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Vol. 11(4), pp. 69-73, 28 February, 2017 DOI: 10.5897/AJBM2016.8210 Article Number: 5CE8E2F63042 ISSN 1993-8233 Copyright © 2017 Author(s) retain the copyright of this article http://www.academicjournals.org/AJBM

#### **African Journal of Business Management**

Full Length Research Paper

# Factors influencing fixed asset losses in local government authorities in Tanzania

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Received 8 November 2016; Accepted 28 November, 2016

Fixed asset management has been a challenge despite having government policies and procedures in Local Government Authorities in Tanzania. The study investigated the factors which influence fixed asset management in Local Government Authorities, and analysis was carried out to determine the extent to which each of the individual factors influence fixed asset losses. The significance of this study stems from the fact that, the government of Tanzania has had steady losses of an average of 70 billion a year for a period of five years starting in 2009. This situation has prompted the government to seek for informed interventions to combat these losses as these assets deliver important services to the public. This comes as an intervention to analyse these factors, the extent of their influences and therefore provide more information to government procedure reviewers on strategies and guidelines on quick-wins, high impact and foundational intervention to help improve asset management procedures. The Likert scale questionnaires were used to collect data from these LGAs. The data were collected from 9 LGAs and analyzed using Statistical Package for Social Sciences (SPSS) data analysis tool. Discriminant analysis was employed and it was observed that, there is a wide variation in LGAs asset losses intervention requirements. Through the analysis, physical counting versus record difference was found to be more critical followed by scope of asset tracking. In this paper, these findings and discussion which sets the basis for the recommendations that we herein put forth are presented.

**Key words:** Local Government Authorities, asset losses, accountability, framework, asset management, extent of influence, intervention, fixed assets.

#### INTRODUCTION

Public Fixed Assets in Tanzania Local Government Authorities are very important as they deliver important services to the public. Their importance cannot be overlooked as they require a lot of money during their initial investment or during their purchasing; hence ensuring their sustainability is required. According to Hanis et al. (2010), public asset management framework

is not advanced in developing countries, resulting to inefficient recording and accounting for public assets. The growing number of public assets results into increased demand for accountability, which tends to increase the system complexity as the system has to account for the growing number of fixed assets (Kuhn et al., 2011). On reviewing the Tanzania government annual audit reports

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by Utouh from 2007-2012, it shows that assets worth ~70 billion are not being accounted for, resulting into losses and decline of services they provide to the public. The study investigated the extent to which some of the factors influence asset losses. The variables which were critical in influencing asset losses were identified so that they could be used for intervention during the review of asset management strategies and guidelines.

Tanzania has about 134 local government authorities which are categorized into urban and rural authorities. Urban LGAs comprises of municipal and city councils, whereas rural LGAs are district councils. There are about 22 Urban LGAs where 5 of them are city councils, the remaining 17 are municipal councils and the rural LGAs are 112. The study was conducted in 4 urban LGAs and 5 rural LGAs based on nearest convenience to reach. The four urban LGAs were Moshi, Ilala, Kinondoni and Temeke and rural LGAs were Hai, Meru, Arusha district council, Babati district council and Moshi district council. The questionnaires were distributed in the 9 LGAs and data were collected and analysed using SPSS version 20.

Before adopting or applying the proper public asset management framework, it is important to identify the challenges and opportunities related to the adoption and application of the framework (Hanis et al., 2010). The government audit reports by Utouh shows several challenges like; some fixed assets were not recorded in the asset register, the actual number of assets was not known due to lack of asset details in asset register, some asset registers were missing, some registers did not contain detailed location information of fixed assets. unverified fixed assets at their location and non maintained fixed assets. Four variables were derived from the mentioned challenges to investigate the extent to which each of them influences asset losses. These were scope of tracking assets, rate of maintenance performed, accessibility of asset records in different departments or outside the LGA and counts versus record difference.

Pu and Chao (2011) discussed on the importance of managing fixed asset in the university library as they provide service to the readers. They further explained on the common problems experienced in the fixed asset management and put forward the recommendations and measures to be taken. One of the problems stated is weakness in asset management awareness where there is no cost accounting for asset and no provision for depreciation of fixed assets. Lack of clear responsibility in asset management is another problem where there is no mode of fixed asset classification and there is no centralized management. No inventory and no regular checking of fixed assets, generally the inventory is to be checked annually or semi annually but this is not the case in most LGAs, resulting in asset losses. Lastly, the management of fixed assets has not been included in the work routine, the management is lax and the losing of assets is common. Pu and Chao (2011) recommended the following measures; raising awareness on the importance of proper fixed asset management, improve the management of asset system to prevent loss, introduce the centralized management of asset system, establish the fixed asset inventory system and include the asset management in the routine work. Since Pu and Chao (2011)only stated the challenges recommendations without prioritizing which factors demands more attention in intervention, it is important to identify factors which are more critical in ensuring proper management of assets. This study analyzed the extent at which different factors influence asset losses and enlightens the critical areas which require an improvement in asset management framework.

#### **METHODOLOGY**

The study was conducted in 9 selected LGAs: Temeke Municipal council, Kinondoni Municipal council, Ilala Municipal council, Moshi District Council, Moshi Municipal Council, Arusha District Council, Meru District Council, Hai District Council and Babati District Council based on convenience of reach. The targeted population was council staff working in departments dealing with asset management in the 9 LGAs. The departments dealing with asset management were accounts, procurement, internal audit and land. About 160 questionnaires were distributed to the staff in the four departments; only 120 questionnaires were filled and collected due to less number of staff in some LGAs.

#### Hypothesis

The study investigated the extent to which each of the factors (Independent variable) influence asset losses (dependent variable).

Asset losses were categorized into three categories: low, high and medium. The losses were categorized to reduce or minimize the subjectivity measurement of losses. The analysis used was discriminant analysis because independent variables were continuous whereas, the dependent variable was not continuous, it was categorical. The analysis investigated the relationship between Xi and Y variables. Using discriminant analysis we tested if the three categories of Y which are high losses, medium losses and low losses depend on at least one of the Xi variables. The analysis investigated the extent to which Xi variables influenced Y variable. The extent of the influences was expressed by the values of discriminant coefficients. The number of discriminant functions was (N-1) where N is group categories. For this case, since there are 3 categories for Y, therefore numbers of discriminant functions were two:

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \dots$$
 1

The values of  $\beta_i$  and  $\alpha_i$  are the discriminant coefficient of the variables and they will show the discriminating power (the extent of influence) of each variable on asset losses. When using discriminant analysis, some assumptions were made such as the variables  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  are independent of each other, these Y categories/groups are mutual exclusive, the variance-covariance structure of the independent variables is similar within each group of the dependent variable, the independent variables follow a multivariate normal distribution, errors (residuals) are randomly distributed and the assets are in operation and productive if there

Table 1. Description of variables used in discriminant analysis

Variables	Type of variable	Explanation of variable
Count versus record difference	Predictor- X₁	Difference between physical counting of number of assets and the recorded assets.
Scope of tracking assets	Predictor- X <sub>2</sub>	Whether all assets are tracked or some, tracked in real time or not, weather all necessary details of assets are tracked.
Rate of Maintenance Performed	Predictor- X <sub>3</sub>	Whether rate of maintenance is sufficient to enhance the life of asset, whether there is a tool to manage maintenance alert.
Accessibility of Asset Records in different Departments or outside the Organization	Predictor- X <sub>4</sub>	Weather the information is centrally stored for easy accessibility, every department can easily access the information
Asset losses	Dependent- Y	Categorized into: low, medium and high

**Table 2.** Variable X<sub>n</sub>.

X <sub>n</sub> -variable	e	SA(w <sub>1</sub> =5)	$A(w_2=4)$	$N(w_3=3)$	$D(w_4=2)$	SD(w <sub>5</sub> =1)
$LGA_n$	Respondents fi	$f_1$	$f_2$	$f_3$	$f_4$	$f_5$
	Weighted average= $(\sum f_i w_i/N)$			$\overline{x_i} = (\sum f_i w_i / N)$		

Table 3. Variable Y.

Y- asset losses		High	Medium	Low
LGA <sub>n</sub>	Respondents	f <sub>1</sub>	$f_2$	$f_3$
	High mode	Highest fre	equency categor	y selected

are no losses.

Data were collected using a questionnaire developed from the five mentioned variables which are scope of tracking assets, rate of maintenance performed, and accessibility of asset records in different departments or outside the LGA, counts versus record difference (independent variables) and asset losses (dependent variable) (Table 1). The indicators for each variable were used to develop questions using Likert scale of scales 5- strong agree, 4-agree, 3- neutral, 2- disagree and 1- strong disagree. The questions were also developed for dependent variable which is asset losses but categorized into three categories which is high, medium and low losses, the reason for categorizing asset losses was to minimize subjectivity from asset losses data. Data were collected using questionnaires and summarized in tables for each local government authority. The mean values were calculated for each variable as shown in Tables 2 and 3.

For asset losses (dependent variable) which is asset category, the results with highest frequency of respondents (mode) were considered.

#### **RESULTS AND DISCUSSION**

Table 4 summarizes the results after computing mean for independent variables and mode for dependent variable for each LGA. From 160 questionnaires distributed, only 120 filled in questionnaires were collected. The results presented were from 120 respondents who responded.

The summarized results were analyzed by multivariate data analysis in SPSS version 20 using discriminant analysis to find the discriminating coefficients (discriminating power) of each independent variable on asset losses. The two functions were used to find the discriminant coefficients:

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \dots$$
 1

$$Y_2 = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 \dots 2$$

Finding the discriminant coefficients  $\beta$ i and  $\alpha$ i using SPSS; where i=0, 1, 2, 3, 4.

# Discriminant analysis on factors influencing asset losses in local government authorities

The following are presented findings of the discriminant coefficients after performing discriminant analysis. From the two functions above, that is,  $Y_1$  and  $Y_2$ , one function which is more significant in discriminating asset losses was chosen. The following parameters were used to determine which among the two functions was more significant in discriminating.

Table 4. Variables for all LGA.

LGA	$\overline{X1}$	$\overline{X2}$	$\overline{X3}$	$\overline{X4}$	Υ
Temeke	3.4	2.9	3.1	3.3	Medium
Ilala	3.5	3.1	3.1	3.1	Low
Moshi Municipal	3.9	3.2	3.6	3.6	Medium
Arusha District Council	3.7	2.8	3.5	3.3	High
Meru	3.9	3.5	3.7	3.4	Low
Moshi District Council	3.9	2.9	3.6	2.8	Medium
Hai	3.4	3	3.2	2.8	Medium
Kinondoni	3.4	2.8	3.2	3.3	Medium
Babati Municipal Council	3.6	3.2	3.2	3.1	Medium

**Table 5.** Discriminant coefficient for Y<sub>1</sub>.

$\beta_0$	β1	β2	$\beta_3$	β4
-8.260	0.277	6.530	-2.763	-1.052

Wilks' Lambda for  $Y_1$  is 0.358 and that of  $Y_2$  is 0.897 in Table 7. The Wilks' Lambda for  $Y_1$  is smaller than that of  $Y_2$ , this shows that  $Y_1$  is more significant in discriminating than  $Y_2$ . For a good model, Eigenvalue must be greater than one. From Table 7, Eigenvalue for  $Y_1$  is 1.503 and that of  $Y_2$  is 0.115. Eigenvalue of  $Y_1$  is greater than that of  $Y_2$  which shows that it has more discriminating power than that of  $Y_2$  by 13.0 factor. So, the discriminant coefficients of  $Y_1$  to determine the influence of each variable were considered.

Function one was found to be more significant than function two in discriminating the losses, therefore the discriminant coefficient for function one which are  $\beta_1$ =0.277,  $\beta_2$ =6.530,  $\beta_3$ = -2.763 and  $\beta_4$ = -1.052 from Table 5, were considered since  $\beta_3$  and  $\beta_4$  are negative discriminant coefficients than their discriminating power in discriminating alternative groups apart from the specified three groups which are high, medium and low losses. Therefore,  $\beta_1$  and  $\beta_2$  which are the discriminant coefficients with positive values were considered, with \$\beta\_2\$ leading with the value 6.530 followed by β<sub>1</sub> with the value 0.277 which are count versus record difference-X2 and scope of tracking asset -X<sub>1</sub>, respectively. The two factors have more influence on the asset losses than other factors. The variables have more impact on intervention as their discriminating powers over asset losses are high. The current process of tracking assets in the LGAs is not effective, it is done once in a year and if anything happens to the assets it can only be noticed at the end of the year during stock taking which is a long time interval. Tracking assets after such long time interval can be challenging and it might be too late for intervention. Some assets are tagged as group assets meaning if you track them, you cannot get the information status of the individual asset as they are recorded as grouped assets, the information for the individual assets are hidden in the recorded grouped assets. This creates a challenge of tracking the information for each individual asset as some individual assets may not be working but the recorded status of the grouped asset may still show they are working and they are in good condition. Assets physical verification is also done only during auditing and it is only once annually, causing late intervention like before. The government can improve the asset management framework by addressing the two identified factors by reviewing the asset management strategies and guidelines and by increasing the frequency on physical verification and tracking of fixed assets. Function two with discriminant coefficients  $\alpha 1=-3.726$ ,  $\alpha 2=0.838$ ,  $\alpha 3=5.566$ ,  $\alpha$ 4=1.580 from (Table 6) was not considered because it is less significant compared to function one because of its higher Wilks' Lambda value which 0.897 than 0.358 from function one (Table7).

#### CONCLUSION AND RECOMMENDATIONS

The results show that assets physical verification and tracking of fixed assets has more influence than asset losses. The government of Tanzania should focus on reviewing their strategies and guidelines in the two areas which are scope of tracking assets where individual asset vital information should be available at any time in order to know its status. The frequency of physical verification of asset should be increased per year, that is, reconciliation between the actual physical asset versus the recorded information to reduce the number of asset losses. This paper is set to inform the government asset

**Table 6.** Discriminant coefficient for Y2.

$\alpha_0$	$\alpha_1$	$\alpha_2$	$\alpha_3$	$\alpha_4$
-12.729	-3.726	0.838	5.566	1.580

**Table 7.** Testing of the functions.

Test of function(s)	Wilks' Lambda	Eigenvalues
1	0.358	1.503
2	0.897	0.115

management policy and guideline reviewers in Tanzania to give more emphasis on the identified areas for improvement in order to enhance asset accountability. The Information System can be developed or redesigned giving emphasis to the identified factors in order to address critical areas for asset losses intervention.

LGAs should introduce a department that will specifically deal with asset management because currently, the four departments are not specific in dealing with fixed assets, causing decentralization of fixed assets records with roles interference between departments. A single department would centralize the information and enhance fixed asset accountability by providing single point of access of information. This will make asset management more effective in each LGA.

Despite having government procedures and policies for managing fixed assets, the government of Tanzania ACT gives each LGA some powers to make their own decision on some issues including asset management. The government expects the LGAs to comply with government set policies and guidelines. However, the government policies and guideline should state clearly, specific areas which require LGAs to make their own decision and those that require compliance to avoid the interference of the two. Further study can be carried out to identify these areas.

#### **CONFLICT OF INTERESTS**

The authors have not declared any conflict of interest.

#### **ACKNOWLEDGEMENTS**

The authors acknowledge the Tanzania Commission for Science and Technology for sponsoring the study through NM-AIST. They sincerely appreciate the supervisors: Dr. Khamisi Kalegele and Dr. Bukaza Chachage for their tireless support and guidance. Lastly, they thank Dr. Haikael Martin for her help in proof reading this paper.

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Vol. 11(4), pp. 74-83, 28 February, 2017 DOI: 10.5897/AJBM2016.8074 Article Number: 3A3FC8B63046 ISSN 1993-8233 Copyright © 2017 Author(s) retain the copyright of this article http://www.academicjournals.org/AJBM

#### **African Journal of Business Management**

#### Full Length Research Paper

# Does strategic ambidexterity moderate organizational support - sales performance relationship for financial services in Uganda?

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Received 9 May, 2016; Accepted 27 July, 2016

Adapting strategic ambidexterity enhances the sales performance of financial services that provide support to their employees, especially the sales representatives. Simultaneously providing support aligned to the needs of existing markets and that which is aligned to needs of new markets attracts potential customers to open accounts and undertake policies in banks and insurance institutions, respectively, and encourages existing account or policy holders to save more with their banks or upgrade their insurance policies. Despite strategic ambidexterity's important role in the relationship between organizational support and sales performance, existing studies in financial services have concentrated on investigating the direct relationship between these variables. These studies have ignored the role of strategic ambidexterity in moderating the relationship between organizational support and sales performance. This study found that there was a positive and significant impact of strategic ambidexterity in moderating the relationship between organizational support and sales performance of financial services in Uganda.

**Key words:** Strategic ambidexterity, organizational support, sales performance, financial services, Uganda.

#### INTRODUCTION

Implementing strategic ambidexterity is beneficial to Uganda's financial services, since it enhances the prediction of the sales performance arising from the support these services provide to their sales representatives. Strategic ambidexterity comprises of exploratory and exploitative strategies, respectively, as its components. Strategic ambidexterity refers to the simultaneous exploration and pursuance of new market opportunities and efficient exploitation of existing markets (Judge and Blocker, 2008). According to O'Reilly and Tushman (2013), strategic ambidexterity enables

organizations to sense and seize current and new opportunities through allocating organizational assets' capabilities and resources. O'Reilly and Tushman (2004) argue that ambidextrous organizations are able to introduce innovative products without destroying existing ones. March (1991), suggests that organizations operating in a dynamic marketing environment ought to align the kind of support provided to employees to the needs of existing and new markets, if they are to improve their performance. Atuahene-Gima and Ko (2001) state that exploitative and exploratory strategies help

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organizations to increase their sales performance in both current and new markets, respectively (Ocasio, 2011). Ocasio (2011) further observed that organizations which adopt exploratory strategies tend to overcome rigidities since they are forward-looking. These organizations develop new products and seek new markets. Besides, by adopting exploitative strategies, ambidexterous organizations are able to understand their existing customers' needs and respond to them appropriately (McCarthy and Gordon, 2011).

In this study, we argue that financial services which adapt strategic ambidexterity do not only offer support which is relevant to the needs of existing markets, but also that which facilitates in meeting the needs of new markets. In addition, our view is that adapting strategic ambidexterity compels sales representatives of financial services to direct their sales efforts to existing and new markets, respectively. Hence, financial services which provide support to their sales representatives achieve increased sales, in terms of deposits from, borrowings by and premiums from both existing and new markets, respectively. Such financial services attract new people and organizations to open accounts and undertake policies in banks and insurance institutions, respectively, in addition to stimulating existing account or policy holders to save more with their banks or sign new insurance policies.

However, despite the importance of strategic ambidexterity in improving organizational support's prediction of sales performance, studies on the relationship between organizational support and sales performance, with strategic ambidexterity as a moderator are sparse. Existing studies that have attempted to explain how financial services can increase their performance, especially that regarding sales have concentrated on investigating the direct relationship between organizational support and sales performance. Many of these studies have only considered one or two elements of organizational support. Organizational support is defined as "a set of enduring policies, practices, procedures and tools that diminish the demands of the job and/or assist employees in achieving their work goals and stimulate their personal growth/development" (Babakus et al., 2003). It is said to comprise of supervisory support, training, rewards, empowerment and service technology support (Alpkan et al., 2010; Yavas and Babakus, 2010). Studies by Riggle et al. (2015), Diamantis and Chatzoglou (2012), Holland and Ruedin (2012), Shanock and Eisenberger (2006), and Uba et al. (2013) have found organizational support to be positively and significantly associated with sales performance. Wachiuri et al. (2015) also found existence of a positive, significant relationship between organizational support and sales performance. In Uganda, Mwesigwa and Namiyingo (2014) further observed that organizational support positively and significantly influenced sales performance among commercial banks. Given that many scholars report

positive and significant relationships between organizational support and sales performance, the question that needs to be answered is whether strategic ambidexterity enhances the organizational support – sales performance relationship for financial services in Uganda.

The need for an answer to the above question is justified by the world bank (2015) "Uganda Financial Sector Review" survey finding that whereas credit provided by deposit-taking institutions has been growing in absolute terms, the ratio of private sector credit as a percentage of GDP has been increasing at a low rate compared to other developing countries. Moreover, a 2013 World Bank Uganda Country Profile, Enterprise Survey report revealed that only 9.8% of Ugandans had a bank loan, which is low compared to the 36.5% worldwide average. In addition, the Uganda Insurers Association Annual Report (2014/2015) shows that in the vears 2010/2011 to 2014/2015, the insurance industry has grown at a decreasing rate. All these findings indicate that there is still room for the financial services operating in Uganda to enhance their sales performance. Our view is that integrating strategic ambidexterity would enable commercial banks, microfinance institutions and savings and credit cooperatives (SACCOs) and insurance companies which support their sales representatives to perform better in terms of deposits received, credit given and premiums received, respectively.

Therefore, we contribute to existing knowledge by investigating the moderating role of strategic ambidexterity on the relationship between organizational support and sales performance, an area where research is sparse. According to Wei et al. (2014), strategic ambidexterity increases an organization's adaptability to a dynamic environment, which is likely to augment organizational support's effect on sales performance.

The study was conducted in Uganda, focusing on financial services which included commercial banks, micro-finance institutions, insurance companies and SACCOs. The marketing environment of these services has become very dynamic and competitive, which has led to some of these institutions' failure to sustain sales performance and in some instances closing business. Expectations of Uganda's financial services' customers are high yet they keep changing with time because of growth in knowledge and application of information communications technology. Customers are able to quickly learn of new or better services being offered in the developed world. They expect financial services in Uganda to emulate those in the advanced economies. Besides, new competitors have emerged in the financial services marketing environment. Organizations like Mobile Telecommunications Network (MTN), Uganda Telcom Limited (UTL) and Airtel (formally called Zain) that were not in the main stream financial services have introduced Mobile Money Services in Uganda, adding to the already existing competition in the industry. According

to Bank of Uganda Annual Reports of financial years 2006/2007, 2007/2008, 2008/2009, 2009/2010 and 2010/2011, and calendar years 2012, 2013 and 2014, the annual growth rates of monetary deposits and loans and advances offered by commercial banks and microfinance institutions (Credit Institutions and Micro-Finance Deposit taking institutions) in Uganda have been fluctuating. In addition, according to the Uganda Insurers Association Annual Report (2014/2015), in the years 2010/2011 to 2014/2015, the insurance industry has grown at a decreasing rate.

In attempt to fill an existing gap in research, this study investigated the moderating role of strategic ambidexterity on the relationship between organizational support and sales performance, in Uganda's financial services. In this study context, sales performance is interpreted in terms of deposits, loans and advances, account holders, premiums and policy holders.

The next part of the paper involves review of literature, followed by the methodology used in this study, results and discussion thereof, conclusions, recommendations, limitations and areas for further studies, respectively.

#### LITERATURE REVIEW

#### Organizational support: Stakeholder approach

The stakeholder theory posits that support to relevant stakeholders creates superior value for them, which leads to improved performance for organizations (Freeman et al., 2004). Yau et al. (2007) argue that addressing interests of employees, who are one category of organizations' key stakeholders, makes them feel obliged to contribute to the achievement of organizational objectives, such as increasing sales performance.

#### Strategic ambidexterity: Paradox approach

Paradox theory offers a better explanation regarding prediction of sales performance for organizations operating in a dynamic marketing environment. Paradox refers to the simultaneous presence of opposites (Poole and Van de Ven, 1989; Bloodgood and Chae, 2010) that organizations can pursue and achieve through strategically shifting between poles of contradictory situations (Bloodgood and Chae, 2010). The strategic ambidexterity metaphor which refers to simultaneously executing exploration and exploitation strategies (O'Driscoll, 2008), therefore, has roots in this theory. Implementing strategic ambidexterity is said to enhance performance, such as sales performance for organizations.

#### Organizational support and sales performance

In order to carry out the selling function effectively and achieve good sales, sales force may require organizational

support. Organizational support provides the tools, means and a conducive environment which enable the successful execution of strategies by employees. Implementation of strategies, such as strategic ambidexterity (Hou, 2008) is necessary for organizational success.

Support provided by organizations to their employees can be in terms of supervisory support, training, rewards, empowerment and service technology support (Alpkan et al., 2010; Yavas and Babakus, 2010).

Bhanthumnavin (2003) observed that support by supervisors to their subordinates motivates employees to work beyond their assigned job specifications. This is likely to lead to improvement of individual and consequently sales performance. Eisenberger et al. (1986) further contends that supervisory support creates affective commitment within employees which makes them reciprocate with greater effort towards achievement of organizational objectives.

Besides, Fu et al. (2009) suggests that committed employees tend to spend more time and put a higher intensity of effort on work, which is likely to result in increased output, such as sales performance. In addition, Noe et al. (2006) argued that acquisition of knowledge and skills through training increases employee capability and enables them to deliver higher levels of service (Dolezalek, 2005). The findings are supported by Caudron (2002) and Kraiger (2003) who observed that organizations which invest more in training and development are comparatively more successful.

Furthermore, Latif (2012) asserts that employee training is linked to improved business results, which could include sales performance. This is consistent with Noe et al. (2006) who state that training facilitates employees' learning of job-related knowledge, and skills which increases their capability and enables them to deliver higher levels of service (Dolezalek, 2005). Diamantidis and Chatzoglou (2012) observe that training is more vital for organizations operating in dynamic marketing environment, such as is the case with Uganda's financial services, because it can enhance employee capability to deal with varying customer needs, personalities and circumstances.

Furthermore, Yavas and Babakus (2010) posit that employee rewards through compensation, esteem, status and social identity, and especially monetary rewards induce the employees to deliver high quality service to customers and thus, improved sales performance (Alpkan et al., 2010). Spreitzer (1995) and Spreitzer et al. (1997) also revealed that empowered individuals find meaning in their work role, feel competent to perform their work roles, have a feeling of self-determination with regard to specific means to achieve expected results, and believe that they can have a real impact on organizational outcomes.

Additionally, Schuster et al. (2013) view is that service technology support such as providing computers with

internet facilities enables customers to access the needed service without direct service employee involvement and thereby improves operational efficiency and competitiveness (Meuter et al., 2005). This is likely to increase sales performance for organizations offering this kind of support. From the foregoing, we hypothesize that:

H1: There is a positive, significant relationship between organizational support and sales performance.

#### Strategic ambidexterity and sale performance

Strategic ambidexterity is conceptualized as a firm's ability to concurrently pursue both exploration and exploitation strategies across product, market, and resource domains (Aulakh and Sarkar, 2005). It is also referred to as simultaneously exploring and seeking new market opportunities while efficiently exploiting existing markets (Judge and Blocker, 2008). Firms which exclusively focus on exploitative strategies align their core capabilities to existing markets (Hamel and Prahalad, 1994) at the expense of looking beyond, to future markets, where major opportunities and threats emerge (Leornard-Barton, 1992).

Naman and Slevin (1993) assert that organizations ought to efficiently respond to current markets and concurrently effectively prepare for new market on the horizon through the practice strategic ambidexterity, if they are to be successful. Developing new goods or services for emerging markets and at the same time improving the quality of existing goods or services, basing on current resources and capabilities for existing markets leads to increase in sales for organizations (Li et al., 2008).

Therefore, organizations operating in dynamic marketing environment need to have appropriate strategies not only to exploit current environments but also anticipate future changes and have appropriate strategies in place to apply when changes unveil (Brown and Eisenhardt, 1997), if they are to enhance their sales performance. Based on the literature cited earlier, the following hypothesis is derived:

H2: There is a positive and significant relationship between strategic ambidexterity and sales performance.

# Organizational support and sales performance: Strategic ambidexterity as moderator

Strategic ambidexterity creates an environment that enables an organization to respond promptly to market opportunities by generating or reshaping flexible strategies (Grewal and Tansuhaj, 2001). Hence, strategic ambidexterity encourages organizations to formulate strategies suitable for new markets as well as those that

are geared to addressing needs of existing markets (Li et al., 2008). Adoption of strategic ambidexterity, therefore, enhances financial services' sales performance, since this compels these employees to reap sales from both new and existing markets. When implemented, it increases an organization's adaptability to a dynamic environment (Wei et al., 2014), which is likely to augment organizational support's effect on sales performance. This is in line with Tharenou et al. (2007), who in their meta-analytic study found that the relationship between training, a component of organizational support, and organizational outcomes, such as sales performance is stronger when it is marched with contextual factors. The contextual factor considered in our study is the implementation of strategic ambidexterity by a financial service. We contend that if financial services provide support which is relevant to existing markets and also offers support which is in line with the needs of new markets, they will be in position to cover a wider scope of markets and consequently reap more sales.

This view is consistent with Vorhies et al. (2011) who stated that exploration and exploitation strategies, the components of strategic ambidexterity, interact with marketing capabilities increase organization's to performance. Organizational support provides capabilities such as having superior information technology tools or relevant knowledge, a capability attained through training. Marketing exploration focuses on applying new strategies such as getting the right product produced and marketed in response to newly identified or changed customer needs. This is done via: (1) development of a completely new initial configuration of market-based resources or (2) the reconfiguration and redeployment of existing marketbased resources (Vorhies and Morgan, 2005). Exploitation strategies, on the other hand, involve improving the quality of existing products or delivery processes which is an incremental strategy (Atuahene-Gima, 2005). This can be appropriate for small and medium enterprises or organizations that are new to particular businesses, since it does not require much money to implement. These strategies produce required results with minimum disruption to existing processes and focuses is on efficiency (Leonard, 1995).

Thus, commercial banks and microfinance institutions ought to continue accepting cheque leafs as they open more Automated Teller Machines (ATMs) as outlets for depositing and withdrawing money, to cater for both customers who prefer use of ATMs and existing customers who are comfortable with employing the cheque system, in order to grow sales. This is corroborated with USAID (2007) finding that ease of access to withdrawal and deposit of money were major considerations for choice of the bank with which to open an account.

These arguments and suggestions are consistent with Aulakh and Sarkar (2005) who attest that certain combinations of exploitation and exploration strategies lead to increased sales performance. It is also in agreement with Li et al. (2008) who found strategic ambidexterity to be associated with enhanced sales performance. Thus, based on review of literature earlier, we hypothesize that:

H3: Strategic ambidexterity positively and significantly moderates organizational support's prediction of sales performance.

#### **METHODOLOGY**

This part of the work describes the method that was followed to carry out the study. The areas covered include the research design, survey population, sample selection, sampling design and procedure, measurement of the study constructs, establishing the validity and reliability of the instrument and data analysis.

#### Research design

A cross-sectional, analytical survey design was adopted. This kind of research design was preferred because it provided a 'snapshot' of the outcome sales performance at a point in time. It was, therefore, inexpensive since it takes a short time to conduct, yet it estimated the prevalence of sales performance since the study sample was randomly selected for the population that the researcher focused on.

#### Population and sample size

The population consisted of 461 financial services. This included 25 commercial banks (Bank of Uganda Annual Report 2010/2011), 25 insurance companies (Uganda Insurance Commission http://www.uginscom.go.ug/licensed companies 2011.pdf), microfinance institutions affiliated to Association of Microfinance Institutions in Uganda (Microfinance Industry Assessment August. 2008) and 322 SACCO's (registered with the Ministry of Trade, Industry and Cooperatives by December 31, 2009). A sample of 299 institutions, arrived at basing on Yamane's (1973) formula was used in the study. The sample comprised 24 Commercial Banks, 24 Insurance Companies, 73 Microfinance Institutions registered with AMFIU, and 178 SACCO's, respectively. Yamane's sample size determination guideline was preferred because it yields a fairly representative sample. However, only 203 financial services returned well filled and therefore usable copies of questionnaires distributed to members of the sample, giving a response rate of 68%.

#### Sampling design and procedure

The researcher adopted a mixed sampling design. First, we stratified micro-finance institutions basing on tiers, into Tier I, Tier II, Tier III and Tier IV. Then, we obtained lists of Commercial Banks, Insurance Companies, and each of the MFI tiers. The lists were obtained from Bank of Uganda, Uganda Insurance Commission, AMFIU and the Ministry of Trade, Industry and Cooperatives, respectively. Elements in each of these categories of financial institutions were assigned numbers which were used in a lottery process before sampling was done. The assigned numbers were written on slips of paper, which were folded and then inserted in an empty box. The slips of paper in the box were then randomly drawn one by one, until the count reached the agreed sample size.

Secondly, we visited heads of marketing/sales department/section in the selected institutions and requested for lists of people, including supervisors and officers, tasked with marketing financial services in those institutions. We then randomly selected one person each from the lists of supervisors and officers, respectively. The head of marketing or his or her equivalent was also given copy of the questionnaire and requested to respond to it. This was done to avoid getting response from only one category of people and thereby cause common bias. The institutions included in the sample were those that had been assigned the numbers on the pieces of paper picked from the bucket.

#### **Data collection**

This paper is part of a major study where quantitative data using self-administered questionnaire were collected between mid 2013 and 2014. Copies of the data collection instrument were distributed by the researcher and two research assistants. The target respondents included the head of marketing or sales, his or her supervisor and an officer or sales representative. Furthermore, the variables under study were measured as the following.

#### Measurement of study variables

#### Strategic ambidexterity

Items used by Li et al. (2008) guided the development of the items that were used to measure strategic ambidexterity. We dropped item 'we give close attention to after-sales service' (Narver and Slater, 1990), because our interaction with some of the practitioners revealed that it was not a common practice in financial services business. Ten items were used for strategic ambidexterity which comprises of exploratory and exploitative strategies, respectively. Items to measure exploratory strategies include statements such as we innovate even at the risk of rendering our own products obsolete, we undertake radical and incremental innovation in the services we deliver to our customers, we have short-term and longterm strategies to help customers anticipate developments, and we anticipate customer needs months or even years before the majority of the market recognizes them. The dimension of exploitive strategy was measured relying on the following items: our strategy for competitive advantage is based on our understanding of customer needs, we constantly monitor our level of commitment and orientation to serving customer needs and we measure customer satisfaction systematically and frequently, we work with lead users to try to recognize customer needs months or even years before the majority of the market, our firm expands services for existing clients, among others. Measurement of strategic ambidexterity was anchored on a five-point Likert scale ranging from '1' Strongly disagree to '5' Strongly agree.

#### Organizational support

To assess organizational support dimensions, reference was made to the items developed and used in a study by Yavas and Babakus (2010) and that of Alpkan et al. (2010). Yavas and Babakus (2010) scale was adopted because it had been successfully used on a study in banking, which is one of the financial services covered in our research. However, some of these items were amended to suit the study environment. Items that were irrelevant to achievement of the study objectives were discarded.

Finally 20 items, anchored on a five-point Likert scale ranging from '1' Strongly disagree to '5' Strongly agree, were retained in the questionnaire for collecting data concerning organizational support. The items included: my boss strives to have those under him/her

**Table 1.** Relationships between organizational support, strategic ambidexterity and sales performance.

Performance	Mean	S.D	1	2	3
Organizational support (1)	3.6	0.62	1	-	-
Strategic ambidexterity (2)	3.8	0.59	0.36**	1	-
Sales performance (3)	2.5	1.18	0.44**	0.62**	1

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed); n=203.

get good health services, when they fall sick, my boss is willing to listen to work-related problems, at this institution, sufficient time is allocated for training, our institution allocates sufficient money for training. Other items that formed part of the measurement instrument were: at this institution, training programs are consistently evaluated, employees will be appreciated by their managers if they perform well, employees from every level will be rewarded, if they innovate. Also used were the following items: my promotion depends on the quality of service I deliver, I often make important decisions without seeking management approval, our employees have the freedom and authority to act independently in order to provide service excellence, sufficient money is allocated for technology to support my efforts to deliver better service, among others.

#### Sales performance

Sales performance was measured based on sales growth, market share (Narver and Slater, 1990; Jaworski and Kohli, 1993), retained customers and new accounts (Zallocco et al., 2009). This study, unlike those of Narver and Slater (1990), Jaworski and Kohli (1993) and Zallocco et al. (2009), omitted profit as one of the indicators to measure sales performance. This is because profits are mainly used as a measure for financial performance which was not the focus of our study; our research was concerned with sales performance; moreover, according to Kevin (2001: 607), if well managed, increased sales lead to increased profits. This meant that by looking at sales performance as measured in this study, one can have an idea on how the Uganda's financial services were faring in terms of profits. In order to measure sales performance, 5 items that focused on change over a five-year period (2008 to 2012) in market share, number of clients, growth of turnover, among others, were used.

#### Reliability and validity of the instrument

In order to test the validity and reliability of the measurement instrument, a pilot study was conducted on a sample of 70 institutions, purposively selected from commercial banks, insurance companies, microfinance institutions and SACCOs. Reliability was measured using Cronbach (1970) coefficients. The Cronbach Alpha coefficients obtained for organizational support, strategic ambidexterity and sales performance were 0.92, 0.86 and 0.85, respectively, which were acceptable as they met the minimum value of 0.7 recommended by Nunnally (1978).

However, prior to data collection, following Churchill's (1979) recommendation that scale items should be reviewed by someone else, preferably experts in practice and academia for their opinion on whether they cover the entire domain of the construct being measured, the researcher administered copies of the questionnaire to 10 experts/professionals for screening. These included two professionals each, from the Marketing, Management, and Management Science Departments, respectively, and four practitioners. The purpose and objective of the study were

explained to them individually. The experts/professionals were then asked to rate each item based on relevancy with the following scales: 4 very relevant, 3 relevant, 2 somehow relevant, and 1 not relevant.

The content validity index (CVI) was obtained by dividing the proportion of items declared relevant by the total number of items. The CVIs for organizational support, strategic ambidexterity and sales performance were 81.68, 94.8 and 76%, respectively. The comments of the experts on the suitability of the items and constructs of the study variables were included in the final instrument, as recommended by Neuman (2006).

During the pre-test phase items found to be ambiguous or redundant were amended in order to be able collect data intended for the study. A letter explaining the purpose of the study and assuring the respondents that the information collected would be kept secret was then designed to accompany the final questionnaire.

#### Data analysis

Correlation and regression analyses were conducted to establish the associations that existed between the study variable and the magnitude of variance that organizational support and strategic ambidexterity separately and collectively contributed to change in sales performance. In addition, a computer-generated Modgraph was employed to assess organizational support and strategic ambidexterity on sales performance of Uganda's financial services.

#### **RESULTS AND DISCUSSION**

Under this study, both correlation and regression analyses were used to test for linear relationships between the variables and predictive power of the independent and moderator variables on the outcome variable

Table 1 shows that the mean scores of the study variables range between 2.5 and 3.8, while standard deviations range from 0.59 to 1.118. This, for a five-point Likert scale, indicates that the concepts in the study were being practiced to a reasonable level. Moreover the standard deviations are small which implies that the study sample is an accurate reflection of the population (Saunders, 2006).

#### Organizational support and sales performance

The study was carried out to establish the relationship between organizational support and sales performance. The Pearson's correlation results revealed that there was

Davamatar	Dependent variable (sales performance)					
Parameter	Model 1	Model 2	Model 3	VIF		
Constant	1.33	1.23	0.69	-		
Organizational support (Main effect)	0.58**	0.44**	0.46**	1.62		
Strategic ambidexterity (Moderator)	0.62**	0.69**	1.43	-		
Interaction term	-	-	0.46*	1.74		
R <sup>2</sup>	0.27	0.35	0.42	n/a		
$\Delta R^2$	-	0.08	.07	n/a		
ΔF	29.82**	125.43**	.26.42**	n/a		

Table 2. Interaction effect of organizational support and strategic ambidexterity on sales performance

a positive and significant relationship between organizational support and sales performance (r = 0.44,  $p \le 0.01$ ). This means that organizational support has an impact on sales performance. Providing or sponsoring training of sales representatives is likely to increase their efficiency in service delivery which consequently satisfies financial services' customers. Noe et al. (2006) argued that acquisition of knowledge and skills through training increases employee capability and enables them to deliver higher levels of service (Dolezalek, 2005).

Sales representatives who feel they are getting good remuneration from their employers usually handle customers in a friendly manner and may work beyond the mandatory limits. Customers who are happy with the service tend to not only remain loyal but also do more business with financial services that supply such services. This is consistent with Fu (2009) who contends that satisfied customers are committed to their work and are likely to spend more time and put a higher intensity of effort on work, which is likely to result in increased output and such as sales performance. Customers of financial services with such employees will bank more or undertake new insurance policies, in addition to existing ones, since they are attended to even outside the normal working hours. This finding is in line with Bhanthumnavin (2003) who observed that support by supervisors to their subordinates motivates employees to work beyond their assigned job specifications. This is likely to lead to improvement of individual and consequently sales performance. Eisenberger et al. (1986) further argued that supervisory support creates affective commitment within employees which makes them reciprocate with greater effort towards achievement of organizational objectives.

#### Strategic ambidexterity and sales performance

Furthermore, the correlation results in Table 1 indicated that there was a positive and significant relationship between strategic ambidexterity and sales performance (r = 0.44,  $p \le 0.01$ ). This implies that strategic ambidexterity

influences sales performance among financial services providers. Hence, developing new products such as internet banking and techniques for accessing financial services, for example, introduction of visa debit cards and Automated Teller Machines (ATMs), increases the number of customers and volume of deposits for commercial banks and microfinance institutions. This is because doing so enables busy managers and international businessmen to bank and access money any time from selected banks in many countries across the world. Financial services offering such services also are likely to grow their market share. This is in agreement with Vermeulen and Raab (2007: 1) who stated: "new products are a means to gain market share and ensure the viability of companies".

This is supported by Naman and Slevin (1993) who argued that if organizations efficiently respond to current markets and concurrently effectively prepare for new market on the horizon through the practice strategic ambidexterity, if they are to be successful. Developing new goods or services for emerging markets and at the same time improving the quality of existing goods or services, basing on current resources and capabilities for existing markets leads to increase in sales for organizations (Li et al., 2008).

In addition, regression analysis was performed to test for the predictive power of the independent variable and moderator on the outcome variable are shown in Table 2.

The result from the regression analysis revealed that there was a positive and significant relationship between organizational support and sales performance ( $\beta$  = 0.44, p<0.05). This result supports hypothesis (H1) of the study that states that: there is a relationship between organizational support and sales performance. This result is consistent with Caudron (2002) and Kraiger (2003) who observed that organizations which invest more in training and development are comparatively more successful.

Further, the table 2 revealed that there was a positive and significant relationship between strategic ambidexterity and sales performance ( $\beta$  = 0.66, p<0.01). This result support hypothesis (H2) of the study that

<sup>\*\*</sup>p<0.01; n=203.

#### strategic mediation effect 250.00 200.00 150.00 sispfmc ambidx -high 100.00 med low 50.00 0.00 Low High Med Orgspt

Figure 1. ModGraph showing interaction effect between organizational support and strategic ambidexterity.

states that: there is a relationship between strategic ambidexterity and sales performance. This result is consistent with Latif (2012) who asserted that employee training is linked to improved business results, which could include sales performance. This is consistent with Noe et al. (2006) who state that training facilitates employees' learning of job-related knowledge, and skills which increases their capability and enables them to deliver higher levels of service (Dolezalek, 2005). Diamantidis and Chatzoglou (2012) observe that training is more vital for organizations operating in dynamic marketing environment, such as is the case with Uganda's financial services, because it can enhance employee capability to deal with varying customer needs, personalities and circumstances.

# Organizational support and sales performance: Strategic ambidexterity as a moderator

The finding from the regression analysis further indicated that the interaction effects between organizational support and strategic ambidexterity is positive and significant ( $\beta$  = 0.62, p<0.01). Therefore, this justifies the fact that the presence of strategic ambidexterity in financial services enhances the influence of their support to sales representatives on predicting their sales performance. The result indicates that the interaction enhances the main effect in explaining variation in sales performance. The inclusion of strategic ambidexterity increased the predictive power of organizational support by 7% from 35 to 42% ( $\Delta$ R<sup>2</sup> = 0.07). Therefore, we can

conclude that strategic ambidexterity boosts organizational support's prediction of sales performance by 7%, thus supporting hypothesis (H3) of the study.

While organizational support to sales representatives (for example through training to equip them with knowledge and availing them with tools such as computers) enables them to deliver the selling function efficiently, unless the support facilitates the effort to meet target market needs it may not benefit firms that provide it. It is implementation of strategic ambidexterity that will compel financial services to respond to respond appropriately to both existing and new markets, respectively, and thereby cover a wider scope of markets to deliver sales (Li et al., 2008).

This is consistent with Vorhies et al. (2011) assertion that exploration and exploitation strategies interact with marketing capabilities, like having superior tools and being more knowledgeable, to increase organization's performance.

In order to confirm existence of moderation we used a ModGraph to generate graphs as per Jose (2008) recommendation. The outcome portrayed in Figure 1 proves that strategic ambidexterity interacts with organizational support since the effect is higher at high level than it is at a lower level. The rule for existence of interaction postulates that the graph should have different gradients and slope, and the lines should not be parallel. Figure 1 abides by this rule.

This implies that changes in strategic ambidexterity do positively and significantly affect variation in sales performance. The result further indicates that the model was non-additive. This supports hypothesis (H3) of the

study.

The finding is consistent with Aulakh and Sarkar (2005) who observed that combinations of exploitation and exploration strategies are associated with increased sales performance. It is also in agreement with Li et al. (2008) and Grawe et al. (2009) who found strategic ambidexterity to be associated with enhanced sales performance.

The main purpose of the study was to establish the moderating role of strategic ambidexterity in the relationship between organizational support and sales performance of financial service providers in Uganda. The study investigated the moderating effect of strategic ambidexterity in the relationship between organizational support and sales performance. Results of the study reveal that strategic ambidexterity positively and significantly moderates in the relationship between organizational support and sales performance.

This result implies that adoption of strategic ambidexterity improved sales performance of commercial banks, micro-finance institutions, insurance companies and SACCOs.

In addition, introduction of new products and ways of delivering existing products, such as use of visa debit cards and Automated Teller Machines (ATMs) increases the deposits from existing customers since this enables deposit and withdrawal of money from selected competing banks within and outside Uganda.

Besides, adoption of strategic ambidexterity encourages refinement of products and increases efficiency in execution of strategies or techniques used to deliver services to current customers.

The findings further support Aulakh and Sarkar (2005) who stated that strategic ambidexterity, the combination of exploitation and exploration strategies were associated with increased sales performance.

#### **Conclusions**

The result from the study indicated that there was an interaction between organizational support and strategic ambidexterity to boost sales performance among financial services providers in Uganda. The result showed that inclusion of strategic ambidexterity increased the predictive power of organizational support by 16% to influence sales performance.

Besides, there was a positive and significant relationship between organizational support and sales performance. Organizational support leads to increase in sales performance among financial services providers in Uganda.

Furthermore, the results also revealed that there was a positive and significant relationship between strategic ambidexterity and sales performance. Use of both exploitative and exploratory strategies by financial services' providers results into improved sales performance.

#### RECOMMENDATIONS

Financial services providers should support their sales representatives to enable them execute their duties efficiently and effectively and thereby increase sales for those services.

Organizations operating in dynamic marketing environment should improve on the strategies used to exploit their current markets and also concurrently design strategies that are appropriate for new and anticipated markets, in order to enhance their sales performance.

Financial services managers should incorporate organizational support and strategic ambidexterity as strategies to be implemented in their strategic plans, since the interaction of these two strategies enhances sales performance.

#### LIMITATIONS AND AREAS FOR FURTHER STUDY

The study used cross-sectional design, therefore ignoring longitudinal study. Thus, there may be need to investigate the same concept over time.

This study was limited to only financial services providers located in Uganda. Future study involving other areas may be viable.

#### **CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

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Vol. 11(4), pp. 84-93, 28 February, 2017 DOI: 10.5897/AJBM2016.8201 Article Number: B74C3CA63058 ISSN 1993-8233 Copyright © 2017 Author(s) retain the copyright of this article http://www.academicjournals.org/AJBM

#### **African Journal of Business Management**

#### Full Length Research Paper

# An evaluation of performance using the balanced scorecard model for the university of Malawi's polytechnic

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Received 31 October, 2016; Accepted 13 February, 2017

The study was conducted with a view to evaluate the performance of the University of Malawi's Polytechnic using the Balanced Scorecard model. The research employed a deductive approach and adopted a survey strategy. A closed questionnaire eliciting demographic characteristics and work related factors was sent to a sample of the Polytechnic stakeholders who were selected using a nonrandom purposive technique. The results indicated that the institution's performance was poor on all the perspectives of the balanced scorecard. However, the performance of the college based on output performance measures was rated as good. The results have also shown that the internal processes and innovation, and learning processes showed a strong correlation to performance measures.

**Key words:** Balanced scorecard, financial perspective, customer perspective, internal processes, innovation and learning, performance measures.

#### INTRODUCTION

Tertiary institutions of education have to achieve varying objectives in order to survive. These institutions are, for instance, expected to become institutions of excellence in as far as contemporary teaching and research is concerned (Umashankar and Dutta, 2007), transparent and accountable to their donors, financiers, trustees and/or governments (Papenhausen and Einstein, 2006), augment efficiency of their operations in the light of escalating global costs (Amaratunga and Baldry, 2000) and take into account the dynamic external demands of the stakeholders and new technological evolutions in their programme (Purlsglove and Simpson, 2007).

Mehralizadeh et al. (2007) point out that once these parameters are met, tertiary institutions of higher learning will produce high caliber of the graduates. Furthermore, production of quality graduates will give an institution a competitive edge over other tertiary education providers; hence boost enrolment and chances of attaining accreditation (Mc Devitt et al., 2008). For tertiary institutions to discern their performance they have to continuously assess their performance so that they know whether they are proceeding as intended or not, clearly communicate at all levels what the institution wants to accomplish and how it intends to accomplish, allow

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continual evaluation of corporate alignment on strategic goals and improve the probability as well as speed the pace at which change occurs in the institution (Kim et al., 2003). However, gauging performance of tertiary institutions of higher education has largely been output based. Institutions have been assessed, for instance, based on the number of graduates that the institution has graduated and/or the overall grades scored by students in the exams (Karapetrovic and Grygoryev, 2005).

Rating tertiary institutions of education in this way has been heavily criticised because among other reasons, they focus on issues that can be indisputably measured, notify us what has happened but fail to explain why it has happened, they may suggest where things went wrong but fail to highlight where things are going well and also only to acquaint us with the past (Sanger, 1998).

Thus, they tend to disregard other strategic issues that are pivotal in coming up with a graduate as a final product. Just focusing on the product itself, the graduate, may however, not yield much this as other equally critical players in the educational setup maybe sidelined. As such, results of such evaluation exercises have not been of much assistance in both the management of institutions as well as determining the strategic performance of the institutions by stakeholders.

Kaplan and Norton (1992) developed the Balanced Scorecard (BSC) model which was aimed to balance financial and non-financial measures within the corporate planning and performance measurement systems. The aim of the model was to add leading measures that represent indicators of future financial performance to traditional financial measures, which are based on past performance, and are lacking in other aspects. The balanced scorecard model (Kaplan and Norton, 1992) emphasises the need for an evaluation model that covers all relevant areas of corporate performance measurement systems.

Asiedu (2015) argued that the tool is used to define and monitor performance value such as customer value performance, internal business performance and employee performance. The information that the model requires is premised on financial perspective and non-financial perspectives namely: customer satisfaction, internal business processes, and innovation perspectives. These four perspectives are balanced, as organisations are required to think in terms of all the four perspectives together to prevent a situation in which improvements are made in one area at the expense of another.

Tertiary institutions of education like the Malawi Polytechnic are challenged to produce high-class graduates with relevant knowledge and skills in relevant fields so that they are able to steer development in the country. There have been no documented studies addressing the applicability of the balanced scorecard in tertiary institutions of higher learning in Malawi.

This study therefore aims at using the balanced scorecard model to evaluate such institutions. Specifically,

the study assesses the Malawi Polytechnics' financial, customers, internal processes and innovation and learning factors that impact on the institutions' performance.

The results of this study will provide a yardstick to other tertiary institutions in Malawi in terms of how to measure their performance using the BSC Model.

#### LITERATURE REVIEW

#### The BSC concept

The BSC concept as propagated by Kaplan and Norton (1992) border on the philosophy that management should not only focus on financial aspects of the business but also on the customer, internal processes and innovation, and learning aspects. The concept is aimed at giving managers a comprehensive view of the business, and allows them to focus on critical areas of the organization thereby driving the strategy forward. It also helps to communicate and implement an organisation's strategy. Limitations of the traditional performance measures which emphasized the financial perspectives of the business are what motivated Kaplan and Norton (1992) to come up with the BSC concept.

Other limitations of the traditional performance measures include performance measures not being incorporated into strategy, measures being inflexible and fragmented, and that measures contradict accepted continuous improvement thinking (Wongrassamee et al., 2003).

As a management tool, the BSC helps organizations to translate their mission and strategy into tangible objectives and measures, and also balances the measures between external (financial – for shareholders and customers) and internal measures (internal processes and innovation and learning).

Furthermore, it balances results measures (outcome that is, financial) and driver measures (measures for future improvements that is. customers, internal processes and innovation and learning) (Wongrassamee et al., 2003). Owing to its characteristic of tying performance matrics more closely to a firm's strategy and long term vision, the BSC is also ranked as an excellent evaluation tool in the sense that it is used to evaluate managerial activities with unbiased view points by providing both tangible financial aspects as well as intangible non financial aspects, and also evaluate customer satisfaction which is very important in business (Kim et al., 2003). Above all, if properly implemented, the internal development of the scorecard helps to create a new corporate culture in an entity which is always aligned to the strategy (Gibbons and Kaplan, 2015).

The main drawback of the BSC concept is that if applied without modification in terms of the entity's culture, technology, strategy and mission, it will not bring

about the intended results ((Kim et al., 2003; Khomba et al., 2012). In addition, the integration of the BSC frameworks in a business unit or whole company is notclearly detailed (Wongrassamee et al., 2003). Despite these limitations, the BSC has been adopted to suit and encompass a number of situations including sustainability (environment, social and ethics).

Recently, a review of literature by Hansen and Schallegger (2014) found that the BSC has been adopted to include sustainability and renamed SBSC. They concluded that using the BSC framework and adding sustainability related objectives and performance measures to come up with the SBSC, the SBSC can be a promising framework for integrating strategy and sustainability in business.

## Applicability of the BSC to tertiary institutions of education

The BSC has been adopted and used in other countries to strategically evaluate tertiary institutions of education. In the United States of America, Dorweiler and Yakhou (2005) conducted their study at Michigan Technological University and concluded that higher learning institutions can better manage their institutions using the BSC model. This was also supported by Papenhausen and Einsten (2006) and McDevitt et al. (2008) in their studies done at University of Massachusetts and Fairfield University, respectively.

Umashankar and Dutta (2007) reported similar findings in India when they carried a study on the implementation of the BSC on tertiary institutions of education at the Institute for International Management and Technology in Hayana. Results found in both India and USA universities were collaborated in Taiwan (Chen et al., 2006) at Chung-Yan University, in UK (Thomas, 2007) at Warwick Business School, and lastly but not least in Malaysia (Lee, 2006) at an International Medical University.

However, these studies suffered from various weaknesses which might weaken their conclusions on the use of the BSC model to strategically measure the performance of tertiary institutions of education. For instance, in the studies done by Doweiler and Yakhou (2005) at Michigan Technological University, the researchers focused on the performance of academic administrators only to the exclusion of other stakeholders, similarly, Mc Devitt et al. (2008) used the BSC to measure the performance of only one faculty of the Fairfield University. A major weakness on these two studies borders on the scope of the research as studies on Academic administrators on one hand, and one faculty on the other cannot give sufficient information on the performance of an entire University.

#### Four perspectives of the balanced score card

Kaplan and Norton (1992) argue that a balanced

scorecard model must comprise four dimensions that they call financial, customer, internal processes and innovation and learning perspectives.

#### Financial perspective

Amaratunga et al. (2001) assert that the financial perspective show the results of strategic choices made in other perspectives of customer, internal processes and innovation and learning, and also indicate whether the organisations strategy, implementation and execution have contributed to the bottom line. In other words, it is used to gauge how the system has performed (Wongrassamee et al., 2003). Lee (2006) alleges that prudent financial management helps to achieve better results as these are achieved at minimum cost.

Financial perspective is important because it gives the results of all other perspectives of customer, internal processes and innovation and learning, and also that without this perspective the other perspectives can fail to take place, as this perspective is about financing the others (Niven, 2002).

However, using the financial perspective as a performance management tool to the exclusion of the other three has been criticised by many researchers. Amaratunga et al. (2001) claim that this arrangement short-termism, furnishes encourages misleading information for decision making, fails to consider requirements of today's organisation and strategy, provides misleading information for cost allocation and control of investments, and furnishes abstract information to employees. Love and Holt (2000) maintain that over reliance on financial measures is retrogressive and out of date. In their analysis, Kaplan and Norton (1992) concluded that assessing companies based on financial aspects only do not accurately reflect the interest of the shareholders.

The measures that can be used to measure financial performance of an educational institution include good financial management, fund raising capabilities and external relationships (Dorweiler and Yakhou, 2005), tuition income, reduce human resource cost and increase asset usage (Chen et al., 2006).

#### **Customer perspective**

Ruekert (1992) defined customer orientation that Lee (2006) quotes as the degree to which an organisation obtains and uses information from customers, develops a strategy that will meet customer needs and implement that strategy by being responsive to customer needs and wants. The customers of an institution like The Polytechnic include all its stakeholders. Examples of stakeholders include students, employers, government, parents, faculty, staff, administration, alumni, and the community at large. Punniyamoorthy and Murali (2008)

emphasise that in order to get information from stakeholders, a meeting needs to be organised whereby a face-to-face discussion would take place.

Customer orientation would positively contribute to the performance of the institution in the sense that customers will be satisfied once their needs and wants have been supplied. This would result in high enrolments, and therefore high revenue that could be used to improve the internal processes of the institutions as well as improve its innovation and learning processes (Lee, 2006).

This view is supported by Pelham and Wilson (1996). On the other hand, if customers were not given their needs and wants, it would contribute to the failure of the institution to perform better. This would come about because the customers would look for another institution and educational services, in the process, the institution revenue would drop.

This would also lead to drop in service efficiency, as the institution would not have funds with which to improve internal processes and innovation, and learning which are key to educational institutions. Various researchers have measured customer orientation in tertiary institution of education using different measures.

For instance, Chen et al. (2006) measure customer orientation from two perspectives: namely the customer satisfaction point of view and the promotion of the institutions' image point of view. On one hand, they measure satisfaction by looking at number of customer complaints and how fast students get employed from the institution. On the other, they suggest that the image of the institution can be measured by looking at the reputation of the institution, number of students who want to get tuition at that institution and participation in charity activities by the institution.

Even though some measures like reputation can be difficult to objectively measure, they all perfectly describe the type of relationship that exists between the institution and the stakeholders. Despite the difficulty in operationalising some measures, this research will employ all of them to measure the institutions' orientation to its customers.

#### Internal processes

Papenhausen and Einstein (2006) look at internal processes as critical internal processes that drive the customers (stakeholders) satisfaction, and eventually the financial outcome. Amaratunga et al. (2001) share this position, when they view internal processes as mechanisms through which performance expectations are achieved. Once an institution has solicited needs and wants of its customers, it needs to put in place processes that can turn the wishes of customers into realities (Lee, 2006).

People would need to have the necessary technical knowledge and skills at all levels in order to provide the needs to the customers. The skills and knowledge would be complimented by up to date facilities and technology, and also appropriate procedures and regulations (Punniyamoorthy and Murali, 2008).

Internal processes play a big role in determining the performance of an institution. Dorweiler and Yakhou (2005) claimed that good internal processes in an academic institution lead to, among other things, quality of educational services and efficiency.

Chen et al. (2006) measured internal processes from two perspectives, namely quality service process and complete teaching facilities. On quality service process they look at administration efficiency and student staff ratio.

Regarding teaching facilities, they propose teaching facilities renew rate, and teaching facilities use rate. In addition to these, Dorweler and Yakhou (2005) insisted on quality of faculty, teaching excellence, service efficiency and effectiveness, strategic plan, performance evaluation and board assessment. Both of these are measuring internal processes by considering the quality of service, teaching facilities and quality of teaching.

#### Innovation and learning

Innovation and learning can be defined as the identification of the sets of skills, and processes that drive the college to continuously improve its critical internal processes (Papenhausen and Einstein, 2006). Once the needs of the customers have been obtained, institutions convert these requirements into activities that can process them into tangible output that customers can use.

At times, it is found that there is a gap between the internal processes requirements in terms of skills, information systems and the organisation climate, and what is available (Lee, 2006). For instance, the institution might be lacking some skills that are necessary for the provision of a need to the customer. It is the duty of the innovation and learning to consider what it must do to maintain and/or develop the know-how required for understanding and satisfying customers (Amaratunga et al., 2001). In addition to meeting the gaps that might be there, Amaratunga et al. (2001) also emphasise that the purpose of this perspective is to consider how it can sustain the necessary efficiency and productivity of processes which are presently created for customer.

Dorweiler and Yakhou (2005) recommended that innovation and learning should be measured by looking at an institution's teaching and technology leadership, programme/curriculum innovation, pedagogy enhancement, reward system, whereas Thomas (2007) considered training and development of human resources, developing an institution's knowledge culture, an institution's involvement in research as some of the measures of innovation and learning.

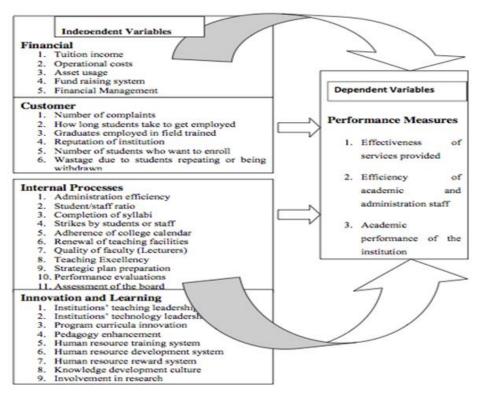


Figure 1. The conceptual framework.

#### **Performance**

Performance is a multidimensional construct and Kaplan and Norton (1996) considered time, quality, flexibility, financial efficiency, customer satisfaction and human resource as key dimensions of performance. These dimensions are consistent with those set by the Ministry of Education in Malaysia as reported by Lee (2006). The Ministry of Education in Malaysia at the time had, efficiency, effectiveness, quality of service, students' academic achievement, student discipline, student participation in sports and extra curricula activities as main constituents of performance dimension.

However, Lee (2006) viewed these dimensions into common factors of efficiency, quality, responsiveness, cost and overall effectiveness. In the commercial world, customers use their knowledge and expectations to measure the quality of the services being offered (Parasuraman et al., 1986). However, unlike products that are manufactured, it is not easy to measure the quality and effectiveness of services in service industry like the teaching and learning because of the intangibility of the outcome. Despite this challenge, Soutar and Mc Neil (1996) recommend the use of a service-marketing instrument called SERVQUAL (Service quality) to measure intangibles. This instruments prescribe that service be viewed from five dimensions. The dimensions include: tangibles, reliability, responsiveness; assurance

and empathy.

Grygoryev and Karapetrovic (2005) assert that a tertiary institution of education's academic performance is said to be high if the students being educated at the institution are well prepared to become productive citizens of the future. This implies that graduates from institutions must have been well equipped to perform tasks that their prospective employers will need them to accomplish or be able to accomplish tasks needed in their businesses, if self employed. However, for educational institutions to impart skills and knowledge required by prospective employers, tertiary institutions of education need to adapt the marketing principle that says corporate strategy must flow from the customer needs (Soutar and Mc Neil, 1996).

In the education sector, customers are substantially employers and therefore if employers are happy with graduates, then one can conclude that the institution produces high quality graduates.

#### The conceptual framework

Performance variables include service effectiveness, academic performance and quality students (Ministry of Education, Malaysia in Lee, 2006)). The conceptual framework that was applied in the study is depicted in Figure 1.

**Table 1.** Distribution of sample size.

Subject characteristics	Sample size	Percentage
University office	5	4
Polytechnic administration	5	4
Deans of faculty	5	4
Heads of department	15	13
Lecturers	30	25
Employers	60	50
Total	120	100

#### **METHODOLOGY**

A deductive approach was adopted. A survey strategy was employed to collect data. The population of the research included major stakeholders of the Polytechnic, namely; University office officials, Polytechnic administration officials, Deans and Heads of departments and Employers. Some stakeholders like Government who also have a major interest were indirectly included as employers. A purposive sampling technique was used to collect the sample because of its practicality (Palys, 1992). The sample size was determined as shown in Table 1.

Data was collected using a questionnaire. This instrument was chosen because it is quick, cheaper than face-to-face interview and provides moderately high measurement validity (Saunders et al., 2009). The questionnaire adopted a 5-point Likert Scale and used the nominal scale, the ratio scale and the ordinal scale to measure the rating (Saunders et al., 2009).

Two sets of questionnaires were used in the research. One questionnaire was for the internal stakeholders that is, university officials and the polytechnic administration, deans, heads and lecturers and the other for external stakeholders that is, employers. What necessitated the split of the questionnaire was the fact that external stakeholders would not have information relating to financial and internal perspectives of the Polytechnic. For this reason, the employers' questionnaire had two perspectives of the balanced scorecard model unlike four perspectives that the internal stakeholders reviewed.

120 questionaires were physically dropped at each prospective respondent, and telephone calls and physical visits by the researcher were used in order to increase the response rates.

#### **FINDINGS**

#### Characteristics of the respondents

A total of 76 questionnaires were returned out of 120 questionnaires which were sent out, giving a response rate of 63%. The majority of the respondents were employers of the polytechnic graduates representing 54%, and the least came from university office management and polytechnic deans of faculties representing 3%. Other respondents were polytechnic management (5%), polytechnic heads of departments (10%) and polytechnic lecturers (25%).

The results show that most of the respondents came from the age group 40 to 50 years representing 37%. The least were young respondents (age group 25 to 30 years) representing 10% of the respondents. Other respondents

came from age groups 30 to 40 years (32%) and over 50 years (21%).

The results also indicated that the majority of the respondents in this research hold masters degrees (32%) followed by those holding professional qualifications in their field of specialisation (30%), and bachelor's degree (30%). The other respondents that took part in the research were PhD holders (8%). The results show that most of the respondents have been with their current employers for a reasonable time, between five years and ten years (38%). The other respondents have been with their employers for less than five years (26%) and the others more than ten years (36%).

More than half of the respondents (58%) work for small firms with less than 500 employees. The remainder of the respondents came from medium firms with between 500 and 1000 employees (26%), and large firms with more than 1000 employees (16%). The majority of the responses came from Academia (41%), seconded by those that came from the financial service sector (18%). The remainder of the respondents were drawn from manufacturing (9%), utility (7%), public accountants (4%), motor vehicles (4%), ICT (4%), pharmaceutical (3%) and other respondents came from Fast Moving Consumer Goods, construction, hospitality, agriculture, transport, sales & service, health, NGOs (10%).

# Polytechnic's performance based on BSC perspectives

The objective of the research study was to assess the performance of the polytechnic based on the financial, customer, internal processes and innovation and learning perspectives of the BSC model. The respondents were requested to measure the performance of the college based on a scale of 1 to 5, with average scores below 3 meaning poor performance, average score of 3 denoting average performance while scores above 3 indicate good performance. The results have been shown in Table 2.

The results show that the overall mean score for the respondents on the financial perspective was 2.2. This means that the respondents viewed the polytechnic performance from the financial perspective as poor. Although the overall rating is 2.2, there is a wide range of

Perspectives	University office	Poly admin	Poly deans	Poly heads	Poly lecturers	Employers	Mean score
Financial	2.9	2.6	1.6	2.1	2.1	N.A	2.2
Customer	2.4	3.2	2.8	2.4	2.7	2.8	2.8
Internal processes	2.2	2.8	2.3	2.4	2.4	N.A	2.4
Innovation and learning	2.6	3.3	2.6	2.5	2.4	3.1	2.9
Mean score	2.6	3.0	2.3	2.4	2.4	3.0	2.6

Table 2. Overall performance of the polytechnic from all four perspectives of the balanced scorecard model.

**Table 3.** Performance of the polytechnic based on output performance measures.

Variable	University office	Poly admin	Poly deans	Poly heads	Poly lecturers	Employers	Mean score
Mean score	2.3	3.1	2.5	3.3	3.1	3.4	3.3

perspective among the respondents from 1.6 up to 2.9. Interestingly, respondents from university office management rated the performance of polytechnic higher (2.9) than deans at the polytechnic (1.6).

The overall mean score for the respondents on the customer perspective was 2.8. This means that the respondents viewed the polytechnic performance from the customer perspective as poor. While the overall rating is 2.8, there is a wide range of perspective among the respondents from 2.4 to 3.2. Respondents from the polytechnic administration rated the polytechnic performance higher than university office (3.2)administration (2.4), polytechnic heads and departments (2.4).

On the internal processes perspective, the results show that the overall mean score for the respondents was 2.4, which mean that the respondents viewed the polytechnic performance from the internal processes perspective as poor. There appears to be a consensus among respondents on internal processes because the range of perspective among respondents is small from 2.2 to 2.8.

The results also indicate that the overall mean score for the respondents under the innovation and learning perspective was 2.9. This means the respondents viewed the polytechnic performance from this perspective as just below average. Though the overall rating is 2.9, there is a wide range of perspective among the respondents from 2.4 to 3.3. Interestingly, polytechnic administration rated the performance of the polytechnic higher (3.3) than lecturers at polytechnic (2.4).

The overall results of the study on performance of the polytechnic from all the four perspectives of the BSC show that the overall mean score for the respondents was 2.6. This means the respondents viewed the polytechnic overall performance from all the four perspectives of the BSC as poor. Even though the overall mean score was 2.6, there is a wide range of perspectives

among the respondents on the performance of the polytechnic from 2.3 to 3.0. It is interesting to note, staff from polytechnic administration and employers rated the performance of the polytechnic higher (3.3) than deans of polytechnic (2.3).

# Polytechnic's performance based on output performance measures

The respondents were also requested to rate the performance of the college based on the output performance measures. The results have been shown in Table 3. The results show that the overall mean score for the respondents was 3.3. This means the respondents viewed the polytechnic performance as good. Although the overall rating is 3.3, there is a wide range of perspective among the respondents from 2.3 to 3.4. The employers category rated the performance of the institution higher (3.4) and staff from university office administration rated it lower (2.3).

#### DISCUSSION

The ratings of the respondents on the performance of the polytechnic based on the BSC perspectives and output performance measures were tested to find out if there were any significant differences. The results have been depicted in Table 4. The analysis of variances (ANOVA) of respondents on the financial perspective show that these differences are statistically significant, F(4, 30) = 1.88, p < 0.05.

In general, staff from the university office management (2.9) and polytechnic administration (2.6) rated the polytechnic performance higher than academic members: Deans (1.6), Heads (2.1) and lecturers (2.1). From these

BSC perspective / Output performance measures	F – Value	P - Value	
Financial	1.88	< 0.05	
Customer	1.86	< 0.05	
Internal Processes	0.74	< 0.05	
Innovation and Learning	4.99	> 0.05	
Overall	8.1	> 0.05	
Output Performance Measures	2.08	< 0.05	

**Table 4.** Analysis of variances based on respondents ratings on the BSC perspectives and output performance measures.

results, it is observed that the performance of Polytechnic is deemed poor as such, the Polytechnic cannot be expected to perform well overall because the financial perspective is the one that funds the other perspectives like internal processes and innovation and learning (Niven 2002).

Therefore, if an institution has performed poorly under the financial perspective, it is more likely that it will perform poorly overall. The results are in line with those of Weerasooriya (2013). Werasooriya (2013) ranked the financial perspective poor while the innovation and learning perspective was ranked highly Hladchenko (2015) noted that in higher education, the balanced scorecard emphasizes academic measures, rather than financial performance of higher education institution.

In this regard, the measures developed in balanced scorecard are usually built on and around such aspects as faculty/student number (ratios), demographics, students pass percentages and dispersion of scores, class rank, percentile scores, graduation rates, percentage graduates employed on graduation, faculty teaching load/faculty research/publications, statistics on physical resources (Pingle and Natashaa, 2011).

Similarly, the differences on the ratings by respondents on the customer perspective are statistically significant, F (5, 70) = 1.86, p < 0.05. Furthermore, it is encouraging that employers, who have more interest in the graduates from the Polytechnic, rated its performance at 2.8. The poor performance of the institution from the customers'perspective is worrisome. It is imperative that the tertiary institutions of education are viewed positively by external stakeholders. Lee (2006) notes that institutions which do well on the customer perspective are likely to increase enrolment and recruitment thereby boosting the financial perspective by having more revenue hence more resources to fund the internal processes and innovation and learning.

The observed differences by respondents on the internal processes perspective are also statistically significant, F(4, 30) = 0.74, p < 0.05. It is interesting to note though that polytechnic administration, and those from University Office administration are each on the extreme side of the range, rating the performance of the Polytechnic at 2.8 and 2.2 respectively. This result is not

strange considering that the institution faired below average under the financial perspective. The financial perspective is the one that is meant to fund internal processes so that their operations can thrive. Furthermore, it is because of the poor performance of the internal processes that has resulted into the customers'perspective also fairing below average as the internal processes are the ones that drive the customers' perspective (Papenhausen and Eisten, 2006). Regarding innovation and learning, interestingly, Polytechnic administration rated the performance of the Polytechnic higher (3.3) than lecturers at the Polytechnic (2.4) and these differences are not statistically significant, F (5.69) = 4.99, p > 0.05.

In general, apart from University Office staff (2.6), staff from polytechnic administration (3.3) and employers (3.1) rated the polytechnic performance higher than academics: Deans (2.6), Heads (2.5) and lecturers (2.4). These results under the innovation and learning are in line with the fact that innovation and learning can only do well if financial perspectives have done well because innovation and learning perspectives need financial perspectives to do well so that they can be funded (Niven, 2002).

Overall, even though, staff from polytechnic administration and employers rated the performance of the polytechnic higher (3.0) than deans of polytechnic (2.3), these differences are not statistically significant F (5, 70) = 8.1, p > 0.05. The results of the analysis of variances on the ratings of respondents on the performance measures based on the output reveal that the differences are statistically significant F(5, 70) = 2.08, p<0.05. The results show that most respondents felt that the academic performance of the institution is good. However, this contradicts with the results from the BSC perspectives which revealed that the institution performance is poor.

# Correlation of the balanced scorecard perspectives to output performance measures

Table 5 shows the results of the correlation between the financial, customer, internal processes and innovation,

Balanced scorecard variables	Performance measures	Sig. (2 tailed)	N	
Financial perspective	0.100	0.954	35	
Customer perspective	0.285	0.130	76	
Internal processes perspective	0.487	0.003	35	
Innovation and learning perspective	0.590	0.000	76	

**Table 5.** Correlation of the balanced scorecard perspectives to output performance measures.

and learning (independent variable) and performance measures (dependent variables).

The results show that there was a weak correlation between the financial perspective and the performance measures; however, this correlation was not statistically significant r (33) =0.1, p>0.05. Similarly, there was a weak correlation between customers' perspective and performance measures, and this correlation is not statistically significant r (74) =0.285, p>0.05.

On the other hand, results of the study show that there was a strong correlation between internal processes of the polytechnic and the performance measures, and this correlation was statistically significant r(33)=0.487, p<0.05. Additionally, the results show that there was also a strong correlation between innovation and learning and performance measures and the correlation was statistically significant r(74)=0.59, p<0.05.

The results imply that the performance of the polytechnic is dependent on the financial perspective, customers' perspective, internal processes perspective, innovation and learning perspective as there was positive correlation between each perspective and the performance measures. However, going by the strength of correlation that this study has revealed, the financial perspective has been ranked as the least. This is contradicting earlier studies done that intimated that the other perspectives can only do well if the financial perspective has done well and therefore the overall performance of the institution will improve (Niven, 2002).

#### **CONCLUSIONS AND RECOMMENDATION**

The performance of the polytechnic has been measured using the balanced scorecard model. The study has revealed that the performance of the Polytechnic is poor. However, the performance of the College had been rated as good on the basis of the output performance measures.

The study has also established that whereas there was a weak relationship between the financial and customer factors and the performance measures, there was a strong relationship between internal processes and innovation and learning on one hand and performance measures on the other.

Based on the outcome of the research, it is recommended that the institution must ensure that the

spirit of efficiency should be entrenched in the administration. For instance, calendar of events must be done and strictly pursued, objective decisions must be made timely, resources must be used economically and prioritised to core business of the institution which is training of students, performance targets must be set and reviews done.

Again an institution should come up with a strong fund raising system (Dorweiler and Yakhou, 2005) that can be used to fund internal processes and innovation and learning processes of the college. These processes are fundamental in the training of the students. Besides, if the college has ample funds, it would be able to have sufficient structures so that it is able to admit the many students who want to enrol with the institution. The institution must design program that are modern, pertinent to the industry and innovative enough to be able to bolster in addressing the challenges facing the industry and also the nation in general, (Dorweiler and Yakhou, 2005).

This can be accomplished by, among other means, embracing the industry and other stakeholders when designing and reviewing curricula (Soutar and Mc Neil, 1996). This will guarantee that not only do graduates get employed or find something to do immediately after graduation but also that they will either be employed or find something to do in the field in which they were trained.

The institution should reinforce monitoring and evaluation of staff. The institution must ensure that only qualified staffs are teaching the institutions' students (Dorweiler and Yakhou, 2005; Kim et al., 2003). Furthermore, there must be means and ways of scrutinising if the program curricula are contemporary, applicable and innovative. Also, staff must be monitored to find out if they are covering the syllabi in full and that the type of exam being administered is ideal for the level of the year. It should be noted that while the study was based on the University of Malawi's Polytechnic, the recommendations that have been made could equally apply to other tertiary institutions in Malawi.

This study has focused on the Polytechnic. There are several tertiary institutions in Malawi. It would also be engrossing to utilise the Balanced Scorecard model to rate other tertiary institutions of education with different courses and set up from that of the Polytechnic and see if identical results would be achieved.

#### **CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

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