

**THE EFFECT OF PRODUCT DEVELOPMENT ON THE FINANCIAL  
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

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**1)61/72096/20(18**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS OF THE MASTER OF BUSINESS ADMINISTRATION (MBA)  
DEGREE**

**SCHOOL OF BUSINESS**

**UNIVERSITY OF NAIROBI**

**NOVEMBER 2012**

**DECLARATION**

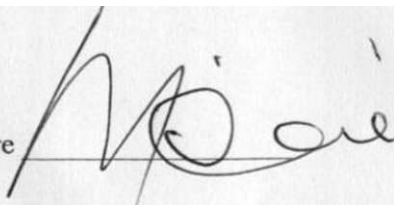
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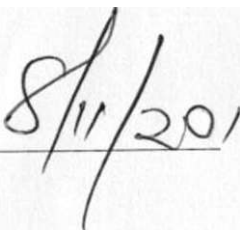
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## **ACKNOWLEDGEMENT**

The completion of this project was not created by the author alone, but relied on the cooperative assistance of many unseen hands. First and foremost I am grateful to God Almighty for seeing me through.

I sincerely acknowledge my supervisor Mr Mirie Mwangi; Lecturer University of Nairobi. School of Business for his enabling support and guidance, good eye and sharp mind that enabled the development of an understanding of the subject .

I would also like to acknowledge the encouragement from my parents Moses and Esther Kariuki and Rev. Dr Wilfred and Lucy Kogo whose love and support was remarkably incredible. May God bless the work of their hands!

## **DEDICATION**

This research study is dedicated to my son Chege and my husband and significant other Moses Chege whose support remained unwavering. Your love and inspiration has been tremendous. I hope I make you proud.

## **ABSTRACT**

Product development is the introduction of a good or service that is new or significantly improved regarding its characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics (OF,CD Oslo Manual, 2005). The effect of product development on the financial performance of commercial banks in Kenya are important concerns to product policy makers, the banking industry and the public at large.

The objective of this study was to determine the effect of product development on the financial performance of commercial banks in Kenya.

This study categorised determinants of commercial banks financial performance into two categories, namely internal and external factors where internal determinants of profitability, which are within the control of bank management and external factors are those factors that are considered to be beyond the control of the management of a bank.

This study used a descriptive survey. The population of this study consisted of all 43 commercial banks in Kenya and therefore carried out a census survey. The study used both primary and secondary data. The primary data was collected using semi-structured questionnaires. Data presentation was done by the use of pie charts and frequency tables. The inferential statistic regression and correlation was done to establish the effect of product development on the financial performance of commercial banks in Kenya.

The study concluded that new product development impacted positively on financial performance of commercial banks in Kenya; however the same was not statistically significant. The study further recommends that studies can be conducted on the impact of New Product Development on the other sectors as listed in the Nairobi Securities Exchange. This would include, agriculture, automobiles and accessories, commercial and allied, construction and allied, energy and petroleum, insurance, telecommunication and communications, manufacturing and allied industries.

TABLE OF CONTENTS

DECLARATION....."

ACKNOWLEDGEMENT.....i"

DEDICATION.....iv

ABSTRACT.....v

LIST OF TABLES.....viii

LIST OF FIGURES.....ix

ABBREVIATIONS.....\*

CHAPTER ONE.....1

INTRODUCTION.....1

1.1 Background of Study.....'

1.2 Research Problem.....8

1.3 Research Objectives.....' 0

1.4 Value of the Study.....10

CHAPTER TWO

LITERATURE REVIEW.....I>

2.1 Introduction....."

2.2 Theoretical Literature.....1'

2.3 Effect of Product Development on Financial Performance.....14

2.4 Empirical Evidence.....' 7

2.5 Conclusion

CHAPTER THREE.....21

RESEARCH METHODOLOGY.....21

3.1 Introduction.....21

3.2 Research Design.....21

3.3 Target Population.....21

3.4 Data Collection.....21

3.5 Data Analysis.....22

**CHAPTER FOUR.....26**

**DATA ANALYSIS. RESULTS AND DISCUSSION.....26**

4.1 Introduction.....26

4.2 Regression Model.....26

4.3 Primary Data Analysis.....30

**CHAPTER FIVE.....34**

**DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.....34**

5.1 Introduction.....34

5.2 Summary.....34

5.3 Discussion.....36

5.4 Conclusions.....36

5.5 Recommendations for further study.....36

**REFERENCES.....38**

**APPENDICES.....43**

**Appendix 1: Questionnaire.....43**

**Appendix 2: List of Commercial Banks in Kenya.....47**

**LIST OF TABLES**

Table 4. 1: Analysis of variance.....26

Table 4.2: Coefficients obtained for (lie various variables under study.....27

Table 4.3: Model summary for data collected.....29

Table 4.4: The range new product developments launched from 2002 to 2011 in a  
Commercial bank.....30

Table 4.5: Whether Internal bank specific variables or External bank specific variables  
affected commercial banks financial performance greatly.....31

Table 4.6: Whether high or low Net Interest Margin was a reflection of good financial  
performance.....32

LIST OF FIGURES

Figure 4.1: New Product Development

**ABBREVIATIONS**

|      |                                             |
|------|---------------------------------------------|
| ATM  | Automated Teller Machine                    |
| BBK  | Barclays Bank of Kenya                      |
| CBK  | Central Bank of Kenya                       |
| GDP  | Gross Domestic Product                      |
| KBA  | Kenya Bankers Association                   |
| KNBS | Kenya National Bureau of Statistics         |
| NSE  | Nairobi Securities Exchange                 |
| ROA  | Return on Assets                            |
| ROE  | Return on Equity                            |
| SCB  | Standard Chartered Bank                     |
| SME  | Small Medium Enterprises                    |
| SPSS | Statistical Package for the Social Sciences |
| UK   | United Kingdom                              |

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of Study

The commercial banking industry has undergone significant change in the past years. From the origin of commercial banking, the cost of its key ingredient - money - was controlled. The business activities in which commercial banks could and could not compete were largely determined by legislation (Sullivan, 1986). Today, large commercial banks operate in a far more dynamic marketplace. The cost of funds fluctuates rapidly and there is increased competition from both inside and outside the traditional banking industry (Yang, 1990). State legislation continues to exert influence on the banking industry and its products. Customers are increasingly sophisticated and the rate of change in the industry continues unabated (LeGrand, 1992). Such rapidly changing circumstances have prompted a number of significant changes in traditional bank management. Challenges confronting bank managers include an ability to manage numerous and often very diverse products and services, developing a capacity to meet and exceed the performance levels of sophisticated competitors: a customer-focused marketing approach; a capability to measure both market performance and product profitability; and initiative and entrepreneurial thinking within their organizations (Cooper *et al.*, 1994).

In response to the need for more responsive management approaches, commercial banks began implementing product management. First used in 1927 by Procter & Gamble, product management is a logical choice when products are quite different from one another or if the number of products offered is too large to be managed by a functional department (Kotler, 1984). Major benefits of the product management system include: improved customer focus, product specialization and coordination, maximum use of resources, product accountability and the generation of new ideas. Placing a single person or even a department in charge of a product or a group of products is more likely to assure that no product is overlooked in the marketplace (Eckles and Novotny, 1984).

Commercial banks have used the product management system for over a decade. While some commercial banks continue to find new applications for product management, other commercial banks are scaling back their reliance on product management in favor of more traditional management approaches (Berggren and Dewar, 1992). Although there is much evidence of the uses and applications of product management in banking, little systematic research has been conducted to examine the organizational and individual issues encountered in applying product management to large full-service commercial banks.

### **1.1.1 Product Development**

Product development is the introduction of a good or service that is new or significantly improved regarding its characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics (OECD Oslo Manual, 2005).

A product development is either radical or incremental by determining the degree of change associated with it. Radical developments produce fundamental changes in the activities of an organisation, industry or society and represent clear departures from existing practices. Incremental developments, on the other hand, merely call for marginal departures from existing practices as they mainly reinforce the existing capabilities of organisations. Incremental developments emphasise the importance of the economies of scale and economies of scope in production and development of mass markets. Incremental developments to existing products can enhance performance and are vital to making more competitively advanced products (Batiz and Wooidesenbet, 2006).

Times and markets have changed. Many Commercial banks no longer enjoy the near-monopoly position they held even five years ago. Commercial banks are now disciplined by markets as well as their own internal controls. This new competitive environment implies that to serve their markets effectively, commercial banks need to become more responsive to their clients' needs and competitive threats through its products and services, which it continually refines, to maintain the loyalty of the consumers who are key to its sustainability. The main financial

products offered by commercial banks are divided into retail, business, corporate and mortgage segments both under conventional and Islamic banking.

### **1.1.2 Financial Performance**

Financial performance measures are intended to evaluate the effectiveness and efficiency by which organisations use financial and physical capital to create value for shareholders. Some authors have suggested the balanced scorecard which provides a framework, which encourages the use of financial and non- financial measures of performance via balancing four perspectives - financial, customers, internal business processes, and learning and growth (Kaplan and Norton. 1992).

The key recommended measures for financial analysis include: profitability, liquidity and solvency (Zenios et al. 1999). Profitability measures the extent to which a business generates a profit from the factors of production: labour, management and capital. A subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (C'opisarow. 2000). Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business.

Four useful profitability ratios and measures are the return on assets (ROA), return on equity (ROE), operating profit margin and net income. The ROA measures the return to all assets and is often used as an overall index of profitability and the higher the value, the more profitable the business. The ROE measures the rate of return on the owner's equity employed in the business. It is useful to consider the ROE in relation to ROA to determine if the firm is making a profitable return on their borrowed money. The operating profit margin measures the returns to capital per unit of gross revenue. Net income comes directly off of the income statement and is calculated by matching revenues with the expenses incurred to create those revenues, plus the gain or loss on the sale of capital assets (Zenios et al. 1999).

Liquidity measures the ability of the business to meet financial obligations as they come due, without disrupting the normal, ongoing operations of the business. Liquidity can be analyzed both structurally and operationally. Structural liquidity refers to the balance sheet (assets and liabilities) and operational liquidity refers to cash flow measures. On the other hand Quach, (2005) indicated that solvency measures the amount of borrowed capital used by the business relative the amount of owner's equity capital invested in the business. In other words, solvency measures provide an indication of the business' ability to repay all indebtedness if all of the assets were sold. Solvency measures also provide an indication of the business' ability to withstand risks by providing information about the firm's ability to continue operating after a major financial adversity.

Two recommended measures of liquidity are the current ratio and working capital. The current ratio measures the relationship between total current assets and total current liabilities. The higher the ratio, the more liquid the firm is considered to be. Working capital is a measure of the amount of funds available to purchase inputs and inventory items after the sale of current assets and payment of all current liabilities (Zenios et al. 1999).

Solvency measures the amount of borrowed capital used by the business relative the amount of owner's equity capital invested in the business. In other words, solvency measures provide an indication of the business' ability to repay all indebtedness if all of the assets were sold. Unlike liquidity, solvency is concerned with long-term as well as short-term assets and liabilities. Solvency measures evaluate what would happen if all assets were sold and converted into cash and all liabilities were paid (Quach, 2005).

Three widely used financial ratios to measure solvency are the debt-to-asset ratio, the equity-to-asset ratio (sometimes referred to as percent ownership) and the debt-to-equity ratio (sometimes referred to as the leverage ratio) (Quach, 2005). These three solvency ratios provide equivalent information, so the best choice is strictly a matter of personal preference. The debt-to-asset ratio expresses total firm liabilities as a proportion of total firm assets. The higher the ratio, the greater the risk exposure of the firm. The equity-to-asset ratio expresses the proportion of total assets

financed by the owner's equity. The debt-to-equity ratio reflects the capital structure of the firm and the extent to which debt capital is being combined with equity capital.

### **1.1.3 Determinants of Financial Performance for Commercial Banks**

Measures of financial performance according to Copisarow, (2000) are subjective measures of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Financial performance is the single most important factor in assessing growth potential, earnings capacity and overall financial strength (Richardson. 2002). In theory, product diversification should lead to reduce volatility of earnings. However, earnings arising from non-interest activities of banks are much more volatile than net interest income (European Central Bank, 2010).

Most studies divide the determinants of commercial banks financial performance into two categories, namely internal and external factors. Internal determinants of profitability, which are within the control of bank management, can be broadly classified into two categories, i.e. financial statement variables and non financial statement variables. Financial statement variables relate to the decisions which directly involve items in the balance sheet and income statement including product development. Developing new products is a major responsibility for bank product managers, which includes defining marketing needs and scanning the environment for new opportunities as additional major responsibilities. Among the internal, management controllable factors are bank specific financial ratios representing cost efficiency, liquidity, asset quality, and capital adequacy (Richardson, 2002).

Non-financial statement variables involve factors that have no direct relation to the financial statements. The examples of non-financial variables within this category are management ownership structure, number of branches, and status of the branch, location and size of the bank. Large size is expected to promote economies of scale and reduce the cost of gathering and

processing information. Ownership structure (private, public, foreign) affects the financial performance, privately owned banks are considered to be more innovative than public ones. In general, large-sized banks have the advantage of providing a larger menu of financial services to their customers, and hence mobilize more funds (Haron, Sudin 2004). High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. Stronger management's beliefs and strategic planning results in better financial performance.

External factors are those factors that are considered to be beyond the control of the management of a bank. Among the widely discussed external variables are competition, regulation, market share, bank ownership and structure, monetary policy, and macro economic indicators including inflation, money supply, exchange rate and gross domestic product. Annual Growth Rate for Gross domestic product is considered important factor affecting bank financial performance because the high of GDP growth means the increased of investment. Inflation is another important environmental condition which may effect on ROE and ROA as this factor represents the changes in the general price level or inflationary conditions in the economy and affects the investor's return. Inflation affects the real value of costs and revenues although it may have a positive or negative effect on profitability depending on whether it is anticipated or unanticipated. Exchange rate stability has a direct effect on financial performance given a favorable movement and stability in the market (Haron, Sudin 2004).

The main conclusion emerging from these studies is that internal factors explain a large proportion of banks profitability: nevertheless external factors have also had an effect on their performance (Haron, Sudin 2004).

#### **1.1.4 Relationship between Product Development and Financial Performance**

Schumpeterian theory suggests that a successful development generates a proprietary competitive position that bestows on the firm a competitive advantage and superior financial performance. Price theory regards price as a mechanism that delivers first mover advantages. On

the one hand, establishing high prices prior to the entry of imitators allows innovators to recover the cost of investing in developments.

The first institutions to adopt successful new technologies and developments earn extraordinary profits because of the high prices they impose or the increased market shares they acquire. Other banks follow their lead in order to avoid losing market share. If the process of development continues and new technologies are introduced over time, innovative banks can continue to earn high profits on the various new or improved products. Hence, the theoretically expected relationship implied by product development and financial performance is positively correlated.

#### **1.1.5 Commercial Banking Industry**

The commercial banks and non-banking financial institutions offer corporate and retail banking services but a small number, mainly comprising the larger commercial banks, offer other services including investment banking, (Dikken & Iloeksema. 2001). Banks represent a significant and influential sector of business worldwide that plays a crucial role in the global economy. Commercial banks are financial intermediaries that serve as financial resource mobilization points in the global economy. They channel funds needed by business and household sectors from surplus spending to deficit spending units in the economy. A well developed efficient banking sector is an important prerequisite for saving and investment decisions needed for rapid economic growth. A well functioning banking sector provides a system by which a country's most profitable and efficient projects are systematically and continuously funded. The role of commercial banks is paramount because they execute monetary policy and provide means for facilitating payment for goods and services in the domestic and international trade.

In Kenya, The Companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya (CBK), govern the banking industry. The banking sector was liberalised in 1995 and exchange controls lifted. The CBK is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system. The CBK publishes information on Kenya's

commercial banks and non-banking financial institutions, interest rates and other publications and guidelines. The commercial banks have come together under the Kenya Bankers Association (KBA), which serves as a lobby for the commercial banks' interests and addresses issues affecting its members (Kenya Bankers Association Annual Report. 2008).

Currently there are there are 43 licensed commercial banks and 1 mortgage finance company. Out of the 44 institutions. 31 are locally owned and 13 are foreign owned. The locally owned financial institutions comprise 3 commercial banks with significant shareholding by the Government and State Corporations, 27 commercial banks and 1 mortgage finance institution. The industry is dominated by a few large commercial banks most of which are foreign-owned, though some are partially owned locally (CBK annual report, 2010). Six of the major commercial banks are listed on the Nairobi Securities Exchange.

Any development initiative from the commercial banks requires the endorsement of the monetary authority, CBK. Key developments emerging from Kenyan commercial banks include Free ATM Usage by BBK in 2010, Diva Account by SCB in 2007, Launch of Islamic products by BBK in 2005 among others.

## **1.2 Research Problem**

Performance in the banking sector demand that the institutions should have effective systems in place to offset unpredictable events that can maintain their operations and reduce the risks implicated through developments. A Mercer Management Consulting (2001) study also reports that the management of high performing companies was tangibly and visibly dedicated to new product development and strategy (Goh, 2002; Roehm and Sternthal, 2006). Kenya commercial banks have adopted development strategies in various ways which include Mobile banking. Real Time Gross Settlements. ATM deposits and agency banking as well as partnerships with several organizations. During the period of development they have experienced performance in aspects of market share and profitability.

Locally, studies focusing on new product development have been conducted. F.thangata (2005) did a study on the extent to which commercial banks in Kenya follow the stages in the new

product development process. Wambundo (2005) did a study on new product development in selected micro finance institutions in Kenya with reference to Nairobi based institutions.

kanyiri (2009) for instance, in his study 011 the factors inhibiting development in financial intermediaries for SMEs in Kenya, only sought the perspective of Savings and Credit Cooperative Societies (SACCO) entrepreneurial members and therefore, findings from his study are evidently limited in scope.

Warugu (2001) in his research, found out that focus and product differentiation are some of the major strategies that the banks have employed in their quest to outdo each other. Similarly Kiptugen (2003) looked at the strategic responses to a changing competitive environment in the case study of KCB. he established that proactive rather than reactive strategies such as research on changing customer needs, development and preferences forms the basis of its strategic planning.

Another study by Karaba (2012) revealed that product development helped in attaining competitive advantage in the banking industry in Kenya as 81.2% rated product development as a factor. The study recommended that product development plays vital role in creating competitive advantage in the financial sector and therefore the management should place more emphasis on it as one of the factors.

However, despite the undeniable importance of product development in explaining commercial banking financial performance, the effect of product development is still misunderstood for two main reasons. It seems that there is a lack of understanding about the drivers of product development and development's effect 011 financial performance. In fact, most of the existing studies adopt a simplistic approach to the relationship between product development and financial performance. To the researcher no local studies had sought to investigate the effect of product developments on the financial performance of commercial banks in Kenya, it's against this backdrop in the research that this study sought to fill the existing research gap by conducting a study on the effect of product developments on the financial performance of commercial banks in Kenya.

A deeper understanding of the effects of product development on the financial performance of commercial bank helped to answer the question, what is the effect of product development on the financial performance of commercial banks in Kenya?

### **1.3 Research Objectives**

To determine the effect of product development on the financial performance of commercial banks in Kenya.

### **1.4 Value of the Study**

The study will be beneficial to commercial bank managers as its focus is on effect of product developments on the financial performance of commercial banks in Kenya which is the core factor of profitability for many commercial banks. The study will contribute to the broader realm of business. In business, through its recommendations, the study will add value to better product managers in businesses and service quality.

In academia, the study will add value to academic research in the broader area of product development and its effects on financial performance. Future researchers will not only use this study as a form of reference for future studies, but also suggest future research activities that can be explored.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents critical reviews concerning the effects of product development on the financial performance of commercial banks in Kenya. This is done through discussing the effect of product development on financial performance of commercial banks, the relevant theories, empirical evidence and conclusions bringing out the research gaps.

#### **2.2 Theoretical Literature**

An increasing body of analytical work has attempted to explain financial performance as an effect of new product functioning using new theoretical developments. Challenging the paradigm of competitive equilibrium, they have explored the implications of new products to high financial performance levels in the commercial banking space. Most of this body of literature has followed from the pioneering work of Saloner and Shepard (1995) and Schumpeter (1934).

##### **2.2.1 Schumpeterian Theory**

Josef Schumpeter (1934) developed a highly original approach to the study of long-run economic change, focusing in particular on the crucial role played by innovation and the factors influencing it. He identified development as the critical dimension of economic change. He argued that economic change revolves around development, entrepreneurial activities, and market power. He sought to prove that development-originated market power could provide better results than the invisible hand and price competition. He argues that technological development often creates temporary monopolies, allowing abnormal profits that would soon be competed away by rivals and imitators. He said that these temporary monopolies were necessary to provide the incentive necessary for firms to develop new products and processes.

Schumpeter developed a theory where a company's ability to innovate was mainly connected to its size. He argued that larger corporations with some degree of monopolistic power could have

an advantage to develop developments. Compared to smaller firms such large corporations have better resources and more market power.

One important insight arising from Schumpeter ideas, though, is that development can be seen as "creative destruction" waves that restructure the whole market in favor of those who grasp discontinuities faster.

Schumpeterian theory argues that new products and processes developed by a firm are protected from imitation for a certain period. A successful development thus generates a proprietary competitive position that bestows on the firm a competitive advantage and superior financial performance. The imitation that occurs during the Schumpeterian process of creative destruction then generates the need for enterprises to produce still more developments in order to maintain a competitive advantage.

### **2.2.2 Standard Microeconomic Theory**

Saloner and Shepard (1995) put forward the theory that a more concentrated market means that businesses can better capture the needs of the consumer, thus providing an incentive for an early adoption. Conversely, the standard theory argues for a positive relationship between competition and product development. Allen and Santomero (2001) suggest that the launch of a product development process undertaken by commercial banks in the United States proves to be a response to the intensification of competition within the financial markets. In a study on the banking sectors of 11 Latin American countries, Yildirim and Philippatos (2007) stipulate that rivalry between commercial banks pushes the commercial banks to engage in a differentiation process of the products they supply and can stimulate product development.

Previous research suggests that a financial institution's size is an important factor in adopting a product development and that a large financial institution is in a better position to pay the fixed costs of developing new products since they have a larger volume of sales than smaller ones hence they are able to spread out the fixed cost invested over a larger number of units produced (Cohen and Levin, 2003). A second argument in favour of the positive effect of large size is based on the existence of imperfections in the financial market. When there is a paucity of

resources on the financial market, the availability of internal funds is significant in large firms which means that the investment linked to the development process can be financed (Galande and Fuente, 2003).

By studying the effect of diversification on firms' development activity, most authors have shown the existence of a negative relationship. Boot and Thakor (1997) find that in a system of full service commercial banks, product development is stochastically lower than the development in a financial system where commercial banks and investment commercial banks are functionally separated. They conclude that the natural tendency of a full-service bank is to innovate less. Furthermore, the literature has suggested that diversified commercial banks suffer from serious agency costs related to investments in developments which discourage managers from getting involved in development (Denis et al. 1997, Francis and Smith, 1995).

### **2.2.3 First Mover Advantage Theory**

Focus is also on first mover advantage as it may be more probable in the banking industry than in other industries due to the importance of bank-client relationship (Berger and Dick. 2006). A successful development thus generates a proprietary competitive position that bestows on the firm a competitive advantage and superior performance.

The "First mover advantage" theories suggest that follower commercial banks are less profitable than first movers. Moreover, only the first mover adoption of the two types of product development appears to influence significantly the spread policy pursued by the commercial banks. We find that being a first mover gives the bank a competitive advantage and a larger market share. Commercial banks with a smaller market share imitate in order to avoid losing market share and to try to cause the first adopters to lose their competitive advantages. Furthermore, unlike the imitators, the first adopters improve their efficiency by adopting new technologies. Also, the first movers innovating in credit are likely to increase the volume of delinquent loans less than the imitators. In addition, the development of a risk appreciation system helps bank to reduce the credit risk, albeit less significantly among imitators.

In addition, the type of organization, beyond its ownership structure, is likely to affect its behavior regarding development as well as how intensely it adopts developments. By ownership structure, we mean the nature of the capital (private, public, foreign.) Private Banks are considered to be more innovative than public ones. The latter are less innovative because of their company mission as "provider of last resort" which lessens their resources and so limits their innovative capacity. On the other hand, equipped with more flexibility and guided by the need to capture attractive positions on the market, private banks are more innovative. Public commercial banks are sometimes led to financing high risk or unprofitable projects or economic sectors or to emphasize more traditional banking operations such as collecting deposits or granting credit (Mohieldin and Nasr ,2007).Commercial banks with access to more significant financial resources are more liable to adopt product and process developments.

Numerous theoretical studies in the industrial organization literature advance the notion that the first firm to enter the market for a specific product or service achieves permanent competitive advantages that include technological leadership, preemption of assets, and buyer switching costs (Lieberman and Montgomery, 1988). In a comprehensive literature review. Kcrin. Varadarajan, and Peterson (1992) conclude that prior studies often find that first-movers enjoy larger market shares than late-entrants, which may be considered a support to the notion of first-mover advantages.

### **2.3 Effect of Product Development on Financial Performance**

Developments can actually enhance the firm performance in several aspects. Development has a considerable effect on corporate performance by producing an improved market position that conveys competitive advantage and superior performance (Walker. 2004).

Wolff and Pett (2004) and Walker (2004) conducted comparative research for the effects of product and process developments on finn performance. They indicated that particular product improvements are positively associated with finn growth.

Price theory regards price as a mechanism that delivers first mover advantages. Establishing high prices prior to the entry of imitators allows innovators to recover the cost of investing in

developments. On the other hand, these monopolies are temporary and are eroded once imitation appears. This is the classic monopoly argument upon which Van Home (1985) relied to explain the performance of financial innovators. Berger (2003) argues that the relevant aspects of technological change include developments that reduce costs related to the collection, storage, processing, and transmission of information, as well as developments that transform the means by which customers access bank services. Humphery et al. (2006) cite ATMs, telephone banking, internet banking, and e-money as being among the significant developments affecting the banking distribution system that influence banking performance significantly. Goddard et al. (2007) add that client relation management systems, bank management technologies, and various other technologies are among the major changes in internal banking systems that also have exercised a positive influence on banking performance and profitability.

The first institutions to adopt successful new products earn extraordinary profits because of the high prices they impose or the increased market shares they acquire. Other commercial banks follow their lead in order to avoid losing market share. If the process of development continues, innovative commercial banks can continue to earn high profits on the various new or improved products. However, extraordinary profits will dwindle as developments are adopted widely (Berger and Mester 2003). Consistent with the results of other studies that support the hypothesis that the first mover advantage offers the enterprise better performance, the examination by Dos Santos and Peffers (1995) of the introduction of ATMs by American commercial banks demonstrated that the competitive advantage and performance that is associated with it were not realized by those who subsequently adopted the technology. In their examination of the dynamic of product development in the banking industry in the U.K. Batiz-Lazo and Woldesenbet (2006) stipulated that product developments have a market focus and are effectiveness driven.

The era of financial development and emerging financial instruments witnessed emergence of new products such as Islamic banking, ATMs, plastic money and electronic-money (e-money) amongst others within the banking sector. The number of ATMs has increased steadily indicating reduced demand for cash at hand because they improve access to cash to those holding them with the use of debit and credit cards having increased steadily from the late 1990s. The cards have facilitated the use of electronic means of payment and sometimes substituted for the

use of physical cash. More importantly, payment cards have also enabled the issuance of electronic money (e-money), which not only directly rivals physical cash in small value payments but also bank deposits through holding e-money balances. This reduces the amount of money that an individual can hold at hand at any particular time, thus affecting the demand for money (Misati et al.,2010).

Top-line performance of new products has been extensively studied in the diffusion product development (Mahajan and Wind 1991). Two major findings are that new product success (1) may take considerable time to materialize, and (2) depends on several factors, including the development characteristics . Interestingly, recent studies using persistence modeling have identified new-product introductions as a key driver of permanent sales and profit benefits, in contrast to the price promotions, which typically produce only temporary benefits (Nijs et al. 2001, Pauwels et al. 2002, Srinivasan et al. 2000). Therefore, any assessment of new-product success has to consider the potential for both short-term (immediate) and long-term effects, which could be temporary (dust settling) or enduring (permanent).

Bottom-line financial performance may benefit from new-product introductions in several ways (Bayus et al. 2001). Beyond increased demand, firms may increase their profit margins by targeting high-margin segments, and lower their costs by targeting their current customers with "new and improved" products instead of acquiring new customers. Recent empirical work has begun to assess the effect of new-product introductions on the bottom line (Geroski et al. 1993; Bayus et al. 2001). Two observations emerge. First, the introduction of new products has a significantly positive, though modest, immediate effect on profitability. Second, there are no conclusive findings on the persistence of the effects of new-product introductions on firm profits.

Bayus et al. (2001) report that new-product introductions increase firm profit rate for two years, but not beyond, and that they do not influence "profit rate persistence" operationalized as the first-order autoregressive coefficient of profit rate. However, in an evolving environment, persistence implies that profit rates have a unit root, which is not analyzed by the authors. Geroski et al. (1993) note that an development could have a temporary effect on a firm's

financial position due to the specific product development, or could have a permanent effect because it transforms competitive capabilities.

## **2.4 Empirical Evidence**

In spite of an extensive descriptive literature on product development, there is a paucity of empirical studies on effects of product development on the financial performance of commercial banks . Most of the existing empirical works have focused on the same handful of product developments hence the study will help to better apprehend the product development effect on financial performance of commercial banks in Kenya.

The analysis of product developments has become increasingly important with the recent changes in banking activity. Ebrahim et al. (2010) identify product development as one key of financial development transmission channels. Thus, adopting new products has become more of a necessity than a choice for commercial banks. Product developments are used by commercial banks as formidable strategic variables to outstrip the competition and have become an essential means for the bank to improve its performance and to maintain its effectiveness on the market (Batiz-Lazo. 2006). This stimulates the interest in studying the relationship between product developments and financial banking performance. Generally, development has generated a wide interest as a research subject in social sciences with a particular focus on the relationship between development and competitive advantage. In a highly turbulent environment, a successful development creating a unique competitive position can give the company a competitive advantage and lead to a superior financial performance (Roberts and Amit, 2003). This can only be maintained by ceaseless development and improvement of the product and the process (Porter, 2004).

McAdam and Keogli (2004) investigated the relationship between firms' financial performance and its familiarity with product development. They found out that the firms' inclination to developments was of vital importance in the competitive environments in order to obtain higher competitive advantage. Geroski (2005) examined the effects of the major developments and patents to various corporate performance measures such as accounting profitability, stock market

rates of return and corporate growth. He observed direct effects of developments on firm performance are relatively small, and the benefits from developments are more likely indirect.

The efficiency of the banking system has been one of the major issues in the new monetary and financial environment. The efficiency and competitiveness of financial institutions cannot easily be measured, since their products and services are of an intangible nature. Many researchers have attempted to measure the productivity and efficiency of the banking industry using outputs, costs, efficiency and performance. The scale and scope economies of banking have been one of the issues related to the competitiveness and efficiency of commercial banks which have been studied extensively. Murray and White (2003) recognized the multi-product nature of financial intermediaries and used a translog cost function to evaluate the scale and scope economies of credit unions in Canada. They found that large multi-product credit unions are more cost-efficient than small single-product credit unions. Gilligan *et al.* (1984) also utilize the translog cost function to examine scale and scope economies in U.S. banking firms. They found economies of scope but not economies of scale among U.S. commercial banks in their sample. Hunter *et al.* (1990) analyze U.S. bank production using an intermediation approach and multi-cost production function. They found no evidence of cost complementarity i.e. any sub-additive cost functions.

Once management develops the product concept, it can evaluate the business attractiveness in terms of value on financial performance (Kotler, 1998). Business analysis can be viewed as the dividing line between exploration and commitment. A product developed is deemed appropriate to company mission and strategy after reviewing the sales, cost and profit projections. If the product concept passes the business test, it moves to product development team for further engineering (Kotler, 1998). After the management is satisfied with the product's functional performance and attractiveness to the customer, the product is ready to be launched using preliminary marketing program (Bingham and Quigley, 2009).

It has also been proven that in this new competitive environment, large commercial banks will survive. Small commercial banks could only survive if they specialized in a few of their activities (Petersen and Rajan, 1995; Hardy and Simigiannis, 1998). The technical efficiency of

large commercial banks was examined by Miller and Noulas (1996). Larger and more profitable commercial banks have higher levels of technical efficiency. At the same time, larger commercial banks are more likely to operate under decreasing returns of scale. The performance of the new US commercial banks was examined by DeYoung and Hasan (1998). The profit efficiency of the new commercial banks improves rapidly during the first years of operation, but on average it takes about nine years to reach established bank levels. Small commercial banks lend a larger proportion of their assets to small businesses than do large commercial banks.

Cavallo and Rossi (2001) examined whether cost improvements in output efficiency of European commercial banks are likely to emerge from the ongoing process. Their results indicated that mergers should be oriented to increasing bank scale for small commercial banks and expanding into new product lines for large commercial banks. Berger (2003) examined the potential efficiency effects of a single market for financial services in Europe. Berger indicated, through his research, that the creation of a single market for the European financial services industry is not likely to bring about strong efficiency gains and that cross-border efficiency barriers may prevent the single market from becoming a reality.

Research carried out in Kenya shows that product development has led to increased new market players hence an upsurge in customer appetite for a range of financing and investment opportunities available (Misati, Njoroge, Kamau and Ouma, 2010). Further banks have expanded diversification choices in terms of portfolio and sources of financing. The usage of credit cards and electronic banking is one such product development that contributed to what was previously observed as stable medium to long-run relation between the stock of money and aggregate nominal income (Misati et al., 2010).

## **2.5 Conclusion**

Studies have shown that there is a relationship between product development and the financial performance of commercial banks. However, the evidence has been contrasting as the effect has not been conflicting.

Walker (2004) states that product development has a considerable effect on corporate performance by producing an improved market position that conveys competitive advantage and superior financial performance (Walker, 2004).

Many of these research embrace more or less a positive association between developments and firm performance, but there are also some studies indicating a negative link or no link at all (Capon et al.. 1990; Chandler and Hanks. 1994, Subramanian and Nilakanta, 1996).

The study therefore sought to unravel whether the contradiction observed is true by investigating the effect of product development on commercial banks' financial performance in Kenya (developing country).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter was an overall scheme, plan or structure conceived to aid in answering the raised research question. This chapter presented the methodology that was used to carry out the study. This included the study design, target population, data collection tools to be used and data collection technique, and data analysis method and presentation.

#### **3.2 Research Design**

This study used a descriptive survey. This research problem was studied through the use of a descriptive research design. According to Donald and Pamela (1998), a descriptive study is concerned with finding out the what, where and how of a phenomenon. Descriptive research design was chosen because it enables generalisation of the findings to a larger population. The main focus of this study was quantitative. However some qualitative approach was used in order to gain a better understanding and possibly enable a better and more insightful interpretation of the results from the quantitative study.

#### **3.3 Target Population**

The population of this study consisted of all 43 commercial banks in Kenya and therefore a census survey was carried out (Ranking Supervisory Report, 2011).

#### **3.4 Data Collection**

The study used both primary and secondary data for analysis. The primary data was collected using semi-structured questionnaires, while questionnaires were administered on the product heads in each of the forty three banks. Questionnaires gathered qualitative data as they allowed for additional questions if the need arose.

The secondary data collected was from 2002 to 2011. The focus on the collection of written documentation depended on the following sources of data collection:

- Annual reports issued by CBK.
- Annual report issued by each bank
- Annual reports issued by Nairobi Securities Exchange
- Some statistics issued by KNBS

#### **3.4.1 Data Validity and Reliability**

A questionnaire protocol was developed. All the questions asked and the constructs of these questions were documented. The data was organized and presented in a logical and meaningful manner.

The study was supported by semi-structured questionnaires and archival records. The purpose of the use of multiple data collection instruments was to increase the construct validity of the research by ensuring the quality of data and identifying relevant insights. Moreover, it allowed the triangulation of data and methods to increase the internal and construct validity of this research.

### **3.5 Data Analysis**

Data collected was purely quantitative and it was analyzed by descriptive analysis. The descriptive statistical tools such as SPSS and MS Excel helped to describe the data and determine the extent used. The findings were presented using tables and charts. Data analysis used SPSS and Microsoft excel percentages, tabulations, means and other central tendencies. Tables were used to summarize responses for further analysis and facilitate comparison.

For this study, the aim was to measure the effects of new product development strategies adopted by commercial banks on their financial performance. In addition, a multiple regression analysis was conducted so as to determine the effects of new product development in affecting financial performance of commercial banks.

Independent and dependent variables of the study were determined by the results reached by previous studies and how far data was available for measurement purposes. The study narrowed down to one dependant variable, that is ROA. Selecting this measure was attributed to the fact that using net income for funding purposes within the financing structure constitutes an incentive and target for many companies to increase their return on investment. The response on factors influencing financial performance was measured by computing indices based on the responses derived from the Likert-Scaled questions.

In a study conducted by (Chen. Cheng. & Hwang, 2005) where they undertook an empirical investigation of the relationship between intellectual capital and firms' market value and financial performance, one of the dependent variable for financial performance was returns on returns on assets (ROA) and measured against the components of intellectual capital. As a consequence to test the relationship between product development and financial performance of a commercial bank, the study adopted the estimated linear regression model below:

$$(1) Y = 8 + a, X, + p_2X_2 + ?$$

Where:

Y = Return on asset

8 = Constant Term

X<sub>1</sub> -Internal factors or determinants of profitability of a bank.

X<sub>2</sub> External factors or macroeconomic determinants.

5 =Normally distributed random variable disturbance term.

The study used regression analysis to fit the model and by extending equation (1) to reflect the variables, the model was formulated as follows:

$$ROA_{i,t} = \alpha_0 + \alpha_1 PD_{i,t} + \alpha_2 NIM_{i,t} + \alpha_3 g_{i,t} + \alpha_4 \pi_{i,t} + \epsilon_{i,t}$$

Where:

$ROA_{i,t}$  = Return on Assets for bank  $i$  at year  $t$ .

$\alpha_0$  = Constant Term for bank  $i$  at year  $t$

$PD_{i,t}$  = New Product Development for bank  $i$  at year  $t$

$NIM_{i,t}$  = Net Interest Margin for bank  $i$  at year  $t$

$g_{i,t}$  = Annual Growth Rate for Gross domestic product at year  $t$

$\pi_{i,t}$  = Annual Inflation Rate at year  $t$

$\epsilon_{i,t}$  = Error Term at year  $t$  for bank  $i$

### 3.5.1 Test of Significance

The study hypothesized that:

$H_0$ : There was no correlation relationship between the financial performance of a bank measured by ROA and the independent variables (product development, net interest income, GDP and inflation).

$H_1$ : There was a positive correlation relationship between the financial performance of a bank measured by ROA, and the independent variables (product development, net interest income, GDP and inflation).

The model used the t-statistic, coupled with its p-value to indicate the statistical significance of the relationship between the independent and dependent variables where the study will use a significance level of 5%.

The model rejected the null hypothesis if the p-value is less than the significance level.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter discussed the interpretations and presentations of the findings based on the objective of the study which sought to determine the effect of product development on the financial performance of commercial banks in Kenya. These findings present the discussion and conclusion of the study. The study population was 43 where 38 respondents responded and returned the questionnaires constituting to 89% response rate. Mugenda and Mugenda (2003) indicated a respondent rate of 50%, 60% or 70% is sufficient for a study and therefore a respondent rate of 89% for this study was satisfactory.

4.2 Regression Model

The table below provides findings of Analysis of variance for the data collected.

Table 4. 1: Analysis of variance

ANOVA

| Model |            | Sum of Squares | df  | Mean Square | F     | Sig.    |
|-------|------------|----------------|-----|-------------|-------|---------|
| 1     | Regression | 535.982        | 4   | 133.995     | 9.174 | .001(a) |
|       | Residual   | 5754.794       | 394 | 14.606      |       |         |
|       | Total      | 6290.775       | 398 |             |       |         |

a) Predictors: (Constant), Inflation Rate, Net Interest margin, Gross Domestic Product growth, New Product Development

b) Dependent Variable: Return on Assets

The p-value for the entire model was found to be 0.001. Since it was less than 0.05 this implied that the model was significant at 5% level of significance. Hence the model was reliable to draw conclusions from.

Table 4.2: Coefficients obtained for the various variables under study

| Coefficients (a) |                               |                             |            |                           |        |      |
|------------------|-------------------------------|-----------------------------|------------|---------------------------|--------|------|
| Model            |                               | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|                  |                               | B                           | Std. Error | Beta                      |        |      |
| 1                | (Constant)                    | -2.927                      | 1.385      |                           | -2.113 | .035 |
|                  | New Product Development       | .050                        | .079       | .042                      | .631   | .528 |
|                  | Net Interest margin           | .580                        | .101       | .277                      | 5.750  | .001 |
|                  | Gross Domestic Product growth | .145                        | .101       | .077                      | 1.441  | .150 |
|                  | Inflation Rate                | .042                        | .038       | .068                      | 1.101  | .272 |

a) Dependent Variable: Return on Assets

The regression model that fit the data collected was found to be

$$y = -2.927 + 0.05NPD + 0.58NIM + 0.145GDP + 0.042IR$$

### 4.2.1 New Product Development

New product development was found to have a beta coefficient of 0.05. This implied that a unit increase in New Products Developed by the Commercial banks caused an increase in return on assets by 0.05. Hence New Product Development impacted positively on financial performance commercial banks.

The P-value corresponding to this variable was 0.528. Since it was greater than 0.05, this implied that it had no statistical influence on the return on assets at 5% level of significance. Hence New Product Development was not statistically significant in influencing the commercial banks financial performance.

#### **4.2.2 Net Interest Margin**

Net Interest Margin was found to have a beta coefficient of 0.580. This implied that a unit increase in Net Interest Margin by the Commercial banks caused an increase in return on assets by 0.580. Hence Net Interest Margin impacted positively on financial performance of commercial banks.

The P-value corresponding to this variable was 0.001. Since it was less than 0.05, this implied that it had a statistical influence on the return on assets at 5% level of significance. Hence Net Interest Margin was statistically significant in influencing the commercial banks financial performance.

#### **4.2.3 Growth in Gross Domestic Product**

Growth in Gross Domestic Product was found to have a beta coefficient of 0.145. This implied that a unit percent increase in Growth in Gross Domestic Product by the Commercial banks caused an increase in return on assets by 0.145. Hence, Growth in Gross Domestic Product impacted positively on financial performance of commercial banks.

The P-value corresponding to this variable was 0.150. Since it was greater than 0.05, this implied that it had no statistical influence on the return on assets. Hence Growth in Gross Domestic Product was not statistically significant in influencing the commercial banks financial performance.

4.2.4 Inflation Kate

Inflation Rate was found to have a beta coefficient of 0.042. This implied that a unit increase in Inflation Rate by the Commercial banks caused an increase in return on assets by 0.042. Hence Inflation Rate impacted positively on financial performance of commercial banks.

The P-value corresponding to this variable was 0.272. Since it was greater than 0.05, this implied that it had no statistical influence on the return on assets at 5% level of significance. Hence Inflation Rate was not statistically significant in influencing the commercial banks financial performance.

Table 4.3: Model summary for data collected.

Model Summary

| Model | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---------|----------|-------------------|----------------------------|
| 1     | .292(a) | .085     | .076              | 3.82179                    |

a) Predictors: (Constant). Inflation Rate, Net Interest margin. Gross Domestic Product growth. New Product Development.

The model was found to have an R Square value of 0.085. This implied that only 8.5% of the variations in return on assets of commercial banks were caused by the four independent variables. 91.5% of variations in return on assets were due to other factors.

4.3 Primary Data Analysis

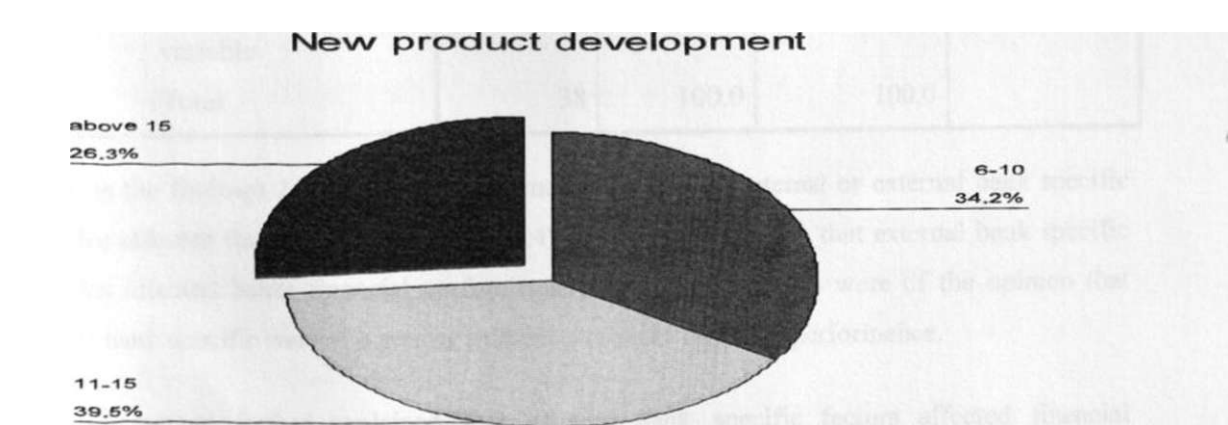
4.3.1 The range new product developments launched from 2002 to 2011 in a Commercial bank

Table 4.4: The range new product developments launched from 2002 to 2011 in a Commercial bank

| New product developments. |          |           |         |               |                    |
|---------------------------|----------|-----------|---------|---------------|--------------------|
|                           |          | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                     | 6-10     | 13        | 34.2    | 34.2          | 34.2               |
|                           | 11-15    | 15        | 39.5    | 39.5          | 73.7               |
|                           | above 15 | 10        | 26.3    | 26.3          | 100.0              |
|                           | Total    | 38        | 100.0   | 100.0         |                    |

The figure below provides summary findings of the range of new product developments launched from 2002 to 2011 for various commercial banks

Figure 4.1: New Product Development



Based on the findings the results showed that 34.2% of the commercial banks had new products range between 6-10, 39.5% had between 11-15 new products and finally 26.3% had new product ranges above 15 for the periods between 2002 to 2011. These findings supported the outcome from regression analysis where new product development had a positive impact on financial performance of commercial banks.

**Whether internal bank specific variables or External bank specific variables affected a firms financial performance greatly**

Table 4.5: Whether Internal bank specific variables or External bank specific variables affected commercial banks financial performance greatly

Internal Vs external variables

|       |                                  | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------------------------|-----------|---------|---------------|--------------------|
| Valid | None                             | 1         | 2.6     | 2.6           | 2.6                |
|       | Internal Bank Specific Variables | 11        | 28.9    | 28.9          | 31.6               |
|       | External Macroeconomic variable  | 26        | 68.4    | 68.4          | 100.0              |
|       | Total                            | 38        | 100.0   | 100.0         |                    |

Based on the findings 2.6% of the respondents stated neither internal or external bank specific variables affected financial performance, 68.4% were of the opinion that external bank specific variables affected banks financial performance greatly while 28.9% were of the opinion that internal bank specific were of a greater influence to banks financial performance.

The respondents further explained that external bank specific factors affected financial performance greatly for the followings reasons: low interest rates lead to high intake and hence high profitability, macro-economic variables were related to the environment, inflation

expectations and cyclical output, no control over external specific factors, competition effects and government regulations.

On the other hand the respondents were of the view that internal bank specific factors affected financial performance greatly for the followings reasons: they were within banks control hence could limit maximum interest rates set by commercial banks.

**Whether high or low net interest margin was a reflection of good financial performance**

Table 4.6: Whether high or low Net Interest Margin was a reflection of good financial performance

| Net Interest Margin |                          | Frequency | Percent |
|---------------------|--------------------------|-----------|---------|
| Valid               | High Net Interest Margin | 29        | 76.3    |
|                     | Low Net Interest Margin  | 9         | 23.7    |
|                     | Total                    | 38        | 100.0   |

The study revealed that 76.3% of the respondents were of the opinion that High Interest Margin was a better reflection of good financial performance as compared to 23.7% in favour of Low Interest Margin as a better reflection of good financial performance.

Those in favour of High Net Interest Margin gave the following reasons: It results in increased uptake of banks products and services, it favoured banks as high interest on loans against customer deposits reflected high earnings to the banks, it attracted more customers on savings account and hence banks able to issue more loans, it resulted in high profitability, low business to banks as few customers were willing to take loans.

Those in favour of low Net Interest Margin gave the following reasons: allows repeat business, commercial banks would trade within their capacity and not make supernormal profits, there would be less money in circulation hence more business for commercial banks.

#### **4.3.2 Types of competitive advantage can be most successfully pursued through the development of new products and services**

The respondents were asked to list various types of competitive advantage that could be most successfully pursued through the development of new products and services. The study established the competitive advantages as follows: setting target markets, setting prices, products and services that are market specific, understanding target market behaviour and needs, customer satisfaction, flexibility and product innovations, customer retention strategies, feasibility investments, effective project control based upon monetary and fiscal policies and finally having committed staff.

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of the findings from chapter four, and also gives conclusions and recommendations of the study based on the objective of the study which sought to determine the effect of product development on the financial performance of commercial banks in Kenya.

#### **5.2 Summary**

The general objective of this study was to evaluate the effect of product development on the financial performance of commercial banks in Kenya.

##### **5.2.1 New Product Development**

Based on the regression analysis new product development was found to have a beta coefficient of 0.05. This implied that a unit increase in New Products Developed by the Commercial banks caused an increase in return on assets by 0.05. Hence New Product Development impacted positively on financial performance commercial banks. The P-value corresponding to this variable was 0.528. Since it was greater than 0.05, this implied that it had no statistical influence on the return on assets at 5% level of significance. Hence New Product Development was not statistically significant in influencing the commercial banks financial performance.

Based on primary data analysis it was possible to establish that 34.2% of the commercial banks had new products range between 6-10, 39.5% had between 11-15 new products and finally 26.3% had new product ranges above 15% for the periods between 2002 to 2011.

##### **5.2.2 Net Interest Margin**

Net Interest Margin was found to have a beta coefficient of 0.580. This implied that a unit increase in Net Interest Margin by the Commercial banks caused an increase in return on assets by 0.580. Hence Net Interest Margin impacted positively on financial performance of

commercial banks. The P-value corresponding to this variable was 0.001. Since it was less than 0.05, this implied that it had a statistical influence on the return on assets at 5% level of significance. Hence Net Interest Margin was statistically significant in influencing the commercial banks financial performance.

From primary data analysis high or low Net Interest Margin was a better reflection of good financial performance, 76.3% of the respondents were of the opinion that High Interest Margin was a better reflection of good financial performance as compared to 23.7% in favour of Low Interest Margin as a better reflection of good financial performance.

### **5.2.3 Growth in Gross Domestic Product**

Growth in Gross Domestic Product was found to have a beta coefficient of 0.145. This implied that a unit percent increase in Growth in Gross Domestic Product by the Commercial banks caused an increase in return on assets by 0.145. Hence, Growth in Gross Domestic Product impacted positively on financial performance of commercial banks. The P-value corresponding to this variable was 0.150. Since it was greater than 0.05, this implied that it had no statistical influence on the return on assets. Hence Growth in Gross Domestic Product was not statistically significant in influencing the commercial banks financial performance.

### **5.2.4 Inflation Rate**

Inflation Rate was found to have a beta coefficient of 0.042. This implied that a unit increase in Inflation Rate by the Commercial banks caused an increase in return on assets by 0.042. Hence Inflation Rate impacted positively on financial performance of commercial banks. The P-value corresponding to this variable was 0.272. Since it was greater than 0.05, this implied that it had no statistical influence on the return on assets at 5% level of significance. Hence Inflation Rate was not statistically significant in influencing the commercial banks financial performance.

The model was found to have an R Square value of 0.085. This implied that only 8.5% of the variations in return on assets of commercial banks were caused by the four independent variables. 91.5% of variations in return on assets were due to other factors.

In conclusion. New Product Development. Net Interest Margin, Growth in Gross Domestic Product and inflation rate were found to impact positively on financial performance of commercial banks. The study finally established Net interest margin to have a significant influence on financial performance at 5% level of significance.

### **5.3 Discussion**

Studies have shown that there is a relationship between product development and the financial performance of commercial banks. However, the evidence has been contrasting as the effect has not been conflicting.

Walker (2004) stated that product development had a considerable impact on corporate performance by producing an improved market position that conveyed competitive advantage and superior financial performance (Walker. 2004). Many of these researches embraced more or less a positive association between innovations and firm performance, but there are also some studies indicating a negative link or no link at all (Capon et al., 1990; Chandler and Hanks, 1994. Subramanian and Nilakanta, 1996).

Based on the findings of this study, New Product Developments was found to have a positive association on commercial banks financial performance in Kenya without a significant influence at 5% level of significance.

### **5.4 Conclusions**

The study concludes that based on the objective which sought to determine the effect of New product development on the financial performance of commercial banks in Kenya, there was a positive association between New Product Development on commercial banks' financial performance in Kenya.

### **5.5 Recommendations for further study**

This study focused on Commercial banks in Kenya. Further studies can be conducted on the impact of New Product Development on the other sectors as listed in the Nairobi Securities

Exchange. This would include, agriculture, automobiles and accessories, commercial and allied, construction and allied, energy and petroleum, insurance, telecommunication and communications, manufacturing and allied industries.

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## APPENDICES

## Appendix I: Questionnaire

Please respond the following questions:

1. Kindly indicate the range of new product developments launched from 2002 to 2011 in your bank?

- a) 0-5                      [   ]
- b) 6-10                    [   ]
- c) 11-15                  [   ]
- d) Above 15               [   ]

2. Effect of the changes in both internal bank-specific variables and external macroeconomics variables towards banks' financial performance is felt. Which of the two affects banks financial performance to a greater extent and why?

- a) Internal bank-specific variables
- b) External macroeconomics variable

Explain your answer

3. Net interest margin (NIM) serves as an indicator of performance, more specifically, efficiency of the financial performance in the bank. Is high/ low NIM a reflection of good financial performance?

- a) High Net interest margin
- b) Low Net interest margin

Explain your answer

4. Environmental factors are indirectly controlled by the bank through lobbying and marketing activities. To what extent do the following environmental factors influence bank financial performance? (1-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree).

| Economic Conditions    | 1 | 2 | 3 | 4 | 5 |
|------------------------|---|---|---|---|---|
| Regulation             |   |   |   |   |   |
| Inflation              |   |   |   |   |   |
| Gross Domestic Product |   |   |   |   |   |
| Foreign Exchange rate  |   |   |   |   |   |
| Competition            |   |   |   |   |   |
| Market Share           |   |   |   |   |   |
| Money Supply,          |   |   |   |   |   |
| Monetary Policy        |   |   |   |   |   |

5. Inflation is associated with a high interest margin as it creates uncertainty. To what extent does high Inflation Effect on good financial performance of a bank? (I-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree).

| <b>Inflation</b>                                                                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|----------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| Inflation dictates the profitability and financial performance of a bank         |          |          |          |          |          |
| Inflation induces competition from other financial institutions                  |          |          |          |          |          |
| Inflation affects feasible investment opportunities with future growth potential |          |          |          |          |          |
| Changes in customer product uptake are greatly influenced by inflation.          |          |          |          |          |          |

6. GDP highlights overall performance of an economy. To what extent does GDP effect on financial performance of a bank and how? (1-means strongly disagree, 2-disagree. 3-neutral, 4-agree and 5- strongly agree).

| <b>GDP</b>                                                                         | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| GDP influences bank's rate of product development                                  |          |          |          |          |          |
| Changes in the GDP contributes to changes on commercial bank financial performance |          |          |          |          |          |
| GDP affects feasible investment opportunities with future growth potential         |          |          |          |          |          |

Explain your

7. Which types of competitive advantage can be most successfully pursued through the development of new products and services?

**Thank You for your Cooperation**

## **Appendix 2: List of Commercial Banks in Kenya**

1. African Banking Corporation
2. Bank of Africa Ltd
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya Ltd
6. CFC Stanbic Bank Limited
7. Charterhouse Bank Limited
8. Chase Bank Limited
9. Citibank N.A.
10. Commercial Bank of Africa
11. Consolidated Bank of Kenya
12. Co-operative Bank of Kenya
13. Credit Bank Limited
14. Development Bank of Kenya
15. Diamond Trust Bank Kenya
16. Dubai Bank Limited
17. Ecobank
18. Equatorial Commercial Bank
19. Equity Bank Limited
20. Family Bank Ltd
21. Fidelity Commercial Bank
22. Fina Bank Limited
23. First community bank
24. Giro Commercial Bank
25. Guardian Bank
26. Gulf African bank
27. Habib AG Zurich
28. Habib Bank Limited

**29. I&M Bank**

- 30. Imperial Bank Limited
- 31. Jamii bora Bank
- 32. Kenya Commercial Bank Ltd
- 33. K-REP BANK
- 34. Middle East Bank of Kenya
- 35. National Bank of Kenya Ltd
- 36. National Industrial Credit Bank
- 37. Oriental Commercial Bank
- 38. Paramount-Universal Bank
- 39. Prime Bank Limited
- 40. Standard Chartered Bank Ltd
- 41. Transnational Bank Limited
- 42. UBA Kenya bank Ltd
- 43. Victoria Commercial Bank