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INFLUENCE OF FINANCIAL STRUCTURE ON BANK PERFORMANCE IN COMMERCIAL BANKS IN EAC COUNTRIES

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INFLUENCE OF FINANCIAL STRUCTURE ON BANK PERFORMANCE IN COMMERCIAL BANKS IN EAC COUNTRIES

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ABSTRACT

Purpose: The purpose of this study was to analyze the Influence of financial structure on bank performance in commercial banks in EAC countries.

Methodology: The study used cross country data analysis of 100 commercial banks and collected secondary data from annual published audited financial statements for the period 1997-2011.

Results: The results from the balanced panel data set indicate a positive and significant relationship between financial structure and RoE.

Policy recommendation: The study recommended that the bank regulators need to encourage banks to list on their respective stock exchanges so as to increase banks share and also to enable them source for funding in the capital markets.

Keywords: *Influence, financial structure, bank performance*

1.1 INTRODUCTION

Banks are the main part of the financial sector in any economy performing valuable activities on both sides of the balance sheet. A commercial bank is defined by is a financial intermediary that raises funds primarily by issuing checkable deposits (deposits on which checks can be written), savings deposits (deposits that are payable on demand but do not allow the owner to write checks), and time deposits (Mishkin, 2001). The Financial Times (2013) have a similar definition where a commercial bank refers to a financial institution providing services for businesses, organizations and individuals. The study by Diamond and Rajan (2001) highlights the strength of the banking system as an essential requirement to ensure the economic stability and growth. Services include offering current, deposit and saving accounts as well as giving out loans to businesses. On the asset side, they enhance the flow of funds by lending to the cash starved users of funds, whereas they provide liquidity to savers on the liability side. Banks also facilitate the payments and settlement systems and

support the smooth transfer of goods and services. They ensure productive investment of capital to stimulate the economic growth. Hence it is this banking system that constitutes the largest part of the financial system in most countries, especially in emerging and developing markets (Beck and Dermiguc-Kunt, 2009).

The European Central Bank (2010) defines bank performance as the capacity to generate sustainable profitability. Kumar and Gulati (2010) define performance in both profit and non-profit organizations as an appropriate combination of efficiency and effectiveness. Profitability refers to the net gains after deducting all costs and is essential for ongoing activities as well as for its investors to obtain fair returns.

A performance measurement framework as noted by Bigliardi and Bottani (2010) assists in the process of performance measures building, by clarifying measurement boundaries, specifying performance measurement dimensions or views and may also provide initial intuitions into relationships among the dimensions. There are a multitude of measures used to assess bank performance with each group of stakeholders having its own focus of interest. (Rouse and Putterill, 2003)

The ECB (2010) supports the above notion and classifies the large set of performance measures for banks used by academics and practitioners alike, into traditional, economic and market-based measures of performance. The Traditional measures of performance measures include return on assets (ROA), return on equity (ROE) or cost-to-income ratio and net interest margin (NIM). The economic measures of performance take into account the development of shareholder value creation and aim at assessing, for any given fiscal year, the economic results generated by a company from its economic assets (as part of its balance sheet). These measures mainly focus on efficiency as a central element of performance, but generally have high levels of information requirements. Lastly, the Market-based measures of performance characterize the way the capital markets value the activity of any given company, compared with its estimated accounting or economic value. The most commonly used metrics include: the "total share return" (TSR), the "price-earnings ratio" (P/E), the "price-to-book value" (P/B), which relates the market value of stockholders' equity to its book value; the "credit default swap" (CDS), which is the cost of insuring an unsecured bond of the institution for a given time period.

Productivity theory as reported by Chatzoglou *et al.*, (2010), is a well developed branch of analysis (and theory) with three commonly used methods: Stochastic Frontier Analysis (SFA), total factor productivity (TFP) and Data Envelopment Analysis (DEA). Productivity growth is defined by Al-Muharrami (2007) as the change in output due to technical efficiency change and technical change over time. A further more recent branch that provides for performance to be decomposed further into technological change and efficiency change is provided by Malmquist (1953) techniques.

Rouse and Putterill (2003) mention other methods commonly used for performance analysis which include statistical regression, data mining, factor analysis, structural equation modeling, expert systems/ geographic information systems, and ratio analysis.

While commenting on effectiveness, Keh *et al.*, (2006) observed that a measure of effectiveness assesses the ability of an organization to attain its pre-determined goals and objectives. This indicates that there is no consensus on a single measure that can be applied to measure bank performance.

The performance of commercial banks has also been influenced by other key macro-levels factors which include markets structure, financial structure and output. The relationship between performance and market structure has been a subject of debate in literature. Market structure refers to the number of participating banks in the market and the market shares of banks, including bank specific factors, such as cost efficiency, scale efficiency, and the risk attitude of banks. Market structure as highlighted by Wong *et al*., (2007) determines the performance of banks specifically banks' profits and pricing behaviors. In general, banks profitability and pricing power are hypothesized to be determined by market structure.. Amongst the various approaches, a number of studies have focused on the structure – performance relationship of banks, with the structure-conduct-performance (SCP) hypothesis and the efficient-structure (EFS) hypothesis widely tested.

The SCP paradigm as highlighted by Delis and Papanikolaou (2009) postulates that firms are able to extract higher profits in concentrated markets because they can resort to oligopolistic behavior and collusive arrangements. According to the SCP, a positive correlation between profitability and market concentration indicates that there is not enough competition in the banking market. The EFS hypotheses emphasizes that higher profits are not generated because of an oligopolistic behavior of the big firms but because they are more efficient than other firms in the market, hence the increase in size and the market share.

Review of literature highlighted the important relationship between performance and financial structure. Financial structure refers to the relative development of banks versus markets. Demirguc-Kunt and Huizinga (2000) analysed the influence of financial structure on profits and margins and found evidence that differences in bank and stock market development do translate into differences in the cost of bank financing for firms. However, they find that financial structure *per se* does not have a significant, independent influence on bank profits and margins. A similar study was also done by Ruiz-Porras (2009) who found the effect of financial structure on bank performance to be significant.

The banking sectors in the East African Community (EAC) countries as noted by Cihak and Podpiera (2005) consist of three main segments – large domestic banks, subsidiary banks or branches of international banks and small (domestic and foreign) banks. Other segments include mortgages, deposit taking microfinance institutions, representative offices of foreign banks, foreign exchange bureaus and credit reference bureaus. The International banks play a key role in each of the countries. The EAC countries have a total of 127 commercial banks comprising Kenya 43; Tanzania 32; Uganda 25; Rwanda 14 and Burundi 13 as at 31 December 2011.

1.2 Statement of the Problem

The worldwide financial crisis in 2008 highlighted the importance of financial systems and their role in supporting economic development. Commercial banks in particular play a critical role as they intermediate funds between savers and investors and hence evaluating their performance is important to depositors, owners, new investors and the central bank. During the financial crisis, a number of banks collapsed and were placed under receivership thus investors lost their savings. Prior to their collapse, the banks had shown favorable performance when measured using the most frequently used measures of return on assets and return on equity which then prompts the questions: 'How suitable are the current measures being applied?', 'Are these measures measuring the same thing?', 'Which perspective is comprehensive enough to tell us about overall performance?'. These questions have brought into focus and reignited the debate on applicability of the various measures of bank

performance. The various performance measures reflect different perspectives and one does not get a clear view of the overall performance. An attempt has been made to construct a composite measure on productivity (combining efficiency and effectiveness) but this excludes profitability. The review of the literature exposes a research gap whereby there is an absence of a measure that combines productivity and profitability to measure the overall performance of a financial institution.

Previous studies in East Africa have reviewed performance from the financial ratios perspective while others have looked at the aspects of efficiency but neither has considered the effectiveness of banks which is an important aspect of bank performance nor the application of a combined measure.

Performance of financial institutions is also influenced by key macro-level factors which include market structure, financial structure and economic growth. Therefore, there is need to assess the impact of these macro-level factors on commercial banks' performance, more so, the theoretical relationships between market structure, financial structure, output and performance measures due to the contradicting results from previous studies on these relationships.

This study therefore proposed a common measure that combined the key attributes of productivity and profitability to address this problem and analyzed the theoretical relationships with market structure, financial structure and output.

1.3 Objective of the Study

The objective of the study was to analyze the influence of financial structure on bank performance in commercial banks in EAC countries

2.0 LITERATURE REVIEW

2.1 Theoretical review

2.1.1 Finance Growth Theory

Over the past decade, as noted by Koivu (2002), considerable interest focused on the link between the financial sector and economic growth. Endogenous growth theory emerged in the late 1980's and paved the way for new theories exploring the link. Pagano (1993) suggests three ways in which the development of financial sector might affect economic growth under the basic endogenous growth model. First, it can increase the productivity of investments. Second, an efficient financial sector reduces transmission costs and thus increases the share of savings channeled into productive investments. Third, financial sector development can either promote or decline savings.

Financial sector development has been defined as the improvement in quantity, quality and efficiency of financial intermediary services. Schumpeter (1911), McKinnon (1973) and Shaw (1973) have postulated that financial development has a strong connection with economic growth. The theoretical basis for linking economic growth with financial development is that a well developed financial system fuels technological innovation and economic growth through the provision of financial services and resources to those entrepreneurs who demonstrate evidence of successfully producing innovative products and processes.

Inklaar and Koetter (2008) show that more efficient banks are particularly important in stimulating both output and productivity growth, while traditional volume measures of finance are less important for productivity growth. Both bank cost and profit efficiency scores are economically and statistically significant factors in spurring economic activity and they facilitate both output and productivity growth.

Demirguc-Kunt and Maksimovic (1998) investigate how differences in legal and financial systems affect firm's use of external financing to fund growth. The study shows that in countries whose legal systems score high on an efficiency index, a greater proportion of firm's use long-term external financing. The authors develop a financial planning model to obtain the maximum growth rate that each firm could attain without access to long term financing. The study then provides a micro-level test of the hypothesis, advanced by King and Levine (1993) and Levine and Zervos (1998) that the degree to which financial markets and intermediaries are developed is a determinant of economic growth.

Berger *et al.,* (2004) contribute to the finance-growth literature by focusing on one dimension of the financial system and how its effects may be transmitted into economic growth. Specifically, Berger *et al.,* (2004) hypothesizes that relatively large market shares and relatively high efficiency for community banks may promote economic growth using data from 1993-2000 on 49 nations. It seems likely that community banks will be effective if these institutions are also relatively efficient. The results show a positive coefficient between market shares and efficiency.

Koivu (2002) uses empirical data to examine whether relatively larger, more efficient banking sectors accelerated economic growth in transition economies using a fixed-effects panel model. The findings support the view that the presence of an efficient banking sector accelerated economic growth. In particular, researchers have provided additional findings on the finance-growth nexus and have offered a much bolder appraisal of the causal relationship at firm-level, industry-level, and cross-country studies all suggest that the level of financial development exerts a large, positive impact on economic growth.

Mensah, Abor, Aboagye and Adjasi (2012) examine the relationship between banking sector efficiency and economic growth in Africa. The study used the stochastic frontier approach stating the banking sector cost function as a Fourier flexible to estimate bank efficiency. The study used the Arellano–Bond GMM estimator to investigate the relationship between banking sector efficiency and economic growth. Annual data for banking sector financial statements were used in estimating efficiency scores. The study found banking sector efficiency in the sample to be 69%.

Mensah *et al.,* (2012) found a positive relationship between banking sector efficiency and economic growth, confirming the critical role banks play in the economy. Banking sector efficiency score of 69% implies banks in Africa could save up to 31% of their total cost if they were to operate efficiently. Policy direction should therefore focus on policies and incentives that will improve the efficiency of the banking sector and hence economic growth.

Efficiency and effectiveness are the central terms used in assessing and measuring the performance of organizations (Mouzas, 2006). Performance, in both profit and non-profit organizations, can be defined as an appropriate combination of efficiency and effectiveness. However, there seems to be some inconsistency in the use of these terms in the existing literature on the subject matter. For the managers, these terms might be synonymous but each of these has their own distinct meaning.

Drucker (1977) distinguished efficiency and effectiveness by associating efficiency to "doing things right" and effectiveness to "doing the right things." In his terminology, a measure of efficiency assesses the ability of an organization to attain the output(s) with the minimum level of inputs. It is not a measure of a success in the marketplace but a measure of operational excellence in the resource utilization process.

For a profit organization, Ho and Zhu (2004) used Du Pont model and decomposed the overall performance measure (proxied in terms of return on assets (ROA)) into the product of efficiency (measured as total assets turnover ratio) and effectiveness (measured as profit margin ratio) measures. Their decomposition is illustrated as follows:

$$ROA = \frac{Earnings\,before\,tax}{Total\,sales}$$

$$= \frac{Earnings\,before\,tax}{Net\,sales} \; x \; \frac{Net\,sales}{Total\,assets} \text{ `}$$

Profit margin ratio   Total assets Turnover ratio

Overall Performance =   Efficiency   x   Effectiveness

In the aforementioned decomposition, the ROA is considered as a measure of overall performance and assesses the profitability of total assets before taxation for an organization. Further, it contains efficiency and effectiveness as its mutually exclusive components. Total assets turnover ratio assesses the ability of an organization to use its assets and could be treated as efficiency. It indicates the output generated by the use of given level of inputs. On the other hand, the profit margin ratio assesses the net profitability before taxation during the current accounting period and could be taken as a measure of effectiveness. This ratio indicates the ability of an organization to achieve the expected goals in terms of output(s).

Therefore, the performance measure for an organization is a product of efficiency and effectiveness measures (performance= efficiency x effectiveness). Thus, overall performance measure can be seen as a means of quantifying the efficiency and effectiveness of actions (Neely *et al.,* 1995).

Generally, higher economic growth encourages bank to lend more and permits them to charge higher margins, as well as improving the quality of their assets. Neely and Wheelock (1997) use per capita income and suggest that this variable exerts a strong positive effect on bank earnings. Dermiguc Kunt and Huizinga (2000) and Bikker and Hu (2002) attempted to identify possible cyclical movements in bank profitability, that is, the extent to which bank profits are correlated with the business cycle.

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3.0 RESEARCH METHODOLOGY

The study used cross country data analysis of 100 commercial banks and collected secondary data from annual published audited financial statements for the period 1997-2011.This study therefore, employed a quantitative/scientific approach to deal with this ambiguity within the East African region. The target population was 127 commercial banks licensed at the start of every calendar year beginning 1st January 1997 to 1st January 2011 in the five countries namely; Uganda, Kenya, Tanzania, Rwanda and Burundi. However, two countries were excluded namely Rwanda and Burundi due to the unavailability of data for at least three years on their stock exchanges. Burundi does not have a functional stock exchange while Rwanda has a demutualised stock exchange that begun full operation in 2010 thus reducing the sample size from 127 to 100 commercial banks. The five countries form the East African Union which has begun the process of integration into a monetary union and hence the special focus on this region. The relationship between the performance scores and the exogenous factors was then analyzed using regression and Analysis of Variance Tests (ANOVA) to assess the strength and fit of the models to bring out trends that will lead to conclusions.

4.0 RESULTS AND DISCUSSIONS

4.1 Data Analysis

A preliminary analysis was done to check the representation of the commercial banks on a country by country basis. The study applied both balanced panel data sets which had a sample of 63 banks and an un-balanced panel data set which had a total of 100 commercial banks. The composition of the commercial banks used in this study is presented in table 1.

Table 1: Analysis of the sample of commercial banks in EA

Country	Balanced Sampled number of banks	Unbalanced Population of banks	Balanced Percentage of sample (%)	Balanced Percentage of population (%)
Kenya	37	43	59	86
Tanzania	21	32	33	66
Uganda	5	25	8	20
Total	63	100	100	

Table 1 show that commercial banks in Kenya constitute the largest share at 59% of the sample size followed by Tanzania at 33% and lastly Uganda at 8%. In terms of representation against the total population Kenya has the highest at 86%, Tanzania at 66% and Uganda at 20%. The Kenyan banking sector has a high representation due to undertaking banking reforms in 1996 ahead of Uganda (2004) and Tanzania (2006) and this resulted in their faster development and also required disclosures in terms of financial reports. The low percentage in Uganda is brought about by the moratorium on new banks that had been placed by the Ugandan Central bank.

4.2 The Effect of Financial Structure on Bank Performance Measures

The fourth objective was to determine the influence of financial structure on bank performance in commercial banks in EA commercial banks. Financial structure refers to the

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development of banks relative to that of markets and theory postulates that it does not have an independent effect on bank performance.

Financial structure is measured using two variables: w_1 measures the activity of stock markets relative to that of banks while w_2 measures size of stock markets relative to that of banks. The first variable w_1 is measured as the logarithm of the ratio of stock market capitalization to GDP while w_2 is measured as the ratio of stock market total value traded to GDP.

4.2.1 Comparative Model results using Panel Data Regression (Kenya)

The final model results for Kenya are presented in table 2 analyzing the relationship between the dependent variables (PM, NIM, ROA, ROE, SPM) and the independent variables (structure size, Lnw1; structure activity, Lnw2).

The results indicate that there is a negative and significant relationship between financial structure size (Lnw1) and PM (p-value<0.001) but a positive and significant relationship with SPM (p<.05). Results further indicate that there is a negative but insignificant relationship between financial structure size and NIM, ROA and ROE.

Table 2 Comparative Random Effects Model results

	PM	NIM	ROA	ROE	SPM	OPM
Lnw1	-0.0606***	-0.00169	-0.00541	-0.00367	0.0547*	-0.087
	(-3.76)	(-0.97)	(-1.81)	(-0.46)	(2.62)	(0.331)
Lnw2	0.00707*	1.961***	-0.00378	0.191	0.0195	0.149
	(2.17)	(4.45)	(-0.14)	(1.85)	(0.890	(0.035)
Constant	0.467***	0.0635***	0.0405***	0.209***	0.259***	0.237*
	(9.29)	(15.97)	(6.46)	(12.40)	(5.91)	(8.32)
N	222	222	222	222	222	222
R^2	0.1365	0.0184	0.1705	0.2395	0.2177	0.205

NB: t statistics in parentheses

*p<0.05, **p<0.01, ***p<0.001

4.2.2 Comparative Model results using Panel Data Regression (Uganda)

The final results for Ugandan panel modelled using OLS are presented in table 3 and they indicate that there is a negative and significant relationship between financial structure size and PM (p-value<0.05) and ROE (p-value<0.01). There is a negative but statistically insignificant relationship with NIM and ROA but positive with SPM.

The relationship between financial structure activity and ROE is positive and significant (p<0.01) but insignificant for SPM. PM, NIM, and ROA have a negative and statistically insignificant relationship with financial structure activity.

Table 3: OLS Model and Random Effects results

	PM	NIM	ROA	ROE	SPM	OPM
Lnw1	-0.0584*	-0.00123	-0.0088	-2.712**	0.00534	-1.436
	(-2.36)	(-0.22)	(-3.38)	(-3.43)	(0.22)	(-2.69)
Ln w2	-0.0290	-0.00570	-0.0023	1.222*	0.00539	0.678
	(-0.93)	(-1.32)	(-0.77)	(2.38)	(0.24)	(1.39)
Constant	0.183	0.104***	0.0174	-4.955	0.852***	-3.05*
	(1.32)	(4.46)	(1.28)	(-1.89)	(7.49)	(-1.49)
N	30	30	30	30	30	30
R^2	0.526	0.123	0.641	0.401	0.022	0.184

NB: t statistics in parentheses

*p<0.05, **p<0.01, ***p<0.001

Source: Author (2013)

4.2.3 Comparative Model results using Panel Data Regression (Tanzania)

Fixed effects were used to run the PM, ROA, ROE, and SPM model. NIM was run in OLS. Results in table 4 for Tanzanian commercial banks indicate that there is no significant relationship between financial structure size and structure activity and any of the bank performance measures.

Table 4 Comparative random effects results

	PM	NIM	ROA	ROE	SPM	OPM
Lnw1	-0.0602	-0.00182	-0.0405	-0.0952	-0.00701	-0.0346
	(-1.41)	(-1.78)	(-1.36)	(-1.11)	(-0.34)	(-0.842)
Ln w2	0.0659	0.00180	0.0449	-0.0201	0.0260	0.0891
	(0.85)	(1.14)	(0.98)	(-0.67)	(0.72)	(0.365)
Constant	-0.0853	-0.00126	-0.0326	-0.00524	0.145	-0.432
	(-0.44)	(-0.31)	(-0.30)	(-0.16)	(1.53)	(-1.03)
N	126	126	126	126	126	126
R^2	0.016	0.026	0.018	0.010	0.04	0.038

NB: t statistics in parentheses

*p<0.05, **p<0.01, ***p<0.001

4.2.4 Comparative Model results using Panel Data Regression (Joint Countries)

A joint panel composed of the three countries namely Kenya, Uganda and Tanzania was analyzed and the results shown on table 5 below.

Results from both the fixed effects tests and the random effect tests indicate that an OLS model is the best model for the joint panel. The results indicate that there is a negative and significant relationship between financial structure size (Lnw1) and ROE (p-value<0.001) and SM (p-value<0.001) but positive for SPM (p-value<.05). There is a negative but statistically insignificant relationship with NIM and ROA.

The relationship between financial structure activity (Lnw2) is positive and significant for ROA (p<0.05) and ROE (p<0.05) but insignificant for PM and SPM. NIM has a negative and insignificant relationship with financial structure activity.

The results for the balanced panel data for the adjusted R^2 for indicate the NIM is highest at 71.1% while SPM and OPM are lowest at 0% and 6% respectively. The low adjusted R^2 is an indication that the independent variables do not explain the relationship between financial structure and bank performance.

Table 5 Final results for joint balanced panel data

	PM	ROA	ROE	NIM	SPM	OPM
Lnw1	0.0278*	-0.000523	-1.471***	-0.00756	-0.129***	-0.846**
	(2.24)	(-0.34)	(-4.70)	(-2.11)	(-14.19)	(-8.21)
Ln w2	0.0195	0.00707*	1.961***	-0.00378	0.191	2.846
	(0.890	(2.17)	(4.45)	(-0.14)	(1.85)	(3.17)
Constant	0.173	-0.00315	-5.595**	0.0953	-0.191	-3.59*
	(1.97)	(-0.25)	(-4.03)	(0.820)	(-3.17)	(-2.98)
N	18	18	18	18	18	18
R^2	0.398	0.441	0.020	0.711	0.00	0.06

NB: t statistics in parentheses

*p<0.05, **p<0.01, ***p<0.001

4.2.5 Unbalanced joint panel data

Simple OLS regression was conducted for the unbalanced panel after assuming that the results found in the joint balanced panel would hold for the unbalanced (that is, no need for fixed effects and no need for random effects).

The results are shown in table 6 which indicate that there is a negative and significant relationship between financial structure size (Lnw1) and ROE (p-value<0.001) and SPM (p-value<0.001). There is a negative but statistically insignificant relationship with NIM and ROA but positive for PM and ROA.

Table 6 Final results for joint unbalanced panel data

	PM	ROA	ROE	NIM	SPM	OPM
Lnw1	0.0168	0.856	-1.127***	-0.0132	-0.0983***	-1.072*
	(0.56)	(1.14)	(-4.69)	(-1.75)	(-104.88)	(-3.678)
Ln w2	0.0621	-3.943	1.444***	0.0235	0.132	0.932
	(0.810	(-1.440	(4.04)	(1.57)	(1.15)	(3.12)
Constant	-0.107	14.97	-4.167**	-0.0146	0.0193	-2.43*
	(-0.35)	(1.44)	(-3.48)	(-0.27)	(0.04)	(-2.51)
N	27	27	27	27	27	27
R^2	0.09	0.370	0.191	0.679	0.372	0.312

NB: t statistics in parentheses

*p<0.05, **p<0.01, ***p<0.001

The relationship between financial structure activity (Lnw2) is positive and significant for ROE (p<0.001) but insignificant for PM, NIM and SPM. ROA has a negative and insignificant relationship with financial structure activity.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The objective sought to establish the relationship between financial structure and bank performance, and it was addressed by testing hypothesis 4 (H4). The results were similarly done for both balanced and un-balanced panel data sets. The findings from the balanced panel data set indicate a positive and significant relationship between financial structure and RoE while insignificant for OPM, SPM, PM, ROA and NIM. The results were the same for the unbalanced panel data set. The finance structure theory postulates an insignificant relationship between financial structure and profitability as a measure of performance. The results from this objective conform to the theory and hence the SPM can be considered as an alternative measure of performance for commercial banks in East Africa.

The relationship between financial structure (structure activity and structure size) was analyzed under hypothesis 4 and was based on the position that a significant relationship exists. The results indicate that structure size does not influence bank performance and this conforms to the financial structure theory. However, structure activity has a negative influence on the bank performance implying that as the stock activity increases bank performance (when measured by RoE, SPM and PM) decreases.

The study has therefore contributed to new knowledge by proposing a common measure of performance, testing its correlation with existing performance measures and ranking them. The SPM and OPM were also tested as to whether it conforms to existing theoretical frameworks with regards to economic growth; market structure and financial structure and the results have yielded positive results.

5.2 Recommendations

The objective analyzed the relationship between financial structure (that is, the relative development of banks versus markets) and bank performance. The insignificant relationship between structure size and bank performance conforms to the finance structure theory and therefore bank regulators need to encourage banks to list on their respective stock exchanges so as to increase banks share and also to enable them source for funding in the capital markets. A large number of small banks are privately owned and the National Securities Exchange can reduce listing fees and allow for direct placement of shares in the stock exchange as was done for Equity bank and family bank.

5.3 Future research areas

The study looked only at commercial banks in Kenya, Tanzania and Uganda. There is need for a review of other financial institutions namely community banks, microfinance institutions and co-operative societies which also intermediate funds.

The population of the commercial banks was drawn from Kenya, Uganda and Tanzania. Future studies can use larger samples of commercial banks and more countries in the context of the African perspective.

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