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Omaido, A. A., & Deya, J.

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Omaido, A. A.,[1*] & Deya, J.[2]

[1*] Masters Candidate, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya
[2] Ph.D, Lecturer, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya

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ABSTRACT

The main objective of the study was to establish the relationship between innovation management and performance of listed commercial banks in Kenya. The research design was descriptive survey. The study targeted employees at managerial positions in listed commercial banks in Nairobi County. The study was a census study from all the 33 respondents in the study. Questionnaire was used to source primary data. The source of secondary data was financial results of the listed commercial banks. Descriptive statistics and inferential statistics were applied in analyzing quantitative data using SPSS version 23. Analysis of the association between innovation management and performance of listed commercial banks in Kenya was determined by performing multiple regressions. The study found that product innovation significantly and positively related with performance of Kenya's commercial banks; process innovation significantly and positively related with performance of Kenya's commercial banks; marketing innovation significantly and positively related with performance of Kenya's commercial banks; and Customer Relations Management innovation significantly and positively related with performance of Kenya's commercial banks. The study recommended that banks' management and stakeholders should embrace product innovation, process innovation, marketing innovation and customer relations management innovation in their organization's operations through adoption and support of modern technology in their service delivery; this will increase the banks performance. The government ought to offer incentives for Research and Development to research scientists who endeavour to put in their time resource and skills to invent additional bank innovations. Further, it's suggested that the government should implement a policy to offer incentives towards technological expertise transfer from more developed countries so as to encourage the implementation of international inventions.

Keyword: *Agency Banking, Automated teller machine, Customer relationship, Digital Branding, Innovation management, Internet banking, Marketing innovation, Mobile banking, Product innovation and Social Media Marketing.*

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INTRODUCTION

Innovation is the process of adding value to new ideas, resulting in new or improved ideas. Successful innovations can only be attained within an organization which has inculcated an innovative culture. This can be achieved by systematically collecting impulses/ideas that can lead to innovations from staff members, the capability of evaluating the chances of having ideas that are innovative, team work that is productive, cooperating with experts from outside, appropriate risk taking, motivation of staff members, education as well as the capability of financing innovativeness (Surani, 2013). For a business to succeed, management of innovation is the key because of the increased level of competition in terms of innovativeness. Management of innovation is crucial in boosting the competitive advantage of a firm through the introduction of new technology, services, products and new ideas (Michael, 2012). The management of innovation that is upbeat is the core driver in creation new ideas, products, services and technologies. This has made the banks to have a review of the way they manage their innovation for the purpose of promoting an environment that encourages innovation in the company (Antonio & Jose, 2014), while aiming at boosting performance that is innovative.

The main types of innovations include process bases innovations, product-based innovations, marketing innovation and institutional based innovations. Institutional innovations basically involve changes in business structure, when a business entity establishes new financial intermediaries, when an entity transforms in legal and supervisory structures (Cho & Pucik, 2015). Institution innovations include the modernization of financial systems from traditional financial systems. Modern financial systems are products of innovation, which speed up work by increasing the number of transactions. The innovations include agent banking and Islamic banking. Agents perform transactions on behalf of the banks. Process innovations cover newly introduced business processes by a business entity which can lead to better utilization of the resources and expanding markets. These include office automation and E- banking. Product innovations have been introduced by a majority of the commercial banks to gain market share and remain competitive due to ever changing business environment. Examples include; money transfer such as mpesa and mshwari and personal unsecure loan. Mshwari is a product of Commercial Bank of Africa and Safaricom Limited which allow customers to borrow and save. Many commercial banks such as Equity bank, Cooperative bank are partnering with Safaricom Limited to allow their customers access money through mobile phones (Muiruri, 2013).

Innovation management is becoming key in financial institution's performance. Commercial banks are adopting innovations to gain a competitive edge over their peers in the fierce market. Some are going ahead and copying the innovations in the industry to remain relevant in the market. Generally, innovations are contributing greatly to financial performance of commercial banks translating to good margins, high profits and tremendous positive growth of commercial banks, innovation is aimed at reducing transaction costs which will translate to improved financial performance (Cincoz & Akdogan, 2011).

Pooja and Singh (2015) indicated that banks in India that were innovative were large in size, had high levels of profits, their competitive advantage was sustainable, they incurred less expenses I their administration, and their efficiency was high than the banks that were not innovative. Banking using the internet in Jordan led to increased customer satisfaction and improved saving in the long term and therefore increasing competitive advantage (Siam, 2011). Because of the increasing transformations, the commercial banks in China there has been a change witnessed in their mode of traditional business where there has been an increase in the retail business in the banks. For instance, the Bank of China for the period of 2006/07, retail business grew two and half times more than the wholesale business. The main reason for the transformation was innovation which was inclusive of innovation in management, processes, products, technology, etc. (Yin & Zhengzheng, 2010).

In Uganda, an increase in client base has been as a result of an increase in banking services due to innovation (Porteus, 2011). The rate of innovativeness in the banks in Ghana has been on the rise and has changes services provided to customers in that the services are now more convenient and therefore increasing profitability and competitiveness; the greatest innovation electronically in Ghanaian banks is the introduction of ATMs (Joshua, 2010). For the case of Nigeria, e-banking has led to bettered services of e-Commerce and e-Payment and has also led to reduced currency that is circulating. Gardachew (2010) established that banks in Ethiopia are slow in embracing innovation and therefore they haven't attained efficiency.

Agboola (2010) in a study on innovation management in Nigerian bank operations; nature and the level of embracing technology that is innovative; the level to which the technology is applied; and how its adoption affects the bank were used. The study found that competitiveness in the banking sector was driven by innovativeness. He also found that there was an increase in agent banking adoption. Agboola stated that innovativeness betters the image of the banks and results to fast, efficient and broader market. Agboola argued that it is crucial for the banks to invest more in innovation this will ensure that the services are fast, convenient and accurate and this will ensure that they attain competitive advantage.

In the Kenyan financial markets, all companies that are profit oriented are trying to come up with new products that are better, services as well as the structure of the organization that can lower production cost, increase customer satisfaction and increase profitability. The clients of the bank want to be given services that vary, that are convenient and new. The products that the customers want are those that will meet their specific needs. Booming of technology has assisted banks deal with the challenge. There is also the emergence of competition between other financial institutions and traditional commercial banks. Because of the development and in the financial market and globalization there is need for some modifications to be done on the structure of the systems of the banks. The regulations governing finances need to be modified with the aim of lowering if not to eliminate the challenges facing the financial activities such as the liberalization of the rate of interest. These are accomplished by commercial banks with the aim of not lagging behind in terms of competitiveness (Gitau, 2011).

The reform that are carried out in Kenya such as agency banking, improved systems of payment using e-commerce, etc. provide a chance for the banking industry to improve their performance financially. There are three main pillars for the reforms in the financial industry in Kenya as clearly indicated in the Vision 2030 (the Government Economic Blue Print) - Efficiency, Stability and Access. Just like any other country, the banking industry is the backbone of Kenya. the main role it plays is the implementation and bringing about reform in the economy. Innovation practices such as process innovations, product innovations, institution innovations, marketing innovations have affected all areas of the Kenyan banking activities.

Commercial banks are profit driven and they play a very crucial role in the financial system. They provide variety of financial services and deal with the different requirements by private enterprise. They also give loans, deposits, and facilities of trading but they do not service the activities of investing in financial markets (Magutu, 2009). The monetary policies are formulated and implemented by CBK and these policies are the ones responsible for liquidity, solvency and also ensures that the financial system functions properly. The information on commercial banks and other financial institutions are provided by CBK, they provide the rates on interests and other guidelines. All banks are under the KBA, which is responsible for lobbying the interests of the banks and dealing with the issues that its members face (Kenya Bankers Association Annual Report, 2008).

Based on the report that was provided by CBK, total commercial banks that are licensed in Kenya are forty-one. Among the forty-one, there are categorized as public institutions where the majority shareholders are state corporations and the government. The remaining are private; among the private banks, twenty-five of them are local while thirteen are foreign (CBK, 2013). Since the year 2011, the banks performance financially has significantly improved. According to information provided by the CBK, growth witnessed in the sector has been significant (CBK, 2013). The principle stock exchange in the country is NSE whose inception was in the year 1954. NSE is ranked 4th among the stock exchange in Africa in regard to capitalization of the market whose presentation is as a ration of GDP. The way NSE performs is measures using two main indexes, the NSE 20 share index and the NSE all share index. The NSE 20 share index provides the measurements of twenty blue chip firms that have fundamentals that are strong and that return financial returns consistently. The NSE all-share index provides the general performance in the market.

The sector of agriculture and finance and investment are the key listings in terms of investments in the market and they are not the only ones, there is also the industrial and commercial as well as service. In the NSE, there are a total of eleven banks under the category of financial and investment. Among the 11, 4 were among the NSE 20 share index. Not all commercial banks are the same they differ in various aspects such as their assets, client base, and the area they cover geographically. The public and other stakeholders scrutinize the way commercial banks perform. The way the banks perform is what the shareholders and the public use in making conclusions on the state of the economy. Because of the increase in confidence by shareholders, the reputation of the company and the investors' value, banks have adopted innovative management as a way to drive their performance.

Statement of the Problem

Performance of Kenyan commercial banks is continuously impressing. In the first quarter of the years 2016, the banking industry did record pre-tax profits of Ksh. 37.3 which increased from Ksh. 36.32 in the last quarter of 2025; this increase translated to 2.5% increase (CBK, 2017). Also, profits in the sector increased from Ksh. 33.4 billion to Ksh. 37.3 billion for the period of one year that is from March of 2015 to March 2016; this increase translated to 11.7% (CBK, 2017). Innovation management in the banking sector enhance competitiveness and improve service delivery. Wayland and Cole (2014), considered the basis of client connection strategy for delivery of service and improving performance as knowledge of the client and innovation of the client in connecting.

For the banking sector to witness great improvement in their performance, they should have innovation that is appropriate and competent (Kamau, 2011). Because of the increase in globalization and the effects of internationalization the Kenyan commercial banks need to change with the changing environment (CBK, 2015). Because of the environmental change, banks are pressurised to be innovative and also be proactive in responding to changing competitive environment. The aim of managing innovation is to differentiate a company from the rivals in a manner that in the feature it will remain sustainable (Mohamed, 2012). Empirical studies include; Kamakia (2014) who investigated how innovation affects the way Kenyan commercial banks perform. Kariuki

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(2017) studied the effects of strategies of innovation in improving competitive advantage in Kenyan commercial banks. Waweru (2012) investigated how management of risks in the Kenyan banks are affected by innovation in finances. Based on the above empirical studies, none of the studies covered the whole banking sector, some of them did cover other contexts that had distinct dynamics of operational environment different from those of commercial banks. The focus of this study therefore was to fill this gap by seeking to establish the relationship between innovation management and performance of listed commercial banks in Kenya.

Objective of the Study

The main focus of this study was to establish the relationship between innovation management and performance of listed commercial banks in Kenya. The specific objectives were:-

- To examine the effects of product innovation on performance of listed commercial banks in Kenya.
- To assess the effects of process innovation on performance of listed commercial banks in Kenya.
- To establish the effects of marketing innovation on performance of listed commercial banks in Kenya.
- To examine the effect of customer relationship management innovation on performance of listed commercial banks in Kenya.

THEORETICAL REVIEW

Resource-Based View (RBV) of the Firm

The RBV theory came up in the 80s and 90s as a result of various influential work of different individuals such as Wernerfelt, The RBV of the Firm, Prahalad and Hamel, Barney, J. and others. The suggestion provided by this theory is the performance of a company is determined by the nature of the resources existing in the company and that the company will attain superior performance if they have resources that cannot be imitated (Wernerfelt, 1984). The proposition of RBV theory is that the company will attain competitive advantage if it possesses primary resources and use the resources in an effective manner (Barney, 1991). The various traits of a company can be used to come up with primary resources which drive changes in performance of rivals (O'Cass, Weerawardena & Julia, 2004). Furthermore, RBV stipulates that the main sources and factors that drive the competitive advantage of a company as well as their performance are the unique and valuable resources that cannot be imitated or substituted.

Schumpeter Innovation Theory

Schumpeter (1934) focused on the duty that is played by entrepreneurship and trying to find chances that will result to activities that generate great value leading to expansion and transformation of cash flow; he was referencing on the difference between invention and innovation, commercialization and entrepreneurship. Separating invention and innovation was a typical model for institutions in the 19th century whereby inventors provided entrepreneurs in companies with what they discovered and other potential inputs. According to this theory, innovation is created by the entrepreneur and this innovation is more than just invention. Schumpeterian entrepreneur does more than what is just allowed they do more in the push to better their organization, finance and technology. According to Schumpeter, development is as a result of creation of new products and improvement of the ones that are already in existence. This study applied Schumpeter Innovation Theory in assessing the effects of process innovation on the way banks perform.

Dynamic Capability Theory

The year 1994 was when this theory of Dynamic Capability was first developed by David T. and Gary P. Dynamic capabilities focus on comprehending the reason why one company performs more than another. Teece *et al.* (1997) proposes a framework which shows the way a company utilizes their various resources to perform better than the rival. Dynamic

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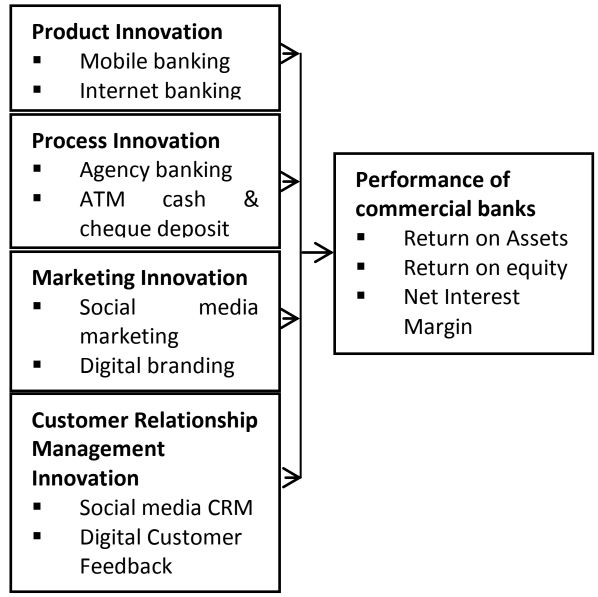
capabilities are defined as abilities to integrate, build and reconfigure internal and external resources to deal with the changing environment (Teece *et al.,* 1997).Winter (2003), indicated that with dynamic capabilities a company is able to operate, grow, have some modifications and come up with ordinary abilities. Additionally, it enables the company to attain competitive advantage by changing their resource base (Ambrosini & Bowman, 2009; Helfat *et al.,* 2007). This theory was therefore of significance in establishing how marketing innovation affects the way banks perform.

Innovation Diffusion Theory

According to Dillon and Morris (1996) there are a number of factors that affect the rate at which innovation diffuse and they are; relative advantage, how compatible (it is how consistent it is with the culture and the norms of the users), complexity (ease of use), trialability (trying before deciding to use the innovation), and observability (level of clarity of the results and gains). It is not possible to make a prediction of the rate of diffusion of innovation because of the un-exclusive nature of the elements. The theory explains the process of innovation-decision in a company, but it doesn't cover the point where it explains if and how the innovation character interacts to affect adoption in the company or if adoption is affected by type and size of the company. This study used innovation diffusion theory to examine how innovation management of customer relations affects the way commercial banks in Kenya perform.

Conceptual Framework



Independent Variables Dependent Variable

Figure 1: Conceptual Framework

Source: Author (2019)

METHODOLOGY

Descriptive survey design was used in this study. The study was carried out in listed commercial bank in Nairobi County. There was a total of 11 commercial banks listed in the NSE. Nairobi County was chosen because it was easily accessible by the researcher, thus reducing the cost of data collection. Both primary and secondary data was used. The questionnaire used constituted of two types of questions; open and close ended questions and it comprised of various sub headings that addressed specific objective of the study. The questionnaires were distributed to the respondents with help of research assistants. Descriptive and inferential statistics were applied in analysing quantitative data; SPSS Verosion 23 was used. In establishing the association between the variables, the study conducted Correlation analysis; this also aided in determining existence of multi-collinearity. In order to determine the association of management of innovation and the way commercial banks in Kenya perform computation of multiple regressions was

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done. To ensure that the results were reader friendly, they were presented in tables.

RESULTS

33 management level employees in listed commercial bank in Nairobi County were targeted. All the respondents were issued with questionnaires but only 29 of them filled and returned which formed a response rate of 87.3%. With the aim of establishing how reliable the questionnaire was, the researcher conducted reliability analysis with the use of Cronbach's Alpha. The acceptable threshold value for Alpha is 0.7 (Gliem & Gliem, 2003), which formed he benchmark for this study. From the results presented in table 1, product innovation, as an alpha of 0.714, process innovation as an alpha of 0.721, marketing innovation as an alpha of 0.733, and customer relationship management innovation an alpha of 0.747. All the variables had an alpha value greater than 0.7 implying that all the variables were reliable.

Table 1: Reliability analysis

Scale	Cronbach's Alpha	Number of Items
Product innovation	0.714	6
Process innovation	0.721	7
Marketing innovation	0.733	6
Customer relationship management innovation	0.747	6

Product Innovation

Respondents indicated their level of agreement with statements about effects of product innovation on performance of listed commercial banks in Kenya. The results were as shown in Table 2.

Table 2: Product Innovation on Performance of Listed Commercial Banks

	Mean	Std. Dev.
The organization has successfully launched its mobile banking service	3.966	1.225
Mobile banking allows customers to access banking services easily	3.897	1.212
Customer information is usually protected	3.966	1.345
The organization has successfully launched its internet banking service	3.793	1.286
Internet banking is efficient because it can be accessed all the time	3.793	1.280
Consumers security is enhanced by creating personal login details	3.931	1.152

From the findings, the respondents were in agreement that the organization has successfully launched its mobile banking service as show by a mean of 3.966, customer information is usually protected as shown by a mean of 3.966, consumers security was enhanced by creating personal login details as show by a mean of 3.931, mobile banking allows customers to access banking services easily as show by a mean of 3.897, the organization had successfully launch its internet banking service as show by a mean of 3.793, and internet banking was efficient because it can be accessed all the time as show by a mean of 3.793. The findings agreed with Chung and Dutta (2012) banks consider e-banking as a great potential and therefore making it necessary to be incorporated in their business. Banking systems globally have received unthought-of speed and therefore its crucial role in the banking systems; through the adoption of e-banking, there has been an increase in volume of trades, turnover ratios and frequency of trading; financial performance has a positive relationship with performance of the financial institutions.Li and Atuahene-Gima (2010) found that the association between performance and product innovation is based on the factors of the environment and the relationship-based strategies of the ventures.

Process Innovation

Respondents were asked to indicate their level of agreement with following statements about effects of process innovation on performance of listed commercial banks in Kenya. The results were as shown in Table 3.

Table 3: Process Innovation on Performance of Listed Commercial Banks

	Mean	Std. Dev.
The bank has successfully launched agency banking	3.862	1.279
Customers are able to deposit and withdraw money through agents	3.966	1.152
Agent banking saves customer time since they are able to access banking services at their door step	3.931	1.285
ATM points are conveniently located at multiple locations.	4.000	1.418
Our customers are using ATMs for cash and cheque deposits	3.862	1.424
Even when travelling overseas, one can withdraw cash at ATMs provided that the local laws permit it.	4.034	1.351
ATMs improves safety since customers don't need to carry cash wherever they go	3.966	1.422

From the findings, the respondents were in agreement that even when travelling overseas, one can withdraw cash at ATMs provided that the local laws permit it was shown by a mean of 4.034, ATM points were conveniently located at multiple locations as shown by a mean of 4.000, ATMs improved safety since customers don't need to carry cash wherever they go as shown by a mean of 3.966, customers were able to deposit and withdraw money through agents as shown by a mean of 3.966, agent banking saves customer time since they are able to access banking services at their door step as shown by a mean of 3.931, the bank had successfully launched agency banking as shown by a mean of 3.862, and that their customers were using ATMs for cash and cheque deposits as shown by a mean of 3.862. The findings agreed with Ringim and Dantsoho (2017) who studied the impact of innovation process on the way an organization performs and established that innovative process were positively and significantly related, in terms of Information accuracy, operational costs reduction and Customer relationship management in branches. Vivero (2010) demonstrated that the productivity growth of a company is significantly and positively affected by innovation process.

Marketing Innovation

Respondents were asked to indicate their level of agreement with the statements about effects of marketing innovation on performance of listed commercial banks in Kenya. The findings were as shown in Table 4.

Table 4: Marketing Innovation on Performance of Listed Commercial Banks

	Mean	Std. Dev.
Our bank has a social media marketing platform	3.897	1.352
Social media marketing enables the organization to meet more clients	3.966	1.225
The customers are able to see what the banks offer in social media marketing	3.759	1.360
Customers are able to apply for accounts in the social media marketing platform	3.793	1.366
Branding enables the bank to develop other techniques in which they can engage their customers and control how consistent the empowerment if their brand is	4.034	1.560
Through branding, there is co-creation of value which is a substitute to the customer relations, their loyalty and profitability	3.897	1.156

From the findings, the respondents agreed that branding enabled the bank to develop other techniques in which they can engage their customers and control how consistent the empowerment of their brand was as shown by a mean of 4.034, social media marketing enabled the organization to meet more clients as shown by a mean of 3.966, their bank has a social media marketing platform as shown by a mean of 3.897, through branding, there was co-creation of value which was a substitute to the customer relations, their loyalty and profitability as shown by a mean of 3.897, customers were able to apply for accounts in the social media marketing platform as shown by a mean of 3.793, and the customers were able to see what the banks offer in social media marketing as shown by a mean of 3.759. The findings concurred with the findings of Cascio (2011) who did a study on innovativeness of marketing and the way the company performs and revealed that innovative marketing was created and boosted through the insight on marketing and imaginations of marketing and these associations are seen as the moderators of the market orientation of the company. Also, that performance of a company can be improved through marketing of product space, process of marketing and the marketing relationship. Cascio (2011) established that performance of a company can be improved through marketing of product space, process of marketing and the marketing relationship.

Customer Relationship Management Innovation

Respondents were asked to indicate their level of agreement with effect of customer relationship management innovation on performance of listed commercial banks in Kenya. The results were as shown in Table 5.

Table 5: CRM Innovation on Performance of Listed Commercial Banks

	Mean	Std. Dev.
The bank has an established social media CRM	3.793	1.147
The customers are able to give their opinion about the bank on the social media CRM	3.897	1.212
The bank communicates some changes in bank activities in the social media CRM	3.655	1.147
The bank takes customer complaints with seriousness so as to serve the customers better	3.931	1.104
The organization responds to customers queries through the digital customer feedback	3.862	1.141
The customers are able to get instant feedback on any issue they raise through digital customer feedback.	3.759	1.281

From the findings, the respondents agreed that the bank takes customer complaints with seriousness so as to serve the customers better as shown by a mean of 3.931, the customers were able to give their opinion about the bank on the social media CRM as shown by a mean of 3.897, the organization responds to customers queries through the digital customer feedback as shown by a mean of 3.862, the bank had an established social media CRM as shown by a mean of 3.793, the customers were able to get instant feedback on any issue they raise through digital customer feedback as shown by a mean of 3.759, and the bank communicated some changes in bank activities in the social media CRM as shown by a mean of 3.655. The findings were in agreement with the findings of Valmohammadi (2017) in his study on management of client relationship: Innovation and performance that the practices of CRM wear weak but positively and significantly affect the performance of the company and the innovative ability of firms in manufacturing sector. The improvement in innovation resulted in the outcome of CRM improving the performance of the organization. Gu, Schniederjans and Cao (2015) study on diffusion of innovation: the adoption of management of customer relations in companies of supply chain, established

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that there were direct as well as indirect network externalities of the quality of systems, reliability of system, ease of use, and authority moderates the embracing of CRM in the company, which suggests the possibility that the moderating network, the variables will affect the adoption of CRM.

Correlation Analysis

The study conducted correlation analysis with the aim of establishing the relationship between response and predictor variables. The study applied the use of Pearson Moment Correlation analysis in establishing the relationship between product innovation, process innovation, marketing innovation and customer relationship management innovation and performance of listed commercial banks in Kenya. The results were as shown in Table 6.

Table 6: Correlations Coefficient

		Performance	Product innovation	Process innovation	Marketing innovation	CRM innovation
Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	29				
Product innovation	Pearson Correlation	.779	1			
	Sig. (2-tailed)	.010				
	N	29	29			
Process innovation	Pearson Correlation	.784	.371	1		
	Sig. (2-tailed)	.005	.039			
	N	29	29	29		
Marketing innovation	Pearson Correlation	.718	.312	.209	1	
	Sig. (2-tailed)	.020	.100	.050		
	N	29	29	29	29	
CRM innovation	Pearson Correlation	.721	.219	.223	.215	1
	Sig. (2-tailed)	.020	.319	.045	.050	
	N	29	29	29	29	29

From the results presented in table 6, product innovation and Performance of Listed Commercial Banks in Kenya were found to have a strong and positive correlation as shown by r = 0.779, statistically significant p = 0.010<0.05; process innovation and Performance of Listed Commercial Banks in Kenya also showed correlation that was strongly positive as shown by r = 0.784, statistically significant p = 0.005<0.05; marketing innovation and Performance of Listed Commercial Banks in Kenya were found to have correlation that was strongly and positive as shown by r = 0.718, statistically significant p = 0.020<0.05; Customer Relations Management innovation and Performance of Listed Commercial Banks in Kenya were found to have strong positive correlation as shown by r = 0.721, statistically significant p = 0.020<0.05. This was an indication that product innovation, process innovation, marketing innovation and CRM innovation affects Performance of Listed Commercial Banks in Kenya.

Multiple Linear Regression

The study used model summary in analysing the variation of dependent variables as a result of change in the independent variables. The study analysed the variations of performance of listed commercial banks in Kenya due to changes in product innovation, process innovation, marketing innovation and Customer Relations Management innovation.

Table 7: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.790	.784	.94766

a. Predictors: (Constant), product innovation, process innovation, marketing innovation and CRM innovation
b. Dependent Variable: Performance

From the results presented in table 7, the value of adjusted R^2 was 0.784 implying that 78.4% variation of performance of listed commercial banks in Kenya could be explained by changes in product innovation, process innovation, marketing innovation and CRM innovation. The remaining 21.6% suggest that there exist other factors that affected performance of listed commercial banks in Kenya that were not part of the model. The relationship between the variables is shown by correlation coefficient denoted by R. Table 7 showed that the value of R is 0.889 which was an indication that the variables usnder consideraton in the stduy were strongly and positively related.

Analysis of Variance

With the aim of establishing whether the data used in the study was significant, the study performed analysis of variance. The significance level of the population parameters was found to be 0.01. Since the p-value (0.010) was less that the selected significance level (0.05) the data was concluded to be ideal for making inference of the population parameters.

Table 8: Analysis of variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.237	4	9.309	25.441	.010[b]
	Residual	8.782	24	0.366		
	Total	**46.019**	**28**			

The F critical was found to be less than F calculated (2.776 < 25.441). Therefore, product innovation, process innovation, marketing innovation and Customer Relations Management innovation significantly influence performance of listed commercial banks in Kenya.

Table 9: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T
		B	Std. Error	Beta	
1	**(Constant)**	1.132	0.106		10.679
	Product innovation	0.353	0.087	0.271	4.057
	Process innovation	0.636	0.073	0.541	8.712
	Marketing innovation	0.512	0.084	0.492	6.095
	CRM innovation	0.398	0.096	0.321	4.146

a. Dependent Variable: Performance

From the findings in table 9, the equation model formed was;

$Y = 1.132 + 0.353 X_1 + 0.636 X_2 + 0.512 X_3 + 0.398 X_4 + \varepsilon$

From the above equation, holding product innovation, process innovation, marketing innovation and Customer Relations Management innovation variables constant, they will significantly influence performance of listed commercial banks in Kenya as shown by constant = 1.132 as shown in the above table.

Product innovation is statistically significant to performance of listed commercial banks in Kenya as

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shown by (β = 0.353). This shows that product innovation significantly and positively relates with performance of listed commercial banks in Kenya. Therefore, increasing product innovation by a single unit would lead to an increase in performance of listed commercial banks in Kenya by 0.353 units. The findings agree with Chung and Dutta (2012) banks consider e-banking as a great potential and therefore making it necessary to be incorporated in their business. Atuahene-Gima (2010) found that the association between performance and product innovation is based on the factors of the environment and the relationship-based strategies of the ventures.

Process innovation is statistically significant to performance of listed commercial banks in Kenya as shown by (β = 0.636). This shows that process innovation significantly and positively related with performance of listed commercial banks in Kenya. Therefore, increasing process innovation by a single unit would lead to an increase in performance of listed commercial banks in Kenya by 0.636 units. The findings agree with Ringim and Dantsoho (2017) who studied the impact of innovation process on the way an organization performs and established that innovative process were positively and significantly related, in terms of Information accuracy, operational costs reduction and Customer relationship management in branches. Vivero (2010) demonstrated that the productivity growth of a company is significantly and positively affected by innovation process.

Marketing innovation is statistically significant to performance of listed commercial banks in Kenya as shown by (β = 0.512). This shows that marketing innovation significantly and positively relate with performance of listed commercial banks in Kenya. Therefore, increasing marketing innovation by a single unit would lead to an increase in performance of listed commercial banks in Kenya by 0.512 units. The findings concur with the findings of Cascio (2011) who did a study on innovativeness of marketing and the way the company performs and revealed that innovative marketing is created and boosted through the insight on marketing and imaginations of marketing and these associations are seen as the moderators of the market orientation of the company.

Customer Relations Management innovation is statistically significant to performance of listed commercial banks in Kenya as shown by (β = 0.398). This shows that Customer Relations Management innovation is significantly and positively relate to performance of listed commercial banks in Kenya. Therefore, increasing Customer Relations Management innovation by a single unit would lead to an increase in performance of listed commercial banks in Kenya by 0.398 units. The findings are in agreement with the findings of Valmohammadi (2017) in his study on management of client relationship: Innovation and performance that the practices of CRM wear weak but positively and significantly affect the performance of the company and the innovative ability of firms in manufacturing sector. The improvement in innovation resulted in the outcome of CRM improving the performance of the organization.

DISCUSSION

Product innovation is significantly and positively related to performance of listed commercial banks in Kenya. The findings agree with Chung and Dutta (2012) banks consider e-banking as a great potential and therefore making it necessary to be incorporated in their business. Atuahene-Gima (2010) found that the association between performance and product innovation is based on the factors of the environment and the relationship-based strategies of the ventures. Process innovation is significantly and positively related with performance of listed commercial banks in Kenya. The findings agree with Ringim and Dantsoho (2017) who studied the impact of innovation process on the way an organization performs and established that innovative process were positively and significantly related, in terms of Information accuracy, operational costs reduction and Customer relationship management in branches. Vivero (2010) demonstrated that the productivity growth of a company is significantly and positively affected by innovation process.

Marketing innovation significantly and positively relate with performance of listed commercial banks in Kenya. Therefore, increasing marketing innovation by a single unit would lead to an increase in performance of listed commercial banks in Kenya. The findings concur with the findings of Cascio (2011) who did a study on innovativeness of marketing and the way the company performs and revealed that innovative marketing is created and boosted through the insight on marketing and imaginations of marketing and these associations are seen as the moderators of the market orientation of the company. Customer Relations Management innovation significantly and positively relate with performance of listed commercial banks in Kenya. Therefore, increasing Customer Relations Management innovation by a single unit would lead to an increase in performance of listed commercial banks in Kenya. The findings are in agreement with the findings of Valmohammadi (2017) in his study on management of client relationship: Innovation and performance that the practices of CRM wear weak but positively and significantly affect the performance of the company and the innovative ability of firms in manufacturing sector. The improvement in innovation resulted in the outcome of CRM improving the performance of the organization.

CONCLUSION

The first objective of the study was to examine the effects of product innovation on performance of listed commercial banks in Kenya. The study found that the bank has successfully launched its internet banking service which is very efficient because customers can access banking services easily and also internet banking has offered efficiency to its customers because it can be accessed anywhere and anytime. The study also established that product innovation is statistically significant to performance of listed commercial banks in Kenya. Also product innovation significantly and positively related with performance of listed commercial banks in Kenya. The study therefore concludes that increasing product innovation by a single unit would lead to an increase in in performance of listed commercial banks in Kenya.

The second objective of the study was to assess the effects of process innovation on performance of listed commercial banks in Kenya. The study found that banks have launched agency banking and ATMs offering convenience to its customers. The study also established that process innovation is statistically significant to performance of listed commercial banks in Kenya. The study further revealed that process innovation significantly and positively related to performance of listed commercial banks in Kenya. It is therefore concluded that increasing process innovation by a single unit will result to increase in performance of listed commercial banks in Kenya.

The third objective of the study was to establish the effects of marketing innovation on performance of listed commercial banks in Kenya. The study revealed that branding as well as social media marketing enables the banks to engage their customers, control how consistent the empowerment of their brand is, and enables them to meet more clients. The study also found that marketing innovation is statistically significant to performance of listed commercial banks in Kenya. In addition, marketing innovation significantly and positively relate with performance of listed commercial banks in Kenya. Therefore, the study concluded that increasing marketing innovation by a single unit will lead to an increase in performance of listed commercial banks in Kenya.

The fourth and final objective of the study was to examine the effect of customer relationship management innovation on performance of listed commercial banks in Kenya. The study found that the bank has established social media CRM though which customers give their opinion and queries and the bank responds through the same platform; also the bank communicates some changes in bank activities in the social media CRM. The study also established that customer Relations Management innovation is statistically significant to performance of listed commercial banks in Kenya. The study further revealed that Customer Relations Management innovation significantly and positively relate with performance of listed commercial banks in Kenya. The study thus concludes that increasing Customer Relations Management innovation by a single unit will result to increase in performance of listed commercial banks in Kenya.

RECOMMENDATIONS

The study concluded that innovation management and performance of Kenya's listed commercial banks had a positive relationship. The study therefore recommends that the banks' management and stakeholders should embrace product innovation, process innovation, marketing innovation and customer relations management innovation in their organization's operations through adoption and support of modern technology in their service delivery; this will increase the banks performance.

Due to Kenya's aggressive and continued adoption of innovations in technology, the government ought to offer incentives for Research and Development to research scientists who endeavor to put in their time resource and skills to invent additional bank innovations. Further, it's suggested that the government should implement a policy to offer incentives towards technological expertise transfer from more developed countries so as to encourage the implementation of international inventions.

The study also recommends that financial institutions ought to continue investing on more innovative delivery channels since this improves banks capability to regulate expenditure. A bulk of transactions are undertaken via channels such as telephone and e-banking are more in comparison with performing similar transactions through manual procedures. This facilitates reduction in cost in every unit of service thus improved revenues to the financial institutions.

Suggestions for Further Studies

The main focus of this study was to establish the relationship between innovation management and performance of listed commercial banks in Kenya. This study explained 79% variation of performance of listed commercial banks in Kenya meaning that there are other innovative factors that were not discussed in this study; the study therefore recommends further study on innovation management factors affecting performance of listed commercial banks. This study focused on listed commercial banks; further studies can be conducted in commercial banks not listed in NSE.

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