

# Moderating Effects of Bank Ownership on the Relationship between Securitization Uptake and Financial Performance of Commercial Banks in Kenya

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**Abstract** *Securitization is a process in which commercial banks can raise low-cost financing by assigning asset risks to investors' appetite for risk. This has been one of the most dominant and fastest growing means of capital creation in the United States and the world over. After introduction of securitization, the banking industry in Kenya has recovered from a long period of poor performance. The aim of this study is to aim of study was to tests for the moderating effects of bank ownership on relationship between securitization uptake and financial performance of forty three commercial banks in Kenya, over a five-year period from 2009 to 2013. The researchers dominantly relied on secondary data from most recent annual published financial statements and banks supervision records at the Central Bank of Kenya. The data was complimented by use unstructured personal interview from 172 banks key officials; the mortgage, credit, risk and compliance and debt recovery who were identified by simple random sampling from each of 43 banks. The data were cross validated with information from secondary sources; five years annual published financial statements and bank supervision records at the Central Bank of Kenya so as to avoid premature conclusions. In line with the previous studies, the results indicate that the banks' financial performance had been almost progressing over the operational periods considered for the study. The commendable performance in profitability of the banks was attributable to securitization uptake among banks. The study recommends banks to use securitization in ensuring they have adequate capital and bank managers to be allowed to invest their liquid assets so that can generate more income to boost their performance.*

**Key words** Securitization uptake, moderating effects, bank ownership, financial performance, commercial banks  
**JEL Codes:** E50

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## 1. Introduction

Securitization was seen as perhaps the greatest financial innovation in the 20<sup>th</sup> century and it has long history in US capital market and several economies overseas (Thomson West, 2013). Securitization has fundamentally changed the commercial banks and traditional asset by allowing banks and non-financial firms to

obtain liquidity from asset which could be sold in liquid market (Cetorelli and Peristiani, 2012).

Unfortunately, the term 'asset backed securitization' is used differently by many, since usage is not entirely consistent. Asset-backed securitization first appeared in bank funding. Hess and Smith (1988), for example, explained asset-backed securitization in the context of financial intermediaries to manage interest rate exposure. The authors defined asset-backed securitization as a financial intermediation process, which re-bundles individual principal and interest payments of existing loans to create new securities. More recently, the term 'asset backed securitization' has come to be used to refer to so-called 'structured finance', the general process by which illiquid assets are pooled, repackaged and sold to third-party (Vink and Thibeault, 2010).

The word "securitization" first appeared in the Wall Street Journal in 1977, although the Journal did not recognize it as a real word (Ranieri, 1996:31). Until the mid-1980s securitization referred to debt securities issued by sovereign entities and private corporations as substitutes for bank credit – so-called primary securitization. Since then, the word has, however, also been used to Describe the isolation of cash flows of specific assets from the balance sheet of an institution and the issue of marketable securities, which are supported by the cash flow from assets – known as secondary securitization ( Feeney, 1995:1). Jobst, (2008a) defined Securitization as any every such process, which converts a financial relation into a transaction. This earliest instance of securitization was instrumental in the growth of the corporate form of business and separation of ownership and management of organizations is one of the greatest commercial inventions of this 19th century. When bank securitize a pool of loan it can, under typical circumstance, remove those loans or asset from balance sheet because it no, longer own them (Aber, 1988, p.6) as result of this, a number of benefit accrue to banks that securitize their asset. One of the most important benefits of securitization is that it provides savings on capital in that if loan is no longer on the books of a bank, it does not have to meet regulators' minimum capital requirement against that asset (Ocampo, 1989).

Over the last two decades, securitization has represented a substantial and recognized part of the financial instrument in the world. It started as a result of the housing credit market downfall during the great depression in 1930's in the United States of America to replace the traditional financial intermediaries by linking borrowers directly to the capital market. Since then, global securitization market has grown rapidly and by 2005 it had hit \$20,000 billion in volume (Chang, 2007).

Although residential mortgages have dominated the market in sheer volume, more and more types of financial assets are included in the market, such as auto, manufactured housing, student loans and credit cards. Financial theory has

indicated the reasons for banks to engage in securitization activities as: liquidity motive, capital arbitrage motive and risk transfer purpose (Bannier and Hansel, 2008). Moreover, studies have found that banks at high risk especially those burdened with troubled loans are more likely to be involved in loan securitization (Affinito and Tagliaferri, 2010).

Bannier and Hansel (2008) found a reduction in securitization activities among riskier banks. Hence, it is inconclusive whether or not banks' risk transfer positively leads to inclination towards securitization activities. Sarkisyan *et al.* (2009) observed that European, Italian, Spanish and American banks have significantly increased their securitization activities moving towards a more market-based financial system. This was as a result of different rates of securitization uptake by these countries (Fergus and Jacobs, 2000; DCR, 1999). However, despite these experiences of securitization in banking activities, there is scanty empirical evidence on effects of securitization uptake on banks' performance.

#### *Global Perspective of Securitization Uptake*

Securitization was started in the late eighteenth century and has grown to an estimated \$10.24 trillion in the United States and \$2.25 trillion in Europe as of the 2<sup>nd</sup> quarter of 2008. In the United States as of the end of June 2009, nearly 19 percent of the outstanding stock of the more than US\$ 18 trillion worth of real estate related loans and consumer credit was funded by private label securitization (Hill, 2002).

Krahen and Wilde (2006) argued that American investors, since the late 1970s, have diversified their mortgage securities with different maturity and interest rate characteristics. Fergus and Jacobs (2000); DCR (1999) observed that securitization started in Pakistan, Singapore, Egypt, Malaysia, South Africa and Kenya in the late 1980s after having spread to Europe, South America, Asia and Australia in the early 1980s.

Styger and Saayman (2003) observed that the India's experience on securitization has seen the emergence of diverse asset classes. For instance during 2003-2004, 82% of the market volumes were driven by traditional asset classes such as auto-loan receivables and mortgage backed receivables. World Bank report on Kenya's mortgage market released in 2011 noted that securitization uptake in Kenya has grown tremendously. This can be attributed to the implementation of Kenya Vision 2030 and economic recovery strategy for wealth and employment creation (ERS).

Using data on US banks from 2001 to 2007, Jiangli and Pritsker, (2008) study found that securitization is able to reduce risks and increase the profitability of commercial banks. The authors argued that securitization increased bank profitability and leverage while reducing overall insolvency risk. This is contrary to Sarkisyan *et al.*

(2009); Mazzuca and Battaglia (n.d) who found that securitization does not produce positive effects on the originator banks' performance.

Styger and Saayman (2003); Oliver and Saurina (2007) argued that banks' funding cost and solvency risk are lowered by securitization which in turn improves profitability. This was supported by Greenbaum and Thakor (1987); Donahoo and Shaffer (1991) who came up with a conclusion that securitization uptake provides financial institutions, especially banks, with an opportunity to lower the cost of funding. This improves credit risk management thereby increasing their profitability.

### *1.1. Statement of the Problem*

Literature on the securitization use globally has revealed that securitization uptake has positive effects on securitization of banks' profitability; Cebenoyan and Strahan, (2004); Sarkisyan *et al.* (2009); Jiangli *et al.* (2007). Bannier and Hansel (2008) further affirmed that existing cases from developed countries indicate that banks which engage in securitization activities had a negative or positive impact in financial performance

The stream of bank failures experienced in the US during the 1940s prompted scholars to look into bank performance. Kenya also suffered two banking crises 1986 and 1990 which left the industry in a mess. These crises led to incumbent banks to flee or make rush decisions to cushion themselves from collapsing. Majority of banks were declared insolvent and the only banks that remained were foreign owned (Oloo, 2011). Also, the banking sector is currently facing pressure from both the Government and the Public to lower the interest rates on loans as well as complying with the new Central Bank of Kenya directive on the treatment of non-performing loans. This has contributed to inflated bad debts in their books and forced them to set aside additional cash as provision for defaulters (Business Daily, 2014).

The question that remains unanswered is what made foreign banks working in Kenya to perform during these crises? Securitization in Kenya started in 2000 and this was followed by the government encouraging banks to use securitization as means for raising long-term capital in the 2005/2006 budget speech by the Minister for Finance. Government further provided incentives for new and expanded share capital with Stamp duty tax exempt in 2011 (CMA, 2011). The banking industry in Kenya after introduction of securitization has been able to recover from a long period of poor performance which is clearly indicated by profit which is a measure of bank performance. Could the growth and improvement in performance of banks in Kenya be as a result of uptake of securitization?

Previous studies done have covered securitization and bank performance in the United States, India, Italy, Spain, South Africa and European market. They found contradicting results on the effects securitization had on the banks' performance.

However, local studies have concentrated on: financial performance, financial innovation, derivatives and profitability in commercial banks. For example a study by Ngigi (2012) examined the financial innovation and its effects' on financial performance of commercial banks in Kenya. Ogilo (2012) studied the impacts of credit risk management on financial performance of commercial banks in Kenya. Waithaka and Ngugi (2013) studied the factors influencing acquisition of stressed assets and asset securitization into the financial market in Kenya and Muchiri (2006) assessed the viability of real estate securitization in Kenya. It is this mixed results that necessitated the need to carry out this study in order to get answers on: what are moderating effects of bank ownership on relationship between securitization uptake and financial performance of commercial banks in Kenya.

### *1.2. Objectives of the Study*

To assess the moderating effects' of bank ownership on the relationship between securitization uptake and financial performance of commercial banks in Kenya.

## **2. Literature Review**

### *2.1. Theory and Practice of Securitization*

Securitization is structured finance where assets are collateralized by a pool of loans whose cash flows are used to pay cash flows on the securities. More precisely, it is the process of transforming an illiquid asset of an institution into tradable securities backed by these assets (Styger and Saayman, 2003). The growth of bank securitization has led to theories about a new banking model, defined as the "originate-to-distribute" (O&D) model. This is because banks are no longer the originators and holders of loans, but have become the originators and distributors to the capital markets of both credit and related risk (Affinito and Tagliaferri, 2010).

BIS (2013) observed that securitization has become an alternative funding source to banks in many countries. Securitization originated from the United States, Western Europe, and Australia. As of the end of June 2009, nearly 19 percent of the outstanding stock of the more than US\$ 18 trillion was funded by private label securitization in the United States. While outside the United States, for the same period, more than US\$ 1 trillion of assets were funded by securitization out through US\$ 4.5 trillion worth of securitized assets globally.

The growth of securitized products world-wide was at peaked by 2007 before declining rapidly due to lack of liquidity in secondary markets and a decline in primary issuance. For example, in the United States, the decline was from about US\$ 2trillion in 2007 to around US\$ 400 billion in 2008. The securitization process generally begins with the segregation of financial assets into pools that are relatively homogeneous with respect to their cash-flow characteristics and risk profiles,

including both credit and market risks. These pools of assets are then sold to a bankruptcy-remote entity, generally referred to as a special-purpose entity (SPE), which issues asset-backed securities (ABS) to investors to finance the purchase. The cash flow from the underlying assets supports repayment of the ABS (Lieske and Blumenfeld, 1999).

## BASIC STRUCTURE OF A SECURITIZATION TRANSACTION

### Flows of Payments and Services

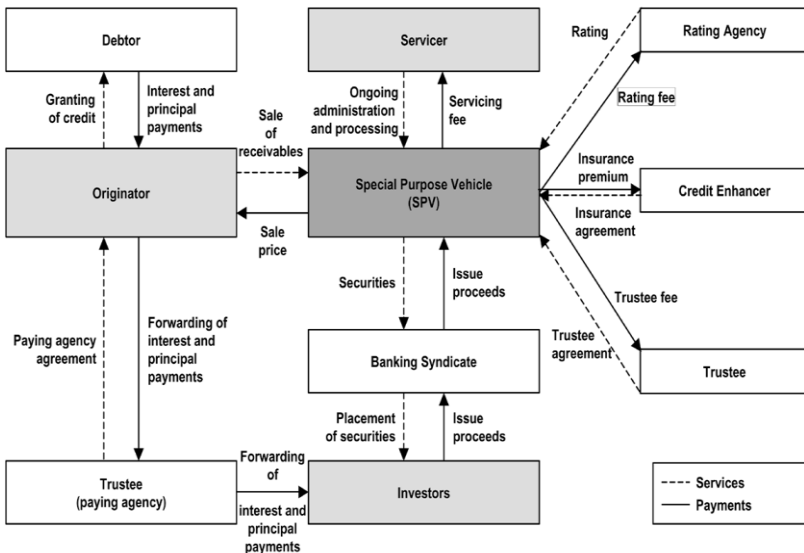


Figure 1. Basic structures for Securitization transaction

**Source:** Adapted from Lieske and Blumenfeld, 1999: 8 and DCR, 1999: 6

### 2.2. Bank Ownership and Financial Performance

Company governance has been the subject of debate in the business finance literature. The relationship between company performance and ownership, if any, emanate from agency theory. This theory deals with shareholders who are owners of the firm and manager's relationship, which one way or the other refers to ownership and performance. According to Ongore (2011) cited by Ongore and Kusa (2013) argues that the risk-taking behavior and investment orientation of

shareholders have great influence on the decisions of managers in the day-to-day affairs of firms. The concept of ownership can be defined along two lines of thought: ownership concentration and ownership mix. The concentration refers to proportion of shares held (largest shareholding) in the firm by few shareholders and the latter defines the identity of the shareholders Ongore (2011).

On the relationship between ownership and bank performance different scholars came up with different results. For instance according to Claessens *et al.* (2000) domestic banks' performance is higher as compared to their foreign counterparts in developed countries and the opposite is true in developing countries. Ownership is one of the factors explaining the performances of banks across the board; yet the level and direction of its effect remained unresolved. There are scholars who claimed that foreign firms perform better with high profit margins and low costs as compared to domestic owned banks. This is so because foreign owned firms are believed to have experienced management expertise in other countries over years. Moreover, foreign banks often customize and apply their operation systems found effective at their home countries (Ongore, 2011).

Kamau (2009) used a sample of 40 banks in Kenya from 1997-2006 and linear regression method to analyze factors that influence efficiency and Productivity of the banking sector in Kenya. The results showed that foreign-owned banks influence the performance of the local banking sector. The author claimed that foreign banks generally bring with them superior know-how and technical capacity. Foreign banks impose competitive pressure on domestic banks. They receive liquidity resources from their parent's banks because of their access to international markets.

Beck and Fuchs (2004) argued that foreign-owned banks are more profitable than their domestic counterparts in developing countries. Kenya Domestic banks less profitable than domestic banks in industrial countries due to benefits derived from tax breaks, technological efficiencies and other preferential treatments. However domestic banks are likely to gain from information advantage they have about the local market compared to foreign banks. The ownership structure of banks in Kenya has changed over the last few years. Kenya financial reforms have encouraged foreign banks to enter and expand banking operations in the country. As a result 13 out of the 44 commercial banks are foreign owned and in terms of asset holding, foreign banks account for about 35% of the banking assets as of 2011 (CBK, 2011). This study classifies bank ownership into foreign and domestic. The domestic vis-a-vis foreign classification is based on the nature of the existing major ownership identity in Kenya. Foreign banks are an important source of financial vulnerability. This is because they might start to withdraw funds in order to offset losses in the home country, increasing the chances of collapse of their domestic-based

subsidiaries. On the other hand, cross-country comparisons show that foreign banks may have better capitalization, improved know-how and technical capacity, which then spill over to the rest of the banking system (Mwega, 2009).

Evidence across many countries indicates that foreign banks are on average less efficient than domestic banks. A more recent cross border empirical analysis of France, Germany, Spain, the UK and the U.S. found that domestic banks have both higher cost efficiency and profit efficiency than foreign banks (Berger *et al.*, 2000). Claessens *et al.* (2000) as cited by Kiruri, (2013) reported that in many developing countries (for example Egypt, Indonesia, Argentina and Venezuela), foreign banks in fact report significantly higher net interest margins than domestic banks. In Asia and Latin America, foreign banks achieve significantly higher net profitability than domestic banks. There have been different lines of thought put forward for the low performance of foreign banks compared with domestic banks in developed countries. These include different markets, competitive and regulatory conditions between developed and developing countries. Domestic banks and within the U.S. which are foreign have been relatively less profitable because they valued growth above profitability (DeYoung and Nolle, 1996).

A study conducted was in Kenya by Kiruri, (2013) on effects of ownership structure on bank profitability in Kenya on 43 licensed commercial banks over the period 2007 to 2011. Using simple linear regression, the study found that ownership concentration and state ownership had negative and significant effects on bank profitability while foreign ownership and domestic ownership had positive and significant effects on bank profitability. The study concludes that higher ownership concentration and state ownership lead to lower profitability in commercial banks while higher foreign and domestic ownership lead to higher profitability in commercial banks.

Claessens *et al.* (2000) argued that foreign banks perform better in developing countries as compared to when they are in developed countries. Thus, they conclude that domestic banks perform better in developed countries than when they are in developing countries. They further emphasized that an increase in the share of foreign banks leads to a lower profitability of domestic banks in developing countries. Thus, does ownership identity influence the performance of commercial banks? Studies have shown that bank performance can be affected by internal and external factors (Athanasoglou *et al.*, 2005; Aburime, 2005). Moreover, the magnitude of the effect can be influenced by the decision of the management. The management decision, in turn, is affected by the welfare of the owners which is determined by their investment preferences and risk appetites (Ongore, 2011). This implies the moderating role of ownership. This study attempted to examine whether



bank ownership significantly moderate the relationship between effects of securitization uptake and commercial banks' financial performance in Kenya or not. Waithaka and Ngugi (2013) carried out study on factors influencing acquisition of stressed assets and asset securitization into the financial market in Kenya. The authors found that organizational factors, business environment factors, government policies, control and regulations and adequacy of accounting standards (IAS 39) affected the practice of securitization on fifteen commercial banks that were selected according to asset base.

Most empirical studies have described securitization existence, determinants of its rapid growth and diffusion in different countries all around the world. There are some empirical studies that have showed that the financial performance for banks involvement in securitization exists

Most of empirical studies carried out on securitization, has focused in U.S., Europe, Spain, Italy and recently South Africa market while there are still very few studies focused in Kenya. Waithaka and Ngugi (2013) analyzed the securitization determinants in Kenyan market. They focused on credit management team at the 44 commercial banks 5 financial sector regulators, 12 investment banks and 43 insurance companies. Waithaka and Ngugi (2013) study target population was too broad.

### 3. Methodology of research

#### 3.1. Research Hypotheses

As indicated in introduction, we have one major research hypothesis. One of them is to find whether bank ownership has no moderating effect on the relationship between effects of securitization uptake and financial performance of commercial banks in Kenya or not. The study examined the financial performance of commercial banks in Kenya before and after the introduction of bank ownership.

Table 1. Target population

Bank Category	No. of Banks	No. of bank executives	Sample size
Large banks (over Kes.40 bn Asset)	11	4	44
Medium bank (10 – 40 bn Asset)	11	4	44
Small banks (below 10bn Asset)	22	4	88
Total	44	4	176

**Source:** CBK, 2012

The population for this research comprised of all the commercial banks in Kenya that have been in existence in the last five years, licensed and registered under the Banking Act.as shown by table 1 above. According to the Central Bank of Kenya,

there were 44 licensed banks in Kenya as at 31<sup>st</sup> December 2009. The study focused on head of mortgage finance; credit; debt recovery and risk and compliance department. The main reason for choosing these employees was because they were responsible for performance of their respective banks and had higher level of appreciation on how securitization uptake influence financial performance.

*Table 2. Sampling Design*

Bank Category	No. of Banks	No. of bank executives	Sample size
Large banks (over Kes.40 bn Asset)	11	4	44
Medium bank (10 – 40 bn Asset)	11	4	44
Small banks (below 10bn Asset)	21	4	84
Total	43***	4	176

\*\*\* Charterhouse Bank was under statutory management not included

**Source:** CBK, 2012

The sampling frame for this study was derived from the list of all the licensed commercial banks and mortgage finance institutions in operation in Kenya as at 31<sup>st</sup> December 2013, licensed and registered under the Banking Act. Given that the target population was 44 commercial banks, a census study was conducted because their number was not high. According to Mugenda and Mugenda (2003) when the population is too small, census is the most preferred method. The researcher first stratified all the banking institutions into three tiers on the basis of the size of their asset base as per CBK banking survey, 2009. From each tier, four members' institutions were identified by simple random sampling provided that they had all the four key departments of analysis for 44 banks. The study sample 43 banks because Charterhouse bank did not publish accounts as it was under statutory management. This resulted into an aggregate sample size of 172 respondents, which the researcher regarded as adequate since it represents all the critical extremes in the industry.

The study collected both primary and secondary data. Primary data was collected using questionnaires that were administered on a face to face basis as well as through email and allowed for any clarifications. The data was obtained from mortgage; credit; debt recovery and risk and compliance managers from 43 banks. Secondary data was collected use of secondary data collection forms from annual published financial statements and bank supervision records at the Central Bank of Kenya. A pilot study was conducted to pretest the tool used in data collection. Nineteen questionnaires were administered to 19 investment banks which were randomly selected. Among nineteen investment banks that were piloted only seventeen responded translating to a response rate of 89.5%. In this study, an

internal consistency was done using Cronbach's Alpha to measure how well the items were correlated to each other for all the questionnaires issued to different groups of pilot respondents. The 93 rule of the thumb for Cronbach Alpha is that the closer the alpha is to 1 the higher the reliability (Sekaran, 2010) and a value of at least 0.7 is recommended. All the measures had Cronbach's Alpha values greater than 0.7 which fall in the acceptable limit. The data collection instrument was therefore reliable and acceptable for the purposes of the study. This enhanced the ability to predict outcomes using the scores and justifies the aggregation of the arithmetic mean.

### 3.2. Modelling Bank Ownership and Financial Performance of Commercial Banks

In this paper, the multiple linear regression model was used. This adopted model was similar to that used by many of the studies done in the area of securitization and financial performance (Ngumi, 2013; Ogilo, 2012; Ngigi, 2012; Chang, 2007; Waitthaka and Ngugi, 2013; Agostino and Mazzuca, 2010). The model to estimate the moderating effect of bank ownership and general multiple regression model that was specified and tested in this study are given in equation (1) as follows:

$$Y = \beta_0 + \beta_1 (CR * M) + \beta_2 (BL * M) + \beta_3 (CRT * M) + \beta_4 (FS * M) + \varepsilon \quad (1)$$

Where:

M = Bank Ownership (1=Domestic and 0=Foreign)

$\varepsilon$  = Error term (the residual error of the regression)

$\beta_0$  = Constant for each bank (fixed effects)

( $\beta_i$ ;  $i=1,2,3,4$ ) = Regression coefficients values

(CR $_i$ ; BL $_i$ ; CRT $_i$ ; FS $_i$ ;  $i=1, 2, 3, 4$ ) = values of various independent variables

Y = Performance of commercial bank expressed by ROA NIM and ROE

CR = Capital requirement

BL = Bank liquidity

CRT = Credit risk transfer

FS = Financial stewardship

M = Ownership identity (1=Domestic and 0=Foreign)

$\varepsilon$  = Error term (the residual error of the regression)

## 4. Data analysis

Descriptive statistics was used at the beginning of the analysis phase in order to provide preliminary analysis of the data and guide the rest of the data analysis process (Cooper and Schindler, 2008). Descriptive statistics provided information about measures of central tendency and inferential statistics were used to test a number of hypothesized relationships so as to allow generalization of the findings to a larger population.

Multiple linear regression models were employed to establish the significance of the independent variables on the dependent variable. Pearson correlation was also applied to establish the strength of the linear relationship between each of the independent variables and the dependent variables. T-statistic was used to determine the relative importance of each independent variable in influencing financial performance. In the case of t-test and f-test, a statistic was considered to be statistically significant when the value of the test statistic falls in the critical region and in this case, the null hypothesis was rejected and the alternative was upheld. This was done to determine the relative contribution (sensitivity) of each independent variable in affecting the performance among 43 banks sampled for five years (December 2009-2013). Computer packages Microsoft excel and Statistical Package for Social Sciences (SPSS) were used to assist in data analysis because it has in-built formulas. SPSS software is a comprehensive system for analysis of data and can take data from any type of file and use it to generate tabulated reports, charts, compare means, correlation and many other techniques of data analysis (Microsoft Corporation, 2003). The moderating effect of bank ownership was evaluated by using it as a dummy variable (domestic =1 foreign =0).

## 5. Results

The response rate was 78%. It is considered adequate given the recommendations by: Saunders, Lewis and Thornhill (2009) who suggested a 30-40% response; Sekaran (2010) who documented 30% and Mugenda and Mugenda (2003) who advised on response rates exceeding 50%. Based on these assertions, it implied that the response rate for this study was adequate.

### *Background Information*

The respondents were asked questions on their position. This was help researcher to establish if the from their position, deals with the securitization.

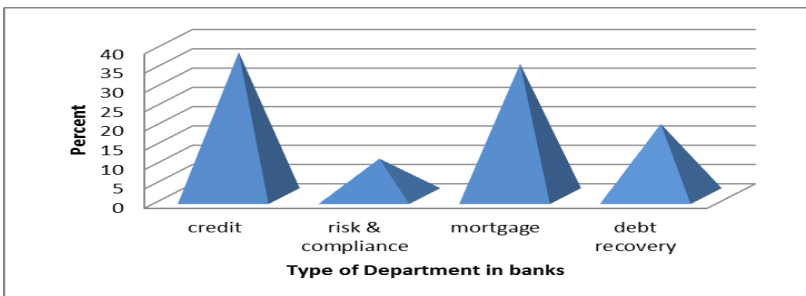
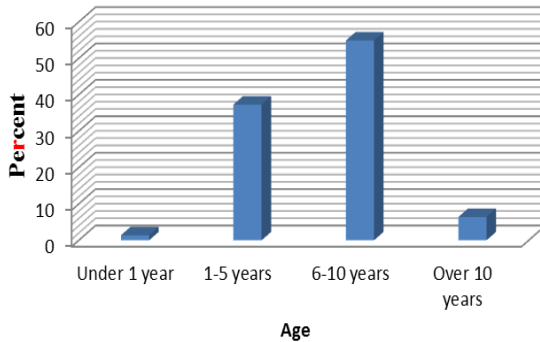


Figure 1. Distribution of respondents' profile

From the figure 1 above, majority of the respondents (37.3%) were from credit, 9.7% from risk and compliance, 34.3% from mortgage and 18.7% from debt recovery departments. These findings were similar to Ngumi, (2013). This results demonstrated that majority of the respondents from the categories were staff who participated in the study. This was a clear indication that data was gathered from the respondents with technical knowledge and skills on securitization uptake.

### *Respondents' Experience*

The respondents were asked questions on how long they had been working in the commercial banks. This was to ascertain to what extent their responses could be relied upon to make conclusions for the study based on their working experience.



*Figure 2. Ages of Respondents*

The study findings showed that 54.9% of the respondents had worked for 6-10 years, 37.3% had worked for 1-5 years, 6.4% had worked for over 10 years and 1.4% had worked for less than 1 year in the banks. This indicated that majority of the respondents had worked in the commercial banks for a long time and thus they understood technical issues on the effects of securitization uptake on financial performance in commercial banks. This was in tandem with findings by Braxton, (2008) that respondents with a high working experience assist in providing reliable data on the sought problem since they have technical experience on the problem being investigated by the study. The results also indicated that employment in banks was stable. Most banks have turned themselves into employers of choice in the country by initiating several employee retention strategies and hence the many respondents had worked for the banking sector for more than six years.

### *Education Level of Respondents*

The respondents were asked questions on their highest level education. This was to ascertain if they were equipped with relevant knowledge and skills on securitization uptake.

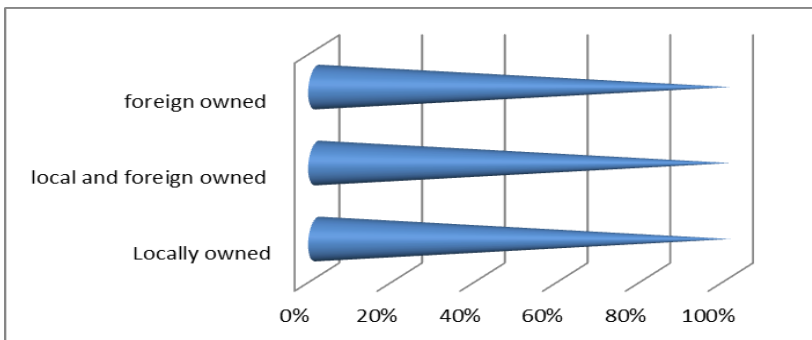
*Table 3. Level of Education of Respondents*

Highest Education level	Frequency	Percent
Diploma	37	27.6
Bachelors	76	56.7
Masters	16	11.9
PHD/Doctorate	5	3.7
Total	134	100.0

The study findings as indicated majority of respondents (56.7%) had attained a first degree followed by diploma holders at 27.6% and 11.9% of respondents had master’s degree. Those with doctorate degree stood at 3.7% of the total percentage respondents. These findings were in support of Ngumi, (2013) results that indicated the cumulative percentage of respondents with at least a bachelor’s degree was 72.3% showing a high level of education. It was therefore deduced from the findings that employees of banks in Kenya, to a large extent, have good quality education that includes both bachelor’s degree and post graduate levels of education.

### *Bank Ownership*

From figure 3, it is clear that the most of the banks (48.5%) are locally owned, 24% were both local and foreign owned while the rest 12.7% were foreign owned of the banks. This was confirmed by the CBK (2009) supervision report. It can be concluded that most commercial banks in Kenya are locally owned.



*Figure 3. Ownership of commercial banks*

*Categories of Securitized Assets*

The respondents were then asked the categories of securitized assets that they were utilizing. The results showed that simple majority respondents (64.2%) said they utilizes commercial loans and lease receivables, 18.7% NHA-insured mortgages, 16.4% other mortgages while 0.7% utilizes miscellaneous receivables. The study results indicated the growth of securitization in securitized assets. This could be as a result of increased demand for securitization services owing to improved economic activities as well as more awareness on the importance of banking.

In analysing the study researcher use model is presented algebraically as follows:

$$Y = \beta_0 + \beta_1 CR * M + \beta_2 BL * M + \beta_3 CRT * M + \beta_4 FS * M + \varepsilon \quad (2)$$

Table 4. Regression output as Moderated by bank Ownership

	MODEL 1 (ROA)	MODEL 2 (ROE)	MODEL 3 (NIM)
Constant	2.750498 (21.46610)*	20.74453 (21.22354)*	5.361967 (59.40656)*
Capital requirement*M	0.023615 (1.750640)***	-0.383483 (-6.477354)*	0.058298 (8.478210)
Bank Liquidity *M	0.000597 (0.294329)NS	0.010157 (1.432545)NS	0.000366 (0.404627)NS
Credit risk transfer*M	-0.098470 (-11.95253)*	-0.301026 (-7.256684)*	-0.036140 (-6.879702)*
Financial stewardship*M	0.021322 (5.277492)*	0.108693 (4.258493)*	0.008133 (3.194603)**
Observation	215	215	215
R <sup>2</sup>	0.603411	0.538308	0.877841
Adjusted R <sup>2</sup>	0.596856	0.530676	0.875822

Method: GLS (Cross Section Weights); Moderating Variable (M): (Domestic=1 and Foreign=0)

Note: The figures in parentheses are t-Statistics.

\* Statistically significant at the 1% level

\*\* Statistically significant at the 5% level

\*\*\* Statistically significant at the 10% level

NS Statistically not significant

As it can be observed from the summary of regression output in Table 4, the moderating role of bank ownership was not strong. That means there is no significant difference on the coefficients of parameters after being moderated by the ownership identity. Moreover, as indicated in Table 4, the R<sup>2</sup> and Adjusted R<sup>2</sup>

decreased in magnitude after being moderated. Thus, the regression analysis results showed that hypothesis H05 can be accepted that the bank ownership has no moderating effect on the relationship between effects of securitization uptake and financial performance of commercial banks in Kenya.

This is similar to and consistent with the findings of Athanasoglou *et al.* (2005) about the Greek banks that the ownership status appeared to be insignificant in affecting the profitability of banks. Ongore and Kusa (2013) also reported the same results after examining the determinants of financial performance of commercial banks in Kenya the in year 2001 to 2010. Thus, it can be conclude that ownership identity didn't moderate the relationship between banks' performance and securitization uptake in Kenya. This is similar to and consistent with the findings of Athanasoglou *et al.* (2005) about the Greek banks that the ownership status appeared to be insignificant in affecting the profitability of banks. Ongore and Kusa (2013) also reported the same results after examining the determinants of financial performance of commercial banks in Kenya the in year 2001 to 2010. Thus, it can be conclude that ownership identity didn't moderate the relationship between banks' performance and securitization uptake in Kenya.

Table 5. Coefficients of Determination before and after Moderation

PREDICATORS	MODEL 1 (ROA)	MODEL 2 (ROE)	MODEL 3 (NIM)
Individual Determinants (Non-moderated)			
Capital requirement	0.035082	-0.350220	0.061121
Bank Liquidity	0.000177	0.005010	0.000263
Credit risk transfer	-0.097720	-0.319185	-0.035547
Financial stewardship	0.032879	0.193528	0.024611
R <sup>2</sup>	0.638823	0.567085	0.890327
Adjusted R2	0.632853	0.559929	0.888514
Interactive Terms(Individual determinant)*(Ownership Identity			
Capital requirement *M	0.023615	-0.383483	0.058298
Bank liquidity*M	0.000597	0.010157	0.000366
Credit risk transfer*M	-0.098470	-0.301026	-0.036140
Financial stewardship*M	0.021322	0.108693	0.008133
R <sup>2</sup>	0.603411	0.538308	0.877841
Adjusted R <sup>2</sup>	0.596856	0.530676	0.875822
Observation	215	215	215
Change in R <sup>2</sup>	-0.035412	-0.028777	-0.012486
In Adjusted R <sup>2</sup>	-0.035997	-0.029253	-0.01269



## 6. Conclusions

The vast majority of the empirical evidence on the impact of foreign ownership in the sector was positive (0.004) but not statistically significant (0.215). The results were almost the same in all samples indicating that foreign ownership is not a critical factor of profitability in the sector and as such a public policy to encourage the presence of foreign banks may, therefore, not yield any advantage in terms of bank profitability. This finding is diametrically against the argument that foreign banks bring with them better know-how and technical capacity, which then spills over to the rest of the banking system and thus improve profitability (Kiruri, 2013; Kamau, 2009). Thus, it is possible to conclude that the interaction effect of ownership identity on the financial performance of commercial banks in Kenya was not significant. Finally, the regulator and banks' unions should interface to design most applicable and convenient loan management protocols in the industry that considers shortening of long channels and discourages extra costs on the loan facility.

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