

The Effect of Product and Service Innovations on the Financial Performance of Commercial Banks in Kenya

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Abstract

The objective of this study was to establish the effect of product /service innovations on the financial performance of commercial banks in Kenya. The 40 commercial banks was the population of this study which were in operation in Kenya as at December, 2017. Both primary and secondary data were used in the study. Explanatory research design was used. Questionnaires were used to gather primary data. Secondary data was collected from Central Bank annual report to validate communicative and validity of primary data. Quantitative analysis in the research was facilitated by Statistical Package for Social Sciences (SPSS), the completed questionnaires was examined and the information for each item was further processed and analysed. The results obtained was further presented in charts and tables. Regression and correlation analysis were used to study the relationship between the dependent and the independent variables of the study. These were employed to analyze the data and find out whether financial performance of commercial banks was influenced by banks innovations. The results showed that most commercial banks have concentrated on their profits by creating new products and services which have minimized their operational costs. This study used Cronbach Alpha test of internal consistency to analyze the accuracy of the research tool based on pilot data. The study recommended that banks should consider incorporating the new technology as it will increase the firms' performance and to ensure their new products and services, are readily available in the market. The study recommended that the banking sector ought to continue investing on more innovative delivery channels since this improves banks capability to regulate expenditure. These will in turn, facilitates reduction in cost in every unit of service thus improved return on assets to financial institutions effective monitoring of accounting and auditing. Financial institutions should ensure that the banking innovations are well secured for customers to have confidence in using mobile banking and internet banking.

Key terms: financial performance, product/service innovations, commercial banks

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Introduction

The industry of banking sector is a major driver to economic development for world economies. By offering different types of services, such as facilitating money transfers between countries and ensuring that savers and borrowers are brought together in well-organized structures, the industry determines countries' economic development and long-term sustainability (Muriithi, & Louw, 2017). Banking sector is one industry that happens to be in competition with the quick changing markets with rapid advancing technology and is required to give positive results so its innovations must be done, failure to which it risks being overtaken by competitors. In finance, information technology is both exciting and valuable in terms of the operational and strategic benefits it offers. IT gives financial institutions advantages in terms of reduced operating costs, improved customer service and diverse product offerings as it enables better assets – risk management and innovative market research. In the Indian banking context, almost all banks have incorporated IT in their strategies and operations but at different levels depending upon the driving forces and obstacles for its successful implementation.

In the Kenya's money markets, the profit-oriented companies are regularly pursuing new and enhanced products/services and organizational forms that can cut their expenses on production, better the customers' needs in order to make huge profits. Bank clients dictate for diversity, improved and quality services. Consumers need services that can accommodate the specific, individual requirements. Advanced technology in the past years has enabled banks to work to the challenging areas. According to Malak (2014), In Kenya, commercial banks have been steady in the innovation of new services, products and governance for it to upgrade financial performance. The financial sector has over time developed successfully with innovation products/ services available in financial market.

These products include: credit cards, debit cards, M-pesa, automated teller machine cards and others which enhance the utilization of electronic means while making payment and furthermore substituting the usage of physical cash. E-Banking offers more value to the customers in terms of information, service ability, convenience, wider assortment of offerings, and much more. Regarding service innovations in banking sector in some form of e-banking, attitude of bank customers is of significant importance for their adoption and proliferation. Moreover, success of service innovations depends to a great extent on the perceptions and consumption patterns of the intended users of such services. Customers would readily adopt innovative services if these are perceived to be of high quality. Moreover, high service quality leads to customer satisfaction and continual use of the services. Service quality is a notion that can be taken as a reference point for service evaluation (Panda, 2016).

Explained in the study by Ngango, et al. (2015), the purpose of the study was to assess how E-banking contributed to the banking performance on Rwandese banking institutions. They established that Electronic banking systems for instance pay direct, ATM, mobile telephone banking, electronic check conversion, and E transact has an enormous impact on bank performance since they enhance in the reduction of bank cost operations, increase bank efficiency and bank asset and finally increase profitability. Digital banking, particularly supported by bank innovation platforms is gaining prominence as a reaction to better serve millennial, who are poised to be an important segment of customers in the future days to come.

Bankaool bank in Mexico and Banco Galicia bank in Argentina are a good example of mobile banking whereby they have shifted to digital offering to young university

students. In 2015, Celent an expert company in financial technology conducted research looking at the applications (APP) and realized that all top 10 Latin America banks offered a mobile APP and the one that didn't have a mobile banking APP now currently offers a mobile experience through Web responsive design. With the introduction of smart phones, more banks are now offering their mobile banking solutions through APPs. Due to constraining funds, a number of banks made prioritization to include APPs in some platform features but not identical across them.

The study conducted by Ahmed, et al. (2012), whose objective was to establish the effect of mobile banking products on the performance of commercial banks in Bangladesh. The study concluded that, mobile phone banking extends inexpensive essential accounts to a huge number of presently non account holders. Mobile banking intensifies the capacity of online banking solutions to issue clients effective scope of services at affordable costs. Such and many other benefits lead to improved profitability. In China, mobile banking formed the largest transaction size, accounting for 83.1 per cent in 2015 and considered estimated to decrease to around 80.4 per cent in 2020. China Construction Bank ranked first in terms of market share with a 23.1 per cent market share, then Industrial and Commercial Bank of China (20.0 per cent) and finally Agricultural Bank of China (13.9 per cent) (Baller, Dutta, & Lavin, 2016). Due to the pressure and challenges from payment APPs, banks in China are determined to strengthen their competitiveness by introducing differentiated services and increasing their products, such as the joint issuance of cards and large payment with banking expertise. These payments undoubtedly have a direct bearing on the liquidity requirements of the bank (Baller, Dutta, & Lavin, 2016).

Growing markets are seen to embrace high adoption of mobile phones and low penetration of bank accounts. In Bangladesh for instance, 57 per cent of its 150 million

inhabitants have a mobile phone, but only 13% have a bank account. The population of India by 2012 was 1.2 million with 250 million bank account and 900 million mobile phones (Gupta, 2013). Governments of emerging markets see mobile technology especially among the poor and rural population of their countries as a means to achieve financial inclusion. It has been accepted by several governments through legislation mobile banking and building an ecosystem conducive to Facilitate fast acceptance of mobile banking countries affected.

According to Malak (2014), commercial banks in Kenya have continuously been innovating new products, services and governance in order to improve their financial performance. The financial sector has over time developed successfully with innovation products/services available in financial market. These products include: credit cards, debit cards, M-pesa, and others which enhance the utilization of electronic means while making payment and furthermore substituting the usage of physical cash.

Wairi (2011), in a study on the factors influencing the adoption of agent banking innovation among commercial banks in Kenya concluded that technology and resources were major factors influencing the adoption of agent banking innovation. Nyawira (2012), did a study on the relationship between the levels of technological innovations and financial performance of commercial banks in Kenya and discovered a positive relationship. Ngugi and Karina (2013), concluded on his study of the effect of innovation strategy on performance of commercial banks in Kenya that, adoption of innovation strategies affected profitability of the bank. The paper concludes that adoption of innovation strategies affected performance of the bank to a great extent.

Muchoki (2013) examined the impact of product innovation on financial performance of the mobile telecommunication firms in Kenya. The study was investigated on profits

received since 2008-2012 of the four portable service providers. The information was collected and analyzed using multiple correlation analysis. T-statistics and also F-test were also used together with the MS Excel 18Version 2007. Results showed that the product innovations were significantly related to return on assets between the mobile companies in Kenya. Maiyo (2013) examined the impact of electronic banking on financial performance of the depository institutions in Kenya. The study covered all commercial banks on period from 2008-2013. It was found that depository institutions that have increasingly executed electronic banking through the adoption of internet, have been slow cause of impaired available infrastructure and inadequate support by legislature of the internet banking.

LITERATURE REVIEW

According to Kotler (2011), a product is anything that can be provided to the interest, purchase, use or use of a customer that may fulfill a need or a wish. Therefore a commodity can be a tangible good, a service or a concept. Innovation in the product is the development and subsequent implementation of a good which is new or an improvement on initial goods and services (Azaze, & Haji, 2005). Product developments have an emphasis on the consumer and are driven primarily by consumers. Consumer innovation includes that banks assimilate customer needs, alter the demographics and provide new ways of entering banking markets. Product innovation is the product of recreating the modern way of solving the dilemma of consumers, which will ultimately benefit both customers and banks.

Both external and internal factors contribute to the development of innovative products tailored to particular needs and unique niches. Market research, the exchange of new product ideas between banks and study, or technological developments, is significant external factors. Internal factors could include in-house creation of new products, testing and review of existing products,

employee and customer feedback (Hart, & Sharma, 2004). Nwokah, et al. (2009), carried out a study to determine the impact of product development through technology and institutional success in the Nigerian brewing field.

Data were collected from 32 officials from the departments of marketing, research and development and production in four breweries in the geographical regions of South-South and South-East Nigeria using a questionnaire. The data were analyzed using a suitable statistical method (co-efficient of correlation of the spearman rank order). Among other factors, the data showed that product development aspects of product quality and product lines / product mix were positively and considerably linked with the business performance aspects of profitability, volume of sales and customer satisfaction. The report found that the correlation between quality of product lines / product mix and productivity, volume of sales, and customer satisfaction is positive and meaningful.

Gupta and Collins (1997) concluded that community banks would implement new banking products and services that are more attractive to evolving consumer base in order to remain competitive in the market place and that online banking can be among the choices for electronic banking system. Gabriel and Valentin, (2007), in their analysis they concluded that there is a significant contribution to the income of small and large banks from an ideal product mix. They added that the difference in performance between the biggest banks and the smallest banks stemmed from the hedging impact of technological change. The impact of product innovation on the financial performance of mobile phone companies in Kenya was analyzed.

The study was carried out on the revenues from the four mobile telephone service providers obtained from 2008-2012. Multiple regression modeling was used to collect and analyze the data. T-statistics and also F-test were also used together with the MS Excel 18 Version 2007. Findings were

that product creativity was positively correlated with the mobile companies in Kenya returning on investments. Adhiambo (2014) analyzed the impact of product innovation on commercial banks' financial performance in Kenya. The study focused on items like insurance launch, prestige banking, retail banking, and credit cards in Kenya's commercial banks. ANOVA and multiple regressions was used in analyzing and interpreting data. Formal product advances affected financial performance negatively.

Product innovations comprises the introduction of new credit, deposit, insurance, leasing, hire purchase, and other financial products. Product innovations are introduced to respond better to changes in market demand or to improve the efficiency of the organization (Schrieder, & Heidhues, 1995). Innovation in services involves transformation in a variety of aspects ranging from how the service is designed and developed to how it is delivered and managed (Miles 2005, 2010 & Trott 2012). Service innovation can be said to be an amalgamation of product innovation.

Electronic banking has witnessed tremendous growth and has revolutionized traditional practices in banking (Gonzalez, et al., 2008). Malhotra and Singh (2007) conclude that, e-banking is leading to a fundamental change in marketing practices resulting in improved performance in the banking industry. Financial innovations enable various companies to raise money in larger amounts and at a cheaper cost than they could elsewhere (Lerner, 2006). It becomes evident that there is a tendency for a bank to reduce costs and expenditures. The other major benefit from e-banking innovation is fee based income (Dew, 2007). If a bank joins in an ATM network, it can generate income from other banks' customers that use its ATM machines or from third parties that cooperate with it. If a bank conducts more transactions with a third party, the more fee based income it acquires. This in turn forces the bank to enrich features of e-banking transactions, such

as mobile telephone top-ups, ticketing, paying telephone or electricity bills, house taxes. Joining a certain ATM network will also create customer awareness of that bank and influence the market share (Hasan, et al., 2009).

Heffernan (2005) concluded that when Irish banks provided service via the web for their corporate customers, customers demanded many types of support from banks, such as after sales service support for customer training in using the Internet banking system. Further, the study established that banks succeeded in using web-based business to implement innovative new services for their customers. The new radical changes of services have led to superior offerings and provided significant economic benefits to their customers (DeYoung, et al., 2007).

Arnaboldi and Claeys (2010) examined the decisive factors of banking groups' strategic choices considering the offer of on-line services. According to a panel of the 60 largest EU banking groups over the period 1995-2005, the study results suggest that banks with a heavy cost structure, a large market share in client deposits and high non-interest likely to introduce financial innovations specifically internet banking. Mabrouk and Mamoghli (2010), in their study on dynamics of financial innovations and performance of banking firms, analyzed the effect of the adoption of two types of financial innovations; namely, product innovation (telephone banking) and process innovation (magnetic strip cards-ATMS) and automated cash dispenser. They found out that first more initiative in product innovation improves profitability and efficiency of bank performance. Banks that are not innovative do not make as much profit and are less efficient compared to the fast movers.

Greenhalgh and Rogers (2007) stated that, innovation in services is an inter play of service concepts, service delivery systems, client interfaces, and technologies (Hertog 2000), and often entails new ways in which customers view and use the service. Services are produced, delivered, and

consumed simultaneously making it harder to distinguish between service product innovation (what is produced, delivered, and consumed), and service process innovation (how it is produced, delivered, and consumed) Bessant and Tidd (2007) andrott (2012). The service innovation process involves a high degree of interactivity between the service supplier and customer (Wilson, et al., 2012).

Kenya banking sector has witnessed many reforms since the introduction of e-banking. Today bank clients have efficient, quick and convenient banking services. Apart from offering quality and acceptable services, most banks in Kenya are investing large sum of money in information and communication technology (Aduda, & Kingoo 2012). Wolff and Pett (2004) conducted comparative research for the effects of product/service innovations on firm performance. They indicated that particular product improvements are positively associated with firm growth. Product innovations will thus enable the banks to increase their brands or products in the market hence create competitive advantage for the organizations; market innovations enable the banks create new markets hence increasing the competitive advantage; process innovation enables the running of the banks' operations thus increasing effectiveness and efficiency while technology innovation will encourage ease of flow of information and fast delivery to the intended persons (Ngugi, & Karina 2013).

According to Storey and Easingwood (1998), product innovation provides the most evident means for generating revenues. Process innovation, on the other hand, provides the means for safeguarding and improving quality and for saving costs. Improved and radically changed products are regarded as particularly important for long-term business growth (Hart, 1996). The power of product innovation in helping companies retain and grow competitive position is undeniable. To retain a strong market presence, products have to be updated and completely renewed.

RESULTS AND FINDINGS

Table 1. Your Bank is involved in Product /Service Innovations

Response	Frequency	Percentage (%)
Yes	48	100%
No	0	0%
Total	48	100%

According to the response from randomly selected banks, they all were in agreement that they have ventured into product/service innovations. Out of the 48 respondents, 100 per cent acknowledged that they have been practicing the product/service innovations. This is a strong experience that goes down well to support any inferences drawn from this study.

Table 2. Periods of Bank's Involvement in Product / Service Innovation

Response	Frequency	Percentage (%)
Not within 2010-2017	0	0%
Within 2010-2017	48	100%
Total	48	100%

Respondents were asked about the duration the banks had been venturing into product/service innovations and results shown in Table2. . It was concluded by the study that, all the Kenyan commercial banks have been venturing into product/service innovations and have been providing new and significantly improved products/ services to their customers for the period 2010-2017 as indicated by the 100 per cent response rate. Investing in product/service innovation is one of the key activities in the new millennium in order to facilitate increased profitability. The introduction of Equitel by Equity Bank and Agency banking services by Cooperative Bank can be attributed to positive

shift of the past products to new improved products. Application of new technological products and services has facilitated banking industry in Kenya to expand from 4.6 per cent in 2011 compare to 2.7 per cent in 2010 (CBK 2007).

Table 3. Product /Service Innovations and Financial Performance

Questions	SA	A	N	D	SD	χ^2	P χ^2	ROA (%)
Customers are able to receive money on their mobile phones	39(81.25)	9(19%)	0(0.00%)	0.00%	0.00%	10	0.03	5.32
Customers do not fear using internet banking due to fear of insecurity from hackers	0.00%	15(31.2)	3(6.25)	30(62.5)	0.0%	15	0.02	4.10
ATMS reduce congestion in banking halls thus enhance ROA	33(68.75)	15(31.25)	0.00%	0.00%	0.0%	10	0.03	4.42
Your bank manages to cope with market demands and development of new products hence improve ROA	24(50%)	15(31.25)	9(19%)	0.00%	0.00%	15	0.02	4.60
Your bank continuously improves old products and raise quality of new products	36(75%)	12(25%)	0.00%	0.00%	0.00%	10	0.03	4.62

Table 3. Presents effect of product/service innovations on financial performance. As per the statement that customers are able to receive money on their mobile phones, 100 per cent agreed. Mobile banking for example has greatly enabled customers to have access to funds anywhere they are, more so those in rural areas have great advantage. This in turn has greatly saved time. Customers are also in a position to receive real time updates on transactions executed and in case of concern the customers can get in touch with the bank staffs and get solutions to their enquiries. Mutua, et al. (2013) concluded that mobile banking offers a number of services ranging from account information, which informs the customers on the updates and transactions on their account through their mobile phones.

Clients receive short messages on their phones any time they make transactions in their bank accounts. However, on the question as to whether customers do not fear using internet banking due to fear of insecurity from hackers 31.25 per cent agreed, 6.25 per cent remained neutral as 62.5 per cent disagreed. Digital banking despite having greatly improved the financial performance in banks internet banking is causing much fear to customers in terms of insecurity. Banks however need to protect their data from any security threats hence they have come up with various ways to deal with the issue like creating firewall technologies to prevent attacks. Jassal and Sehgal (2013) explored several of technology and security standards required for safe internet banking and to analyze

the performance of ICICI Bank, OBC Bank and HSBC Bank, based on the recommendations given by RBI for secure online banking. Result show that cyber criminals try different techniques for getting unauthorized access to finances of financial institutions, banking customers.

31.25 per cent strongly agreed and 62.5 per cent agreed that ATMS reduce congestion on banking halls while 6.25 per cent remained neutral. ATMS are the first well known machines to provide electronic access to customers. With the advent of ATMS, banks are able to serve customers outside banking halls, which enable depositing, cash and printing mini statements by clients. Reichheld and Sasser (1990) have recognized the benefits the customers' satisfaction deliver to the banks. For instance the longer the customer stay with the bank, the more utility they generate this is because of the usage of technology in the banking sector. 81.25 per cent agreed that they managed to cope with market demands and development of new products and 19% were neutral.

Product innovation can actually improve an organization's performance in many ways. Innovations have a major effect on firm's profits in the sense that, it enables banks to develop new products that are suitable for customer use hence, improves its market position, giving the organization competitive advantage and as a result great results on their performance. Regarding continuous improvement of old products and raise quality of new products 100 per cent agreed. Due to market demand and completion, banks need to come up with various tactics to enable them remain up in the market hence the need to always invest on product innovation. The general view of the response rate agreed with the assertion that, product/service innovations positively influenced bank performance. According to Ansoff (1957), a firm with a market for its current products needs to commence on a game plan of developing other products delivering to the same market.

Table 4. Correlation Analysis between Product/Service Innovations and Bank Performance

	customers are able to receive money on their mobile phones	Customers do not fear using internet banking due to fear of insecurity from hackers	ATMS reduce congestion in banking halls	Manage to cope with market demands and development of new products	Continuously improve old products and raise quality of new products	ROA
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customers are able to receive money on their mobile phones	1	-.372	.880*	.974**	.994**	.294
Customers do not fear using internet banking due to fear of insecurity from hackers	-.372	1	-.392	-.311	-.346	-.733
ATMS reduce congestion in banking halls	.974**	-.311	.928*	1	.993**	.215
Manage to cope with market demands and development of new products	.880*	-.392	1	.928*	.908*	.037
Continuously	.994**	-.346	.908*	.993**	1	.259

improve old products and raise quality of new products						
ROA	.294	-.733	.037	.215	.259	1

** . Correlation is significant at the 0.01 level

* . Correlation is significant at the 0.05 level

The table above shows the correlation relationship between independent and dependent variables product/service innovations and performance. The correlation between independent variables and dependent variable (ROA) is positive which indicates that, increase in product/service innovations increases ROA. However in the findings on the point of whether customers fear using mobile banking in terms of security, the correlation was negative hence banks should come up with various security measures to keep customers from hackers.

The problem was innovations to banks are costly and the extent to which innovations have impacted the banks is less and some banks have encountered some losses due to failure of the innovation processes hence, the determined the effects of bank innovations on financial performance of commercial banks in Kenya. Kenya's innovation implementation level is more competitive in the financial banking sector. Prior to the final collection of data, a preface study was done to examine the reliability and validity of the questionnaire contents. Validity improvement was established through data review of the questionnaire by use of a sample of 3 randomly picked bank managers from risk department, operations department and finance department. Reliability of data

was done by use of SPSS of which the sample of study was issued with 60 questionnaires, 48 were accurately filled and returned for analysis. This indicated an 80 per cent level of response.

The regression model established that taking all factors into account (product innovation, service innovation, process innovation and organizational innovation), constant at zero financial performance was 0.873. The findings indicated that captivating other independent variables at zero, a unit increase in the scores of product/service innovation, drive to a 0.549 rise in the financial performance, a unit increase in the organizational innovation, relate to a 0.736 increase in financial performance and a unit increase in the process innovation, drive to a 0.736 increase in the financial performance. The results of the multiple linear regression showed that there is a positive relationship that exists between the independent variables and predicted values of dependent variable. Most agreed that technology in the banking sector has greatly improved its performance. Regression and correlation analysis showed the positive significance in the relationship between adopting bank innovations and bank financial performance in Kenya. The outcomes were persistent with the theories which articulated that

innovation measures endorsed by financial organizations are aligned towards mitigation of costs of transaction.

CONCLUSIONS AND RECOMMENDATIONS

Most commercial banks have concentrated on their profits by creating new products and services which have minimized their operational costs. The commercial banks have sensitized people on the use of non-cash money to smoothen their mobility and conveniences. Internet banking has been made clear to the public on marketing platforms and trained on how to use, which has fasten use

of banking services hence positively influence bank performance as the system is automated and prone to less human errors. The study recommended that, e- banking is greatly improving banks efficiency of its operations hence the study recommended that banks which have not invested on innovations should consider incorporating the new technology as it will increase the firms' performance. It was advocated that, organizations to always ensure their new products and services, are readily available in the market.

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