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Factors Affecting Performance of Commercial Banks in Uganda A Case for Domestic Commercial Banks

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The study seeks to establish the underlying factors responsible for performance of domestic commercial banks in Uganda. The factors are analyzed in the light of structure–conduct performance (SCP) and Efficiency hypothesizes (ES). This is supplemented by Global advantage theory together with Home field theory.

The study analyses performance of all licensed domestic and foreign commercial banks independently on average basis. Using Linear multiple regression analysis over the period 2000-2011, the study found that, management efficiency; asset quality; interest income; capital adequacy and inflation are factors affecting the performance of domestic commercial banks in Uganda over the period 2000-2011.
Policy implications emerged for commercial banks' management includes; efficient management; credit risk management; capital adequacy levels; diversification and commercial bank investment. In addition, monetary policy regulations and instruments should not enforce high liquidity and capital adequacy levels. Regulations on non-interest income activities should be put in place to harmonize the impact of diversification on all commercial banks' performance and to avoid exploitation of bank customers.

Key words: Bank performance; Internal and External factors; financial ratios; Uganda

1.0 Introduction

1.1 Background

During the past two decades 1990-1999 and 2000-2009, Uganda commercial banking industry underwent significant restructuring. In the early 1990s, Uganda embarked on banking sector reforms, focusing on improving bank performance, through liberalization and strengthening prudential regulations, (Bategeka and Okumu, 2010). The reforms restructured the banking industry with regard to advances in computer technology, that led to electronic and internet based banking. Consequently, there are changes in internal bank operations; relationships with customers and inter-bank interactions. These improvements caused repercussions on the costs and revenue of commercial banks and ultimately performance differences between domestic and foreign commercial banks. The consequences, among others, included the closure of several commercial banks in Uganda (Appendix A1). The results of banking sector reforms suggest mixed outcomes. Whereas there was impressive improvement for the banking system as a whole, the performance of foreign commercial banks remained quite steady and

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even improved while domestic commercial banks suffered massive decline in their profitability and they also accumulated more non-performing loans (Mpuga, 2002). The decline became a source of anxiety as domestic commercial banks are performing relatively poorly compared to foreign commercial banks. There was a need to reveal the causes these differences among commercial banks in Uganda.

1.2 Statement of the Problem

There is a declining trend of average profits for domestic commercial banks, while their foreign liabilities are increasing, compared to foreign commercial banks, (Bank of Uganda, 2011). However, over the period 2000-2011, the average interest expenses to equity is 0.154 for foreign commercial banks while domestic commercial bank had a lower ratio of 0.145. During the period 2000-2011, operating expenses to total assets for domestic commercial banks is greater 0.114 compared to 0.068 for foreign commercial banks. In the same period 2000 to 2011, the Net Interest Margin to total assets is 0.1131 for domestic commercial banks while foreign commercial banks had 0.0487. The average Return on Equity (ROE) indicates that domestic commercial banks had 24.7% compared to 28.5% for foreign commercial banks. This suggests that foreign commercial banks perform better than domestic commercial banks in Uganda. By the end of 2011, domestic commercial banks had only 17.5% of the market share which is extremely low, when compared to 82.5% for foreign commercial banks in Uganda. Consequently, the relatively poor performance of domestic commercial banks in Uganda needed to be investigated.

1.3 Objective of the study

Specifically, the study intends to establish the impact of key internal factors that affect the performance of domestic commercial banks in Uganda so that remedial action can be taken for better performance.

1.4 Research Hypotheses

In order to establish why domestic commercial banks perform relatively poorly compared to foreign commercial banks and what fundamental key internal factors are responsible for such poor performance. This study is based on the following key research hypothesis:

Key Hypothesis: $H1_1$

H_o: There is no significant impact of internal factors on the performance of domestic commercial banks in Uganda.

1.5 Significance of the Study

The investigation to establish the underlying factors responsible for domestic commercial banks' performance in Uganda is paramount, given the recent reforms of the commercial banking sector. The study provides insight for bank owners and policy makers, on factors that determine bank performance and efficient utilization of resources, for sustainable competitiveness. Thus this study contributes to more understanding of the factors that have an impact on commercial bank performance in Uganda. Commercial banks in Uganda have to review the way they have been conducting business. Understanding factors that have great impact on bank performance is essential for survival and also useful in sustaining profitability in the dynamic and competitive business.

The study findings present a basis for the regulatory authorities to find a solution to persistent poor performance of domestic commercial banks. The appropriate course of action has to be taken to strengthen the commercial banking sector in Uganda. In general, the study contributes to existing knowledge on factors responsible for bank performance and serves as a basis to provide measures and policy formulation for stakeholders and to embark upon bank specific factors in order to enhance the quality of bank services in Uganda.

1.6 Overview of banking industry in Uganda

Uganda's banking sector has developed since 1906, when the National bank of India, which later became Grindlays bank, was established (Bategeka and Okumu, 2010). However, prior to independence in 1962, the banking sector in Uganda was dominated by foreign owned commercial banks (Beck and Hesse, 2006). In 1966, the Bank of Uganda became the central bank, controlling all currency issues and foreign exchange management (Mutibwa, 2013). With the establishment of Uganda commercial banks and Uganda Development Bank in 1972, state-owned banks dominated the banking sector, on top of East African Development Bank which was established in 1967 (Bategeka and Okumu, 2010).

The financial institutions in Uganda are supervised and regulated by the Bank of Uganda, according to Bank of Uganda statute 1993; with the following objectives:

a. To help ensure that, financial institutions maintain an adequate level of liquidity at all times, able to meet all known obligations and commitments and plans for unforeseen obligations and commitments.
b. To promote public confidence in financial institutions in Uganda through ensuring that they have adequate liquidity at all times
c. To help ensure that financial institutions manage their liquidity by means of clear and well written policies which take into account all aspects of proper liquidity management.
d. To provide guidance on compilation of accurate and timely liquidity returns (Bank of Uganda Statute, 1993).

In July 1999, the Bank of Uganda issued a policy statement which classified financial institutions into four Tiers. Tier IV; financial institutions which are not regulated by bank of Uganda and are not authorized to take in deposits from the public but may offer collateral or non-collateral loans. Tier III; Microfinance and Deposit taking Institutions (MDIs). Tier II; Credit institutions; Tier I; Commercial banks. Commercial banks are authorized to hold current, savings and fixed deposit accounts for both retail and corporate in local and international currency. In addition, Commercial banks are authorized to transact the business of foreign exchange in all currencies. This study focuses on Commercial banks, specifically on factors responsible for the performance of domestic commercial banks in Uganda.

1.7 Organization of the paper

This Paper is set as follows; Section one provides a background of the study, putting it in a unique position within the context of active literature on bank performance. The section explains the problem under study, the objective, significance and the guiding hypotheses.
The rest of the paper is organized as follows; Section two presents empirical literature on factors affecting performance of commercial banks. This is followed by Section three which

describes and explains the methodological approach used in the study. Section four presents the findings and discussions on the underlying key factors responsible for performance domestic commercial banks in Uganda. Finally, Section five presents conclusions together with policy implications emerged and suggested future studies

2.0 Literature Review

Factors affecting commercial banks' performance according to profitability are broadly categorized into two; internal and external factors, (Sehrish et al., 2011). Internal factors are mainly influenced by a bank's management decisions and policy objectives (Staikouras and wood, 2004), whereas external factors focus on industry- related and macroeconomic variables reflected in the economic and legal environment where banks operate (Athanasoglou et al., 2006). Liquidity risk as a factor may arise from the possible inability of a bank to accommodate decrease in liabilities, since it becomes hard to raise funds for increasing demand for loans. This implies that Liquidity risk is a serious factor that has an impact on the performance of commercial banks. It needs further investigation in country specific situations. Loan loss provision to total loans is an indicator of asset quality in commercial banks. This implies that an increase in non-performing loans leads to increase in loan loss provision and ultimately a negative impact of profitability, and hence an increase in credit risk. Capital adequacy refers to the sufficient amount of banks equity to absorb any shock that a bank may experience (Ong and Teh, 2013). Empirical studies of; Havrylchyk et al., (2006); Iannotta et al., (2007); Pasiouras and Kosmidou, (2007); Athanasoglou et.al, (2008); Alexiou and Sofoklis (2009) and Garcia-Herrero et al., (2009) showed a positive impact of capital on bank profitability. On the other hand, studies of Hoffmann, (2011), showed a significant negative impact of capital on bank profitability. The contradicting empirical evidence suggests that higher capital ratio leads to lower profitability. The implication of the reviewed studies is that setting up high regulatory capital may have negative effects on profitability and ultimately bank performance.

Bank operating expenses should be considered as a determinant and prerequisite for improving bank performance, since expenditures are controllable expenses and if efficiently managed can contribute positively to the performance of commercial banks. The experience from South Eastern Europe banks is that SEE banks lacked substantial competence in expenses management to the extent of failing to pass over the increased costs to customers so that banks maintain their profits (Athanasoglou et al., 2006). In addition, Interest expenses are part of bank expenses which implies that the higher the interest costs, the lower the rate of return on equity, which means that interest expenses are bank expenses which should be managed efficiently to improve on bank profitability. The inference from the reviewed literature shows that deposits constitute a cheap and stable financial source of funding compared to other alternatives such as equity capital and borrowed capital (Bank of Uganda, 2010). The implication is that higher funding costs have a negative impact on bank profitability. Consequently, capital structure is among the main determinants of bank performance (Molyneux and Thornton, 1992; Chaudhry et al., 1995 and Goddard et al., 2004).

The impact of growing bank's size on profitability can be positive up to a certain limit, beyond which the impact becomes negative on profitability (Eichengreen and Gibson, 2001). Diversification through non-interest income enhances bank profitability (Chiorazzo et al., 2008). However, other studies by; Acharya et al., (2000); De-Long (2001); Morgan and

Katherine, (2003); Stiroh, (2004); De-Young and rice, (2004); as well as Stiroh and Rumbie, (2006), indicated that greater diversification of the bank dealings does not necessarily transform into increased bank profitability, but may instead reduce profits, therefore optimum level of non-interest income activities must be set. The impact of inflation on bank profitability depends on whether inflation has been fully and correctly predicted by bank managers (Perry, 1992).

2.1 Ugandan studies on commercial banks

Literature about bank behavior in Uganda is limited (Mugume, 2010). However the few articles available provide a background for further studies. These among others include studies of Ddumba-Ssentamu (1993), who investigated the role of commercial banks in deposit mobilization in Uganda; Kasekende and Atingo-Ego (2003) focused on financial liberalization and its implication for domestic financial systems: the case of Uganda, the results of which indicated that financial sector liberalization had a positive impact and that financial sector reforms and interest rate deregulation created efficiency gains in the banking industry. Mpuga (2002), in his study; 'the 1998-1999 banking crisis Uganda: What was the role of the new capital requirement?' found that in 1998-1999 four commercial banks, three of them locally owned were closed. The results indicated that it was not clear whether it was the new capital requirement that played a part in setting off such closure. However, the results indicated that whereas there was improvement in the banking system, as a whole, there were differences in impact of the new capital requirement on foreign and locally owned commercial banks. On top of that, the performance of foreign banks remained steady and even improving while domestic commercial banks suffered massive decline in their profitability, accumulating non-performing loans. This study extends Mpuga's (2002) work on establishing factors responsible for poor performance of domestic commercial banks in Uganda.

Birungi (2005) analyzed causes of continuous large interest rate spreads in Uganda, while Egesa and Abuka (2006) analyzed total factor productivity change among bank and its determinants with the main objective of investing the pattern of total factor productivity in Uganda during liberalization of the financial sector.

Matama (2008) focused on corporate governance and financial performance of selected commercial banks in Uganda. The results from the study indicated that corporate governance account for 34.5% of the general financial performance variance with openness and reliability as significant contributors. In addition Matama (2008) indicated that the poor performance of domestic commercial banks in comparison with foreign commercial banks was linked to self-inflicting causes from ownership, although he never mentioned the self-inflicting causes.

Studies of Nanyonjo (2002) were on the impact of the structure of Uganda's banking sector and i on profitability during 1993-1999. The work was extended by Mugume (2010) by examining the market structure and performance in Uganda's banking industry, purposely to ascertain the relative strength of market power and efficiency in explaining banks profitability. The findings indicated that market power and concentration had a positive effect on profitability of commercial banks in Uganda.

The studies of Bategeka and Okumu (2010) focused on banking sector liberalization in

Uganda, process, results and policy options. The results indicated that some local banks performed better than foreign banks in providing services to small and medium-sized enterprises and low–income rural households. Foreign banks had a tendency of "cheery picking" the most lucrative bank transactions and provided bank services to a niche market consisting of big corporations and high income households located in urban area, thus affecting performance of domestic commercial banks in Uganda. In addition, studies of Bategeka and Okumu (2010) indicated that foreign banks never passed on management skills and knowledge to the local banking systems, which performed relatively poorly compared to foreign commercial banks. Using the previous studies of Mpuga (2002) Matama (2008); Mugume (2010) and Bategeka and Okume,2010) as a background, this study focuses on underlying key factors that have had impact on the performance of domestic commercial banks in Uganda over the period 2000-2011.

3.0 Methodology

The study population included all licensed Domestic commercial banks (4) in Uganda as at 31st December 2011, (Bank of Uganda, 2011). Domestic commercial banks acquired or closed before and during the study period were excluded. Due to continued licensing of new commercial banks, the total number of commercial banks used in the study varied from year to year depending on the new commercial banks that joined the banking sector.

Data was collected from published annual financial statements for both dependent and independent variables for the study. The source provided a higher quality data, given that it was a permanent source of information, which enabled this study to relatively cross check the data easily, hence taken to be valid and reliable. The sources from which data was collected included; Bank of Uganda Library; individual domestic commercial banks' websites and Uganda bureau of statistics Library.

3.1 Scope of the Study

The study focuses on performance of domestic commercial banks, purposely to establish the key underlying internal factors responsible for domestic commercial banks' performance in Uganda. The time scope for the study is 2000-2011; a period during which the commercial banking sector in Uganda underwent significant restructuring, including; implementation of the Electronic clearing system (ECS), full compliance with the statutory minimum capital requirement of shillings 4.0 billion in 2002 and thereafter to 25 billion, through the current financial Institution Instrument N0.43. In addition, the main aim of choosing this particular period was to utilize the most recent financial data available from commercial banks in Uganda.

3.2 Bank performance Measure

Profitability is used as a proxy for bank performance consistent with the studies of; Kaushik and Lopez (1996), Staikouras and Wood (2004), Deger and Adem, (2011), Samina and Ayub, (2013). Bank performance is measured in terms of ratios consistent with studies of Sagar and Rajesh, (2008), since ratios are not affected by changes in price levels, hence, useful in this type of study.

3.3 Dependent variables

This study used Return on Assets (ROA) and Return on Equity (ROE) as the dependent variables, similar to studies of; Ongore and Kusa (2013); Trujillo-Ponce, (2012); Davydenko,

(2011); Sehrish et al.,(2011); Oladele et al (2011 and Goaied (2008); Kosmidou (2008), among others. Consequently, ROE is also adopted for this the study. ROA and ROE are represented by Y_{it} in the regression model.

3.4 Independent variables

Table 3.1 Internal and External independent variables

Internal variables	**Measurement**	**Notation**	**expected impact**
Bank liquidity	Total loans to Total Assets	LA	+
Capital adequacy	Equity capital to Total Assets	EA	+/-
Credit Risk/Loan Quality	Loan loss provisions to Total Loans	LLPTL	-
Bank size	Natural logarithm of Total Assets	LOGTA	+/-
Market profit opportunity	Deposits to total Assets	DEPTA	+
Cost efficiency	Interest expenses to Equity	INTEXEQ	-
Non-interest income	Measure of diversification	INVESTTA	+
Interest income	Net interest margin to Total Assets	NIMTA	+
Cost inefficiency	Interest expenses to Total Assets	IETA	-
Bank Diversification	Non-interest income to Total income	NIITI	+
Financial leverage	Debt capital to equity capital	FL	+/-
Management inefficiency	Operating costs to Total Assets	OPEXTA	-
Management inefficiency	Operating costs to Total Income	OPEXTI	-
Reputation/Goodwill	Natural logarithm of years (old)	LLIFE	+
External variables			
Economic growth	Natural logarithm of GDP	GDP	+
Annual Inflation rate	Consumer price index	CPI	+/-
Bank interest rate	Regulatory interest rate	BIR	+/-

Source: adopted from reviewed literature

3.5 Model specification

The model developed and expanded is consistent with the studies of Samina and Ayub, (2013); Dietrich and Wanzenried, (2011); Deger and Adem (2011); Rajesh, (2009); Sufian and Habibuhhal (2009). The model is designed to be run on domestic commercial banks as a single entity in order to capture key factors responsible for performance of an average domestic commercial bank in Uganda. The dependent variable is Y_{it} which represented Return on Assets (ROA) and Returns on Equity for the bank (i) during the period (t), while α is a constant.

The independent variables are represented by bank specific factors in form of ratios. In this study, the following baseline model is used.

$Y_{it} = f\ (\alpha_0 + \alpha_1\ EA_{it}, + \alpha_2 LA_{it,} + \alpha_3 LLPTL_{it}, + \alpha_4\ INTEXEQ_{it}, + \alpha_5 INVESTTA_{it}, + \alpha_6\ NIMTA_{it}, + \alpha_7\ FL_{it}, + \alpha_8\ LLIFE_{it}, + \alpha_9\ OPEXTI_{it}, + \alpha_{10} NIITI_{\ it} + \ldots\ldots\ldots\ \alpha_{11} GDP + \alpha_{12} CPI + \alpha_{13} BIR) + e_{it.}$

Where; e_{it} is the error term.

Model assumptions

Model assumptions tested in this study include; linearity; normality; homoscedasticity; Multicollinearity and autocorrelation. Consequently, at each stage of model building for all categories of commercial banks, graphical methods and numerical tests were carried out to test linearity and normality, while others were done to eliminate; Multicollinearity, auto correlation and heteroscedasticity (Ongore and Kusa, 2013).

3.5.1 Model measurement

$Y_{it} = f\ (\alpha_0 + \alpha_1 EA_{it,,} + \alpha_2\ LLPTL_{it}, + \alpha_3\ INTEXEQ_{it},\ , + \alpha_4\ NIMTA_{it}, + \alpha_5\ OPEXTI_{it,} + \alpha_6 FL_{it}, + \alpha_7 CPI) + e_{it}$ (1)

Extending equation (1) to exclude variables; intexeq and FL that had weak impact on performance (Appendix A8) the following baseline model is used:

$Y_{it} = f\ (\alpha_0 + \alpha_1 EA_{it,,} + \alpha_2\ LLPTL_{it}, + \alpha_4\ NIMTA_{it}, + \alpha_5\ OPEXTI_{it,} + \alpha_7 CPI) + e_{it}$

In the model summary, when ROA is a dependent variable, R= 0.951 which means that, there is a strong relationship. R-square is 0.904 indicating that, 90.4% of performance variation is accounted for by the combined linear impact of independent variables. Adjusted R square value is 0.826, implying that the model has accounted for 82.4% of the variance in the criterion variable. The Durbin-Watson statistic is 2.286 indicating that, there is no auto correlation likely to distort conclusion.

Hypothesis Testing:

H_O: None of the independent variables are significant predictors of the dependent variable; ROA.

$H_{1:}$ At least one independent variable is a significant predictor of the dependent; ROA.

Conditional Rule: .Reject H_o if p-values are less than 0.05 and accept H_1

Since the p-value is 0.005 which is less than 0.05, H_o is rejected and concluded that; CPI; LLPTL; NIMTA; OPEXTI and EA are predictors of ROA for domestic commercial banks performance in Uganda during the period 2000-2011.

In the model summary, when ROE is a dependent variable, R= 0.957 which implies that, there is a strong relationship. R-square is 0.915, implying that, 91.5% of the variation in performance is accounted for by the combined linear impact of predictors (independent variables). Adjusted R square value is 0.845, which means that, the model has accounted for 84.5% of the variance in the dependent variable. The Durbin-Watson statistic is 2.328, which indicates that there is no auto-correlations problems, thus the non-autocorrelation assumption is satisfied.

Hypothesis testing:

H_O: None of the independent variable is a significant predictor of the dependent variable; ROE.

$H_{1:}$ At least one independent variable is a significant predictor of the dependent; ROE.

Conditional Rule: .Reject H_o if p-values are less than 0.05 and accept H_1

Since the p-value is 0.004 which is less than 0.05, H_o is rejected and conclude that; CPI; LLPTL; NIMTA; OPEXTI and EA are predictors ROE for domestic commercial banks performance in Uganda.

4.0 Empirical Findings for Domestic commercial banks in Uganda

Multiple linear regression results focusing on the impact of internal factors on the performance of domestic commercial banks are shown in the table 4.1 and 4.2, using ROA and ROE as dependent variables respectively.

Table 4.1: Regression Coefficients[a] for domestic commercial banks

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.074	.018		4.023	.007		
	EA	-.111	.069	-.368	-1.601	.161	.303	3.303
	LLPTL	-.749	.225	-.497	-3.326	.016	.718	1.393
	NIMTA	.398	.072	.904	5.538	.001	.602	1.662
	OPEXTI	-.091	.019	-1.071	-4.862	.003	.330	3.027
	CPI	.051	.025	.356	2.062	.085	.539	1.856

a. Dependent Variable: ROA

Operating expenses have a significant negative impact on the performance of domestic commercial banks in uganda over the period 2000-2011. The results are consistent with the findings of Oladele et al. (2012), who examined the determinants of bank performance in Nigeria. This implies that poor expenses management is among the main contributors to poor performance, therefore, efficient cost management is a prerequisite to improving profitability of domestic commercial banks in Uganda. On the other hand, Net interest margin had the greatest positive significant impact on bank performance for domestic commercial banks over the period. This indicates that domestic commercial banks in Uganda significantly rely on tranditional banks activities

Capital adequncy (EA) has a negative impact on performance of domestic commercial banks in Uganda which is statistically significant contrary to expectations. The result suggests that a higher capital ratio leads to or predicts lower profitability, consistent with the findings of Hoffmann, (2011), who found a negative impact of capital- assets ratio among US banking sector over the period 1995-2007. The implication of the results from Ugandan commercial banks' perspective is that, domectic commercial banks in Uganda operated over-cautiously to avoid eating into regulatory capital, thus ignoring potential profitable opportunities over the period.

Loan loss provision to total loan (LLPTL) has a significant negative coefficient, consistent with the findings of Ongore and Kusu (2013); Samina and Ayub (2013); Trujillo-Ponce (2012); Davydenko, (2011), and Sufian, (2010), who found that, asset quality had a significant negative impact on financial bank performance measured by ROA. The results point out that credit risk has a significant negative impact on bank profitability for domestic commercial banks over the period. The implication is that poor quality of loans led to increased loan loss provisions, thus reducing bank profits. Net interest margin to total assets has a positive and statistically significant impact on returns on assets for domestic commercial banks in Uganda. This implies that, domestic commercial banks in Uganda rely mostly on interest income as their main source of business income. The results are consistent with findings of Burki and Niazi, (2006), who indicated that, there was a relationship between interest income and earning assets for foreign commercial banks in Pakistan.

On the side of external factors, inflation measured as CPI, has a significant positive impact on ROA. The results were consistent with the findings of; Davydenko, (2011); Sehrish et al.; Kasman et al, (2010); Alexiou and Sofoklis (2009) who indicated a positive impact of inflation on bank performance. The results suggest that, domestic commercial banks predicted inflation correctly which enabled them to adjust accordingly to earn more profits.

Test of the hypothesis:

H_O: None of the independent variables; EA; LLPTL; NIMTA; OPEXTI and CPI is a significant predictor of the dependent; ROA

H_1: Each of independent variables; EA; LLPTL; NIMTA; OPEXTI and CPI are significant predictors of the dependent; ROA.

Conditional Rule: .Reject H_o if p-values are less than 0.05 and accept H_1

Since the majority of p-values for EA; LLPTL; NIMTA; OPEXTI and CPI are less than 0.05, H_o is rejected and concluded that; EA; LLPTL; NIMTA; OPEXTI and CPI are predictors ROA for domestic commercial banks performance in Uganda.

Table 4.2: Regression Coefficients[a] for domestic commercial banks

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.689	.095		7.243	.000		
EA	-2.159	.357	-1.304	-6.044	.001	.303	3.303
LLPTL	-4.690	1.163	-.565	-4.032	.007	.718	1.393
NIMTA	2.693	.371	1.110	7.250	.000	.602	1.662
OPEXTI	-.587	.096	-1.261	-6.103	.001	.330	3.027
CPI	.316	.129	.397	2.453	.050	.539	1.856

a. Dependent Variable: ROE

The results show that EA; LLPTL and OPEXTI have significant negative impact on return on equity (ROE), consistent to the coefficients of independent variables on return assets (ROA) for domestic commercial banks although, they slightly differ in magnitude. This implies that, the impact on both performance indicators moves in the same direction. Operating expenses (OPEXTI) have significant negative impact on the performance of domestic commercial banks. The implication is that operational efficiency in managing bank expenses is one of the most important factors responsible for performance differences among commercial banks in Uganda.

Capital adequacy measured by EA has a significant negative impact on bank performance measured by return on equity (ROE) as shown in table 4.2. The results are consistent with Sehrish et al, (2011) and Hoffmann, (2011) who found a significant negative relationship between capital and bank profitability. This implies that domestic commercial banks are operating over-cautiously by avoiding potential profitable ventures. It indicates that, setting up high capital regulatory requirement has a negative impact on commercial banks' performance if not counteracted by increased investments. Loan loss provision to total loans has a highly significant impact on ROE over the period of the study. It indicates that, the quality of loans for

domestic commercial banks has lead to greater credit risk which eventually impacted negatively on bank performance. Net interest margin to total assets has a positive and statistically significant impact on returns on equity for domestic commercial banks in Uganda. This implies that, domestic commercial banks in Uganda rely mostly on interest income as their main source of business income.

Inflation measured by consumer price index (CPI) has a positive significant impact on return on equity for domestic commercial banks in Uganda. The results are consistent with the findings of Davydenko, (2011); Sehrish et al., (2011); Kasman et al., 2010; Alexiou and Sofoklis (2009); Garcia-Herrero et al, (2009); Athanasoglou et al. (2006); Claeys and Vander Vennet, (2008) and Athanasoglou et al., (2006) who indicated a strong positive impact of inflation on bank profitability. The results suggest that, bank income increased more than bank costs. The implication is that domestic commercial banks management predicted correctly the trend of inflation and adjusted interest rates accordingly to earn more profits or bank customers never predicted the inflation correctly.

Test of the hypothesis:

H_O: None of the independent variables; EA; LLPTL; NIMTA; OPEXTI and CPI is a significant predictor of the dependent; ROE

$H_{1:}$ Each of independent variables; EA; LLPTL; NIMTA; OPEXTI and CPI are significant predictors of the dependent; ROE.

Conditional Rule: .Reject H_o if p-values are less than 0.05 and accept H_1

Since all the p-values for EA; LLPTL;NIMTA; OPEXTI and CPI are less than 0.05, H_o is rejected and concluded that; EA; LLPTL;NIMTA; OPEXTI and CPI are predictors ROE for domestic commercial banks performance in Uganda.

5.0 Conclusion

The study concludes that Management efficiency measured by Operating expenses to total income; Asset quality measured by Loan loss provisions to total Loans; Capital adequacy measured by equity to total assets; Interest income measured by net interest income to total assest and Inflation measured by consumer price index (CPI), are significant factors affecting performance of domestic commercial banks in Uganda over the period 2000-2011.

5.1 Policy implications and Recommendations

The policy implication which emerged from this study includes the following;

A policy on efficient management should be put in place for bank operational expenses. This should be done by finding ways to obtain the optimal utilization of resources during production of banking products and services. In other word, policy instruments should be able to reduce operational expenses through cost decisions. From a regulatory perspective, commercial bank performance should be based on individual commercial banks' efficiency. Policy on credit risk management should be enhanced in order to improve on Asset quality, thus minimizing non-bank performing assets. Consequently, strong monitoring and control of assets should be exercised by both bank management and regulatory authority.

A policy on diversification should be put in place to avoid relying on traditional bank activities. A policy that encourages commercial banks to engage in Non-interest income activities since non-interest income has a positive impact on bank performance. However, the regulatory

authority should come in and homogenize prices of such activities in order to protect bank clients from being exploited. The policy instruments should allow commercial banks to manage Non-bank financial assets and intermediaries, including insurance products and underwriting. Likewise, policy on bank investments should be put in place since results showed that, there is a significant negative impact of equity to Assets ratio on bank performance over the years. The implication is that bank investments are not worth equity capital employed or the regulatory authority set up a high regulatory capital. Consequently, policy instruments should encourage commercial banks to invest optimally, while from regulatory perspective, policy direction should be directed towards optimum regulatory capital.

5.2 Assumptions and Limitations of the Study

The study used multiple regression analysis due to the nature of the study, yet, it possesses assumptions which may not hold often. However, these assumptions were tested and found to be holding. The study adopted ratio analysis in evaluating the strength and weakness of commercial banks performance, but ratios do not reveal the gravity and the quality of its components, although these were improved on by using averages. Normally published financial statements do not give a complete picture of the activities and projection of commercial banks performance, for example, not all published accounts had non-performing assets over period, however, alternatives variables were used such as loan loss provisions for non- performing assets.

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Appendix A1: Commercial Banks closed/taken over

No.	Bank	Year	Closed/taken over	Ownership
1	Teefe Bank	1996	closed	Domestic
2	International Credit Bank	1998	closed	Domestic
3	Greenland Bank	1999	closed	Domestic
4	Co-operative Bank	1999	closed	Domestic
5	Gold Trust Bank	2000	Taken over	Domestic
6	Sembule Bank	1996	Taken over	Domestic
7	Uganda Commercial Bank	2001	Taken over	Domestic
8	Allied Bank Uganda Ltd	2006	Taken over	Foreign
9	Nile Bank	2007	Taken over	Domestic

Source: Banking in Uganda website, February; 2010

Appendix A2: Financial Ratios Domestic commercial banks; 2000-2011

2000-2011	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
ROE	**0.298**	**0.252**	**0.168**	**0.247**	**0.298**	**0.205**	**0.256**	**0.315**	**0.225**	**0.209**	**0.237**	**0.256**
ROA	**0.043**	**0.039**	**0.025**	**0.034**	**0.046**	**0.031**	**0.043**	**0.05**	**0.049**	**0.044**	**0.042**	**0.049**
Loans/Assets(LA)	0.286	0.266	0.381	0.408	0.435	0.45	0.533	0.477	0.592	0.553	0.537	0.579
Equity/Assets(EA)	0.145	0.157	0.147	0.139	0.153	0.153	0.167	0.159	0.218	0.21	0.178	0.19
Loan Loss Provisions to total loans (LLPTL)	0.006	0.014	0.008	0.011	0.013	0.025	0.015	0.014	0.007	0.012	0.011	0.007
Size(Logarithms) LOGTA	1.53	1.668	1.877	1.975	2.045	2.124	2.221	2.377	2.438	2.543	2.264	2.776
Deposits/Assets(DEPTA)	0.773	0.753	0.796	0.8	0.792	0.79	0.789	0.788	0.704	0.703	0.703	0.668
interest expenses /Equity (INTEXEQ)	0.08	0.07	0.137	0.188	0.162	0.155	0.149	0.164	0.146	0.179	0.152	0.161
Investments /Total Assets(INVESTTA)	0.457	0.461	0.281	0.275	0.253	0.274	0.209	0.221	0.184	0.186	0.224	0.17
Net interest margin/Total assets (NIMTA)	0.139	0.152	0.087	0.104	0.116	0.103	0.114	0.114	0.114	0.112	0.096	0.106
interest expenses /Total Assets(IETA)	0.012	0.011	0.02	0.026	0.025	0.024	0.025	0.026	0.032	0.038	0.027	0.031
Loan loss provision /total assets(LLTA)	0.002	0.004	0.003	0.005	0.006	0.011	0.008	0.007	0.004	0.007	0.006	0.004
Financial leverage (FL)	0.364	0.365	0.275	0.307	0.264	0.272	0.224	0.25	0.263	0.294	0.401	0.427
Operating expenses/Total Assets (OPEXTA)	0.162	0.17	0.104	0.116	0.114	0.111	0.107	0.099	0.091	0.097	0.082	0.111
Operating expenses/Total Income(OPEXTI)	0.742	0.76	0.684	0.632	0.583	0.586	0.558	0.504	0.51	0.512	0.493	0.603
Goodwill (LIFFE)	0.845	0.903	0.954	1	1.041	1.079	1.114	1.146	1.061	1.097	1.13	1.161
Non- interest income /total Assets(NIITA)	0.068	0.06	0.045	0.054	0.054	0.062	0.054	0.056	0.033	0.039	0.044	0.047
Non-interest income to total Income(NIITI)	0.311	0.269	0.296	0.293	0.278	0.327	0.281	0.285	0.184	0.208	0.261	0.255
Natural logarithms of GDP per capita(GDP)	5.621	5.672	5.689	5.734	5.764	5.818	5.856	5.905	5.971	6.04	6.084	6.141
Inflation; consumer price index (CPI)	0.034	0.019	-0.003	0.087	0.037	0.085	0.072	0.061	0.12	0.13	0.04	0.187
Bank interest rate (BIR)	0.204	0.091	0.083	0.193	0.129	0.158	0.138	0.166	0.162	0.106	0.084	0.167

Source: Study computation using published individual commercial banks final accounts, 2012

Appendix A3: Regression analysis stages for domestic commercial banks

Stage one: (ROA dependent variable)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.955	.000		.	.		
	LA	.082	.000	1.155	.	.	.020	50.467
	EA	.150	.000	.501	.	.	.015	64.921
	LLPTL	-.903	.000	-.599	.	.	.219	4.563
	LOGTA	.054	.000	2.500	.	.	.008	128.178
	INTEXEQ	-.041	.000	-.189	.	.	.076	13.138
	NIMTA	.559	.000	1.269	.	.	.105	9.552
	FL	.181	.000	1.515	.	.	.013	74.767
	OPEXTI	-.190	.000	-2.247	.	.	.014	73.748
	NIITI	.184	.000	.964	.	.	.019	51.349
	GDP	-.191	.000	-4.241	.	.	.002	574.346
	BIR	-.077	.000	-.416	.	.	.114	8.770

a. Dependent Variable: ROA

b. Predictors in the Model: (Constant), BIR, LOGTA, FL, LLPTL, NIMTA, OPEXTI, EA, INTEXEQ, LA, NIITI, GDP

c. Dependent Variable: ROA

The variance inflation factor for most of the independent variables were above 10, an indication of multi-collinearity, consequently some variables were dropped.

Stage two (ROA dependent variable)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.109	.048		2.286	.084		
EA	-.162	.097	-.539	-1.675	.169	.188	5.319
LLPTL	-.762	.263	-.506	-2.891	.045	.637	1.571
INTEXEQ	-.074	.089	-.342	-.835	.451	.116	8.588
NIMTA	.343	.103	.779	3.318	.029	.353	2.832
OPEXTI	-.110	.029	-1.299	-3.802	.019	.167	5.999
FL	.003	.022	.021	.115	.914	.584	1.713
CPI	.075	.043	.516	1.739	.157	.222	4.514

a. Dependent Variable: ROA

Independent Variables; INTEXEQ and FL were dropped in the final analysis

Stage three (ROA dependent variable)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.074	.018		4.023	.007		
EA	-.111	.069	-.368	-1.601	.161	.303	3.303
LLPTL	-.749	.225	-.497	-3.326	.016	.718	1.393
NIMTA	.398	.072	.904	5.538	.001	.602	1.662
OPEXTI	-.091	.019	-1.071	-4.862	.003	.330	3.027
CPI	.051	.025	.356	2.062	.085	.539	1.856

a. Dependent Variable: ROA

Stage one (ROE dependent variable)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.756	.000		.	.		
	LA	.431	.000	1.094	.	.	.020	50.467
	EA	-.268	.000	-.162	.	.	.015	64.921
	LLPTL	-5.582	.000	-.672	.	.	.219	4.563
	LOGTA	.300	.000	2.534	.	.	.008	128.178
	INTEXEQ	-.099	.000	-.082	.	.	.076	13.138
	NIMTA	3.610	.000	1.488	.	.	.105	9.552
	FL	1.074	.000	1.630	.	.	.013	74.767
	OPEXTI	-1.180	.000	-2.535	.	.	.014	73.748
	NIITI	1.168	.000	1.109	.	.	.019	51.349
	GDP	-1.113	.000	-4.477	.	.	.002	574.346
	BIR	-.417	.000	-.408	.	.	.114	8.770

a. Dependent Variable: ROE

b. Predictors in the Model: (Constant), BIR, LOGTA, FL, LLPTL, NIMTA, OPEXTI, EA, INTEXEQ, LA, NIITI, GDP

Stage two (ROE dependent variable)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.855	.245		3.491	.025		
	EA	-2.409	.497	-1.455	-4.844	.008	.188	5.319
	LLPTL	-4.698	1.355	-.566	-3.468	.026	.637	1.571
	INTEXEQ	-.358	.457	-.299	-.783	.477	.116	8.588
	NIMTA	2.427	.532	1.000	4.566	.010	.353	2.832
	OPEXTI	-.684	.148	-1.470	-4.610	.010	.167	5.999
	FL	.027	.112	.041	.243	.820	.584	1.713
	CPI	.422	.221	.530	1.915	.128	.222	4.514

a. Dependent Variable: ROE

Stage three (ROE dependent variable)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.689	.095		7.243	.000		
	EA	-2.159	.357	-1.304	-6.044	.001	.303	3.303
	LLPTL	-4.690	1.163	-.565	-4.032	.007	.718	1.393
	NIMTA	2.693	.371	1.110	7.250	.000	.602	1.662
	OPEXTI	-.587	.096	-1.261	-6.103	.001	.330	3.027
	CPI	.316	.129	.397	2.453	.050	.539	1.856

a. Dependent Variable: ROE