Product Innovation and Competitiveness of Commercial Banks in Kenya

Asisi Gorret Idah[1],
Dr. Mary Nelima[2],
Dr. Jackline Akoth Odero[3],
Dr. Reuben Rutto[4]

[1]idahasisi@gmail.com
[2]nelimasindani@yahoo.com
[3]jacklineodero@gmail.com
[4]reubenruto@gmail.com

[1]https://orcid.org/0000-0001-7015-3086
[2]https://orcid.org/0000-0002-0451-539X
[3]https://orcid.org/0000-0003-3220-5222
[4]https://orcid.org/0000-0001-7492-1249

[1,2,3,4] Masinde Muliro University of Science and Technology, Kenya

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ABSTRACT

The dynamics of change in the business environment catalysed by globalization, changing consumer preferences, and a whirlwind of technological development have exerted immense pressure on commercial banks to introduce up-to-date products and services for sustainability. Product innovation has thus become a vital tool for survival and development. This study examined the influence of product innovation on the competitiveness of commercial banks in Kenya. The theory of creative destruction served as the study's guide. The study utilized a positivist research philosophy. Descriptive and correlational research designs were used. The target population consisted of 175 directors and general managers of Tier 1 commercial banks. Stratified and simple random sampling was then employed to select 122 respondents. Primary data was collected using closed and open-ended questionnaires. A pilot study was done on Equity Bank. To test validity, the study used content and construct validity. The study utilized descriptive and inferential analysis. Descriptive analysis included the use of frequencies, percentages, mean, and standard deviation, while inferential statistics employed correlation and simple linear regression analysis. Data collected from open-ended questionnaires was analysed using content analysis. The results were presented in tables. The study found that product innovation had a positive and significant influence on the competitiveness of commercial banks in Kenya (t = 0.6.438, P = 0.000). The study thus recommends that commercial banks embrace product innovation as a tool to achieve competitiveness. Product innovation should be enhanced by carrying out regular surveys, seeking client views in the development of mobile and internet product innovations, and training clients on the usage of mobile and internet banking products before onboarding.

Keywords: Commercial Banks, Competitiveness, Product Innovation, Kenya

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I. INTRODUCTION

The global practice of banks is to stimulate the economic growth of nations by increasing operating revenues, deposits, and credit facilities (Sarji, 2017). Across the world, however, banking institutions continue to face stiff competition due to changing market dynamics, consumers' socioeconomic conditions, and constant technological developments (McKinsey Global Banking Annual Review, 2022). The resurgence of geopolitical instability and the lasting long-term disruptive impacts of the COVID-19 pandemic are also cited as reasons for the challenges being experienced by the global financial industry in the research. According to the report, even though revenue and margins increased as a result of higher interest rates, margin expansion only resulted in returns above the cost of equity for 35% of banks globally, while the remaining 50% will continue to do so in 2022. This puts banks' performance last when compared to market valuations for various industry sectors. According to the McKinsey Global Banking Annual Review (2022), banks need to be innovative to improve their short-term resilience and longer-term opportunities in order to be competitive.

Locally, the Kenya Bankers Association (KBA) report of 2021 indicates that the cost-to-income ratio, a measure of a bank's efficiency, substantially edged upwards to 74.1 percent in 2020 from 60.2 percent in 2019. According to Central Bank of Kenya reports, this pushed some banks into mergers and acquisitions in a bid to achieve economies of scale, while others were edged out (CBK, 2016; CBK, 2022). CBK's financial stability report for July 2022 notes that just as banks had begun to post double-digit profit growth in the six months prior to June 30, with the majority announcing the resumption of dividend payments to shareholders following the COVID-19 pandemic, the lenders are confronted with a new crisis precipitated by the deteriorating economic climate and the ongoing Russia-Ukraine military conflict. The industry is nevertheless struggling in the face of a slowing economy (growth in the second quarter was 5.2%, down from 11.0% in the same period last year), rising prices, and a depreciating currency (the shilling) compared to the US dollar (CBK, 2022).

The report further indicates deteriorating asset quality, with gross nonperforming loans (NPLs) increasing from 14.0 percent in June 2021 to 14.7 percent in June 2022, much weaker than the regional average. This means a slash in revenues, as interest income forms the largest portion of bank revenues. Amidst the increasing sophistication of customer expectations, the dynamism in the regulatory environment, and the uncertainty in the business environment, the overarching challenge to the industry is the need to build successful innovative strategies that will enhance competitiveness (The Lab, 2017; Global Banking Annual Review, 2022). When comparing an organization's abilities and performance to those of others in its industry, both domestically and abroad, a measure of its competitiveness is its ability to provide products and services that meet high quality standards at competitive prices (Nuryakin, 2018).

It details the resources the organization has on hand that will give it an edge over rivals (Emad et al., 2017; Global Banking Annual Review, 2022). Biemans et al. (2016) concluded that product innovation is an important factor in formulating strategies for penetrating untapped markets and increasing overall competitiveness. Daneels and Kleinsmith (2016) note that product innovation is an indicator of originality. Product innovation in the banking industry entails offering new features with the intention of increasing customer happiness. These new features should be well-designed and offer improved usefulness and value. The competitiveness of batik SMEs in Indonesia was found to be highly impacted by product innovation by Nuryakin (2018). Businesses can improve their cost-cutting, value-adding, customer service, agility, and speed by investing in product innovations (Abdallah et al., 2016; Ejike, 2018; Ngango, 2015; M'kuma, 2015).

1.1 Statement of the Research Problem

Banks constantly strive to outpace their competitors by expanding their market share, earnings, efficiencies, and asset bases (Ejike, 2018). However, stiff competition brought by rapid technological advancements and increased financial legislation has reduced the revenue sources for banks, hence their competitiveness (Sarji, 2017; KBA, 2021; CBK, 2018; McKinsey Global Banking Annual Review, 2021). The sector thus needs to take on the dynamism of the environment through strategic innovation (Osano & Koine, 2016). Companies that have embraced product innovation load themselves with competitive benefits as they are more efficient, tend to respond to customer needs quickly, and are likely to achieve larger market shares (Ngango, 2015; Sarji, 2017; Ejike, 2018).

Even though commercial banks have explored product innovation as a strategy to boost competitiveness, the focus has been on price and quality. These traditional methods of gaining competitiveness, however, seem not to yield much (Sarji, 2017). With the dynamism in the industry, banks should seize the opportunities granted by current technologies to provide mobile and internet solutions that offer convenience (Guerra & Camargo, 2016). Additionally, although commercial banks are actively engaged in evaluating their competitiveness, the focus has been on financial indicators. Financial indicators, however, mostly assess the firm in the short term (Mashovic, 2018, Ahmad & Zabri, 2016). To reduce the shortcomings of financial measurement, the study utilized non-financial indicators to evaluate the competitiveness of commercial banks in Kenya. These are gaps that this study sought to fill as it examined the influence of product innovation on the competitiveness of commercial banks in Kenya.

1.2 Research Objective

The purpose of this study was to examine the influence of product innovation on competitiveness of Commercial Banks in Kenya.

1.3 Research Hypothesis

Ho_1: Product innovation has no significant influence on competitiveness of Commercial Banks in Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Literature Review

2.1.1 Creative Destruction Theory

The Austrian economist Joseph Schumpeter was the first to coin the term creative destruction. According to Schumpeter, creative destruction referred to innovations in the manufacturing process that increased productivity. Schumpeter (1942) defined innovations as the process of industrial mutation that perpetually revolutionizes the economic structure from the inside, perpetually destroying the old one and perpetually establishing a new one. Products, processes, markets, supply chains, and even entire industry structures are all examples of innovations that direct money and other assets toward meeting customers' demands. Schumpeter (1942) maintains that when a profitable opportunity presents itself and an innovative firm seizes it, other firms will follow suit (Schumpeter, 1942).

As a result, the market responds by imitating the pioneers, making it difficult for them to maintain profitability and remain competitive (Mulatu, 2016). As established companies lose their competitive edge and profit margins fall, the value of the new product or service is diminished. The business cycle reaches equilibrium as imitation increases and market growth slows, and it remains there until another innovation comes along and displaces it (Schumpeter, 1942). Therefore, successful businesses must constantly innovate in order to stay competitive and weather the inevitable winds of creative destruction. Schumpeter’s contribution to creative destruction economics has been anchored on the notion of building human innovative and entrepreneurial intellectual capacity, requiring novel ways of doing things in tandem with emerging innovations to sustain competitiveness (Kao et al., 2015; Lestari & Ardianti, 2019; Liao et al., 2019).

The notion of creative destruction is applicable to this investigation because new technologies and methods of production cause the old ones to become obsolete thanks to the relentless pursuit of improvement in R&D by enterprising individuals. Newer and better items eventually replace the older ones. The key to being competitive in today's market is, therefore, to encourage product innovation in the face of rapidly evolving technologies (Ardolino et al., 2018; Bhatnagar & Kumar, 2017; Tuan et al., 2016). Most banks are no longer relying on the ancient traditional banking medium where transactions and products used to happen in the brick-and-mortar space, but today, because of technological advancements, transactions and products have gone online (Central Bank of Kenya, 2018). For instance, the advent of 24/7 banking services like ATMs, mobile banking apps, and online banking has increased the volume of transactions processed daily and hence the revenue generated from transaction fees.

Additionally, ATMs, mobile banking, internet banking, and loan service automation, among others, have enhanced the efficiency of banks by reducing administrative costs and improving service delivery to customers (Central Bank of Kenya, 2018). Several writings have underscored the role of creative destruction in sustained competition (Cozzi et al., 2017; Jackson, 2020; Kopp, 2019; Langroodi, 2017). Mohammad (2018) further suggests that product innovation ventures that integrate Information Technology (IT) intensify competitiveness, and those immense outlays in market innovation grow market share. Besides, innovation in Information Communication and Technology (ICT) offers strategic benefits to banks through improvements in market capability (through the discovery of untapped markets), resource allocation capability, learning capability, and strategic planning capability (Gathu, 2017).

2.2 Conceptual Review of Variables

2.2.1 Product Innovation

Introducing new services and products to the market that improve upon their previous iterations in terms of performance and utility is an example of product innovation (Nuryakin, 2018). Su and Tang (2016) defined product innovation as "the presence of originality or a degree of invention". Product innovation, according to the Oslo Manual (Organization for Economic Cooperation and Development/OECD, 2005), is the introduction of a good or service that is new or significantly better in terms of its characteristics or planned functions. Evidence suggests that businesses that have a product-based competitive advantage over their rivals—whether through innovation, quality, packaging, or design—perform better than their peers (Batiz-Lazo & Woldesenbet, 2019; Dong et al., 2016). In a similar vein, Nuryakin (2018) argues that productivity increases along with product innovation.

Biemans et al. (2016) affirm that product innovation is one of the most important instruments for designing strategies to break into new markets, break into the existing profit-enhancing market, and provide enterprises with a competitive edge. Businesses respond to customers' ever-evolving wants and demands by innovating new products (Gast, 2018). New technologies (Filho & Moori, 2017) or improved material components (Nataya, 2018) can be used to innovate products by significantly altering their characteristics and use. The goal of product innovation in the banking industry is to increase customer satisfaction by providing new, high-quality services with more features and benefits (Kong & Masud, 2019). Current examples of electronic product advances in the banking sector include internet banking and mobile banking (Chong et al., 2016).

2.2.2 Competitiveness

Competitiveness is a complex concept that describes a company's ability to survive in a competitive environment by offering high-quality products and services at competitive prices, both nationally and internationally, relative to the capabilities and performance of other companies in their industry (Murphy, 2016). It focuses on the stock on hand that will give the company an edge in the market (Emad et al., 2017). In order to stay ahead of the competition and secure their market position, successful businesses are increasingly investing in innovation (Pedraza, 2014). Internal firm variables like strategy, structure, skills, innovation capacity, and other tangible and intangible resources are highlighted as crucial to a company's competitive performance (Kamasak, 2017).

A company can only remain competitive by continuously innovating when it uses its own resources and seizes chances from the outside to provide higher value for clients and unmatched revenues for itself (Anning-Dorson, 2018). Non-financial performance measures have been used to suggest competitiveness (Ahmad & Zabri, 2016). These indicators include market share, productivity and efficiency, customer happiness, customer retention, and customer response. According to Porter's (1985) theory of competitive advantage, there are two main factors that contribute to a company's ability to perform at a high level: (1) a low-cost advantage, which boosts efficiency; and (2) a differentiation advantage, which can increase customer responsiveness and market share. Efficiency, market share, and customer responsiveness were examined as facets of competition.

2.3 Empirical Literature Review on Influence of product Innovation on Competitiveness of Firms

Nuryakin (2018) explored the role of product innovation in the competitive advantage of batik SMEs in Indonesia. The sample was drawn from batik SMEs in Central Java province. The respondents were managers or owners of Batik SMEs totaling 200. Data was gathered using the purposive sampling technique. The study relied on primary data acquired from 539 respondents. Purposive sampling was used to choose the middle and top managers of shoe and garment enterprises. The results indicated that product innovation significantly affected the competitive advantage of Batik SMEs. The study utilized a nonprobability technique (purposive sampling) for data collection. The present study used probability sampling techniques that allow populations with equal chances to be selected, resulting in better generalizability due to its objective choice of respondents.

Onafadeji and Adeniran (2021) investigated the relationship between product innovation and sales growth of selected shoe and clothing enterprises in Ibadan, Nigeria, utilizing a sample of shoe and clothing businesses. Six hundred and fifty-seven (657) managers from various shoe and clothing companies were chosen using a purposive sampling method. There were a total of 539 participants in the study, and their responses served as the major data source. Data was coded, calculated, and processed using SPSS version 20 to produce descriptive and inferential findings. The analysis of the correlation between product innovation and sales growth showed a strong positive cause-and-effect relationship. The research design was a case study. Findings from a case study are usually hard to generalize. The present study, on the other hand, involved all commercial banks in Tier 1 in Kenya, as such findings can easily be generalized.

Moses and Osunsan (2018) investigated the impact of product innovation and price on the competitive advantage of beer products in Kabale, Uganda. The study collected primary data by distributing and collecting self-administered questionnaires from 1,783 producers, wholesalers, retailers, and consumers of alcoholic beverages from 84 hotels, restaurants, and taverns in Kabale District, Uganda. The study collected data from a sample of 324 respondents using basic random and purposive sampling techniques. Analysis using multiple regression revealed that product innovation had a significant impact on the competitive advantage of beer products and producers in Kabale. Purposive sampling, a non-probability sampling method, was used to select respondents for the study. This investigation employed probability sampling techniques such as stratified sampling and simple random sampling. Probability sampling reduces the likelihood of sampling bias that can affect a research population by utilizing random selection.

Owiti (2019) investigated the impact of product innovation on Safaricom PLC's competitive advantage in Kenya's telecoms market. The research method used in this study was a descriptive survey, and the participants were a random sample of Safaricom's Nairobi clientele. A total of 380 Safaricom subscribers living in the Westlands, Kilimani, Kileleshwa, Langata, Pipeline, Embakasi, Roysambu, and Imara Daima areas of Nairobi were polled. Participants were selected using cluster and stratified random sampling methods of probability sampling. Primary data was gathered through the use of questionnaires, and descriptive and inferential statistics were utilized to examine the results. The study's results showed a positive correlation between product innovation and market share, therefore, boosting product innovation should boost market share as well. In contrast to the present study's focus on employees, the first study's participants were consumers. Management staff members, by virtue of their positions, comprehend the impact of innovation tactics adopted by their companies more thoroughly than customers.

Unlike Owiti (2019), who focused on the telecommunications sector, the present study focused on banks. Contrary to the above reviewed literature indicating a significant and positive relationship between product innovation and competitiveness, other studies found different results. Issau et al. (2021) analysed the effect of product innovation on performance in Ghana. The population consisted of 3,485 SMEs (small and medium-sized enterprises) owners or administrators. For the purpose of the investigation, a cross-sectional design and a quantitative methodology were employed. Using simple random sampling, 346 respondents were chosen. The results indicated a weak positive correlation between product innovation and the performance of SMEs. While Issau et al. (2002) focused on small and medium-sized enterprises, this study involved large commercial banks. Major strategic innovations occur in large banks as their capital base is huge and thus adequate to support innovation activities as compared to SMEs.

III. METHODOLOGY

The study finds positivism relevant because it is concerned with assumptions made about what constitutes acceptable, valid, and legitimate knowledge, as well as how we can communicate such knowledge. The research employed descriptive and correlational approaches. The goal of descriptive research is to understand the emotions and preferences of a large population. The correlational design was helpful for establishing the relationship between the independent variables. In addition, 175 middle management employees (directors and general managers) in the finance industry were the focus of the study. The research focused on eight tier I banks, namely Kenya Commercial Bank (KCB), Cooperative Bank, National Commercial Bank of Africa (NCBA), Standard Chartered (Stanchart), Amalgamated Banks of South Africa (Absa), Stanbic Bank (SBK), Diamond Trust Bank (DTB), and Investments and Mortgages (I&M). The population was stratified using stratified sampling, a probability sampling method (Saunders et al., 2016).

The population in this investigation was divided into two strata: directors and general managers. Totalling 175 respondents, the study targeted 74 directors and 101 general managers. Further, a simple random sampling technique was used to ensure that each member of the sampled department had an equal chance of being chosen (Zikmund et al., 2013). The sample size, calculated using the Yamane (1967) formula, was 122 respondents. The primary source of primary data for this study was questionnaires with closed and open-ended questions. The content and construct validity of the research instrument were evaluated in this study. At Equity Bank, a pilot study was conducted, and Cronbach's alpha was used to assess the instrument's reliability. The data were then codified and analysed, and the results were presented in tables. Both descriptive and inferential statistics were utilized to analyse the data. Descriptively, the study used frequency, percentage, mean, and standard deviation, while inferentially, it used Pearson correlation and simple linear regression. The simple regression analysis model used is as below:

$Y= \beta_0+\beta_1X_1+\varepsilon$ Where;
Y= Competitiveness
β_0……Constant
B_1= Slopes of regression for the independent variables
X_1= Product innovation
ε =Error term

Content analysis was used to analyze the data collected from the open-ended questionnaire, where the data was arranged into themes.

IV. FINDINGS AND DISCUSSIONS

4.1 Response Rate

This study had a very good response rate of 94.3%. The efficient data collection methods were given credit for the high response rate.

Table 1
Response Rate

	Count	Percentage
Administered	122	100
Returned	115	94.3
Not Returned	7	5.7

4.2 Reliability Results

Cronbach's alpha was used to determine the reliability of each variable, finding that product innovation was within a range of 0.722 and that competitiveness within a range of 0.756. All variables depicted that the value of Cronbach alpha are above the value of 0.7 after improving on the instrument for product innovation, thus the data collection instrument is reliable (Mugenda & Mugenda, 2013).

4.3 Descriptive Statistics Results

The presentation of descriptive statistics is founded on the frequencies, percentages, means, and standard deviations of the variables under consideration.

4.3.1 Product Innovation

Respondents were asked to indicate their level of agreement by ticking the given statements on product innovation. The results are as shown in Table 2 below.

Table 2

Product Innovation

No.	Product Innovation	Percentage (Frequency)					Mean	SD
		5	4	3	2	1		
1	The bank regularly carries out surveys on internet and mobile banking products consumed by its clients	32.2% (37)	54.8% (63)	10.4% (12)	2.6% (3)	0% (0)	4.2	0.7
2	Internet and mobile banking has improved service delivery for our clients	43.5% (50)	53% (61)	0.9% (1)	2.6% (3)	0% (0)	4.4	0.6
3	Clients are trained on how to use mobile and internet banking before they are on boarded on the platforms	24.3% (28)	60.9% (70)	13% (15)	1.7% (2)	0% (0)	4.1	0.7
4	Employees suggestions are sought for before new products are designed	22.6% (26)	53.9% (62)	14.8% (17)	7.8% (9)	0.9% (1)	3.9	0.9
5	Employees undergo training for the new or significantly improved products before they are launched	26.1% (30)	60.9% (70)	9.6% (11)	3.5% (4)	0% (0)	4.1	0.7
6	Mobile and internet banking have stable network	13.9% (16)	70.4% (81)	14.8% (17)	0.9% (1)	0% (0)	4.0	0.6
7	Mobile banking and internet product innovations were developed by my bank and other institutions/partners.	39.1% (45)	46.1% (53)	13.9% (16)	0% (0)	0.9% (1)	4.2	0.7
8	Clients' views are sought before new mobile and internet products are developed	20.9% (24)	58.3% (67)	13.9% (16)	5.2% (6)	1.7% (2)	3.9	0.8
	Aggregate Scores						**4.1**	**0.71**

Note: 1=Strongly Disagree, 2=Disagree, 3=Fairly Agree, 4=Agree, 5=Strongly Agree

The aggregate mean and standard deviation (M=4.1, SD=0.71) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements in regard to product innovation of commercial banks in Kenya. The outcome shows that responses did not deviate far from the mean as it was characterized by small standard deviation. This implied that majority of respondents were of the same observation about the product innovation of commercial banks. The responses from the open-ended questions further indicated that there is proof of product innovation in different other forms which is instrumental for commercial banks to gain competitiveness in Kenya.

This was evident by several strategies employed by banks like offering variety of financial services to their customers by way of internet and mobile banking. Financial services included saving accounts, loan facilities, cash and cheque deposits among others. The responses also indicated that banks sought employee suggestions in product development. Companies with superior products over their rivals in terms of innovation, quality, packaging and product design are more competitive (Batiz-Lazo & Woldesenbet, 2019)**.** These results confirm that product innovation influences competitiveness of banks. Onafadeji and Adeniran (2021) similarly found a strong positive and significant link between product innovation and sales growth of Shoes and Garment Enterprises in Ibadan, Nigeria.

4.3.2 Firm competitiveness

Respondents were asked to indicate their level of agreement for statements on bank competitiveness. The results are as shown in Table 3 below.

Table 3
Competitiveness

No.	Competitiveness	Percentage (Frequency)					Mean	STD
		5	4	3	2	1		
1	My organization has enjoyed reduced labor costs due to digitization	62.6% (72)	30.4% (35)	6.1% (7)	0.9% (1)	0% (0)	4.5	0.7
2	My company enjoys reduced production costs due to innovation	47% (54)	47% (54)	4.3% (5)	1.7% (2)	0% (0)	4.4	0.7
3	Innovation has greatly improved turnaround time for rendering services to customers	58.3% (67)	40.9% (47)	0.9% (1)	0% (0)	0% (0)	4.6	0.5
4	The organization customer base has continued to increase in the last 3 years	49.6% (57)	40% (46)	10.4% (12)	0% (0)	0% (0)	4.4	0.7
5	My bank's branch network has grown for the past 3 years	47% (54)	44.3% (51)	5.2% (6)	0.9% (1)	2.6% (3)	4.3	0.8
6	The use of artificial intelligence in gathering customer purchasing behavior has brought more clients to my organization	33% (38)	46.1% (53)	19.1% (22)	1.7% (2)	0% (0)	4.1	0.8
7	New products are designed from customer suggestions	41.7% (48)	37.4% (43)	18.3% (21)	2.6% (3)	0% (0)	4.2	0.8
	Aggregate Scores						**4.38**	**0.7**

Note: 1=Strongly Disagree, 2=Disagree, 3=Fairly Agree, 4=Agree, 5=Strongly Agree

The aggregate mean and standard deviation (M = 4.38, SD = 0.7) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements regarding the competitiveness of commercial banks in Kenya. Results show that responses were not scattered far from the mean, as they were characterized by an insignificant standard deviation. This ordinarily means that the majority of respondents agreed that their organizations were enjoying elements of competitiveness resulting from product innovation, as shown by the following: reduced labour costs due to digitization, reduced production costs due to innovation, improved turnaround time for rendering services to customers, increased customer base in the last 3 years, growth in branch network for the past 3 years, more clients on boarded through AI, products designed from customer suggestions, and the presence of a knowledgeable customer representative, meaning banks are responsive to customer needs. These findings concur with those of Nuryakin (2018), Onafadeji and Adeniran (2021), Moses and Osunsan (2018), and Owiti (2019), who found that product innovation influenced the competitive advantage of the firms they investigated. While answering the open-ended questionnaire, some managers suggested that strategic innovations like product innovation, improved efficiency, increased market share, and customer responsiveness are therefore highly likely to boost the competitiveness of banks.

4.4 Inferential Statistics Results

4.4.1 Regression Analysis Results

Simple linear regression analysis was done to predict the effect of the independent variable on the outcome variable (competitiveness). This analysis was important in determining how well product innovation could predict competitiveness of commercial banks in Kenya.

Table 4

Regression Analysis Results for Product Innovation and Competitiveness

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.705[a]	.498	.493	.301414

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.171	1	10.171	111.951	.000[b]
	Residual	10.266	113	.091		
	Total	20.437	114			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	**Std. Error**	**Beta**		
1	(Constant)	1.662	.258		6.438	.000
	Product Innovation	.664	.063	.705	10.581	.000

a. Dependent Variable: Competitiveness

Based on the regression coefficient results, simple linear regression model equation was written as: Competitiveness = 1.662+0.664*Product Innovation + ε

From simple linear regression, model summary findings on product innovation indicated that 49.8% (R^2=0.498) of the variation in competitiveness of commercial banks in Kenya is significantly accounted for by product innovation (P = 0.000). When other variables in the model are controlled, a unit change in product innovation would result in a significant increase in the competitiveness of commercial banks in Kenya by 0.664 units (β_1=0.664, P = 0.000). Thus, the null hypothesis that product innovation has no significant influence on the competitiveness of commercial banks in Kenya is rejected, as product innovation positively and significantly impacts competitiveness. These findings are consistent with Emenike et al. (2018), who established that product innovation had a significant effect on competitive advantage among beer products and producers in Kabale, Uganda. These results are also supported by Nuryakin (2018) and Agaba et al. (2018), who revealed that product innovation had a positive and significant effect on competitive advantage. However, Issau et al. (2021) found a non-significant relationship between product innovation and the competitiveness of SMEs' in the manufacturing sector in Ghana.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study found that product innovation has significant positive influence on competitiveness of commercial banks in Kenya (*β = 0.664, t = 0.6.438, P = 0.000)*. This implies that increase in product innovation would result to increase in competitiveness of Commercial Banks in Kenya. Product innovation practices were mainly characterized by regular surveys on internet and mobile banking products consumed by clients, training of clients on how to use mobile and internet banking products before on boarding, seeking employee suggestions on new products designed, training employees on new or significantly improved products before they are launched, seeking client views in the development of mobile and internet product innovations.

5.2 Recommendations

The study recommends that firms offering banking services apply practices associated with product innovation, which include regular surveys on internet and mobile banking products, training clients on the usage of mobile and internet banking before onboarding, seeking employee suggestions before new products are designed, training employees on new products before they are launched, and seeking client views before new products are designed.

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