of years of operation in terms of better growth rate of net interest income tend to be easier financed by debt because they are more and highly leveraged as compared to firms with less tangible assets, small size firms and new firms in the market.

Myer (1977) argues that equity controlled firms always tend to invest sub optimally for the reason of expropriating wealth from shareholders of the firm, however an opportunity of expropriating is much greater in the firms with more growth opportunities which need investment due to that managers have more discretion in decision. Therefore, solving this agency problem is the firm to issue short term rather than long term debt because short term debt ratio would be direct related to growth rate if firms substitute short term financing for long term financing.

Ang, Chua, and McConnell (1982) and Warner (1977) found that direct bankruptcy costs consists a greater proportion of the firm's value as that value falls down, hence small firms are in larger danger when use debt than large firms because large firms are more diversified and are less subject to bankruptcy. Therefore, by considering this argument then large firms are more highly leveraged and hence the cost of issuing either debt or equity securities depends on the firm size. Furthermore, Smith (1977) argued that small firms pay much more than large firms to issue new equity and also sometimes more to issue long term debt. Hence, large firms would be more leveraged and would prefer to borrow short term debt to long term debt due to lower associated fixed cost.

Kim (1986) observed that firms with high level of business risk have less capacity to sustain financial risks and hence use less debt and more of equity. Moreover, firms which experience high volatility in earnings would need to have low debt-equity ratios. This means that they need more equity than debt in financing their operations.

Empirical literature on capital structure determinants and Bank leverage

This sub part of literature review intended to show empirical findings on the relationship between determinants capital structure and firm's (bank) leverage.

Anarfo (2015) examined a sample of banks with evidence from 37 sub-Saharan Africa countries for seven years from 2000 to 2006. He found that banks profitability is negatively related to banks capital structure indicating that more profitable banks rely on their retained earnings and less on debt. Bank size, asset tangibility, age and growth are significant in determining bank capital structure and hence they are positively related to debt (both short and long term debt). And lastly he concluded that tax is not statistically significant in determining debt ratio of banks in sub-Saharan Africa.

Kuo (2000) who examined 41 banks in Taiwan for seven years from 1989 to 1994, he highlighted that there was significant different in capital structure hinting that banks employ different financial leverage applications. He also found that there is positive correlation of bank size and financial leverage and negative correlation of fixed assets to deposit ratio, fixed assets and variance coefficient to operating income. Furthermore Kuo and Lee (2003) assessed determinants of capital structure in commercial banks in 1991 and 2000 and they came up with the results that both debt coming from deposits and non-deposits decrease progressively in domestic banks and increased progressively in local branches of foreign banks.

Asarkaya and Ozcan (2007) also studied the determinants of capital structure in banking sector in Turkey for five years from 2002 to 2006 and they portrayed out that economic growth, lagged capital, portfolio risk, and mean capital level as well as return on equity is directly (positively) correlated to capital adequacy ratio. Moreover, they hinted that share deposits are inversely (negatively) to capital adequacy ratio. And lastly they highlighted that banks with higher portfolio risk hold more capital which give them protection against both expected and unexpected loss.

Weber and Klef (2004) on their study examined the determinants of capital structure of German banks in the year 1992 and 2001 and they come up with an argument that 158 securitized banks always struggle to keep and maintain their regulatory buffer capital due to potential regulatory costs. Moreover, they found that variation in portfolio risk has positive and has a significant effect on changes in the capital ratio in savings banks. Where for the aim of rebuilding their capital buffer banks increase capital and decrease portfolio risk. Also, they showed that banks' profitability has a positive and significant impact on the target capital ratio in the savings and cooperative banks.

Ali, Akhtar, and Sadaqat (2011) examined the factor affecting the capital structure of 22 commercial banks in Pakistan for five years from 2006 to 2010. Their study hinted out that there is positive and significant relationship of asset tangibility and size to banks' leverage. Consequently they found negative and significant relationship between bank leverage with the bank profitability and liquidity. Similarly Siddiqui and Shoaib (2011) portrayed that bank's size play a significant role in lifting not only their profit efficiency but also their market value.

Ayanda, Ekpo, Mustapha, and Adedoyin (2013) examined the relationship between bank leverage level and the determinants of capital structure in 5 biggest banks in Nigeria for five years from 2006 to 2010. The study used econometric procedure in estimating the relationship between bank capital and its indicators. Size, dividend payout, profitability, tangibility, liquidity, growth and tax charge were used to measure bank's leverage level. The study revealed that banks have to employ appropriate mix source of fund, reduce debt issues and invest more in liquid assets through reduction of tangible assets. Hence tangibility, risk, profitability, growth and tax charge are inversely related to bank leverage.

Amidu (2007) who assessed determinants of capital in 19 banks in Ghana using six year data from the year 1998 to 2003 he found that banks' short term debt is inversely related to their profitability and risk while positively related to assets structure, size, growth and tax. Furthermore Amidu (2007) shown that banks' long term debt is positively related to their structure and profitability and inversely related to their risk, growth, size and tax. In addition, he hinted out that more than 85% of assets of banks in Ghana are financed by debt where short term debts seem to be

more dominant (more than three quarters of the bank capital) over the long term financing.

Determinants of Bank capital structure choice

Bank capital structure is determined by different internal and external factors.

Firm size

Size is among of very crucial and important determinant of the firm capital structure. The larger firms always are more diversified in their operations which influence their capital stability, have easy access to capital market, receive higher credit ratings for the debt issues and pay lower interest on debt capital (Pinches and Mingo, 1973). Hence have lower variance of earnings making them able to tolerate high debt ratio (Titman and Wessels, 1988). In addition, larger firms are less subject to bankruptcy and this implies less possibility of bankruptcy and lower bankruptcy costs (Titman and Wessels, 1988). Cassar (2004) stipulated that small firms find more expensive in solving problems associated information asymmetry with lenders, and hence present lower debt ratio (Castanias, 1983).

This determinant of capital structure (size) was measured by the natural logarithm of book value of total assets. Book value used because assets were out of any depreciation and acts as the total value of the firm's assets that shareholders would receive if the firm is liquidated. Moreover when compared to firm's market value, book value can indicate whether a stock is under or overpriced.

Firm age

Age is another determinant and standard measure of reputation in capital structure models. Once a firm continues and operates longer in business it finds itself establishing an ongoing business and therefore increases its capacity and ability to take more debt. Hence, it is directly proportional to debt. Therefore, banks must evaluate and analyse the firms' creditworthiness before granting any loan because these are generally believed to pin high hopes on very risky projects promising high profitability rate. When a firm is highly indebted it tends to gamble their creditors' funds (money). If a firm makes profitable investments the shareholders will collect significant earning shares but if the project (firm) fails the creditors have to accept and bear the consequence (Myer, 1977).

This was measured by firm's number of years of operation in the industry with their specific percentage change in net interest income because when a firm operate for long period even the customer base increases as a result firm's net interest income goes up.

Tangibility (Asset structure)

The firm's asset structure plays a great and important role in determining its capital structure. The degree to which the firm's assets are tangible will probably lead to having greater liquidation value. Furthermore, the firms which invest heavily in tangible assets have also higher financial leverage because they borrow at lower interest rates as their debts are secured by such assets (Myer, 1977). Wedig et al (1988) highlights that debt can be more readily used if there are durable asset to serve as collateral. Hence any firm with assets of greater liquidation value are having easier chance to finance at lower cost which leads to higher debt or outside financing in their capital structure. Likewise Bank financing will depend upon whether the

lending can be secured by tangible assets (Storey, 1994; Berger and Udell, 1998) as cited by (Ayanda et al., 2013).

For the purpose of this study asset structure (tangible) was measured by the ratio of fixed assets to total assets because only fixed assets can be placed as collateral on debt of the firm.

Profitability

This is also the determinant of capital structure which can be explained by two theories namely trade off theory and pecking order theory. As per trade off theory profitability and capital structure are positively related stating that the higher the profitability of the firm the higher the debt capacity and less risky to the debt holders. But as per pecking order theory capital structure are negatively related stating that the higher the firm's profitability the higher the internal financing of investment and less reliance on debt financing (Ayanda et al., 2013). This is because firms prefer internally financing and follow sticky dividend policy but if internal fund is not enough to finance firm's financial needs the firm may prefer debt to equity financing (Myer, 1984).

Therefore, profitability for this study was measured by return on asset (ROA) because the researcher intends know exactly the ratio of earnings before interest and tax to total assets showing the contribution of assets financed either internally or externally towards firm's profits.

Firm growth

Firm's growth is also a crucial determinant of capital structure as per this study. Growth is likely to place a greater demand of internally generated funds and push the firm into external source (probably borrowing). Firms with high growth tend to capture relatively high debt ratio compared to small ones. It is expected that high growth firms will require more external financing and should display higher leverage (Hashmati, 2001).

For the purpose of this study growth was measured by the annual growth of total assets because firm's asset is among of an important element in showing the firm's financial position. Furthermore assets are controlled by an entity in which its future economic benefits are expected to flow to it as a result of the past events.

3. Methodology

This paper adopted case study design due to the small number of representative samples obtained from the banking firms in Tanzanian banking sector. This study used 10 banks as sample size. The banks' financial data specifically audited financial statements for five years from 2011 to 2015 were used to accomplish this study. Descriptive analysis, Pearson correlation and multiple regression analysis were used to analyse data of this study.

Descriptive analysis

This type of data analysis/approach was used to summarise the researcher's findings and describe the chosen samples. This reported the means, number of observations, maximum and minimum values as well as standard deviation of both independent variables (size, age, tangibility, profitability and growth) and dependent variable (leverage)

Correlation analysis

Correlation analysis was used to highlight the strength or weakness of the relationship between two variables. For this study it was used to find out the relationship between dependent variable (leverage) and each of the independent variables (Bank size, age, profitability, tangibility and growth).

Multiple regressions model

This was used to find out the impact of independent variables on leverage hence it was used to draw conclusions about the large population from which sample is drawn and it was given out by Ordinary least square (OLS) regression model as shown here below.

$$\text{BNKLEVs} = \beta + \beta_1\text{SIZE} + \beta_2\text{AGE} + \beta_3\text{TANG} + \beta_4\text{PROFIT} + \beta_5\text{GROWTH} + \varepsilon \dots\dots (1)$$

Where;

BNKLEVs = Bank leverage

β = Constant number (Y – intercept)

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Coefficients of determinants of capital structure

TANG = Tangibility (Asset structure), PROFIT = Profitability

ε = Any error occurred

Operationalisation of variables

This study aimed to examine the determinants of capital structure in Tanzanian banking sector. However, it used different variables including leverage, size, age, tangibility, profitability, and growth. The dependent variable of this study was Bank leverage which was measured by the ratio of total liabilities to total assets. The study also employed five independent variables namely Bank size which was measured by the natural logarithm of Banks' total assets, Bank age which was measured by the number of years from which the Bank started its operations in the country, tangibility which was measured by the ratio of fixed assets to total assets, profitability (ROA) which was measured by the ratio of Earnings before interest and tax to total assets and the last independent variable was growth which was measure by the percentage change of total assets.

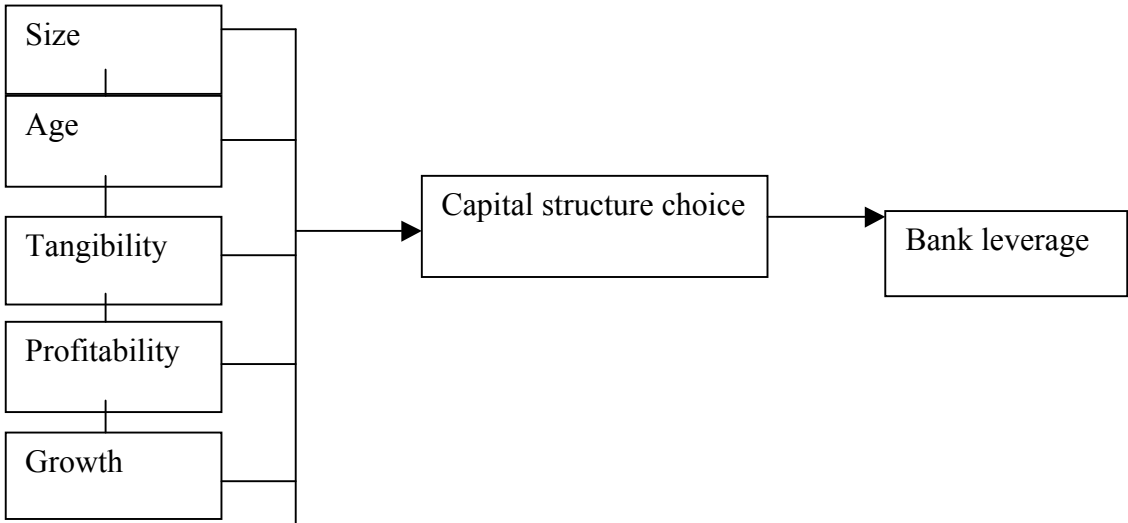
Table 1: Definition of variables

Variable	Measurement	Source	Source Year
Leverage	Total liabilities/Total assets	Bank scope	2011-2015
Size	Log (total book value of assets)	Bank scope	2011-2015
Age	Number years a firm being working	Bank scope	2011-2015
Tangibility	Total fixed assets/Total assets	Bank scope	2011-2015
Profitability (ROA)	Profit before tax /total assets	Bank scope	2011-2015
Growth	Percentage change of total assets	Bank scope	2011-2015

Source: Researcher (2017)

The variables were conceptualized as follows

Figure 1: Conceptual framework



Source: Researcher (2017)

4. FINDINGS

Capital adequacy

Using the results of the 10 sampled banks the researcher concluded that the banking sector remained adequately capitalised during the period in which the used data were for the study. The ratios of Core capital and Total capital to Total Risk Weighted Assets and off Balance sheet Exposures were 22 percent and 22.9 percent. Both of these ratios are well above the required minimum legal capital adequacy ratios for a bank or financial institution of 10 percent and 12 percent for core and total capital respectively. **Consider appendix 1**

Bank liabilities and capital

The researcher observed that there was continuous increase in both liabilities and capital. For some years the total liabilities had been increasing due to increase of number of banks which turned to increase the rate of mobilising more deposits which are the stable source of funding in the banking sector. Similarly, the paid up capital had been kept up for the aim of covering the amount required by the banks’ regulator (BOT) for both domestic banks and foreign banks and that an increase and growth of total capital has been due to entry of new Banks in the industry, profits retention as well injection of additional capital in the sector. **Consider appendix 2**

Capital structure composition

All the sampled Banks seemed to have more total liabilities as compared to its total equity. This is evidence that these Banks are more financed by debts as compared to equity. From Appendix 2: Banks capital and liabilities the researcher shows that the sampled banks had the total equity of TZS 7,000.188 billion and debt (total liabilities) of TZS 44,642.332 billion for all five years which was mainly contributed by deposits

as the main and stable source of funding in banking sector. More than 90 percent of the total liabilities were deposits from customers and others. **Consider appendix 3**

Descriptive statistics

This shows data related to minimum value, maximum value, mean and standard deviation value for both the dependent variable (leverage) and independent variables (size, age, tangibility, profitability and growth).

Table 2: Descriptive statistics

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Leverage	50	.71	.92	.8570	.04705
Size	50	10.53	12.73	11.5996	.61991
Age	50	9	47	20.20	10.583
Tangibility	50	.0113	.0665	.032412	.0118835
Profitability	50	-.0168	.0575	.022292	.0168723
Growth	50	.0113	.8137	.216122	.1649883
Valid N (listwise)	50				

Source: Researcher’s findings (2017)

The results from Table 2 show that the sampled banks had the minimum value of 71percent and maximum value 92 percent of leverage. Furthermore, Table 2 reports the leverage mean of 0.8570 (≈ 0.86). This indicates that banks were more leveraged hence used more debts (86%) and only 14% of equity to finance its assets and overall daily operations during the period of study. Moreover, Table 2 shows standard deviation of 0.04705 which indicates small variation in Banks’ leverage in Tanzania.

Also, Table 2 reported that age had a mean of 20.20 which indicates that there is an average of 20 or more years of banking sector operation in Tanzania. Operating years of banking sectors for the sampled banks ranges from 9 to 47 years.

Tangibility had a mean of 0.032413 indicating that there was 3.24% as a ratio of fixed asset to total asset. This indicates that fixed assets in banks are only 3.24% of the total assets. Sometimes banks do not hold more fixed asset as they are limited by their regulator. For example the Bank of Tanzania (BOT) restricts the banks from having their own building. Furthermore, tangibility had a minimum value of 0.0113, maximum value of 0.0665 and standard deviation value of 0.0118837 which shows reasonable variation. Moreover, Banks do not hold more fixed assets because they are not main assets in generating Banks income as compared to other assets like loans to Bank borrowers and Banks’ securities.

The table also shows profitability had a mean of 0.022292. This indicates that there was 2.23% as a contribution of the company assets in generating income and profit (return on assets). Profitability showed minimum value of -0.0168, maximum value of

0.0575 and standard value of 0.0168723. Negative sign indicate loss in some banks. Standard deviation shows reasonable variation in profitability.

Growth had a mean of 0.216122 which indicate that there was 21.61% as an annual percentage growth in total assets for all sampled banks in all five years. This shows that total assets in banking sector in Tanzania are growing at the rate of 21.61% annual.

Lastly, the bank size was 11.60 (mean =11.5996) in which it is composed of total assets. Major assets in banking sector were loans to individual, business and other organisation including banks and securities that banks hold. Furthermore, there was high variation in size with standard deviation of 0.61991.

Correlation analysis

The researcher adopted this analysis to highlight the relationship between the variables. For purpose of this study correlation analysis was used to find out the relationship between dependent variable (leverage) and each of the independent variables (Bank size, age, profitability, asset structure and firm's growth) as shown below.

Table 3: Correlation analysis

Correlations							
		Leverage	Size	Age	Tangibility	Profitability	Growth
Leverage	Pearson Correlation	1	.315*	-.421**	-.211	-.044	-.008
Size	Pearson Correlation	.315*	1	.277	-.189	.415**	-.288*
Age	Pearson Correlation	-.421**	.277	1	.084	.316*	-.087
Tangibility	Pearson Correlation	-.211	-.189	.084	1	-.202	-.229
Profitability	Pearson Correlation	-.044	.415**	.316*	-.202	1	-.111
Growth	Pearson Correlation	-.008	-.288*	-.087	-.229	-.111	1
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

Source: Researcher's findings (2017)

Table 3 above shows the correlation between dependent variable (leverage) and independent variables (Bank size, age, tangibility, profitability and growth). Also the table shows the correlation between independent variables themselves to test for multicollinearity problems between variables. The Pearson correlation was used to test the relationship where size, tangibility, profitability and growth were tested at a significant level of 0.05 and age was tested at significant level of 0.01.

The results showed that there was positive and significant correlation between leverage and Bank size (0.315, $p < 0.05$). Also, Table 3 shows that there was negative and significant correlation between leverage and bank age (-0.421, $p < 0.01$). Furthermore, there was negative and insignificant correlation between leverage and bank tangibility (-0.211, $p > 0.05$). Moreover, the results showed that there was

negative and insignificant correlation between leverage and bank profitability (-0.044, $p>0.05$). Also the results showed that there was negative and insignificant correlation between leverage and bank growth (-0.008, $p>0.05$). And lastly Table 3 shows that there was no multicollinearity problems because the independent variables were not highly correlated ($r<0.9$).

Multiple regression analysis

Multiple regression analysis was used to find out the impact of independent variables (Bank size, age, tangibility, profitability and growth) on leverage. Therefore, this was used to draw conclusions about the large population from which sample was drawn and was given out by Ordinary least square regression model as shown below.

$$\text{BNKLEVs} = \beta + \beta_1(\text{Size}) + \beta_2(\text{Age}) + \beta_3(\text{Tangibility}) + \beta_4(\text{Profitability}) + \beta_5(\text{Growth}) + \epsilon$$

Where,

BNKLEVs = Bank leverage, β = Constant number (Y – intercept)

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = Coefficients

Table 4: Multiple regression analysis

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.473	.126		3.745	.001		
Size	.038	.011	.503	3.615	.001	.709	1.410
Age	-.002	.001	-.517	-4.058	.000	.843	1.186
Tangibility	-.304	.509	-.077	-.598	.553	.828	1.207
Profitability	-.273	.375	-.098	-.727	.471	.758	1.319
Growth	.018	.037	.064	.496	.622	.831	1.203

a. Dependent Variable: Leverage

Source: Researcher's findings (2017)

Table 5: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630 ^a	.397	.328	.03857

a. Predictors: (Constant), Growth, Age, Tangibility, Profitability, Size

Source: Researcher (2017)

Table 4 above shows multiple regression analysis which shows the impact of independent variables (Bank size, age, tangibility, profitability and growth) on leverage. First of all Table 4 shows that there were no multicollinearity problems between the dependent variable and independent variables due to the fact that Tolerance value was greater than 0.20 (tolerance>0.20) for all independent variables and the Variance Inflation Factor was greater than 1 (VIF>1) for all variables. Another evidence which shows that there were no multicollinearity problems is that the independent variables were not highly correlated to each other ($r < 0.9$) as shown in table 3.

The determinants of capital structure as per this study were tested at a significant level of 0.05 except for age which was tested at the significant level of 0.01. Therefore, Table 4 above shows that there is positive and significant relationship between Bank leverage and size. This implies that large banks use more debts because they are more diversified which enable them to have an easy access to capital markets which in return receive higher credit rating for debt matters and hence pay less interest rate on debt capital and less subject to bankruptcy cost.

Also, Table 4 shows that there is a negative and significant relationship between Bank leverage and age which implies that Banks with more age (older) use fewer debts than the new ones. This is because the older Banks seem to have strong accumulated income base which enables them to use more of their internal funds to finance their investments and other financial requirements and use less amount of debts as compared to new banks which they depends more on using debts due to poor income base.

Moreover, Table 4 shows that there is negative relationship between Bank leverage with tangibility and profitability but this relation is not statistically significant. Negative relationship between leverage and tangibility implies that Banks hold less fixed assets due to the fact that they are not major assets used to generate bank income. Hence, Banks depend more on securities they hold and loans to individual, business or other organisation as their major assets to provide most of their bank income. Similarly, negative relationship between Bank leverage and profitability (ROA) implies that Banks that are more profitable tend to use fewer debts because they use more of their internal source of financing and less reliance of debt financing.

Lastly, Table 4 shows that there is positive relationship between Bank leverage and growth but this relation is not statistically significant. The positive relationship between Bank leverage and growth attracts for the higher use of debt financing. The higher growth rate implies the higher demand of funds to satisfy the investments and other financial requirements and probably expansion of services something which needs huge money hence to do all of these the Banks place more reliance on external financing through preferred source of debts.

Table 5 showed that dependent variable (Bank leverage) is explained by independent variables (Bank size, age, tangibility, profitability and growth) by 39.7%. The greater variance must have been caused by the capital structure determinants (tangibility, profitability and growth) which had a relationship with leverage but the relationship was not statistically significant to leverage. This implies that these determinants were not significant determinants of the capital structure decision of the banking sector in Tanzania during the period of study (2011 to 2015). Only two

capital structure determinants (size and age) were significant determinants of the capital structure decision of the banking sector in Tanzania during the period of study.

5. DISCUSSION OF THE RESEARCH FINDINGS

Banks capital structure composition

The researcher found that the banking sector in Tanzania is highly composed of debt financing by an overall average of 86 percent (86%) and only 14 percent (14%) is equity financing which means that the sector is highly leveraged as shown by the Table 2. This result is consistent with Al-Mutairi and Naser (2015) who conducted their study in 47 commercial Banks listed in Gulf Cooperation Council (GCC) Stock markets in Kuwait for the period from 2001 to 2010 in which they found that more than 80 percent (80%) of the commercial Banks' assets in GCC were financed by debts (mostly long term financing) which implies that they are more leveraged. Also the researcher's findings is consistent to Ayanda *et al.* (2013) who conducted their study using five big Banks in Nigeria using period from 2006 to 2010 found that banking sector in Nigeria is highly leveraged meaning that they are more financed by debts. Furthermore, the result is consistent with Amidu (2007) who reported that more than 85 percent (85%) of the Ghanaian Banks' assets are financed by debts where three quarters of banks capital use 65 percent of short-term debts as compared to 22 percent of long term debts. Apart, the result of this study is inconsistent to the pecking order theory (POT) which emphasises using internal funds in financing investments and financial requirements but it can issue debt financing (particularly short-term debts) only when internal finance is not enough.

Determinants of capital structure in banking sector

Bank size

The researcher of this study found that there is positive relationship between Bank leverage and size. This is consistent to the study by Ayanda *et al.* (2013) who examined 5 big Banks in Nigeria using period 6 years from 2006 to 2010, Ali *et al* (2011) who examined 22 commercial banks in Pakistan for five years (2006 to 2010), Salawu (2007) who examined Nigerian banking system using qualitative approach, Kuo (2000) who examined 41 Banks in Taiwan for six years (1989 to 1994) and Anarfo (2015) who examined Banks from 37 Sub-saharan countries for 7 years (2000 to 2006) who also found positive relationship between leverage and size showing that large banks are more diversified hence easy to acquire debt financing. The result also is consistent to Bankruptcy cost theory that large banks are less subject bankruptcy which gives them a high chance of financing their assets by using more debts.

Bank age

The researcher also found the negative relationship between Bank leverage and age. This is inconsistent to Anarfo (2015), Al-Mutairi and Naser (2015) who examined 47 commercial Banks listed in Gulf Cooperation Council (GCC) Stock markets in Kuwait for the period from 2001 to 2010 and Siam, Khrawish, and El-Hammoury (2005) who examined 12 commercial Banks in Jordan in 1992-2001 found positive relationship between Bank leverage and age implying that once a Bank continues and operates longer in business it finds itself establishing an ongoing business and therefore increases its capacity and ability to take more debt.

Tangibility

The researcher of this study found a negative relationship between Bank leverage and tangibility but this relation is not statistically significant. But the negative relationship is consistent to Al-Mutairi and Naser (2015) in Kuwait and Caglayan and Sak (2010) who examined capital structure in Turkey Banks from 1992-2007 also found negative relationship between leverage and tangibility showing that tangible assets are not main source of income in Banks. Also, negative relationship can exist due to existence of conflict of interest between the debt providers and shareholders. Also, the study is inconsistent to Myer (1977), Arnafo (2015) and Ali *et al* (2011) who observed positive relationship between leverage and tangibility implying that firms with more tangible assets have also higher financial leverage because they borrow at lower interest rates because their debts are secured by such assets.

Profitability

This study portrays negative relationship between Bank leverage and profitability but this relation is not statistically significant. But the negative relationship is consistent to Arnafo (2015), Ali *et al* (2011), Ayanda *et al.* (2013), Caglayan and Sak (2010) and Pecking order theory (Myer and Majluf (1984) who also found negative relationship between leverage and profitability by hinting that the higher the firm's profitability the higher the internal financing of investment and less reliance on debt financing. This is because firms prefer internally financing and follow sticky dividend policy but if internal fund is not enough to finance firm's financial needs the firm may prefer debt to equity financing. Also, the result is inconsistent to Keffer and Weber (2004) who examined capital structure in Germany banking sector as well as Trade off theory which declare positive relationship between leverage and profitability by reporting that that the higher the profitability of the firm the higher the debt capacity and less risky to the debt holders.

Bank growth

The researcher reported positive relationship between Bank leverage and growth but this relation is not statistically significant. But the positive relationship is consistent to the study by Amidu (2007) who found positive relationship between growth and short term debts in Ghanaian Banks. Also Brown and Octavia (2010), Titman and Wessel (1988), Arnafo (2015) as well as Myer (1977) found positive relationship between leverage and growth and concluded that firms including financial institutions which grow at the high rate mostly they have high demand for funds for future investments hence they rely on external financing through preference of debts. Furthermore the result is inconsistent to Ayanda *et al* (2013) who reported negative relationship between leverage and growth by stating that Banks can reduce the debts issues by employing appropriate mix of internal funds by investing more in liquid assets through reduction of tangible assets.

6. SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of research findings

This study was guided by three specific objectives which were: to examine the determinants of capital structure choice in Tanzanian Banks; and to examine the relationship between the determinants of capital structure choice and the Banks' leverage in Tanzanian banking sector

Following the above research objectives then the summary of research findings are highlighted below.

After the analysis process the researcher found that the banking sector in Tanzania is more financed by debts due to the fact that there was higher overall proportion of debt ratio of 86% compared to 14% of equity ratio for all sampled Banks in the five years of study (2011 to 2015). The study also showed that there was positive and significant relationship between Bank size and leverage. Similarly, there was positive relationship between growth and Bank leverage but the relation was not statistically significant. Also, Banks' age was negatively and significant related to leverage. Moreover, tangibility and profitability showed negative relationship to Bank leverage but the relation was not statistically significant.

Conclusion

The researcher adopted this study for the aim of determining the determinants of capital structure in banking sector in Tanzania. The researcher used 10 Banks where Bank size, age, tangibility, profitability and growth were the main key determinants used the researcher. The study concluded that there was positive and significant relationship between leverage and size, and negative significant relationship between leverage and age. Profitability and tangibility showed negative and insignificant with leverage while growth showed positive and insignificant relationship to leverage.

Therefore, insignificant relationship to leverage shown by tangibility, profitability and growth imply that these determinants were not significant determinants of the capital structure decision of the banking sector in Tanzania during the period of study (2011 to 2015). Profitability (ROA) of 2.23% as shown in Table 2 also implies that most Banks did not utilise well their assets in generating profits. Similarly insignificant relationship of growth to leverage implies that banking sector in Tanzania is minimal growing and the growth rate has no big impact to the growth of the economy. Moreover, insignificant relationship between tangibility and leverage implies that tangible assets are not major assets which contribute to the Banks' income. Securities that Banks hold and loans to Bank borrower are said to be the major assets which provide most of the Banks' income.

Recommendations

From the study results it was found that the banking sector is highly leverage because is more financed by debts than equity. Therefore, Banks should maintain good relationship with the debt holders who hold debts instruments like bonds and emphasise more by mobilising more deposits so as to remain leveraged because Banks increases profits using their leverage. However, the BOT have not put any level of leverage but it emphasises that all Banks in the industry to maintain and make sure that they are leveraged.

The study also reported significant relationship between size and age to leverage, thus size and age should be the significant determinants of the capital structure decision of the banking sector. Tangibility, profitability and growth were not statistically significant to leverage, thus should not be the significant determinants of the capital structure decision of the banking sector.

Recommendations on further studies

This study mainly aimed to examine the determinants of capital structure in banking sector in Tanzania. However, the study results show that the study was limited to

only five determinants of capital structure choice (size, age, tangibility, profitability and growth). From the findings it has been reported that Bank tangibility, profitability and growth were the determinants of capital structure which were not statistically significant to Banks' leverage. But the researcher has not provided the reasons why they were not significant and what should be done to make them significant determinants of the capital structure decision of the banking sector in relation to leverage. Therefore, the researcher recommends further studies on that area. Furthermore, the researcher recommends further studies on other determinants of capital structure choices which have not been tested by the researcher in this study. Moreover, this study was limited to only ten Banks operating in Tanzania which made only 50 observations. Therefore, the researcher recommends addition of sample size in other further studies because having larger sample size reveals more the reality of the research problem of the phenomena about the population.

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Analysing The Factors Influencing Financial Records Keeping Amongst Small And Medium Enterprises (Smes) In Ilala Municipal Council

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Abstract

The performance of SMEs can only be traced, monitored and evaluated through adequate financial records keeping. However, record keeping, has been a major challenge to majority of SMEs in Tanzania. This study analyzes the factors influencing financial records keeping amongst SMEs in Ilala municipality using a binary Probit model. The results shows that, about 90% of the respondents met were keeping financial records for their businesses, however, they were not complying with the national and international standards set rules and regulations. The main challenges faced by SMEs in financial records keeping in the course of this study were inadequate recording keeping skills, cost constraints (time and money) and inadequate availability of skilled personnel such as accountants and cashiers. The probit regression results indicate that, membership, age of the firm, location of the firm, the size of the firm (capital invested and number of employees) and years of schooling are significant factors that affect financial records keeping in SMEs. The Government and private sector should collaborate to improve and enhance the

capacity of SMEs in record keeping and business management, through awareness raising and provision of financial education and training.

Keywords: SMEs, Financial Records Keeping, Probit Model, Business Management, Book Keeping, Financial statements, Tanzania.

Session D2

1045-1200/ Saturday, September 20th, 2017/Meeting Room: D

Technology, Health, Policy and Public administration

Dr Henry Mollel, Mzumbe University, Tanzania

Factors Affecting Citizen Participation In The Policy Making Process In Tanzanian's Local Government Authorities; Experiences From Tabora Municipal Council

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Abstract

This study was set to examine factors affecting citizen participation in policy making process at Tabora municipal council. In this respect the study sought to establish whether citizens in the selected municipality influence the local development decisions as emphasized by national and local laws. Specifically, the research interest for this issue was to identify: the mechanisms and approaches used to facilitate citizen participation, the levels of their involvement and factors affecting citizen participation in policy making process at the selected case. A structured questionnaire, interview and documentary review were the data collection methods used in the study. Data were collected from one hundred and twenty eight (128) informants from a representative sample included municipal staff, elected councilors and the local residents.

The findings of this study include that there is insufficient participatory and inactive citizen influence in policy making process in the municipality. The study findings indicated that lack of awareness and civic education is the most affecting factor affecting citizen participation in the local policy making process. Out of the listed factors 43% was give to this factor. The finding implies that the majority of citizen in the area are ignorance of their rights; also it implies that they are not provided with information with regard to implementation of different development projects and policies in the area. Indeed questionnaire responses over 90% showed that meetings were useful in that they provided an opportunity for local citizens to air their concerns. Based on the findings, most of the respondents argued that they don't effectively participate in the decision making process due to the lack of time and the nature of participation that is not inclusive, unequal and poor transparency. Moreover, citizens believe that even if they have a chance to be heard, the power holders retain the monopoly over decision making; this implied that the process is too theoretical and not practical.

Considering nature of involvement this study has concluded that, the municipal has good policies gearing at ensuring citizens are involved in decision making process although there is poor implementation. However, when the citizens submit

suggestions in the entire process their suggestions are taken into consideration by the public officials. The research provides us with enough evidences to characterize the citizen participation in the area as a form of informing and consultation progress to levels of "tokenism" according to the Arnstein's ladder of participation. Even if citizens have a chance to be heard, the political elected officials hold the control over the decision-making process.

The study concludes with a set of recommendations for successful citizen participation in policy making process. Main among these recommendations is that capacity building programmes and flexible protocol that reflect the main principle of participatory process.

Policy and Program documents analysis: Analysis of the existing family planning issues and intended outcome in Policy and program Document.

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Abstract

In recent years, health policy analysis is gaining considerable attention in the published policy analysis literature for low and middle-income countries. However, it is hardly to find studies that apply policy document analysis especially for health policies in Sub-Saharan countries. The analysis of policy documents is an approach to identify core quality of a policy as conceived and put into language by the actor of that policy. Sometimes policy documents do not always express clearly the existing and intended output simply because the policy writers are not usually responsible for its implementation or part of existing problem. A policy-on-paper may well not reflect the true intention of the actor of the policy. A policy document may serve other purposes than outlining a course of action: satisfying the urges of donors, pacifying political adversaries and hide true intentions. It is argued that, policy document development is one part of policy process that enables goals, opportunities, obligations and resources to be recognised. Therefore, policy documents analysis show how a policy adheres to certain principles, such as different policy actors and goal clarity.

The policy document is intended to serve two main purposes: (1) to guide on how best the policy will be implemented in a way to fulfil its goals, and (2) to monitor progress and ensure that the process stays on track during its implementation. Actually what the policy implementers have at hand is the policy document which they are supposed to implement. However, the policy implementers may not have any background of the policy itself. Therefore, the policy document is supposed to show who, should do what, when and how. This paper is not anticipated to be an analysis of how effective the implementation of population policy is done. Rather it is intended to examine how family planning issues and intended outcome are been address in Tanzania National Population Policy and National Family Planning Costed Implementation Plan (NFPCIP) documents. It aims to see whether the policy and program document(s) is understandable enough to enable implementers to realize the intended outcome.

Numerous models were formulated to analyse policy, yet, there has been no single model, which, suit best in this contexts. This study borrows an idea formulated by Rütten and Cheung on policy documents analysis and create a checklist that fit the research objective under study. The criteria formulated provides an understanding

and convincing connection between policy determinants and policy outcome and has been validated as useful tool in policy document analysis. The concepts used by this study in analysis of policies and programs documents are policy background, existing problem, policy goals, monitoring and evaluation, public opportunities and obligation. Findings show that the population policies are as symbolic policy that has good intension but lacking concrete (means) activities to achieve the desired goals. The first policy enacted 1992 was focussing more on family planning with goals to rise the CPR even though did not state to what percentage. The revised one 2006 was so general explaining everything especially on development and stress on reproductive and child health. Nevertheless the NFPCIP was clear explaining the family planning program and its goal to raise the CPR from 28% to 60% by 2015. Also it explain explicitly what should be done by whom and when to realize the stated goals.

Improving Maternal Newborn Health, HIV/AIDS services and HRH challenges in underserved areas: Experiences from Mkapa Fellows Program II

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Abstract

Background: Tanzania has witnessed a number of Non-governmental Organizations stepping in to support and complement government efforts to address shortage of Human Resources for Health. The efforts have focused on increasing the coverage and effectiveness of HRH interventions. Despite achievements accrued so far, the shortage of HRH is still high especially in hard to reach areas. This paper use experiences from Mkapa Fellows Program II to explain how the design and stakeholders' engagement and participation influence the level of program effectiveness, efficiency, sustainability in improving Maternal Newborn Health, HIV/AIDS and HRH challenges.

Method: Data was collected from secondary and primary sources in both intervention and non-intervention areas to enable a comparative analysis. Secondary data involved desk review of program design documents, reports on the process and effects. Primary data was collected from purposively selected stakeholders at national, regional and district-targeting Council Health Management Teams, health facility workers and the community. Qualitative data was collected using notebooks, translated into English and thematically analysed. Quantitative data involved small number of records which were analysed using descriptive statistical presentation.

Results: The MFP II have interrelated health care interventions designed to address a package of issues that are interrelated and are likely to influence each other. The effects MFP II is vivid, remarkable and highly appreciated by stakeholders in the

health sector at all levels. It reduced shortage of skilled HRH per district by 6% targeting hard to reach areas in 6 districts covering 9 Health Centres. 30 Health Workers were recruited and deployed to the Health Centres, and the number of pregnant women testing for HIV/AIDs has increased. For instance, in Chela Health Centre in Msalala District the number increased from 678 during in 2012/13 to 1230 in 2013/14. Health workers in the interventions facilities were trained in PMTCT (610), IMAI (519), CEMOC (238), HIV/AIDS (816) and CTC (413). There is good engagement of stakeholders in the national health systems at all levels. Though the results shows that relationship is good at all levels- stakeholders expressed needs for more involvement in the design and implementation process- which is critical for uptake and sustainability of program interventions. Some stakeholders at district level revealed that- “they were less involved- and therefore are less engaged in supervision and ownership”.

Conclusion: The program provides remarkable improvements of MNH, HIV/AIDS and HRH in the hard to reach areas with many promises for sustainability. However the need for strengthening further engagement and participation as well as mechanisms for accountability at all levels is paramount to enhance MNH and HIV/AIDS, and HRH interventions’ effectiveness and efficiency.

1415-1515/ Wednesday, September 20th, 2017

SESSION [A3]-[D3]

Session [A3] PhD colloquium	Room A
Session [B3] Value Chains, Marketing and Entrepreneurship	Room B
Session [C3] Finance, Economic and Corporate Governance	Room C
Session [D3] Health, Policy and Public administration	Room D

Session A3

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: A

PhD Colloquium

Session Chair: Prof Otto Andersen, Agder University

Individual Factors And Performance of the Academic Staffs In The Technical Higher Education Institutions In Tanzania

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ABSTRACT

This study examined the influence of INFs (i.e. age, working experience, education level, administrative position, and designation) on work performance. The data were mainly collected using the questionnaire from 277 academic staff of three Technical Higher Education Institution (THEIs). The staff were mainly sampled using simple random sampling technique. The collected data were analyzed mainly using Multiple Linear Regressions (MLR). The results indicate that, age, working experience, education level and designation had significant relationship with work performance while administrative position had insignificant relationship with work performance. The findings of this study insight the education managers and professionals to understand relevance of individual factors (INFs) of academic staff on work performance (i.e. teaching, research and consultancy) in selected (THEIs) in Tanzania.

Key Words: Individual Factors, Performance, Academic Staff, Technical Institutions

1. Introduction

Organizational performance is a fundamental construct in strategic management and it has been the focus of intensive research efforts in recent times (Richard, Yip & Johnson, 2009). A successful organization generally traces its performance from its employees (Zahargier & Balasundaram, 2011). These employees are required to generate desired standards in performance of the organization (Truong, 2012). Organizations therefore need highly performing individuals in order to achieve performance of their organization (Sonnentag & Frese, 2002).

Just like other organizations, the performance in education institutions are shaped by their employees. Effective work performance by the academic staff in such institutions lead to the realization of the broad objectives for which the institutions are established for (Abdulsalam & Mawoli, 2012). The core activities for evaluating academic staff of education institutions are teaching, research and consultancy (Igbojekwe, Ugo-Okoro & Agbonye, 2015).

In the higher education institutions, the most significant foundation for the performance is the academic staff (Khan, et al., 2013). The institutions must become more conscious that, the staff is the key person to their work performance (Khan, et al., 2013). The success of the institutions therefore depends upon work performance of the academic staff in teaching, research and consultancy (Hakan et al, 2011). The

performance of such academic staff is influenced by different factors including INFs (Musiige & Maassen, 2015, Saeed et al., 2013) and each academic staff may have a different impact from such factors on the performance of the institutions (Khan, et al., 2013). Staff are more likely to be performing to their institutions due to such factors (Akintayo et al, 2010). The changes in INFs affect work performance of the academic staff in the institutions (Palakurthi & Parks, 2000).

The influence of INFs on work performance was previously studied in sectors like business sectors (Shaffril & Uli, 2010; Truong, 2012; Amangala, 2013; Khan et al, 2013; Musiige & Maassen, 2014; Met & Ali, 2014). It is evident that, the work performance indicators in the business or other sectors are not necessarily applicable to education sector (Owolabi & Makinde, 2012). There is a need therefore to study the studied INFs in relation to work performance in education sector specifically Technical Higher Education Institutions (THEIs). That need came because the INFs are taken into account when employing the academic staff and in one way or another, they influence work performance of the academic staff in the THEIs.

The INFs studied in relation to work performance had conflicting results. Studying the INFs in relation to work performance in THEIs is expected to settle the existing conflicting results. There were also methodological gaps in the studied INFs on work performance. Qualitative and descriptive statistics were highly used in the influence of INFs on work performance. The study at hand used instead Multiple Linear Regression (MLR) portraying relationship and prediction of INFs on work performance. This study had therefore examined the relationship and contribution of INFs on the work performance of the academic staff in the THEIs.

2. LITERATURE REVIEW

Numerous factors affect performance of staff at work place (Saeed et al., 2013). That performance is a multidimensional construct and varies depending on a variety of factors (Armstrong, 2000). This means that, the staff of the institutions do not perform in a vacuum but influenced by different factors including INFs (Musiige & Maassen, 2015; Truong, 2012). Each staff may have a different impact from such factors at the workplace of any institution.

Age is one of the INFs which determine the work performance of the academic staff in the THEIs. Theoretically, the decremental theory of aging is one of the theories that establish the relationship between age and performance (Giniger et al., 1983). This theory posits that certain abilities decline as workers age. As the person grows older, his/her sense of obligations also gains maturity and resultantly the individuals in the high age group possess more organizational work performance as compared to fresh entries (Khan, Khan, Nawaz & Yar, 2013). Unlike younger employees, older employees are more likely to display a higher continuance commitment and working performance (Karsh et al, 2005).

From empirical investigations (Kujala et al., 2005; Smedley & Whitten, 2006; Shultz & Adam 2007; Jegak, 2010b; Amangala, 2013; Met & Ali, 2014), age was found being significant positive in relation to work performance in other sectors than education. On the other hand, Birren and Schaie (2001) did not find the significant positive relation between age and work performance. Though conflicting results is previously found in other sectors, this study viewed age to have positive relationship with work performance. The more the academic staff become more aged, the more they perform in the THEIs. This is because they are expected to have gained much working experience. It is therefore hypothesized that:

H₁: *Age of the academic staff has relationship with their work performance in the THEIs*

Working experience of the academic staff is another factor which influences work performance in THEIs. It is our view that, academic staff with high working experience are believed to perform higher than the ones with low working experience. The THEIs are not theoretical oriented but practical and competence based. The practical nature of those THEIs is highly enhanced by highly experienced academic staff in which most of them gained experience from the manufacturing and production industries.

As one acquire more work experience, s/he acquires more skills, techniques, methods, psychomotor habits, etc. that directly produce improvements in performance capabilities (Katozai, 2005; Nusbuga, 2009). This means that, an increase in work experience results in higher job knowledge and task performance. Apart from the professional and academic knowledge, it is commonly believed that experience plays important roles in the performance of individuals and organization at large (Kotur & Anbazhagan, 2010). For example in African culture, experience is considered as a priority for work performance in different organizations (Kotur & Anbazhagan, 2010). Literature also reports that, performance of individuals differ from culture to culture and country to country depending upon the knowledge and experience of the employees (Kotur & Anbazhagan, 2010). Basing on this argument we hypothesized that:

H₂: *Working experience of the academic staff has relationship with their work performance in the THEIs*

Education level is another INFs considered in this study. Since education level is one of the INFs considered when recruiting the academic staff in the THEIs; it was view that education level influence work performance of the academic staff. Theoretically, the staff who are highly educated are considered to be more performing due to their awareness about the organizational attitude as opposed to those who are less educated (Akintayo, 2010).

Empirically, the education level is found positively correlated with work performance (Amangala, 2013). Salami (2008) concluded also the positive correlation between education and work performance in his study. Karakowsky and McBey (2001), Linz (2003) and Jegak (2010b) as well found education level being significant and positively related to work performance in their studies.

On the other hand, Khan, Khan, Nawaz and Yar (2013) found level of education having a negative association with work performance. They argued that, staff with low levels of educations usually have more difficulty to change their jobs and consequently show a greater work performance to their organizations. Iqbal (2010) likewise concluded a negative correlation between education level and work performance. Although the discussion on education level and work performance suffered mixed views in other sectors; we hypothesized that:

H₃: *Education level of the academic staff has relationship with their work performance in the THEIs*

Despite their engagement in the core functions (teaching, research and consultancy), academic staff of the THEIs are sometimes assigned administrative and management activities. When they are assigned such activities, they are expected to become key drivers and examples in work performance. In that regard, they are therefore expected to perform more than their subordinates as a way of showing examples "leading by being example".

Even Lee et al. (2009), Shaffril and Jegak (2010) and Amangala (2013) found administrative and management position having significant impact and positive correlation with work performance. Likewise, job position among other INFs had a positive and significant relationship with organization commitment and work performance (Amangala, 2013, Kanchana & Panchanatham, 2012 & Balay, 2010). Based on empirical arguments we hypothesized that:

H₄: *Administrative position of the academic staff has relationship with their work performance in the THEIs*

Designation is one of the explored INFs in this study. The ranks or designations in the THEIs comprise of Technician/Technologist, Tutorial Assistant/Instructor, Assistant Lecturer, Lecturer, Senior Lecturer, Associate Professor and full Professor. Similarly, the requirements, responsibilities and performance of the academic staff are different in terms of their respective designations. However, the literature shows a very little connection between individual's designation and work performance.

Khan, et al., (2013) state that the individuals on high designations show more performance to their institutions instead of those ones on low designations. Also, Cong and Van (2013) found that the designation of staff influences the work performance of that employee and the institution at large. In research for example, Tang and Chamberlain (2003) found full professors showing higher performance than other academicians with lower ranks. In contrary, Gbadamosi and Joubert (2005) reported no significant relationship between designation and job performance in the public sector. Although the discussion on designation and work performance suffered mixed views in other sectors; we hypothesized that:

H₅: *Designation of the academic staff has relationship with their work performance in the THEIs*

3. Methodology

Data for this study were collected at Mbeya University of Science and Technology (MUST), Dar es Salaam Institute of Technology (DIT) and Arusha Technical College (ATC). These THEIs were chosen because of their similar operating characteristics and the same history i.e. they were all formally the technical colleges and went the same transformation process to higher education institutions. Just like other institutions of higher learning, the core functions of these institutions are teaching, research and consultancy. However, their research and consultancy activities are expected to be practical to the level of producing patents, license and copyrights. They offer similar courses like engineering, science and technology.

Simple random sampling technique was mainly used to sample 283 academic staff obtained from the population of 536 (**Table 1**) using a formula by Kothari (2004). The questionnaires designed in English were distributed to 283 academic staff of which 277 questionnaires were received and found complete and useful for the data analysis. The response rate was 98%.

Table 1: Proposed and Field Obtained Sample Size

Institution	Population	Proposed Sample Size	Surveyed Sample Size	Percentage
MUST	216		109	24.2

DIT	200	$(1.96)^2 \times 0.05 \times 0.05 \times 536$	101	36.5
DIT	120	n	=	67
		$\frac{(0.04)^2}{(1.96)^2 \times 0.05 \times 0.05} + (536-1)$		39.4
Total	536	283	277	100.0

The collected data were mainly analyzed using Multiple Linear Regression (MLR). It was used to test the hypotheses of the study; showing the relationship between INFs and work performance. This was the best technique for analysis because of having more than one predictors (i.e. both continuous and categorical (INFs) and one continuous dependent variable (work performance) i.e.

$$Y = \alpha + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + \epsilon$$

Where: Y-Criterion (i.e. performance in terms of teaching, research and consultancy)

α -constant (intercept)

b_{1-5} -Regression Coefficients

x_{1-5} -Predictors (age, experience, administrative position, education level, designation)

Age and working experience were continuous variables measured in number of years. Education level, designation and administrative position were categorical variables. Education level has four levels 1. Diploma, 2. Bachelor Degree, 3. Masters' Degree, 4. PhD; designation had seven ranks: 1. Technician, 2. Tutorial Assistant, 3. Assistant Lecturer, 4. Lecturer, 5. Senior Lecturer, 6. Associate Professor, 7. Full Professor and administrative position had five positions: 1. No Administrative Position, 2. Coordinator, 3. Head of Department, 4. Principal/Dean/Director, 5. Chancellor/Rector/Provost.

Teaching was a variable with 5-points Likert scale ranging from 1 (Very Rarely) to 5 (Very Regularly); measured in statements with practices such as implementation of syllabus/course outline according to schedule and plan; availability for discussion/consultations with students; meeting deadline for projects supervision and marking exams; recommending and giving reading materials to students, class punctuality and class delivery, timely feedback giving for whatever assignments, guidance and counseling to students with one's course challenge (Ishak, Suhaida & Yuzainee, 2009)

Research was measured in 0-4 and above points by considering number of approved academic papers/publications in refereed national/international journals, number of research book, text book, book chapters, and soft ware's circulated and number of internal/external parties recognizing for research projects/publications (Ishak, Suhaida & Yuzainee, 2009).

Consultancy was measured in 0-4 and above points by taking into account the number of appointments as expert/ advisor by external bodies or other institutions; number of invitations to offer views in meetings, conferences, short courses and others; and number of short courses/workshops conducted for sharing knowledge (Ishak, Suhaida & Yuzainee, 2009)

4. FINDINGS

4.1 Descriptive Results

As already noted, academic staff in higher learning institutions could be assigned other administrative responsibilities apart from teaching, research and consultancy. It was significant therefore to identify the administrative position of individual academic staff. The results show that, 39.4% (n=109) were neither coordinators, heads of departments; directors/principals/deans of directorates/colleges/schools nor chancellor/rector/provost; 33.9 (n=94) were coordinators of a particular unit or section; 20.6% (n=57) were heads of departments, 2.9% (n=08) were directors/principals/deans of directorates/colleges/schools and 3.2% (n=9) were the chancellors/rectors/provosts of the THEIs (**Table 2**). The majority of the academic staff were the academic staff with no any administrative position.

Regarding education levels, in recruiting the academic staff of the THEIs here in Tanzania, the lowest level of education considered is an ordinary diploma especially in either science or engineering while doctorate of philosophy is considered as the highest level of education. From the results in **Table 2**, it was established that, 56.0% (n=155) had masters' degree, 26.7% (n=74) had bachelor degree, 13.7% (n=38) had PhD, and 3.6% (n=10) had diploma. The majority of the surveyed academic staff had masters' degree.

Performance of the key functions (i.e. teaching, research and consultancy) in the THEIs by the academic staff depends on the designation of a particular individual academic staff. The designation results of the surveyed academic staff indicate that, assistant lecturers were 47.7% (n=132), tutorial assistant/instructors were 27.8% (n=77), lecturers were 14.8% (n=41), senior lecturers were 4.0% (n=11); technicians/technologists were 3.6% (n=10); associate professors were 1.4% (n=4) and the full professors were 0.7% (n=2). From these results, it is noted that, most of the academic staff in the THEIs were assistant lecturers (**Table 2**).

Table 2: Descriptive Statistics

INFs	Scale	Frequen cy	%
Administrative Position	1. No Admin. Position	109	39.4
	2. Coordinator	94	33.9
	3. Head of Department	57	20.6
	4. Dean/Principal/Dire ctor	08	2.90
	5. Chancellor/Rector/P rovost	09	3.20
Education Level	1. Diploma	10	3.60
	2. Bachelor Degree	74	26.7
	3. Masters' Degree	155	56.0

	4. PhD	38	13.7
Designation	1. Technician	10	3.60
	2. Tutorial Assistant	77	27.8
	3. Assistant Lecturer	132	47.7
	4. Lecturer	41	14.8
	5. Senior Lecturer	11	4.00
	6. Associate Professor	4	1.40
	7. Full Professor	2	0.70

Concerning the variable age, the range of ages is from 30 to 60 years, with a mean of 45.98 and standard deviation of 7.257. The majority of the surveyed academic staff are aged between 39 and 53 years (**Table 3**). With reference to the variable working experience, the range of experiences is from 5 to 27 years, with a mean of 12.01 and standard deviation of 7.083. The majority of the surveyed academic staff had the working experience between 5 and 19 years (**Table 3**)

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AGE	277	30	60	45.98	7.257	-.031	.146	-.515	.292
EXP	277	5	27	12.01	7.083	.995	.146	-.335	.292
Valid N (listwise)	277								

4.2 Multivariate Results and Discussion

A multiple linear regression was performed to predict work performance based on individual variables. Adjusted R Square was used in assessing how much of the variance in the dependent variables (teaching, research and consultancy) was explained by the model with the independent variables (age, working experience, administrative position, education level and designation). The values obtained were 0.2562, 0.2089 and 0.1874 which mean the model explained 26%, 21% and 19% of the variance in the performance of teaching, research and consultancy respectively. In testing how well the regression model fitted the data, it was found that the computed F statistics were 20.90, 19.00 and 18.13 with an observed significance level of 0.014, 0.031 and 0.038 respectively. The models reached the statistical significance which was $p < 0.05$ (**Table 4**).

It was expected that, the INFs (i.e. age, working experience, education level, administrative position and designation) had positive relationship with the performance of the academic staff in the THEIs. That main hypothesis (with 5 sub-hypotheses) was tested using multiple linear regression whose results are presented in **Table 4**.

The results indicate that, age had negative statistically significant relationship with work performance of the academic staff in teaching, research and consultancy (Beta=-.136, $t=-2.013$, $p<0.05$; Beta= -.067, $t=-2.383$, $p<0.05$; and Beta=-.096, $t=-2.991$, $p<0.05$ respectively). The hypothesis “*age of the academic staff has relationship with their work performance in the THEIs*”(H₁) is therefore accepted. These results imply that, the more the academic staff become aged, the less they perform in teaching, research and consultancy. The results are supportive to what was found previously by Shaffril and Uli (2010); Amangala (2013); Khan, Khan, Nawaz and Yar (2013); and Met and Ali (2014). Furthermore, working experience had negative statistically significant relationship with work performance of the academic staff in terms of teaching, research and consultancy (Beta=-.114, $t=-2.877$, $p<0.05$; Beta= -.248, $t=-2.354$, $p<0.05$; and Beta=-.115, $t=-2.551$, $p<0.05$ respectively). The hypotheses that “*working experience of the academic staff has relationship with their work performance in the THEIs* (H₂)” is therefore accepted. These results may suggest that, the more the academic staff become more experienced, the less they perform in teaching, research and consultancy. The results contradict finding by Kotur and Anbazhagan, (2010) who found positive statistically significant working experience on work performance.

Moreover, administrative positions had insignificant relationship with work performance of the academic staff in teaching, research and consultancy (Beta=.024, $t=1.504$, $p>0.05$; Beta= .030, $t=-1.273$, $p>0.05$; and Beta=-.145, $t=1.467$, $p>0.05$ respectively). The hypothesis “*administrative position of the academic staff has relationship with their work performance in the THEIs*(H₃)” is therefore rejected. These results entail that, the more the academic staff are assigned administrative positions, the poor they perform in teaching, research and consultancy. These results are opposing what did Shaffril and Uli (2010); Panchanatham (2012) and Amangala (2013) who found previously positive statistically significant administrative position on work performance.

Likewise, education level had a negative statistically significant relationship with work performance of the academic staff in terms of teaching, research and consultancy (Beta=-.053, $t=-2.415$, $p<0.05$; Beta=-.139, $t=-2.295$, $p<0.05$; and Beta=-.045, $t=-1.424$, $p<0.05$ respectively). The hypotheses that “*education level of the academic staff has relationship with their work performance in the THEIs* (H₄)” is accepted. These results may suggest that, the more the academic staff become more educated, the less they perform in teaching, research and consultancy. The results contradict findings by Shaffril and Uli (2010); Iqbal (2010); Khan et al. (2013); and Amangala (2013) who found a education level of the academic staff has positive significant relationship with their work performance. Besides, designation of the academic staff had a negative statistically significant influence on work performance in terms of teaching, research and consultancy. The hypothesis “*designation of the academic staff has relationship with their work performance in the THEIs*”(H₅) is therefore accepted. These results may suggest that, the more the academic staff acquire higher job ranks, the poor they perform in teaching, research and consultancy. This particular finding contradicts on what was found by Cong and Van (2013).

The above multiple linear regression results also show the direction of the coefficients. That direction also shed light on the nature of the relationships. The direction of the coefficients show that, age, working experience, education level and designation had negative relationship with work performance in terms of teaching, research and consultancy. A follow-up of in-depth interview was done in the THEIs exploring the reasons for the negative direction of the aforementioned predictors. In so doing, it was found that most of the academic staff with more age, higher levels of education, working-experience and designation were always assigned and occupied with administrative and management tasks leaving behind teaching, research and consultancy. As a result, they perform poorly in teaching, research and consultancy.

Table 4: Summary of Regression Results

<i>Independent Variables</i>	<i>Models (Dependent Variables)</i>								
	<i>Model I</i>			<i>Model II</i>			<i>Model III</i>		
	<i>Teaching</i>			<i>Research</i>			<i>Consultancy</i>		
	B	t	Sig	B	t	Sig	B	t	Sig
(Constant)	.08 1	.805	.42 2	- .070	- .424	.67 2	- .104	-.414	.67 9
Age	- .136	- 2.01	.045	-.067	- 2.38	.028	-.096	-2.991	.032
Working experience	- .114	- 2.87	.040	-.248	- 2.35	.019	-.115	-2.551	.011
Administrative Position	.024	1.50 4	.134	.030	1.27 3	.204	.145	1.467	.144
Education Level	- .053	- 2.41	.016	-.139	- 2.29	.023	-.045	-1.824	.025
Designation	- .046	- 2.53	.012	-.299	- 3.30	.001	-.278	- 13.53	.000

	4	6	8
Multiple R	.5184	.4711	.4496
R Square	.2688	.2215	.2000
Adjusted R	.2562	.2089	.1874
ANOVA (F, SIG.)	20.9032 (.014)	18.9960 (.031)	18.1290 (.038)

5. Conclusion

It can be generally concluded that, the INFs particularly administrative position does not have statistically significant relationship with work performance in terms of teaching, research and consultancy in the THEIs.

On the other hand, age, working experience, education level, and designation have statistical significant relationship with work performance of the academic staff in the THEIs. The negative direction of these INFs is contributed with administrative and management activities assigned to academic staff with more age, high working experience, education level and designations.

The insignificant relationship of administrative positions with work performance of the academic staff in the THEIs verifies how the administrative and management activities given to the academic staff interfere and reduce the work performance in terms of teaching, research and consultancy.

The higher education institutions' management is advised to balance between management and core activities assigned to the academic staff with high working experience, education level and designations. For example, the staff who graduate from PhDs can be given ten years to teach, research and consult without management and administrative assignments.

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Determinants On E-Commerce Usage In Small And Medium Tourism Enterprises In Tanzania

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Abstract

The use of information and communication technology (ICT) particularly e-commerce technology has facilitated small and medium tourism enterprises (SMTEs) to global market, though, the level of e-commerce usage is not equal to all countries. This is possibly due to different types of determinants on e-commerce usage that measuring by online advertisement, ordering and payment. This paper therefore examined the extent of the influence of the determinants on e-commerce usage among SMTEs in Tanzania. In this paper, the e-commerce usage was measured using e-advertisement, e-payment and e-ordering. The measurement was grounded by empirical and theoretical evidence related to tourism sector. The total of 325 questionnaires were collected through survey method, thereafter factor analysis and multiple regression analysis were used in the data analysis. Generally, the findings revealed that, there is significant relationship among determinants and e-commerce usage. This is supported by nine (9) accepted hypotheses out of fifteen (15). Variables such as system quality, business networking, organisational resources and government intervention were found to have a significant relationship with e-payment at different directions. Also, service quality was found to have a positive and insignificant relationship with online payment. On the other hand, only three determinants; service quality, business networking and government intervention were found to have a positive and significant relationship with e-ordering. Furthermore, organisation resources and government intervention were found to have positive significant on using e-advertisement in SMTEs. Finally, the study recommends that, the government should formulate policies that can facilitate the usage of e-commerce technology by SMTEs because of its potential.

Assessment of Factors Influencing the Effectiveness of Destination Branding

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Abstract

An enduring challenge facing emerging tourism destinations is how to increase the number of international tourists' arrivals as well as receipts. Several studies have been done to investigate why this challenge persist among many emerging tourism destinations though most of them have endowed with incomparable natural tourism attractions. The results of some of these studies indicated that, improper marketing strategies is one of major critical hindrance for these destinations in their efforts to build competitiveness. It has been discovered that, the majority of tourism destinations from emerging economies employ traditional marketing strategies in attempting to build competitiveness. In other words, they continue to use the same approaches used to market either physical goods or services. However, given the complexity and dynamism of a tourism destination most of traditional approaches to marketing have proved to be irrelevant in branding a tourism destination. However, despite the above serious concern, very few studies have been done on the area of destination marketing particularly branding. Furthermore, even those few studies which have attempted to address the issue of destination marketing, have not been able to examine the question of destination branding while concentrating on its complexity and dynamism.

Furthermore, global theoretical review indicates that, the study of destination branding concentrate on demand-side perspectives including perception of tourists on service quality, level of hospitality, etc. Regrettably, very little attention has been on supply-side perspectives particularly on the question of how a destination can establish its own unique identity as opposed to imposed identity from outside. It has been widely accepted that, each tourism destination is constituted by unique socio-cultural, historical, political, as well as economical dimensions. These dimensions are the most crucial elements in building a destination identity. Therefore, destination branding from supply-side perspectives should focus on nourishing these dimensions so as to fit the current demands of the world tourism market. This implies that, a destination identity should not be the product of outside forces rather must be an outcome of forces within. However, even those few studies which have been done on supply-side perspective have not been able to address the concept of destination branding while taking into account its complexity and dynamism. From supply-side perspective, destination branding is considered as a collaborative process which integrate resources and efforts of various stakeholders towards building a unified destination brand identity.

This study therefore, intends to extend knowledge on destination branding by assessing factors influencing the effectiveness of destination branding. It intends to

examine the main factors that lead to effective destination branding from supply-side perspectives. The focus is on how a destination can establish a unified yet compelling identity so as to become competitive. This study will adopt a cross-sectional research design, as it allows the collection of information at one point in time and establishes a relationship between the variables of a study and an inquiry that investigates a contemporary phenomenon. The study will follow a mixed approach i.e. quantitative and qualitative approach. However, quantitative approach will dominate, and qualitative approach will appear during discussion of findings so as to provide a naturalistic picture of variables under the study. Quantitative data will be analysed by using Ordinal Regression Model given the fact that, the study seeks to establish the relationship between a list of ordinal independent variables and ordinal dependent variable. In other words, dependent variable will be measured by using ordinal scales or levels. In addition, qualitative data will be analysed by using Thematic Content Analysis. The sampling techniques to be used is purposive and proportional stratified sampling. Furthermore, data will be collected from key stakeholders in the tourism sector in Tanzania.

1.0 Introduction

Over the world e-commerce usage significantly contribute on development and growth of economic of the both developed and developing countries. This is recognised in terms of new opportunities of presenting new products and services at low cost in tourism firms (Lathman, 2009). It is also increases the effectiveness on way the SMTEs and tourists sharing information, communicate and interact. This is like advertisment, ordering and payment online between existing business and customers (Apulu and Ige, 2011; Olise, Anigbogu, Edoko and Okoli, 2014).

Similarly, small and medium enterprises specifically play a role on creation of job opportunity, poverty reduction, income generation, technological advancement and global competitive advantages in both developed and developing countris (Algatan, Singh and Ahmad, 2011). Of all kinds of SMEs, SMTEs are the major one on using e-commerce technology to take its important benefits. E-commerce usage is particularly important to this tourism industry as it adds new values on the service offered by SMEs. However, the level of e-commerce usage is still at low pace which offset the benefits on using in most developing countries Tanzania has been particularly. According to Olise, Anigbogu, Edoko and Okoli, 2014; Kuteyi,2009; Apulu and Lathman,2009 noted that ICT adoption in Africa countries is relatively low in level compared to developed countries. Bhagwat and Sharma (2012) said that a number of ICT literature have revealed that the usage of e-commerce technology is in slow pace in developing countries when compared to developed countries. Algatan, Singh and Ahmad (2011) and Bhagwat and Sharma (2012) revealed that usage of electronic commercialisation like e-commerce and mobile-commerce in Tourism sector is still low.

Furthermore, the low level of e-commerce usage are among at SMTEs in Arusha, Dar es salaam and Kilimanjaro are due to the existing key determinants affecting the perception towards e-commerce usage. Therefore, past literatures have improving

these determinants with greater possibility of increasing the level of e-commerce usage in tourism enterprises. The increased level of e-commerce usage has an opportunity to improve access of global markets and improved customer services through operational efficiency.

Theoretically, the determinants relates with the e-commerce usage, even though, there is slow pace of e-commerce usage due to environmental, technological, economical and cultural difference. This is supported by DeLone and McLean (2003) who reported that, the improvement of quality of system and service of e-commerce has great influence on e-commerce usage by SMEs in daily operational. This quality is improved by introducing the competent organisational resources. Barney (1991) also, said that the availability and capability of the resources like human and capital have the effects on the e-commerce usage. The competent human resource have knowledge and skills on e-commerce usage. In the tourism firms, these resources has been obtained by involving the networking. The strong networking enhancing the success usage of e-commerce causing promotion of global competition (Håkansson, 1982;1992). This is viewed through sharing tourism information, communication and coordination of tourism activities like ordering and payment. In the strong business networking, government support is necessary because the government create the environment which enhancing the networking (King *et.al.*, 1994).

From the ISS model, service quality and system quality variables have shown a little inconsistencies (Wang and Lin, 2008). This inconsistencies regularly initiate the question on whether or not the service quality and system quality are only determinants of successful e-commerce usage. Most of studies in ICT discussing the researches by using single theory in examined the factors affecting the e-commerce adoption. In addition, majority of studies were examined the factors affecting the perception toward e-commerce adoption. This paper therefore examined the level of influence of determinants on e-commerce usage in tourism firm in Tanzania. The outcomes will help to present relevant information about determinants that increase the level of e-commerce usage in tourism business.

2.0 Literature Review

2.1 Theoretical Review

Theoretically, it is believed that determinants relates positively with e-commerce usage in SMTEs. In explaining this relationship of determinants and e-commerce usage in SMTEs business, we need several existing theories and differences approaches. A number of studies have attempted to explain theories of the adoption of the technology in the business (Azam, 2014 and Wang and Lin., 2008). In this paper the ISS model is adopted, it will help to explaining the factors influencing e-commerce usage in tourism firms. The ISS model describes that the intention of the user of the system is affected by several factors which include: the system quality, information quality, use, user satisfaction, individual and organisational impacts (DeLone and McLean, 2003). The improvement of the quality of system and service of technology causes the increases the perception level toward e-commerce usage. The system to has greater improvement in the quality of service and system, SMTEs should employed the competent resources.

Resource based theory view that the resources in the organisation have applied efficiently to produced the superior performance (Barney, 1991). That is the capable resources like competent human resources and enough capital in tourism firms results onto the successful e-commerce usage. Ignoring this in reality causes the firm to have low level of e-commerce usage. The capable resources have been obtained by strong networking among the stakeholders. In networking theory explains that the relationship the firm has with other firms is the one that influence a firm's competitive capabilities. This means that information sharing, communication and knowledge coordination in tourism operations facilitate the increases the level of e-commerce usage by SMTEs. The firm that have weak business networking needed the intervention from government. According to King *et.al.*, (1994) reported that knowledge deployment, subsidy and grants, standard setting and mobilisation have the power to SMTEs to be motivated on e-commerce usage. Once the government support the SMTEs in terms of effective knowledge deployment, full offering of subsidy and grants, improvement of policy and reduction of taxi on related ICT equipment and services, the SMTEs will successful using e-commerce in their tourism activities. The information factors affecting e-commerce usage grounded by several theories not well documented. In feeling this theoretical gap, this paper analysing the determinants of e-commerce usage grounded by several theories related with ICT and performance of the business.

2.2 Empirical Review

Regarding to previous literature reviewed, the determinants affecting e-commerce usage in-terms of e-advertisement, e-ordering and e-payment measurements not well documented. In trying to feel this knowledge gap, this paper examine the level of effects of determinants on e-commerce usage among SMEs in tourism industry.

2.2.1 System quality

Some researchers have conducted studies to examine the relationship between system quality and e-commerce usage. Empirical studies founded that, system quality has strong positive effects on the e-commerce success. According to Wang and Lu (2014), examine the effects of system quality on repurchase intention in online insurance Web sites, finds, that the success of SMEs on repurchasing intention in the context of online insurance website in Taiwan is the outcome of system quality. Contrary to this, some studies have found the system quality insignificantly influence the e-commerce success. Among of the past studies, Brown and Jayakody (2008) investigated the factors affecting post adoption of e-commerce in Cape Town, South Africa. The result shows that, the system quality has no support on continuance intention to use. This study is interested on debate related with system quality as factor of e-commerce usage in the tourism business. Also, these studies have based on the success of e-commerce usage and therefore, there is still limited information on measuring e-commerce usage in terms of e-advertisement, e-ordering and e-payment in tourism business. Based on this observation, it is hypothesised that:-

H1: System quality has positive influence on e-commerce usage

2.2.2 Service Quality

The significant effects of service quality on e-commerce usage have been confirmed in a number of previous studies. For example, Wang (2008) pointed that, service quality has a positive influence on both perceived value and user satisfaction. Additionally, Makokha (2011) noted that service quality has a positive relationship with use and user satisfaction. According to this study, there is an important relationship of service quality with intention to reuse the technology. This leads to reduce the level of transactional uncertainty. However, the information is on increasing the level of e-commerce usage in terms of e-advertisement, e-ordering and e-payment in tourism business. This study, therefore hypothesised that:-

H1: Service quality has positive influence on e-commerce usage

2.2.3 Organisational Resources

The resource of the SMTEs for decision of e-Commerce usage is a big problem for the most developing countries. For example, Azam and Quaddus (2013) argued that, weak cash flow, lack of collateral to secure loan, and unskilled human resources are the major factors in e-commerce usage. Further, Musabila (2012) reported that, the e-resource has a significantly support on SMTEs in adopting ICT in their business. However, Ghobakhloo et al, (2011) have found that e-Commerce adoption cost is not perceived to be a major barrier by Iran SMEs. This mixed results motivated the study in explaining the contribution of the organisational resources on e-commerce usage. It is hypothesised that:-

H1: There is a positive relationship between organisational resources and e-commerce usage

2.2.4 Business Networking

The SMTEs requires the available and accessible e-resources from the external environmental. Hence, the business networking is very essential to obtain the required resources for the usage of e-commerce (Zhang, *et. al.*, 2012 and Bengesi and Le Roux, 2014). However, Thrikawala, (2011) reported that the effects of business networks by SMTEs to e-commerce usage is not constant positively. Thrikawala (2011) shows that, there is an inverted U-shaped relationship between business networks and e-commerce usage by SMEs. The existence of the problem is still present in literature. This motivated this study in examining the level of influence of determinants on the e-commerce usage in tourism business. The business networking like internal communication, partner knowledge and coordination are important in enhancing SMTEs to have proper resources on e-commerce usage. Based on this observation, it is hypothesised that:-

H1: Business networking has positive influence on e-commerce usage

2.2.5 Government Intervention

Large amounts of researches have studied that government play a critical role in SMTEs on promoting e-commerce usage (Awa and Ukoha, 2012 and Azam, 2013). Empirical results have revealed mixed results. For instance, Azam and Quaddus (2013), has been noted that, there are relation between government policy and subsidy on the SMEs intention to use ICT in Bangladesh. Further, areas such as financial infrastructure, security payment infrastructure, government policy have proven to have a positive contribution on the usage of technology. Moreover, the legal and regulatory system and ICT standards fail to support the SMEs on ICT usage (Awa and Ukoha, 2012). Also, Musabila (2012) found that government intervention is insignificantly influence the adoption of technology. This results are found in majority of developing countries, where the government have failed to enter to totally on supporting the SMEs for increasing the level of e-commerce usage. This study is interested on investigate the government support on e-commerce usage among SMTEs. Based on this observation, it is hypothesised that:-

H1: Government intervention has positive influence on e-commerce usage

3.0 Research Methodology

3.1 Study Area

This study was conducted in Arusha, Kilimanjaro and Dar-es-salaam regions in Tanzania. These three regions have varieties of natural and cultural attractions for the tourists. Kamuzora (2009) reported that, the SMTEs in these regions are in the early stage of usage of the e-commerce technology in their business. That means, generally the SMEs in tourism sector do not use the high levels of ICT application like e-commerce and e-business in business. Moreover, most tourism businesses listed in the report are being located in these three regions as provided by the ministry (MNRT, 2014).

3.2 Data Collection

This study use positivism approach, whereby the total of 325 questionnaires were collected out of 350 through the use of cross-sectional survey. The perceptions of owner or professional SMTEs manager to e-commerce usage was collected.

3.3 Data Analysis

Two phases of data analysis method were used. Factor analysis was carried out with the aim of identifying factors which have ability to explain the main component of determinants and e-commerce usage. The study applies confirmatory factor analysis (CFA) through principal component analysis (PCA) and VARIMAX rotation method. This CFA has ability to confirm the interrelationship amongst a set of variables of determinants and e-commerce usage. Then, the PCA has attendance to identify for

values of the loadings that result the estimate of the total communality as close as possible to the total of the observed variances. VARIMAX method has ability to detect the factors where each of which is related to few variables, it discourages the detection of factors which influencing all variables.

With regards to quantitative data, multiple regression analysis was employed due to its ability to measure the causal effect relationship between determinants of the SMTEs (independent variables) with e-commerce usage (dependent variable) (Al-Adaileh, 2009 and Wairimu, 2013). During this processes, all hypothesis presented in literature review were tested. Therefore, the multiple regression model equation have been defined as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i$$

Where; Y stands for the value of the e-commerce usage as a dependent variable, β_0 stands for the total factors affecting the e-commerce usage or individual effect of all the (determinants) independent variables on dependent effect, e_i is an error factor not studied in the study but has the effects on the dependent variables. The essential regression assumptions which were tested in this study included normality, linearity, homoscedasticity and multi-collinearity are adequacy of model fit indices for continuation of analysis on the multiple regression model (Field, 2009: and Pallant, 2011).

4.0 Results

4.1 Preliminary Results of Factor Analysis

In factor analysis, we analysed the variables to see the fitness of the model requirements for running factor analysis as per cutting points. The results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.811 and 0.709 (determinants and e-commerce usage) indicates a high sampling adequacy for factor analysis that is beyond the cut-off point of 0.5 (Kaiser, 1970:405; Kaiser, 1974:35). On the other hand, the result of Bartlett's test of sphericity was significant (Chi-square = 1863.763, df = 120, $p < 0.0001$) for determinants and (Chi-square = 685.794, df = 15, $p < 0.0001$) for e-commerce usage. These findings suggest that there are no correlations between test variables and that the data is suitable for factor analysis.

Thereafter, the Eigen value and variance were explained for the component extracted from determinants and e-commerce usage. The results of factor analysis revealed that five components represent the determinants. This five components explained about 66.225% of the total variance for determinants. On the other hand, in e-commerce usage, three components explained by 81.166% of the total variance. The final rotated factor indicates how the individual determinant items loaded in each suggested factor. The acceptable loading value ± 0.50 was used as a cut-off point in this study as suggested by Hair et al. (2006) throughout this study.

Consequently, the study performed a factor analysis of determinants and it has obtained the classification of determinants into five dimensions, which namely system quality, government intervention, service quality business networking and

organisational resources, that is first category. The second category is from e-commerce usage, where the study done a factor analysis of e-commerce usage and has founded the classification of e-commerce usage into three dimension which is e-payment, e-advertisement and e-ordering. Accordingly, this study examines the explanation of the extent of influence of determinants and e-commerce usage among SMTEs. Thereafter, the multiple regression analysis of the data conducted to test hypotheses of the study.

4.2 Multiple Regression Model Results

All the tests were carried out at the 5% level of significance and the P-value less than 0.05 presents significant relationship otherwise, the relationship is not significant.

4.3 Empirical Results and Discussion

4.3.1 Service Quality

In multiple analysis, we found that service quality is not significant determinant of e-commerce usage (refer table 4.1). For instance, in relation with service quality and e-payment as well, e-advertisement, the level of significance (P-value = 0.491 and β = 0.036) and (P-value = 0.240, β = 0.063) respectively. This implies that, service quality have no significance effect on the e-payment and e-advertisement usage. The hypothesis related to e-payment as well, e-advertisement were rejected. Thus shows that, the increase of 1 unit of service quality leads to decrease of usage of e-advertisement in tourism firm by 0.063. On the other hand, the relationship between service quality and e-ordering is significant determinant of e-ordering usage. The service quality statistical parameters (P value = 0.0000 and β = 0.424) indicate a positive relationship with e-ordering usage. Thus, the hypothesis of service quality and e-ordering was not rejected. This shows that, increase of 1 unit of service quality leads to increase of e-ordering in tourism firm by 0.424.

Table 4.1: Results of Multiple Regression Model:

This table 4.1 shows the results of the multiple regression model in which were used as independent variables to test their effects on the e-payment, e-ordering and e-advertisement which were referred as to e-commerce usage.

DV	IV	Hypotheses	ANOVA		Coefficients	
			F	Sig.	Unstandardized β	Sig.
	SerQua	H1a:			0.036	0.491

E-payment	I		10.875	P=0.000		
	SystQual	H2a:			-0.157	0.003
	BN	H3a:			0.110	0.034
	OR	H4a:			0.254	0.000
	GI	H5a:			0.208	0.000
E-Ordering	SerQual	H1b:	19.965	P=0.000	0.424	0.000
	SystQual	H2b:			0.089	0.069
	BN	H3b:			0.110	0.025
	OR	H4b:			0.089	0.070
	GI	H5b:			0.177	0.000
E-advertisement	SerQual	H1c:	5.446	P=0.000	0.063	0.240
	SystQual	H2c:			0.015	0.782
	BN	H3c:			0.097	0.072
	OR	H4c:			0.211	0.000
	GI	H5c:			0.144	0.008

In conclusion, two hypothesis out of three were insignificant. Therefore, the tested hypothesis of service quality was found to have insignificant effect on e-commerce usage and hence was rejected. Additionally, the significant influence of service quality on e-ordering usage may be explained by the fact that ordering online is requested first before the tourists consume the service. This facilitate the firm to work well on the service of ordering online from customer compared to other service like e-advertisement of the firm. This is study was contrasting with other previous studies, where service quality have a significant influence on e-commerce usage (Makokha, 2011 and Wang, 2007).

4.3.2 System Quality

We carried out a multiple regression analysis of the system quality and e-commerce usage at three level of measurements (See Table 4.1). In the first case, we found that system quality is not significantly related to e-ordering and e-advertisement usages (P-value = 0.069, β = 0.089) and (P-value = 0.782, β = 0.015) respectively. The hypothesis of these relation were rejected. Thus, the system quality was not determine the influence of e-ordering and e-advertisement usages in tourism firms. In the second case, the system quality is significantly related to e-payment usage (P-value = 0.003, β = - 0.157). We failed to rejected the hypothesis tested the relationship between system quality and e-payment.

According to the findings of this paper, two hypothesis out of three are insignificant. Hence, we failed to reject the tested hypothesis of the system quality with e-commerce usage. Generally, the e-commerce usage is not determined by the system quality. Therefore, the reliability, accessibility and adaptability of the system are very low due to most of developing countries particularly Tanzania have frequently power cut-off. The results of this study is different with other previous studies (Wang and Lu Chengu, 2014; Makokha, 2011 and Wang, 2007).

4.3.3 Organisational Resources

We found organisational resources being a determiner of e-commerce usage at two levels of measurement. Generally, the organisational resources determine the e-commerce usage in tourism firms. The levels included e-payment (P-value < 0.005 and β = 0.254) and e-advertisement (P-value < 0.005 and β = 0.211). The hypotheses related with e-commerce usage and e-payment as well, e-advertisement were not rejected. In the case of e-ordering, the organisation resources being non significant (P-value > 0.005 and β = 0.089), the hypothesis tested the relation of organisational resources and e-ordering was rejected. Thus, the organisational resources not significantly determine the e-ordering in tourism firm. In developing countries, SMTEs have inadequacy funds and unskilled human resources which may help the SMTEs to invest more on e-commerce usage. Based on the findings of this paper, this shows that, SMTEs have opportunity to e-commerce usage when the organisational resources like capital and human skills are available fully. The results are in line with the study of Musabila (2012) while contrasting with Ghobakhloo et al, (2011) and Azam (2013).

4.3.4 Business Networking

We conducted a multiple regression analysis. The findings show that business networking is significantly related to e-payment and e-ordering usage (p-value = 0.034, β = 0.110,) and (p-value = 0.025, β = 0.110) respectively. We failed to reject the hypothesis related to e-payment and e-ordering. On the other hand, the business networking is insignificant with e-advertisement (p-value = 0.072, β = 0.097). Generally, the business networking has positive and significant effect on e-commerce usage at two levels. For instance, SMTEs needs communication, information flow

and sharing of knowledge particularly for ordering and payment online with their customers and stakeholders. Similarly, the findings with theoretical and past studies (Bengesi, 2014 and Wight 2013).

4.3.5 Government Intervention

Finally, the findings of the government intervention is determinant of e-commerce usage at all levels. The levels included e-payment (p-value = 0.000, β = 0.208), e-ordering (p-value = 0.000, β = 0.177), e-advertisement (p-value = 0.008, β = 0.144). The hypothesis tested the relations of government intervention with e-commerce usage was not rejected. Hence, the government intervention has positive and significant influence on e-commerce usage. Hence, in this study the government intervention is major predictor of the e-commerce usage due to Tanzania government built *mkongo wa Taifa* (national fibres), this improving the accessibility of ICT compared to 90s and early 2000 where the government was install the satellite to facilitate the internet network. Furthermore, the government of Tanzania providing an attention to promote tourism sector worldwide by advertising the natural tourism products. In additional, the government also launched various motivational programmes including financial supports such as loan, grants and subsidies, and policy supports such as inviting mobile operators, to promote electronic advertisement in the country. Additionally, mainly of the travel agents and hospitality firms have been in the network with other stakeholder. This network are arranged and facilitated with EMEDIUS system and TRIPLE ADVANCE, where the firms communicate and provided information about their businesses and customers. This study results are in similar with Azam and Quaddus (2013) and Awa and Ukoha, (2012) who found that government support is a significant determiner of e-commerce usage.

5.0 Conclusion and Recommendations

Small and medium tourism enterprises in Tanzania have greater contribution in the national development and growth. In the country economic development is largely dependent relative on the improvement of SMTEs today, in order tomorrow to be in the multinationals companies. According to the findings, usage of e-commerce technology will help develop SMTEs by strength efficiency in their operations and by winning competitive advantage. Also, the findings will assist the ICT vendors to provide the knowledge building capacity to their customers to improve their SMEs and ICT policies to identify vital area in e-commerce usage and SMEs growth.

Regarding the findings of this study, for the SMEs in tourism industry to become successfully on e-commerce usage, the following are recommended: firstly, the government and other stakeholder should help SMEs to improve e-commerce usage behaviour through ICT awareness and training among SMEs owners and employees, formulation of ICT and SMEs policies, improvement of service quality and development of networking with other SMTEs from other countries. Secondly, the government and SMTEs should invest in full potential technological infrastructure which could help to improve their tourism business and make them on position of winning competitive advantage. Lastly, Availability and accessibility of a high speed

Internet service and necessary hardware and software accessories for e-commerce technology at reasonable price, and un-interrupted power supply are vital. Therefore, to increase the market global competitiveness, government, SMTEs owners and ICT operators should invest in determinants because they have been proven to significantly influence successfully usage of e-commerce technology.

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Civil Societies As Social Entrepreneurs: Opportunities And Challenges From Tanzanian Perspective

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Background.

Civil societies have been playing a key role in addressing global societal issues, they are pathways for social change, often setting the agenda for public discourse. Therefore, at a time when they are becoming more varied and intertwined than ever, critical analysis of their position in social entrepreneurship development and management is principally important. Social Entrepreneurship is not only the fast emerging market worldwide but also it engages into innovative approach in providing services of social value.

Purpose/Objective.

This study was thought to analytically ascertain the Constraints and opportunities faced by Civil Societies specifically in developing and managing Social entrepreneurship from the Tanzania outlook.

Methodology.

The study used systematic literature review and interviews with several stakeholders (Government and its agencies, NGO's, Foundation for Civil society and supporting institutions) in mainly two regions Morogoro and Dar-es-salaam.

Results/Findings.

The study found that civil societies and social entrepreneurs share many commonalities. They all disclose prominence on the process underlying innovative and entrepreneurial activities for social purposes, they are closely related in structural dimensions and legal dimensions but much considerably in impact dimension and value dimensions. Based on the analysis, the last two are of supreme importance as they stress the contribution that civil societies has with their actions as well as the value they bring. They create social capital, finds solutions to burning problems, they raise capital to sustain themselves but also they engage motivated people voluntarily to act on common purpose and this is what the so called "social entrepreneurs"

does. Constraints facing them include Unclear policies and strategies towards favorable climate, unstable markets for those engaging in social enterprises, deficiency in budgeting, Inadequate governance and management skills, pressure relating to service delivery and political factors among others. Opportunities include, extended networks worldwide, social entrepreneurship being a fast emerging market worldwide, and presence of burning problems which can be turned into profitable markets among others.

Conclusion.

Conclusively the study posits that the environment of the civil society is for sure an incubator for social entrepreneurs and social ventures. It offers infrastructure for social capital, teaches self-reliance and efficiency, advocates for sustainability and more importantly, militates for social wellbeing and self-implication in obtaining it. However the study recommended the industry to set plans, policies and practices to a direction that would ensure fruitfulness in developing, managing and promoting social entrepreneurship in Tanzania.

Key words: *Civil societies, Social entrepreneurship, Constraints and Opportunities.*

Session B3

1045-1200/ Wednesday, September 20th, 2017/Meeting Room: B

Value chains, Marketing and Entrepreneurship

Session Chair: Dr Geraldine Arbogast, University

Logistics Services In Grape Value Chain In Dodoma, Tanzania

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Abstract

Tanzania it has great potential for grape production. Dodoma is among the region in Tanzania where the grapes are grown. Grapes are the seasonal fruits, which deteriorate fast after harvest and are characterized by moisture content and tenderness. Due to that fragile and perishability requires high degree coordination of logistics services along the value chain. The paper examines factors for logistic services and challenges in grape value chain in Dodoma, Tanzania. New Institutional Economics specifically the transaction cost theory was used to analyze the information cost, negotiation cost and enforcement cost in logistics services. A total of 30 actors from packaging, storing, and transporting logistic services of grape value chain were selected. Interview and qualitative methods were used to collect and analyze data.

Findings revealed that information costs influence operations of logistics services. Also negotiation costs influence contract between actors. Most contracts are informal. Delays in fulfilling terms and conditions were obvious. Enforcement and monitoring costs in terms of monitoring fee also influence operations of the logistics services. However, quality of services is still low. Grapes are not delivery to the processors on time.

Challenges in providing logistics services in grapes value chain include poor roads, lack of proper packaging and storage facilities and also lack of experience on the logistics activities that are related to highly perishable produce.

It is recommend that training among actors on using formal contracts, using improved facilities in logistics services and improved and increased rural access road networks could provide opportunities for grape value chain growth.

Customer Relationship Management On Bank Performance: A Case Study People's Bank Of Zanzibar In Zanzibar

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Abstract

In this present era of highly competitive business environment there is a need for a bank to manage its relationship with customers. Effective relationship between customers and banks will provide sustainability of the bank and hence improve performance. Currently, there are 54 Commercial Banks that operate in the territory of Zanzibar including People bank of Zanzibar (PBZ).

This study examines the impact of customer relationship management on the bank performance at PBZ. The study employed secondary data of 32 observations collected quarterly from 2008 to 2015. Time series analytical method has been used in the analysis of data, Unit root test, co- integration test and VCEM method to estimate the coefficients of the parameters.

The study found that customer attraction (CAT) has negative impact to the bank performance while customer retention (CRT) has positive significant impact at 5% level and CRM Staff training has significant impact at 10% significance level. The study recommended that the PBZ should engage into aggressive promotion and set attractive products to each group and also to train more on their staff.

Assessing Drivers Of Firm Pro-Active Safeguard Mechanisms

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Abstract:

Proactive safeguard mechanism is essential especially when specific assets are involved in the inter-firm relationships. The paper intends to investigate key drivers behind the proactive safeguard mechanism.

The empirical context for the study is Tanzanian producer and distributor firms, representing suppliers and buyers respectively. The sampling frame was based on Tanzania revenue authority records for registered business of 2008. Data were collected from distributor (buyer) firms. A random sample of n=150 buyers were contacted by phone call, of which n=130 were interested to participate.

Findings suggest that Buyer specific assets, and volume uncertainty and relational confidence have a positive impact on pro-active safeguard mechanism. The interaction between buyer and supplier specific assets as well as that of between buyer and technological uncertainty were found to have a negative impact on proactive safeguard mechanism. Further, technological uncertainty was not found to have any significant impact on proactive safeguard mechanism.

Key words: proactive safeguard mechanism, transaction cost analysis, institutional theory

1. Introduction

Research on how governance processes are carried out between firms, are receiving considerable attention in marketing and strategy literature. In buyer-seller relationships, the parties may use formal governance mechanism such as a contract, which specifies the responsibilities and roles which parties have to play in the relationship (Vandaele *et al*, 2007). Both contracts and contingency adaptability form large part of what we define as proactive safeguard mechanism. Proactive safeguard mechanism represents the extent to which unanticipated and anticipated circumstances are accounted for and relevant guidelines for handling these unforeseen circumstances and foreseen are included in the contract (Luo, 2002; Schepker *et al.*, 2013). Transaction cost analysis (TCA) suggests that the design of a contract in a buyer-seller relationship will be reflected by the key characteristics (mainly, asset specificity and uncertainty) of the transaction. This paper examines the impact of TCA characteristics on proactive safeguard mechanisms, focusing on the buyer side.

2. Research Hypotheses

Asset specificity. Safeguarding specific investments is a major concern especially if it is made by one side. One such mechanism is to establish a proactive safeguard plan to deal with unforeseen contingencies (Poppo and Zenger, 2002; Williamson, 2003). We expect:

H1a: Buyer asset specificity has a positive effect on proactive safeguard mechanism

Environmental uncertainty. Technological and volume uncertainty are the common ways of categorizing environmental uncertainty (Geyskens *et al.*, 2006). Such

uncertainties create an adaptation problem (Williamson, 1985; Rindfleisch and Heide, 1997), which requires higher contingency coverage in the contract (Luo, 2005). Accordingly, we expect:

H2a: Technological uncertainty has a positive effect on proactive safeguard mechanism

H2b: Volume uncertainty has a positive effect on proactive safeguard mechanism

Relational confidence. Most empirical TCA studies conceptualize behavioral uncertainty as an issue of performance ambiguity, that is, an *ex post* phenomenon. For our purpose the concept of relational confidence (Das and Teng, 1996; Nootboom et al., 1997) is more appropriate to use since it includes *ex ante* considerations.

Relational confidence can be viewed as "the feeling of assurance that firms will work toward the mutual interest of the partners, and that they will co-operate in a manner specified in agreements (Das and Teng, 1996). Delineating procedures for handling various contingencies imply efforts and costs, and cannot preclude opportunism. If relational confidence is perceived to be high, this could lead to a sense of disclosure of information and better cooperation among partners and it will in turn increase proactive-safeguard mechanism.

Accordingly, we expect:

H3: Relational confidence has a positive effect on proactive safeguard mechanism

Buyer and supplier asset specificity. When both buyer and supplier make specific investments, which Williamson (1985) denotes as "mutual hostage taking", this acts as a credible sign of each party's commitment and prevents both parties to behave opportunistically. The need for elaborating contingencies and negotiating procedures and rules to be followed may be reduced, because both parties expect willingness to solve the adaptation problems when they occur. Accordingly, we expect bilateral specific investments to reduce proactive safeguard coverage in the contract, compared to unilateral specific investments. Bilateral specific investments may lead to expectations of relationship continuity (Heide and John, 1990) and commitment (Jap and Ganesan, 2000). Demonstration of expected continuity and commitment to the relationship can represent more important safeguarding mechanisms in countries with less developed formal legal and regulatory framework. Thus:

H4: The effect of specific assets on proactive safeguard mechanisms will decrease with increased supplier asset specificity.

Asset specificity and technological uncertainty: High level of technological uncertainty may undermine the adjustment process needed when specialized assets are present, due to fear of obsolescence of the investments. Empirical studies indicate a diminished ability of partners to resolve contractual issues when specialized assets and uncertainty are present (Poppo and Zenger, 2002). Accordingly:

H5: The effect of asset specificity on proactive safeguard mechanisms will decrease with technological uncertainty.

Asset specificity and volume uncertainty: When extensive specific investments are coupled with high volume uncertainty, this will increase the need for coordination and adaptation between the exchange partners. The more integrated a value chain is, the higher will the costs of communication and renegotiation be, which in turn increases the need for including proactive safeguard mechanism in the contract.

H6: The effect of asset specificity on proactive-safeguard mechanism will increase with volume uncertainty

Controls. Large firms may follow different procedures in outlining contracts; therefore we included *firm size* as a control. Great power imbalance between the exchange partners may impact the contractual relationship (Casciaro and Piskorsky, 2005), we therefore included *buyer dependence* as a control. The *foreignness of supply firm* (FC) may also have an impact on degree of proactive safeguard mechanism. This variable was measured by a dummy taking a value of 1 when there is a foreign supply partner and 0 for domestic supply partner. Finally, the *length of relationship* may have an impact on the adaption process between the partners (Luo, 2002).

3. Research Method

Study context

The empirical context for our study is Tanzanian producer and distributor firms, representing suppliers and buyers respectively. The sampling frame was based on Tanzania revenue authority records for registered business of 2008. Data were collected from distributor (buyer) firms. A random sample of n=150 buyers were contacted by phone call, of which n=130 were interested to participate.

The questionnaires were delivered personally to the distributors, which gave the opportunity to explain the questions, to ascertain that the respondents were knowledgeable about the phenomena under study, and to tell them that they should choose a supplier of which they had a frequent relationship with (cf. Rokkan et al., 2003). The final sample consists of 97 buyers.

3.1 Sample

We used direct personal contact based on our belief of high preference for physical communication in this country. Firms were first contacted by phones and follow-ups were made in person to collect the questionnaires, in order to ensure a higher response rate. The number of companies targeted was 750 (from companies listed in the Tanzania Revenue Authority, 2011). The final number of completed questionnaires received was 240 making a response rate of around 31%. To test the problem of response bias, we used Armstrong & Overton's (1977) procedure, where ANOVA test for subsamples of early and late responses in both countries had no significant difference ($p > 0.05$).

3.2 Measurements

Questionnaire items were measured using a seven-point Likert scale, except the controls *firm size* which was measured by number of employees, and *length of relationship* measured by number of years (see Appendix). Most of the measures used were adapted from previous studies with some minor adjustments to fit the context. Our measurement of relational confidence is based on Gellings and

Wüllenwebe (2007). This concept was measured by five items reflecting the level of confidence that the buyer had with the supplier. A list of the multi-item measures employed in this study is presented in the appendix, which also provides information on loadings, Cronbach's alpha, composite reliability and average variance extracted for both countries. To ensure reliability, an exploratory followed by a confirmatory factor analysis were conducted. For all reflective constructs, Cronbach's alpha satisfied the minimum 0.6. Composite reliability exceeded the threshold value of .6. All factor loadings and construct reliability fulfilled the rule of thumb which requires construct validity and reliability to be greater than 0.50 and 0.70 respectively, indicating convergent validity. We also applied Fornell and Larcker's (1991) rigorous criterion to test for discriminant validity. The average variance extracted were higher than the correlations among the constructs, which indicate discriminant validity.

4. Results

Three regression models were elaborated for each of the two countries. Model 1 consists of the main effects, Model 2 adds the interaction effect, while Model 3 includes the control variables as well. The incremental R^2_{Adj} of M2-M1 ($\Delta R^2_{Adj}=0.01$, $p<0.001$) was significant, but not by adding controls. VIF values were in the range of 1.37-2.4, suggesting no severe multicollinearity problems.

H1a suggested that buyer asset specificity has a positive effect on proactive-safeguard mechanism. This hypothesis was supported ($\beta=0.14$, $t=2.23$, $p<0.05$). H1b suggested that supplier asset specificity has a positive effect on contingency adaptability in both emerging markets. This hypothesis was supported ($\beta=0.05$, $t=1.52$, $p<0.10$).

INDEPENDENT VARIABLES	MODEL1		MODEL2		MODEL3	
	B	T	β	T	β	t
Main effects						
BUASP (H1a)	0.21	3.02***	0.18	2.62***	0.17	2.37***
SUASP (H1b)	0.89	0.374	0.11	1.80**	0.10	1.51*
TECHUNC (H2a)	-0.01	-0.20	0.05	0.74	0.05	0.61
VOLUNC (H2b)	0.14	1.90**	0.08	1.05	0.14	1.84**
RELCONF (H3)	0.21	2.73***	0.20	2.64***	0.18	2.38***
Interactive effects						
BUASPXSUASP (H4)			-0.32	- 5.47***	-0.31	- 5.21***
BUASPXTECHUNC (H5)			-0.05	-0.87	-0.06	-1.05
BUASPXVOLUNC (H6)			0.02	0.28	0.04	-0.68
Controls						
SIZE					-0.06	-1.00
LENGH					-0.05	-0.82
BUDEP					0.06	0.92
FC					0.16	2.56***
R ²	.022		0.32		0.35	
Adj.R ²	0.21		0.29		0.31	
F-value	13.5***		13.4***		9.97***	
Incremental R ²	-		0.08***		0.02**	
F1	-		9.00***		0.92	
Maximum VIF	2.0		2.4		2.4	

Note: One.tail t-test: * p<0.10 ** p<0.05 *** p<0.01

In H2a we proposed that technological uncertainty has a positive effect on proactive-safeguard mechanism. This hypothesis was also supported ($\beta=0.03$, $t=.81$, $p>.05$). H2b suggested that volume uncertainty has a positive effect on proactive-safeguard mechanism. This hypothesis was supported ($\beta=0.07$, $t=1.64$, $p<.05$).

A positive relationship between relational confidence and proactive-safeguard mechanism was anticipated in H3. This hypothesis was but supported.

H4a

suggested that the effect of buyer specific assets on proactive-safeguard mechanism will decrease with supplier asset specificity. This hypothesis was supported ($\beta= -.19$, $t=-5.13$, $p<0.001$).

In H5 we proposed that the effect of asset specificity on proactive safeguard-mechanism will decrease with technological uncertainty. This hypothesis was supported ($\beta=-.05$, $t=-1.09$, $p>0.10$).

H6 suggested that the effect of asset specificity on proactive safeguard-mechanism will decrease with volume uncertainty. This hypothesis was not supported ($\beta=.02$, $t=-.69$, $p>0.05$).

5. Discussion

The findings indicated that buyer and supplier specific assets, technological uncertainty, volume uncertainty and relational confidence had positive impact on proactive safeguard mechanism. The findings are consistency with the transaction theory prepositions. Due to a hostage situation, the partner who has invested specific assets in relationship is by default forced to respond to adjustment due to risk of assets loss in case of failure to do so. The relational confidence could play a substitution role, but this study confirms that the relational confidence strengthens the proactive safeguard mechanism

The study also examines the interaction effects of buyer specific assets and supplier assets. The findings supported the that the bilateral specific assets investments in a relationship will decrease the degree of proactive safeguard mechanism, meaning that both sides will loose if they will not uphold the relationship. The same results were found when buyer specific assets operate in a situation with high technological uncertainty. Technological variations will increase the challenges of specifying the terms ex-ante, thus the impact of asset specificity on proactive safeguard mechanism will decrease with technological uncertainty. The interaction between specific assets and volume uncertainty however did not had a significant impact on proactive safeguard mechanism. This can partly be explained by the fact that the variations on

volume does is by defaults expected in any relation and thus it does not pose any significant threat on relationship continuity. Rather than preparing to adjust with changes in volume, most of firms establishes a system in place that deal with such contingencies.

There were other control variables which were used in the analysis. Only foreignness of the supplier (FC) was found to have as significant impact on proactive safeguard mechanism. The reason can be explained by the cultural and institutional differences which may increase the degree of the safeguard. Other control variables (size, length, buyer dependence) were not significant.

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APPENDIX

Constructs	Items	Sources	Loadings
ADAPTABILITY (ADAPT) $\alpha=0.67$, $CR=0.79$, AVE=0.55,	Arbitration procedures are well specified in our contract	Luo (2002), Aubert al. (2006) Hendrikse & Windsperger (2010)	.791
	Renegotiation periods were planned before the relationship began		.705
	The contract specifies major principles or guidelines for handling unanticipated contingencies as they arise		.830
BUYER ASSET SPECIFICITY $\alpha= 0.68$, $CR=0.82$, $CR=0.90$ AVE=0.61,	We have made significant investments in equipment dedicated to our relationship with this supplier	Stumpf & Heide (1996)	.793
	We have made adjustments in order to deal with this supplier		.787
	Training our people to deal with this supplier has involved substantial commitments of time and money		.764
SUPPLIER ASSET SPECIFICITY $\alpha=0.88$, $CR=0.94$, AVE=0.89,	Supplier production system has been tailored to produce for our firm		.944
	Supplier has customized the product we purchase from him to meet our specific needs.		.944
TECHNOLOGICAL UNCERTAINTY (TECHUNC) $\alpha= .82$, $CR=0.91$, AVE=0.71,	The technology used in this product changes fast	Buvik & John (2000), Anderson (1985)	.802
	The technology used in manufacturing this product is complex		.902
	There is much R&D involved in the development of this product		.868
VOLUME UNCERTAINTY (VOLUNC) $\alpha= .60$, $\alpha=.82$, $CR=0.79$, AVE=0.66,	Demand for this product varies continually	Buvik & John (2000), Anderson (1985)	.866
	The demand conditions for our supplier's product(s) are irregular		.814
RELATIONAL RISK $\alpha=0.80$, $CR=0.86$, AVE=0.55,	We are confident that the supplier will deliver according to the agreements	Gellings & Wullenweber (2007)	.729
	We are confident that the relationship will not break down		.766
	We are confident that we will not lose our assets in this relationship		.706
	We are confident that the supplier will adapt if circumstances change		.732
	We have confidence that the supplier will meet the standards of our customers		.785
BUYER DEPENDENCE $\alpha=0.75$, $CR=0.75$, AVE=0.56,	It is relatively easy for this supplier to find another buyer for his products		.867
	Finding another buyer would not affect the price this supplier charge		.904
	If the relationship is terminated, it will not hurt this supplier		.680

Factors Influencing Youths Employability In SMEs In Tanzania: A Case of SMEs In Ilala District

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Coretha Komba, Mzumbe University

Abstract

A growing economy and a stable macroeconomic and political environment are fundamental conditions for job creation and employment for all age groups. As a result, youth have a higher job turnover rate than adults and take longer to find work. The gist of the Study was to find out the factors that influence youths employability in SMEs in Tanzania. The results show that 29 percent of young people who are employed in SMEs are doing that in order to get income, and 24 percent wanted to have a good future. About 21 percent of employers agreed that, employees who are ready to take instructions from employers, are creative and knowledgeable, and are willing to work, are likely to be employed. About 25 percent of employees enjoy the salary they get from employment; 23 percent enjoy the benefits from employment and about 22 percent were able to start their own business from the salary proceeds. The result from logit modal indicates that, Education and Training, Work Experience, Age, Perception, Availability of Credit Facilities and Social Security were significant factors influencing youth employability. On other the hand, we found marital status, gender, entrepreneurship knowledge, community development, health and social welfare to be insignificant factors in explaining youth employability. In this case the government is advised to (i) Encourage youth to capitalize on education, (ii) Encourage youth acquiring entrepreneurship and business skills, (iii) Encourage youth to believe on equal opportunity in getting jobs and fight for it until they have it. (iv) Emphasizing youth not be too much selective in finding jobs, and should start by volunteering in order to gain work experience and

once employed have to focus on high work performance before demand of high payments.

Session C3

1045-1200/Wednesday, September, 2017/Meeting Room: C

Finance, Economics and corporate governance

Session Chair: Dr. Mostomi N. Marobela, Botswana University

Monetary Policy and Interpolated Informal Sector Credit and Interest Rates: Evidence from Malawi

Harold Ngalawa University of Kwazulu-Natal, South-Africa

Abstract

In nearly all low-income countries, official monetary data excludes informal financial transactions although the informal financial sector (IFS) forms a large part of the financial sector. However, excluding informal financial transactions in official monetary data underestimates the volume of financial transactions and incorrectly presents the cost of credit, bringing into question the accuracy of expected effects of monetary policy on economic activity. Using IFS data for Malawi constructed from two survey datasets, indigenous knowledge and elements of Friedman's data interpolation technique, this study employs innovation accounting in a structural vector autoregressive model to compare monetary policy outcomes when IFS data is taken into account and when it is not. The study finds evidence that in certain instances, the formal and informal financial sectors complement each other. For example, it is observed that the rate of inflation as well as output increase following a rise in either formal financial sector (FFS) or IFS lending. Further investigation reveals that in other cases, the FFS and IFS work in conflict with each other. Demonstrating this point, the study finds that a rise in FFS interest rates is followed by a decline in FFS lending while IFS lending does not respond significantly; and the response of FFS and IFS loans combined is insignificant. When IFS interest rates are raised, total loans decline significantly. The study, therefore, concludes that exclusion of IFS transactions in official monetary data has the potential to frustrate monetary policy through wrong inferences on the impact of monetary policy on economic activity.

Impacts Of Mobile Payment System On Improving Tax Revenue And Compliance In Tanzania¹⁸

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Abstract

The study informing this paper was set to examine impacts of mobile payment system on improving tax revenue and compliance in Tanzania, with the specific reference to Dar es Salaam tax regions. Specifically, the study was set out to find out the extent to which mobile payment system has helped individuals and companies to pay for their motor vehicles and motorcycles fees, customer compliance level and the improvements made in tax revenue collection. Both primary and secondary sources of data were used. Data were processed by using statistical package for social science (SPSS). Findings from the study show significant increase in tax venue after introduction of mobile payment system. It is recommended that the use of the system should be enhanced.

Key words: Mobile payment system, tax revenue, compliance

Introduction

According to Rebello, (2010) mobile phone is one of the most rapidly growing new technologies in the world. In 2001 cell phone subscriptions were less than one billion worldwide with the majority of the subscriptions from the developed countries (Kelly, 2009). At the end of 2010 however, mobile phone subscriptions from developing countries outnumbered that of the developed countries (Rebello, 2010).

¹⁸ The paper has been written under the Taxation, Institution and Participation (TIP) research project funded by the Research Council of Norway and implemented by Christian Michelsen Institute (CMI) of Norway and Mzumbe University in Tanzania

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Kelly, (2009) argued that, the mobile phone industry continues to grow fast as it was in the past few decades. Mobile technology continues to increase the number of capabilities and services to accommodate the growing needs of today's modern life.

Krolkowski, (2014) argued that, the busiest people around the world prefer the easiest way of making their transaction obligations. With the development of industries and intensive technological changes, there occurred intensive revolution particularly in electronic commerce (e-commerce).

According to Tanzania Communications Regulatory Authority (TCRA) statistical report (2007 – 2016) there is rapid increase of mobile money subscribers in Tanzania, from 6,889,207 by July 2007 to 40,044,186 by December 2016.

Mobile money services available in Tanzania include Vodacom's M-pesa launched in 2009, Tigo pesa and Zantel Ezy-pesa launched in 2010, and Airtel money launched in 2011. All of these are managed by mobile network operator (MNO) as opposed to a bank. All require a customer to register for a mobile wallet or stored value account (TCRA,2016).

The primary use of mobile money in Tanzania is the ability to send and receive money to and from friends and family, referred to as person-to-person money transfer (P2P) transfers. A variety of additional services have been applied to the product, increasing the use cases for the mobile wallet (USAID, 2013).

Communication industry in Tanzania has deployed mobile phone technology to be used for payment of different goods and services. Several of the corporate entities such as Tanzania electric supply company limited (TANESCO) and Dar es Salaam water and sewerage corporation (DAWASCO) are utilizing this facility for payment of their services (USAID, 2013).

Tanzania Revenue Authority (TRA) started the use mobile payment system for tax payment of motor vehicles in August 2013. In its efforts to improve the quality of services provided to taxpayers, the authority has continued to take a number of measures to improve its automated systems in order to modernize its operations and support the its goal of increasing revenue in a cost effective way (TRA, 2013).

Paying bills through mobile phones may be fast and convenient. But it may also help to cut down corruption. Revenue collection, governance and household financial management can improve through the use of mobile system payment options. (TRA, 2013).

Problem Statement

Tax payment through mobile services was introduced by TRA in 2013 with the objective of improving tax revenue collection due to its administration and administrative simplicity. It avails services to tax payers all the time from anywhere, reduces costs of compliance and improves tax compliance. Tax payers have been using this method to remit taxes, particularly that relate to motor vehicles and motorcycles registration fees, road license, fire fee as well as change of ownership and particulars. As a result, a noticeable tax revenue collection has been observed from 2013 to 2016.

However, since it assumed office in late 2015, the fifth-phase Tanzanian government has made significant efforts in tax collection through administrative measures. In this case it is yet clear to what extent the introduction of mobile phone payment system has really increased tax revenue collection in the economy. It is against this background that the study informing this paper was undertaken. The overall objective was to assess impacts of mobile payment system on improving tax revenue payment and compliance in Tanzania with a focus on motor vehicle and motorcycle taxes.

Literature review

There is very limited literature on impacts of mobile payment system (Rebello, 2010). Jones (2007) stated that, mobile payment system is a method which enables merchant to obtain payment for a purchase from a customer who uses a mobile communication device to make the purchase, including uploading an application program to the customer's mobile communication device and receiving a request for payment from a merchant terminal. The request for payment includes an identification code of the customer's mobile communication device and a purchase amount.

According to Cobham (2010) electronic tax system has been around globally for the last 30 years. Its history began in 1986 as a small test program in which only five tax payers from Cincinnati, Raleigh Durham, and Phoenix agreed to participate. Since then, electronic tax system has grown to become common place, serving millions of taxpayers every year.

According to USAID (2013) mobile payments significantly reduce opportunities for corrupt officials to siphon funds, help to improve bill collection and to create more accurate data collected from bills. The money lost to poor collection and billing is estimated to be about \$500,000,000 (ibid) annually.

Claire et al,(2012) argued that despite the impressive achievements made by mobile payment system to bank the unbanked, the development of mobile

money is in its infancy and the real challenge is how best to encourage effective partnership between businesses, governments (particularly financial regulators) and other key stakeholders to promote financial inclusion.

The problem of tax compliance is as old as taxes themselves. Characterizing and explaining the observed patterns of tax noncompliance and ultimately finding ways to reduce it, are of obvious importance to nations around the world. (Andreoni et al. 1998). The use of electronic system is among the strategies that aim at increasing voluntary compliance.

Electronic revenue collection in developing countries has gained increasing prominence in the policy debate recently. The recent trends in public taxation stress the need of developing a system of tax assessment and collection that involves internet services (Nisar,2013).

Governments in developing countries face great challenges in collecting tax revenues, which result in a gap between what they could collect and what they actually collect. One of this challenges is the embracing of emerging technologies and tax payment methods that are more efficient so as they can reduce wastage (Muita,2011).

Mobile phones have drastically reduced communication costs, thereby allowing individuals and firms to send and obtain information quickly and cheaply on a variety of social, political, and economic topics. In addition, almost every mobile phone subscription in developing countries operates on a pay-as-you-go basis rather than through monthly subscriptions (Aker, 2009). The low complexity of cell phones also influences the rate of adoption in Tanzania. Mobile phones are fairly easy to use and they will continue to become easier and easier as they develop through time. Although the technology behind mobile phones is complex, usage of the device is simple, only requiring users to mimic interpersonal talk (Chigona & Licker, 2008).

According to Maisiba, (2016), revenue authorities should come up with an easy application that can make tax registration, filing and payment easy for the taxpayers. Deadlines and working hours should also be streamlined to suit the tax payer's schedules in whatever means that the department may think is good for both.

In Tanzania, mobile telephone has been cited as the fastest growing ICT sub-sector. TCRA indicates that the country had 42.878607 million mobile registered subscribers at the end of December 2016 (TCR, 2017). In its monetary policy statement of February 2012, the Bank of Tanzania (BoT) highlights how mobile financial services have contributed significantly towards broadening access to financial services in Tanzania. It highlights that mobile payment system is at the

crossroad of mobile communication and financial services, its powers in distribution and marketing disguised under technological façade.

In 2011, the average payment made at a water office was worth 18.29 USD while those made at wireless pay points were worth 13.40 USD. The dominant mobile money service had payments worth 16.16 USD. Previous research has indicated that the monthly billing and payment cycles that dominate water provision around the world are a barrier to accessing officially-provided water services in low-income countries. Higher payment frequencies tend to offset lower payment values for mobile-enabled payment methods. (Wireless Water Report, 2012). Wireless Water Report (ibid) found that mobile payments significantly reduced opportunities for corrupt officials to siphon funds, helped to improve bill collection and helped to create more accurate data collected from bills.

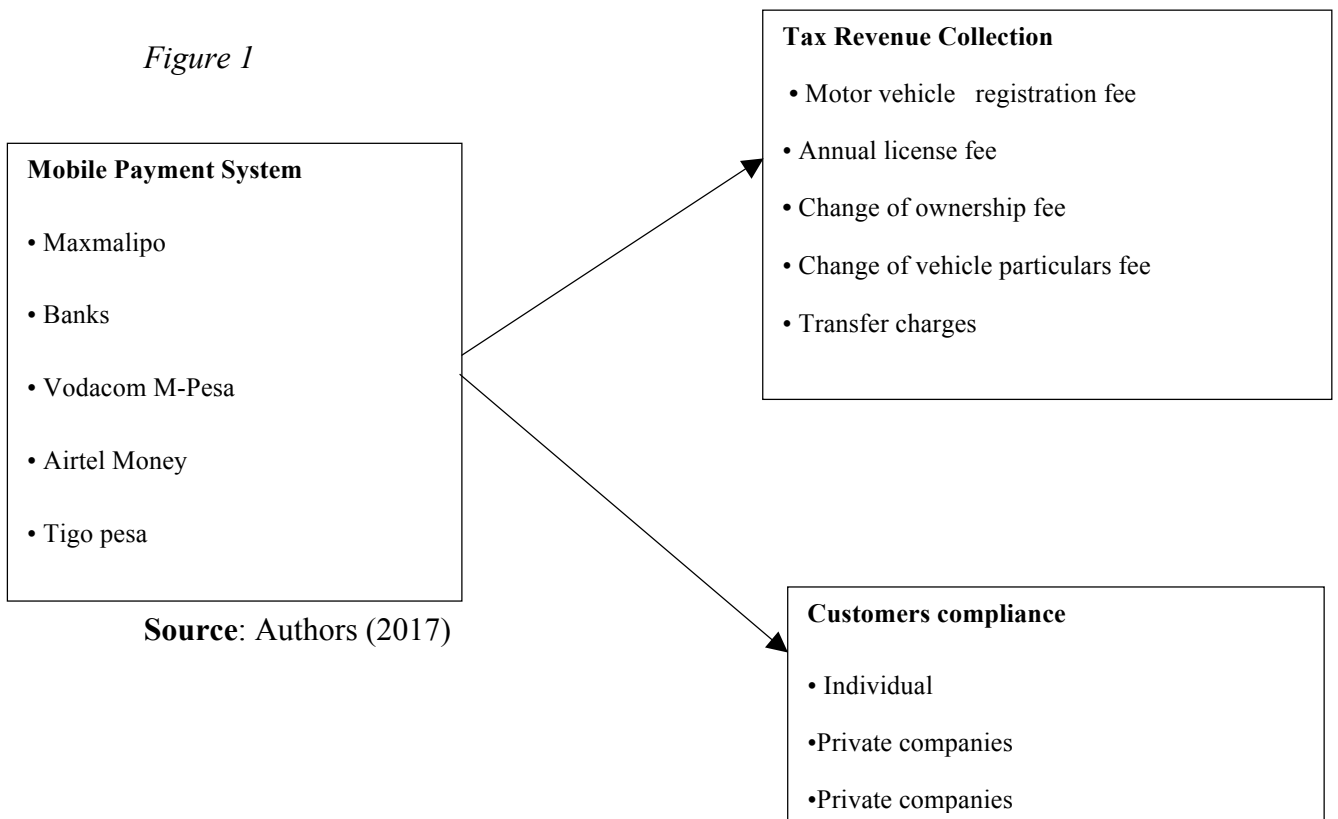
Since its introduction in 2000s mobile payment has achieved to reduce corruption and misuse of government fund to a greater extent. This is due to the fact that the application of electronic wired system for paying various services offered to the public do not entail for bureaucracy, what the public need is having either a mobile phone connected with mobile money services or having a credit card or debit card to allow the transfer. (Wireless Water Report, 2012).

Information Communication Technology (ICT) has strong influence on the performance of tax administrators in collecting tax revenues. Chatama (2013) found that ICT contributes significantly on the tax collections in the large tax payers' department of TRA. ICT has improved processing returns in time, minimizing operational costs and timely access of customers' tax records. Therefore, tax authorities should focus of improving ICT infrastructure in order to easy tax collection mechanisms and boost government revenue.

Conceptual framework

The mobile payment system conceptual framework components comprise of dependent and independent variables as shown from diagram below;

Figure 1



Source: Authors (2017)

Methodology

The study informing this paper utilized TRA data base to identify tax revenue collection through mobile phone services. Also, a cross-section survey was

used to collect information from different tax payers using a structured questionnaire. A total of 100 taxpayers were randomly selected from Dar es Salaam region. The population involved in this study are individuals and business tax payers in Dar es- Salaam. Four areas namely TRA head office, Ilala, Kinondoni and Kibaha Pwani tax regions were used to obtain a representative number for the sample size.

Research findings, analysis and discussion

In what follows key findings in the context of this paper are presented, analyzed and discussed. This section presents analysis of information obtained during interviews with key informants.

Respondents' awareness on the use of mobile payment system

The mobile payment system has been used in the study to mean technology that can enable users to pay for various transaction or services using their mobile phones. There were several users of mobile payment system. These include individual taxpayer, private companies and public companies. The research was interested in two main themes with sub theme as discussed below.

Reasons for increase in use of mobile payment system

The findings generally show that 81% of respondents agree that mobile payments are helpful and less time consuming method of connecting business. A total of 80% agreed that it is less costly as compared with other methods of payment and 81% agreed that the technology has helped to minimize corruption especially on TRA payment system.

The way mobile system was used to pay for charges

The mobile payment system is also used for paying TRA motor vehicles and motorcycles charges such as transfer tax, registration fees, annual fees, penalties, change of ownership and change of vehicle particulars. The observation shows that majority are not familiar with TRA motor vehicles or motorcycles payment system using mobile phone. There was serious issue on the use of payment menu from mobile phones especially for TRA tax payment. It was found that TRA uses service providers such Vodacom, Tigo and Airtel. Unlike other services that people use mobile phone to pay for, majority were not familiar with TRA payment system on mobile phone.

"I don't know how to use my mobile phone to pay for my car's annual licenses fee. I normally ask my clearing agent to pay for me because is the one who knows the procedures. It is too difficult to use as I tried it two years back and found myself entering mobile service providers number where payment reference number was supposed to be". (A respondent)

This argument is strongly supported by other empirical evidence. According to Maisiba, (2016), revenue authorities should come up with an easy application that can make tax registration, filing and payment easy for the taxpayers.

Another observation shows that there are some people who go direct to Max Malipo shop or TRA office as it was before for motor vehicles fee payment.

“I normally go straight to Max Malipo shop to pay for my car annual licenses. After confirmation of payment then I go to TRA for print out. Sometimes I ask my messenger to go direct to TRA office and ask in charge for motorcycles to provide him with payment reference number. After obtaining the number then he goes the back for payment”.

Needed changes to improve the system

It was observed that there are three entities that make TRA mobile payment system. The entities are TRA central motor vehicles system (CMVRS), Aggregator (Maxcom Africa) and mobile services providers (Vodacom, Tigo and Airtel). The three components depend on each other.

Observation from TRA system manager revealed that, in order to increase more the collected revenue through mobile payment system, the authority should think of engaging mobile service providers directly instead of allowing transaction process to pass through Maxmalipo.

Change in collected revenue after the use of mobile phone payment

The findings obtained from secondary source revealed that, there is significant increase in tax revenue collected after introduction of mobile payment system as summarized below (motor vehicles transaction before and after introduction mobile payment).

Table 1: Motor vehicles transactions report from July 2012 to June 2014

Motor vehicle taxes	July 2012 – June 2013	July 2013 – June 2014	Change in Tsh	Change in %
Motor Vehicle Transfer Tax	5,334,680,415.04	939,197,584.93		
Motor vehicle registration fees	34,624,297,958.53	36,843,578,092.74		
Motor vehicle annual fees	83,141,883,733.66	126,584,147,472.77		
Stamp duty on sale of vehicles	1,606,062,619.42	435,131,830.88		
Motor vehicle penalties	2,060,238,298.57	348,714,140.40		

Personalized Plate Numbers	49,723,574.00	23,820,900.00		
Total	126,816,886,599.21	165,174,590,021.72		

Source: TRA central accounting report (2012-2014)

Table 1 above shows that the total revenue collected through mobile payment system increased significantly from Tshs. 126,816,886,599.21 before introduction of mobile payment system in 2012/2013 to Tshs. 165,174,590,021.72 in 2013/2014 after introduction of the technology. The overall payment for motor vehicles and motorcycles tax increased by Tshs. 38,357,703,422.51 which is equivalent to 13.14%.

Motor vehicles transaction after introduction of mobile payment system

Table 2 below shows motor vehicles transactions report from July 2014 to June 2016. This is the period after introduction of mobile payment system.

Table 2: Motor vehicles transactions report from July 2014 to June 2016

Transaction type	Value of transaction July 2014 – June 2015	Value of transaction July 2015 – June 2016	Change (absolute and %) change
Amend title holder	174,620,000.00	188,200,000.00	
Change of ownership	10,920,698,611.15	11,068,658,149.93	
Change person details	2,425,000.00	572,500.00	
Change vehicle particulars	566,960,000.00	-	
Data correction	10,000.00	550,510,000.00	
Deregistration	74,720,000.00	10,000.00	
Duplicate license card	140,990,000.00	61,830,000.00	
Duplicate registration card	1,102,620,000.00	131,687,500.00	
Introduction update	9,420,000.00	428,045,000.00	

Motor bike reallocation	38,309,940,500.00	9,970,000.00	
Motor vehicle customs paid update	98,967,500.00	34,047,503,000.00	
New registration	30,000.00	162,730,000.00	
New registration taken	145,310,000.00	2,505,000.00	
Personalized number registration	10,000.00	205,410,000.00	
Reallocation	1,091,490,000.00	50,000,000.00	
Relicensing	115,099,119,250.00	24,322,500.00	
Re-registration	600,000.00	137,318,619,760.00	
Reprint registration card	10,000.00	-	
TOTAL	167,737,930,861.15	184,250,573,409.93	

Source: TRA central accounting report (2014-2016)

Table 2 shows that total revenue collected through mobile payment system had significant increase from Tshs. 167,737,930,861.15 in 2014/2015 to Tshs. 184,250,573,409.93 in 2015/2016 after introduction of the mobile payment system. The overall payment for motor vehicles and motorcycles tax increased by Tshs. 38,357,703,422.51 which is equivalent to 4.70%.

Discussion of the findings

Observation revealed that 62% of respondents agreed that there is an increase use of mobile payment system in today's business as compared to the situation five years back. The findings are in line with TCRA mobile subscribers' report of 2017. In Tanzania, mobile telephone has been cited as the fastest growing ICT sub-sector.

The findings indicate that 86% of respondents know how to use a mobile phone to pay for different services or transactions. This implies that majority are aware on how to transact using mobile phone. Only 14% do not know how to use the system. However, findings revealed that only 63% know how to use mobile

system to pay for motor vehicles transactions report from July 2014 to June 2016 motor vehicles or motorcycles charges and 35% had never used the system.

According to the interviews conducted, some people use clearing agents to pay for their motor vehicles charges, others go direct to TRA offices for help and last group pay the charges through Maxmalipo without passing through mobile service providers. Another observation revealed that 18% of respondents face difficulty on how to use mobile payment menu to pay for TRA motor vehicles and motorcycles charges.

The findings revealed that, the change in collected revenue is due to introduction of mobile payment system. According to TRA findings, there was significant increase in collected motor vehicles and motorcycles tax revenue from 43.43% before adoption of mobile payment system in 2012-2013 to 56.57% to 2013-2014 and 47.65% in (2014-2015) to 52.35% in 2015-2016 after the introduction of mobile payment system. With the cost reduction there occurred revenue increase within the revenue authority. This is due to the fact that new methods of collecting revenue are based on digital technological development. It entails that there is no misuse of the collected revenue because everything is recorded.

Challenges on the use of mobile payment system

The study revealed that there were challenges from both TRA and mobile providers' sides. Some 30% of the respondents agreed that there was general network problem that hinder successful process of payment, 21% revealed that there is delay on feedback after completing payment process through mobile phone. Furthermore 18% stated that payment menu for TRA in the mobile is not friendly. It contains many steps as compared with other services menu like Dawaco, Tanesco and TVs.

The findings are in line with the empirical study conducted by other researchers. The study was seeking to find out if the generic technology adoption models are sufficient to explain factors consumers consider when they decide whether or not to adopt new payment services. Dahlberg, et al, (2007) argued that, mobile payment services have failed to entice consumers. An apparent conclusion is that these services have failed to meet consumers' payment needs. Deeper understanding of consumer adoption motivations is thus needed to be able to develop and launch mobile payment system successfully.

Conclusion

Based on the findings of the study, it is seen that there are many advantages of using electronic system in revenue collection in general and tax revenues in the context of this paper in particular. Apart from increase in revenue collection after the use of the system, there is reduced cost, increased efficiency and compliance, reduced possibilities of funds misuse and corruption.

Recommendations

In order to improve tax revenue collection and compliance a number of recommendations are given. These include the following:

9.1. TRA as the government revenue collection agent, should put more effort on educating tax payers on how to use mobile system for paying different types of motor vehicles and motorcycles taxes. It has to use different approaches or techniques to ensure the message is clearly delivered to taxpayers. Currently, TRA is using televisions, radios, fliers, brochures, social media etc to educate people on different issue related to taxes.

9.2. The findings show that, 86% of respondents know how to use mobile phone to pay for other services like TV, DAWASCO and TANESCO but for TRA motor vehicles and motorcycles only 63% can do and majority are found in urban areas. Based on this finding, TRA should put more effort on ensuring that people are also aware on how to pay for tax revenue using mobile system. In today's world, advertisement through newspaper, printed materials, television and radio are tradition methods. Most of Tanzanian have no habit to read, others have no time to watch television. Therefore, TRA should improve the current method through agreement with media to provide education at a reasonable time for both working days and weekend that can reach majority of people at their homes. Fliers and any printout should be spread at different locations where people visit or congregate regularly for instance at supermarket, petrol station, some private and public companies, car stations and outdoor advertisement.

9.3. Apart from improving the existing methods TRA should also think of engaging knowledgeable advertising agencies who are capable of delivering the message in a very simple way that any normal person can understand. The same can be extended to rural areas where broadcast advertisement through radios or and television is a challenge.

9.4. TRA should improve both system and network availability in order to provide reliable services to tax payers. Items of system, there should be high availability and load balancing set up. Items of network availability, there should

be enough bandwidth that can accommodate pool of transactions that pass through tra network. Also there should backup network providers who can take over in case of down time from primary network link.

9.5. Refund should not be an issue when there is a mistake in payment. TRA should be smart in handling customer's compliance especially when there is a mistake made during payment process to tra account. There should a dedicated team who are capable enough to assist customers and provide timely response once the issue is on tra side.

9.6. Mobile service providers should provide reliable network services to customers. This includes use of alternative link rather than depending on TTCL fiber optic network. There should be a knowledgeable person at customers' service desk who can assist tax payers in case of any issue that fall on mobile service providers side.

Policy implications

For successful implementation of the above recommendations, political commitment and administrative capacity is required. If the government does not see the importance of investing in technology, it will be difficult for TRA to achieve its objectives. For instance, to improve capacity, reliability and efficiency of TRA system application system cost element is inevitable. To improve compliance through education and use of different advertisement involve some cost. All these depend on the approved government budget that has been allocate to tra for ICT activities.

Improving TTCL fiber optic network requires government initiatives. Currently all network services providers are forced to user TTCL fiber optic network but the link is not reliable due to poor infrastructure and capacity. The TCRA policy should allow the network service providers to use the alternative link sources where necessary in order to ensure smooth operation of their business.

On the other hand, improving social services such as health, infrastructures, education, water, electricity and security depend on government revenue. TRA is the government agency for revenue collection. On ensuring effective government revenue collection and compliance, TRA introduced the mobile payment system but compliance level depends on among other things how the government spends the collected revenue on improving the social services.

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Michael , J.(2013); *the impacts of mobile phones on the growth of the informal sector of economy in tanzania: a case study of lindi region mobile phone users*

Towards Successful Industrialisation: The Case Of Tanzania Brush Products Limited

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Abstract

This study on which this paper is based intended to unfold perspectives and factors towards successful industrialisation. The research was carried out at Tanzania Brush Products Limited (TBP) in Dar es Salaam. The study findings show that; the major success factors for industrialisation were acquisition of technology, creation of an innovative environment, building knowledge and capabilities, developing the right infrastructure, attracting and increasing industry related investments and restructuring policies while readjusting the legal and regulatory framework.

Challenges and constraints were competition in the marketing environment, factors and issues that are government related as well as the ever increasing cost of doing business in Tanzania. The proposed solutions were mostly the approaches that are internally or in-house oriented to counteract the effects but also externally oriented measures to mitigate the problem.

Keywords: Industrialisation, Tanzania, Tanzania Brush Products Limited

1. Introduction and context

It is globally accepted and commonly understood fact that, industrialisation, which is the process of transformation from agriculture to manufacturing, is vital to development and in the wake of that, only a handful of countries may have

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developed without industrialising. As quite an interesting phenomenon to economists, they now hypothesize that the manufacturing sector is the engine of economic growth, the so-called “engine of growth argument” (Kaldor, 1967) and (Cornwall, 1977).

When the majority of countries in Africa were gaining their independence during the 1960s and 1970s, traditional exports were favoured for business. That however did not divert the attention of African countries on their drive towards industrialisation. Manufacturing was on top of the agenda of several countries then due to its potential in elevating the status of African economies (Hopkins, 1973).

During and after independence in 1961, Tanzania was one of the most underdeveloped and the poorest, compared to its neighbours. Agriculture was the backbone of the economy and as the result other sectors such as industrialisation had hardly any chance of perfectly blossoming. Production from a handful of industries was directed towards agro-processing and simple manufacturing that lacked internal linkages to effectively take advantages of raw materials (Kim, 1978).

According to Kim (1978), Tanzania's first, comprehensive industrialisation effort began with the First Five Year Plan in 1964. While the agricultural sector was still favoured and given a lot of attention, the brand new plan then, sought an ambitious industrialisation program that was to rely on private foreign and domestic investment for expansion of local import substitution industries (ISI).

The opening phase of industrialisation in Tanzania (1961-1966) had strongly being influenced by colonialism. It was central to the ideology of industrial promotion on particularly import substitution industrialisation (ISI) motive. This was simply biased as it targeted the privileged societies that reside in towns (URT, 2016).

Locals for the first time had an opportunity to truly be substantial in owning the economy. The second phased industrial era was characterised by nationalisation of existing industrial plants and the creation of brand new ones. The international community then took an interest and wanted to play a part as well. It was around this period that the government of Tanzania started playing a very important role through its regulatory and governing bodies (URT, 2016).

The time between 1961 and the Arusha Declaration in 1967, an account of available industries were documented. A total of 186 establishments were found. Those that are labour oriented were offering almost 200,000 employment opportunities and constituting 4% of gross domestic product (GDP). Table 1.1

shows the evolution of the development of the industrial sector over time (URT, 2016).

Table 1: Evolution of industrial establishments in Tanzania: 1961-2013.

Period	Pre-1961	1961	1971	1981	1991	1996	2001	2006	2011
		1970	1980	1990	1995	2000	2005	2010	2013
Number of establishments	61	125	411	1188	1176	3430	5153	12849	50656

Source: NBS, 2016.

Debates and plans of Tanzania's fifth phase government economic prosperity lay a strong belief on the success of industrialisation. If anything, industrialisation is high on the economic agenda for the fifth phase government. It was reflected in the ruling party's 2015 election manifesto and emphasized in president Magufuli's maiden speech in the Parliament on 20th November 2016. Industrialisation of Tanzania's economy is now given a pivotal role in the Five Year Development Plans as well as Annual Development Budgets.

2. Literature review

Industrialisation refers to structural change from an agricultural to an industrial economy (Kuznets, 1973). It is a socio-economic process that includes 'a rapid transformation in the significance of manufacturing activity in relation to all other forms of production and work undertaken within national or local economies' (O'Brien, 2001).

Historically, manufacturing could not be separated from industrialisation. There has been at the fore front of economic development as the most knowledge-intensive area of the economy and recipient of technological development overtime. With manufacturing there is productive and an innovative environment. Sustainability is also influenced as the result. (URT, 2009)

The manufacturing sector is characterized by economies of scale in a sense that, by reducing unit costs, allow increasing output. In turn, the growth of the output of the manufacturing sector impacts the growth rate of the economy via backward and forward linkages to non-manufacturing productivity. Moreover, the manufacturing sector goes hand in hand with technology, which is the very sector at the core of innovation (Lewis, 1954), (Fei & Ranis, 1964) and (Cornwall, 1977)

2.1 Industrialisation in Tanzania

The census of industrial production in Tanzania found a total of 49,243 establishments, majority being micro and small-scale establishment. Regional wise, the establishments were distributed as follows: Dar es Salaam 7,705 (15.2%); Mara 3,573 (7.1%); Ruvuma 3,517 (6.9%), Morogoro, 3,302 (6.5%) and Mbeya, 2,864 (5.8%). On the other hand, large (10+) establishments, were 1,322 in total, with the major regions being Dar es Salaam, 389 establishments (29.4%); followed by Manyara, 167 establishments (12.6%); Arusha, 89 establishments (6.7%), Kagera 77 establishments (5.8%) and Mbeya 73 establishments (5.5%). Table 2.1 below further gives an illustration of the data.

Table 2: Distribution of establishments by number of employees, 2015.

Number of employees	Number of firms	%
1-4	41,919	85.1
5-9	6002	12.2
10-19	493	1.0
20-49	412	0.8
50-99	170	0.3
100-499	199	0.4
500+	48	0.1
Total	49,243	100.0

Source: Industrial Strategy, 2016.

Table 3: Selected indicators of manufacturing sector performance 2005-2015

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Sector growth (%)	9.6	8.4	11.5	11.4	4.7	8.9	6.9	4.1	6.5	6.8	6.0
Share in GDP (%)	7.3	7.5	7.0	7.0	6.9	6.9	7.6	7.5	6.4	5.6	5.2

Source: NBS, 2016.

2.2. Success factors for industrialisation in Tanzania

Study findings show that seven respondents (23.3%) maintained that it will take more than a single factor for Tanzania to undergo industrial transformation. Seven respondents out of 30 (23.3%) believed that acquiring technology alone is enough. Both revitalisation of infrastructure as well as attracting and increasing investments was supported by two respondents each (6.7%). A total of four (4) respondents accounting for 13.3% believed in each one of the three factors namely creating an innovative environment, developing knowledge and capabilities as well as policies, legal and regulatory readjustments.

Table 4. Factors for Tanzania’s successful industrial transformation

Factor	Frequency	Per cent
<i>Acquiring technology</i>	7	23.3
Creating an innovative environment	4	13.3
Revitalisation of infrastructure	2	6.7
Policies, legal and regulatory readjustments	4	13.3
Attracting and increasing investments	2	6.7
Developing knowledge and capabilities	4	13.3
More than a single factor	7	23.3
Total	30	100.0

Source: Field data (2017)

Uniquely to the success of TBP’s operations, their two major factors for success and growth were their reputable quality of products and their long time experience in their sphere of activities. 56.7% and 26.7% of the respondents respectively. With the former, there has been a time to time increase in the quality of products produced that established the company as one of the best in their niche. Their experience that covers several decades has allowed the company to evolve in the direction of achievements.

Acquiring technology was chosen by 23.3% of the respondents, signifying its role in any successful industrialised country. Respondents believed with the right technology, industrialisation in Tanzania can grow noticeably to have an impact economically. Modern systems and machinery, state of the art industrial plants and up-to-date operations are necessary to succeed.

Of all the respondents, 13.3% believed creating an innovative environment in Tanzania is needed for developing industrialisation. With the kind of environment that supports innovation, new solutions to problems present opportunities through creating breeding grounds and incubators for new products.

A total of 6.7% of the respondents agreed that revitalisation of the infrastructural network and systems to accommodate the growth of industrialisation are very important. Effective and efficiently run water and electric power systems as well as air, water and mostly land transport are essential factors.

Readjustment of policies, as well as the legal and regulatory framework was chosen by 13.3% of the respondents as important factor for industrialization.

For successful industrialisation, supportive policies must allow expansion of industrial activities in conjunction with a well-structured legal and regulatory environment.

Attracting and increasing investments was chosen by 6.7% of the respondents as a catalyst for the growth and development of industrialisation in Tanzania. Creating a supportive and conducive environment for businesses and employing measures to draw in investors domestically and internationally.

A total of 13.3% of respondents agreed to 'developing the knowledge and capabilities.' Skilled personnel and general skilled labour is important if Tanzania is to develop its industrial base. The right people are important for the growth of industrial units across the country as a whole.

A combination of all the factors was agreed by 23.3% of respondents suggesting an approach towards reinforcement of all the factors to reap the gains of industrialisation. On the hand, all of these factors can be referred to as the pre-requisites for successful industrialisation as presented in Table 4.8 in chapter four.

Past research works by Veblen (1915) and Guadagno (2005) have all demonstrated why technology particularly is one of most essential factors towards the development of any industrialising country. Research studies as such, together with the findings in this study are crucial to the growth of industrialisation in Tanzania.

Others factors such as innovation for instance are also highlighted in the literature review as needed towards realising successful industrialisation. In a context of Tanzania, these factors if implemented from the lowest levels of small industrial units and enterprises, more success stories could be realised.

It is important to take into account that, a number of factors that were found in this research study could fit with the approach of increasing the capacity of small medium enterprises (SME's). A combination of these factors if well implemented can easily be incorporated towards a semi-industrialised state in a few years.

2.3. Challenges and constraints facing industrialisation in Tanzania based on TBP experience

Findings as presented in Table 5 show that 10 respondents who accounted for 33.3% of all the participants believed competition within the marketing environment is the single largest challenge their company is facing. A total of eight (26.7%) respondents agreed on 'government related factors and issues' while five (16.7%) believed it was exclusively down to internal and in-house deficiencies. The cost of doing business in Tanzania was sighted out as a

challenge by three (3) respondents representing about just about (10%) whereas four (13.3%) of all the respondents agreed on combination of 'several factors rather than a single one'.

Table 5. TBP's general and industry specific challenges facing TBP

Factor	Frequency	Per cent
Competition	10	33.3
Government related factors and issues	8	26.7
The cost of doing business in Tanzania	3	10.0
Internal/in-house deficiencies	5	16.7
More than a single factor	4	13.3
Total	30	100.0

Source: Field data (2017)

All the respondents (100%) agreed on the likelihood of challenges and constraints facing TBP affecting the majority of other similar industries in Tanzania. The research findings suggest that majority of industrial units in Tanzania have or are encountering issues that are similar in nature.

Competition was chosen by 33.3% of the respondents as one of the leading issues. The influx of international products from countries like China has intensified competition and is weakening products and produce from the domestic market. Respondents also mentioned cheap counterfeit products as a growing problem.

A total of 26.7% of respondents sighted out government related issues and factors as hampering industrialisation. Revenue shortcomings, regulatory limitations, power outages, red tape, poor infrastructure and a whole lot of other related issues that are disadvantageous to developing industrialisation.

The cost of doing business in Tanzania was also chosen by 10.0% of the respondents as an issue. Factors that are linked with the ever increasing costs of operating industrial units in Tanzania also compromise the quality of products and its final set price tags. This denies sustainable growth for small industries, allowing monopoly from a few large scale units.

A total of 13.3% of all the respondents agreed to a combination of all the above mentioned factors as being the inadequacies within Tanzania as far as industrialisation is concerned. It is apparent from the findings that there is a wide range of factors cutting across many aspects as presented in Table 4.14 in Chapter 4.

On an account of similar challenges and constraints CTI (2017), also highlighted on the scope of effects that go on to disrupt the growth of industrialisation in Tanzania. It should be noted that however, globalisation has introduced a free market economy which was very much needed but has inturn created a fierce competing environment.

Competition in the Tanzania marketing environment was found to be the major constraint in the study. In a national context, competition has actually resulted in growth stagnation of industrial units. Only a few large and medium scale industries had taken advantage of the situation. Small units with the in-ability to innovate have had a hard time surviving from the internationalisation of the market.

Although the findings of challenges and constraints in this research study only reflect a particular case of an industrial unit in Tanzania, the issues encoutered could be coined as glocal. Global and local in nature and so very unfriendly towards the growth of successful industrialisation

As far as industrialisation in Tanzania is concerned, the findings from the research study cut across a wide context of industrial units in Tanzania. It should be agreed that measures to correct and eliminate such hindering blocks must to a large extent be countrywide.

2.4. Proposed solutions for solving the challenges

Findings as presented in Table 5 show that 17 respondents who account for 56.7% of all the participants agreed on ‘internally or in-house approaches’ as the most efficient to solving the challenges. Only 13 respondents (43.3%) agreed to ‘externally oriented approaches’ as the best way to go about the challenges.

Table 5. Approaches by TBP on solving its challenges

	Frequency	Per cent
Internally/ in-house oriented approaches	17	56.7
Externally oriented approaches	13	43.3
Total	30	100.0

Source: Field data (2017)

In relation to TBP’s experience, the most prominent factor was increasing the quality of its products and services over time. 56.7% of respondents chose this factor, as it can assure the company’s central motive of producing and selling its products establishes its position in the market and can create remedies for other problems facing the company.

A total of 56.7% of the respondents agreed to internally or in-house oriented approaches as the best to resolving problems and issues of industrialisation. This approach specifically targets on increasing performance and efficiency of industries and industrial related activities from within the company itself.

Adding value to the products that are being produced, increasing the quality of products and services, and hiring skilled labour. Furthermore,, employing superior marketing strategies and tactics as well as the practice of advanced technology through new machinery and systems.

Externally oriented approaches were chosen by 43.3% of the respondents as the way to go about the challenges and constraints in industrialisation. Measures that seek to determine, improve and resolve issues on the outside marketing environment rather that from internally.

Fair competition practices, legal and regulatory issues, dependable government support, advanced transport systems, reliable power, energy and water sources, harmonisation of supporting industries, business incentives and partnerships as well as enhancing private-private sector relationship and private-government sector relationship.

The fact that in-house oriented approaches to solving issues, is given an attention rests solely on the complexity of controlling external factors. It is of the highest importance that industrial units in Tanzania be as effective and efficient as possible internally before they seek to eliminate issues on the external environment.

The majority of industrial units in Tanzania have joined forces to eliminate factors in the external environment, factors that are mostly against or seek to alter government related practices. From a single industrial perspective however, they lack what would otherwise be a well self-performing kind of an enterprise.

It could be argued that, before industrialists seek answers to issues and problems from the marketing environment and the government, would that be all they can do for the growth of their enterprises. The idea will be to better their in-house capabilities and performance levels as much as they can, making it a continuous and sustainable process.

3. Conclusions, Policy implications and Recommendations

3.1 Conclusions

The government's interest towards industrialisation is not an entirely new thing. It has been conceptualised through reports and write ups over the years but yet to be truly effectively and efficiently implemented. But upon the commencement

of the fifth phase government in power, industrialisation process took a rather serious approach with promising turn of events. Findings based on this research study, a perspective of a single industrial unit 'TBP' towards industrialisation were concluded;

- i. The identified success factors for industrialisation in Tanzania based on TBP's were acquiring technology, creating a supportive innovative environment, developing all aspects of infrastructure, re-adjusting policies, legal and regulatory frameworks, attracting and increasing investments as well as developing knowledge and capabilities. Not limited to a single factor, the combination of the factors was deemed perfect for best future results.
- ii. The identified challenges and constraints based on TBP's experience were competition within the marketing environment, a combination of government related issues that are doing more harm than good and the constantly increasing cost of doing business in Tanzania.
- iii. The proposed solutions for mitigating the challenges based on TBP's experience were a combination of approaches, measures and controlling factors that are in-house or internally oriented rather than seeking to control external factors. The role of other parties such as membership organisations, the local government and international third party bodies was increasingly important.

3.2 Policy implications

Although the government has currently put industrialisation on top of its agenda, there are issues that need its undivided attention. The recently read 2017/2018 financial budget to some extent favours industrialisation. Additional budgetary increase towards industrialisation must conversely be integrated in the next financial years to fast track the country towards the 2025 industrial global goals of 'industry, innovation and infrastructure'.

A friendly socio economic and political environment must be strengthened between the government and private sector to boost partnerships. It is very important that, the reassessment of revenues, taxes and fees directed at industrial and industrial related activities be incorporated from time to time. For Industrialisation to mature, other supporting economic activities must not be ignored.

3.4. Recommendations

- Developing a very reliable, effective and efficient network of infrastructure, that cuts across air, land and water. But also improving on

the state of the electricity via power grids as well as firm water systems, to reach out to as many industrial structures and plants as possible. Power outages were sighted as problematic and increased the cost of producing and doing business in Tanzania. The poor standard of infrastructure requires Tanzania to increase a network of more laid out tarmac roads that support wide lanes to and from major cities but also within major urbanisations and industrial estates.

- Increasing tax incentives and tax exemptions not only in the wake of attracting foreign direct investments but also drawing in local small industries and allowing them to grow and survive in a very competitive environment. The study findings suggested more attention is directed towards foreign and international investors who are awarded favourably as they enter the local market. The same kind of incentives however are not very common for local industries
- Limiting the influx of cheap internationally made products, through taxing and fees to discourage them from flooding the local Tanzanian market. Chinese cheap products in the market have been sighted as killing the local industry. The Tanzania revenue authority (TRA) must precisely impose import, corporate income and property taxes on multinational companies' to maintain fair competition within the market. Locally made products will retain part of the market share which is equally as important for their prosperity.
- Revitalising dead government industrial plants and structures with a new breed of processing and production activities in the wake of industrialisation. Setting up industries was found to be rigid and complex and so re-using the very same industrial plants that were once some of the best performing industries after independence could prove cost effective and economical.
- The cost of doing business in Tanzania was found to be one of the biggest challenges towards industrialisation. The government has an important responsibility to create and maintain a very conducive business environment; peaceful and stable community that allows an investments climate to developed and flourish. It should be noted that this sort of environment should harbour and support both local companies and investments while drawing in foreign direct investments just as effective.
- Tanzania should seek alternatives sources of reliable power and energy, instead of relying almost entirely on hydroelectric power. Power outages from the national grid were sighted as a component within constraints.

More alternative sources of energy apart from the hydroelectric power are needed to at least be in place when industrialisation starts to take shape. Geothermal power, wind power, solar power and natural gas could prove very effective for a burgeoning industrial economy.

- As a challenge in the study, policies can hardly be ignored. Friendly and supportive policies should be put in place by the government to allow industrialisation to flourish especially locally driven industrialisation. These policies should be harmonised and well-structured to reflect on the state and reality of industrialisation as it is in Tanzania. It is clear, there is room for changes and a lot needs to be done with both the Tanzania's industrial and trade policies.
- The study found that supporting economic activities are lagging behind. For industrialisation to grow, other supporting activities should just as well operate effectively and efficiently. Agriculture for instance, assures there is an existence of raw materials to industries in Tanzania. There has to be a landscape of progress, through continuous interactions by the concerned bodies and authorities in the country. Different parties may then easily mitigate any challenges arising and present a united front towards realising successful industrialisation.
- The study found competition to be one of the challenges. In the wake of industrialisation, internationally acclaimed standards of quality should be embedded and maintained within Tanzania's local industrial systems to assure a quality approach and perspective and eventually quality end products and produce. This will assure locally made products break barriers and boundaries to reach international localities and a global market.
- From the research findings, competition has meant that the local market find international products to be more favourable. The government needs to motivate the public to appreciate locally made 'products and produce', to the extent of buying them. The 'buy Tanzanian products', should not be just a catch phrase on the labels of locally made brands but an ideology with as much impact as the president Magufuli's 'hapa kazi tu.

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Output Response To Stock Market Indicators In Some Selected Emerging Markets

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Abstract

This study estimates the response of the overall economic activities to the stock market variables in some emerging economies. The main objective is to ascertain the extent to which the growth of economic activities in the stock market affects or translates to the variation in output bearing in mind the peculiarity of each country and the level of capital market development. Empirical evidence in the literature shows the existence of a positive correlation between stock market development and economic growth (Levine and Zervos, 1998). Similar studies which have examined this nexus include Mohtadi and Agarwal (2004) Mazur and Alexander (2001), and Beck and Levine (2003), using different indicators such as stock market development, market capitalization ratio, turnover ratio, and total value traded share ratio among others. However, there is no general consensus on the relationship between the different approaches employed.

Research Problem

Theoretically, a well-developed stock market should lead to economic growth through increased saving and investment. Has stock market indicators contributed to output growth? To what extent has expansion in the stock market lead to an expansion in economic activities? This study, therefore, investigates the impacts of stock market indicators on output.

Methodology

Based on theoretical underpinnings, the empirical approach to this paper follows the principles of some earlier studies and hinged on dynamic panel method. In order to avoid biased results, heterogeneity is controlled for. The GMM estimators developed by Arellano and Bond (1991) would be employed. This is to address the endogeneity and the possibility of omitted variables. The variables in the model include market capitalization, turnover ratio, the number of listed company and the Gross domestic product for ten emerging economies.

Expected Results

We postulate that high stock market indicators should impact strongly on output. However, we expect different levels of impacts on different economies on the basis of the level of stock market development.

Conclusion.

The aim of this study is to examine the output response to the stock market indicators while ascertaining the direction of causality and the impact of the stock market variable on economic activities.

Session D3

1045-1200/ Saturday, September 20th, 2017/Meeting Room: D

Technology, Health, Policy and Public administration

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Modelling policy and programme implementation: a case of family planning programme

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Abstract

Policy/programme implementation encompasses actions done by the government, private organisations, groups of people or individuals that are focused at the achievement of goals set out prior policy/programme implementation. Most of studies on policy/programme paid more attention on policy/programme design and policy/programme evaluation than how policy/programme is put into effect.

Previous studies have identified eight properties of programme implementation namely; fidelity, exposure (dosage), quality of delivery, participant responsiveness, programme differentiation, monitoring and control, programme reach and adaptation. However, most of the research define fidelity of implementation as a combination of five dimensions; (1) strict adherence to methods or implementation protocol that conforms to theoretical guidelines. (2) The dosage/exposure as the quantity of programme implemented in relation to the amount agreed by the programme documents. (3) The quality of programme delivery, that is the skills used by the programme implementer to transform the programme components from paper to an end user in this case the clients. (4) Participant responsiveness, i.e. the degree to which participants are engaged

with the programme. (5) Programme differentiation: are critical features that distinguish the programme are present or absent.

The four dimensions (adherence, exposure, quality and participant responsiveness) are believed to occur within the place of services delivery. The programme managers and implementers control adherence, exposure and quality of services delivered whereas participant responsiveness is the property of participants. The programme reach is the extent to which targets defined by the ministry, the regions and LGAs are indeed attained at a specified period of time. This property has a direct relation with the target group.

For the purposes of this modelling, the implementation fidelity reflects three properties: adherence, exposure/dosage and quality of services delivery. The three properties selected are implementation fidelity in its real sense. The participant/clients responsiveness is the effect of the programme implementation. Adaption is a conscious breach of fidelity with the intention to be more effective i.e more fidelity concerning the goals of the programme. It is a divergence from protocols in order to realise programme goals. Monitoring and control is an additional feature to enhance implementation fidelity. Adherence, exposure/dosage and quality of services delivery are the effects and monitoring and control, and adaptation are conditions that influence fidelity. Programme reach is an output of the implementation fidelity.

In summary, this paper models the approaches that could be used to investigate policy/programme implementation. From the literature, seven properties of programme implementation were derived, namely adherence, exposure/dosage, quality of delivery, participant responsiveness, programme reach, adaptation and monitoring and control. This is beyond the previous studies on implementation that have been largely limited to one property and lack attention to combining more than one property at once. The seven properties operationalised in this study are incorporated in one model that was used to reconstruct the family planning programme implementation process from the ministerial level to the end user (clients). The critical first step done in this paper was to identify the properties that determine the programme implementation from the literature and to operationalize them. The next step will be the actual research to ascertain whether this model is applicable in real world.

Perspectives on Condom Use among Students in High Learning Institutions: Experiences and Implications from Mzumbe University

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Abstract

Background: Condom has been proved to be effective method of preventing HIV, sexual transmitted infections (STIs) and unwanted pregnancies (USAID, 2013). However- its use encounter several barriers such as religious and social-cultural beliefs which proscribe condoms as sin or illegitimate. This paper explores experiences and perceptions of university students in condom use for HIV infection control. It responds to: how students at university perceive condoms use and their experiences in the use of condoms?

Methods: The methods involved pre-interview which formed a basis for development of the interview guide. The interview guide was first pre-tested. The unit of inquiry were twelve students [6 male and 6 females] conveniently chosen. Data were collected through interviews. Data were transcribed and thematically analyzed using Atlas.ti7 software.

Results: While male students perceive condoms as a useful tool for protection against HIV and AIDS and other sexual transmitted diseases, female students attach use of condoms with protection against unwanted pregnancies. Male determine use of condoms. There is ineffective and inconsistent use of condoms due to inaccessibility, reliability, affordability and perception that condoms cause fungus and affect penis erection. Free condoms are less preferred.

Conclusions: University students perceive condoms as a useful tool for protection against HIV, other sexual transmitted disease and unwanted pregnancy. However- factors such as accessibility, reliability, affordability and perception that condom cause fungus and hamper reaction, affect effective and consistent use of condoms among university students. Female are less responsible to the use of condoms – which leaves much control to male.

Road Traffic Injury Prevention: Assessing Risk Factors and Interventions in Tanzania

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Abstract

This study aims to assess risk factors and interventions with selected problems of risk analysis in road traffic in Tanzania. Road transportation systems (RTSs) have become a crucial component of modernity in Tanzania, by speeding up communications and the transport of people and goods. Modern RTSs have transformed contemporary economic and social relations. Road traffic crashes (RTCs) are among the major health problem and cause reduction of labour force, destruction of infrastructure and property, injuries and death of thousands people which counted as a loss in the country. However, there is an accumulated body of knowledge concerning how this burden may be reduced by appropriate road safety measures, but little is known about the relative risk and interventions of such measures in Tanzania. A survey research design was adopted with a quantitative approach. Both primary and secondary data was employed in this study, whereby, collected data were analysed using descriptive statistics and content analysis. The results showed that, attitudes are among the human factors which influence risky road use and receptiveness to interventions. Findings also revealed that, the multiple road safety laws and enforcement of speed limits, drink-driving and motorcycle helmet have produce consistent gains in all populations in the country, whereby seatbelt has produced low effects on injury deductions. Researchers concluded that, road traffic injury prevention and mitigation should be given the same attention and scale of resources that is currently paid to other prominent health issues as increasing human loss and injury on the roads. Researchers recommended that, whether otherwise, risk assessment is needed and should be included in national transport policy to improve the safety of road transport and define priorities in the field of public health.

Vertical Program on Local problems: Experiences of the National Sanitation Campaign for Increasing Coverage of Household Toilet and Utilization in Kiteto and Hanang Districts.

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Abstract

Background: Most diseases that result in ill health are caused by communities polluting the environment through various ways. Open defecation and not washing one's hands after using the toilet are among the ways in which communities create unsanitary environments favourable for diseases transmission. This paper evaluates the relevance of vertical programs in addressing problems of low coverage of household toilets and poor utilization in Kiteto and Hanang Districts in Tanzania.

Method: The study used a realistic evaluation approach. Data were collected using questionnaire and semi-structured interview guide. Questionnaires were administered to 200 randomly selected respondents. The Semi-structured interviews guide was administered to 12 purposively selected key informants. The quantitative data was analyzed using STATA version 13.0 while Qualitative data was collected in Kiswahili, transcribed, translated into English and thematically analyzed using Atlas.ti software version 7.1 (build 3).

Results: In all district demand creation for sanitation through triggering was done before training of masonry. Though demand for sanitation was created – the sensitized communities did not have supplies to improve their toilets. Trained masonry did not increase toilets' sanitation supplies. The households followed up were very few. Only 27percent and 33 percent of households in Hanang' and Kiteto districts respectively built their toilet as a result of the campaign. None of household was found with hand-washing station

Conclusion: The programme has failed to achieve its target of half of community members to own and use improved toilets. Still most of community members have no toilets, and those with toilets have unimproved toilets. Situation remains to favour disease transmission.

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