

Journal of

Business and Strategic Management

(JBSM) Innovation Practices and Performance of Islamic Banks
in Nairobi-Kenya



CARI
Journals

Innovation Practices and Performance of Islamic Banks in Nairobi-Kenya

Abdiaziz Ibrahim Sheikh Issak

College of Human Resource and Development, Jomo Kenyatta University of Agriculture and
Technology

Corresponding Author email: issackabdulaziz@gmail.com

Dr Lawrence Odollo

College of Human Resource and Development, Jomo Kenyatta University of Agriculture and
Technology

P. O. Box 62000, 00200 Nairobi, Kenya

Abstract

Purpose: The dominant feature of the modern financial system is a high pace of innovation practices, both in terms of their number and value. Thus, it is important to analyze their influence on the financial system. The current study aimed at determining the effect of innovation practices on the financial performance of Islamic banks in Kenya. Specifically, the study sought to determine the influence product innovation practices, process innovation practices, technological innovation practices and market innovation practices on the organizational performance of Islamic banks in Kenya. This study was informed by the following theories and models: the innovation diffusion theory of innovation, the Henderson-Clark model of innovation, the Task Technology Fit theory of innovation and the Shareholder's Wealth Maximization (SWM) Theory.

Methodology: The study adopted a descriptive research design and targeted 3 Islamic banks in Kenya with a total of 142 managers. The sample selection was scientifically guided using the Yamane (1967) simplified formula to calculate the sample size of 105 respondents. The study used structured questionnaires to collect the data. In order to ascertain how valid and reliable the questionnaires are, a pilot study was carried out. Descriptive statistics was used to collect summary statistics including means and standard deviations while inferential statistics helped in measuring the causal relationship between the variables and included correlation and regression analysis. The generation of the statistics was through SPSS program (v.25.0). The study employed both figures and tables to present the results of the study.

Findings: The results established that product innovation practices, process innovation practices, technological innovation practices and market innovation practices positively and significantly affect the organizational performance of Islamic commercial banks in Kenya. This is shown by respective beta values of 0.398, 0.311, 0.443 and 0.295 and respective significant values of 0.002, 0.009, 0.000 and 0.01.

Unique contribution to theory, practice and policy: The results bears the implications that increasing each of the variable with one unit results to increase in organizational performance levels of Islamic commercial banks with respective beta values. The study recommends the Islamic commercial banks operating in Kenya to enhance their product innovation, process innovation, technological innovation and market innovation practices since the practices positively and significantly affects organizational performance.

Key Words: *Product Innovation Practices, Process Innovation Practices, Technological Innovation Practices, Market Innovation Practices, Organizational Performance*

Introduction

Background of the Study

Innovation is the process by which new products, processes, methods or services are created. Innovation offers added value for end users by providing better and/or cheaper functionality than previous options. Innovation combines changes in technology, business models, organization etc. (Elg-Vinnova, 2014). The dominant feature of the modern financial system is a high pace of innovation practices, both in terms of their number and value. Thus, it is important to analyze their influence on the financial system (Pietrzak et al., 2008). Islamic Banking is now of world's greatest concern due to the global goal of poverty alleviation (Mariadas, et al., 2017; Louati et al., 2015; Kamarulzamn et al., 2013; Akbar, 2008) and improved socio-economic status of the people in Islamic economy and the rest of the world (Setybudi et al., 2016; AlMaimani et al., 2015; Buchari et al., 2015). According to KFH (2015) research database, individually, the top ten countries in terms of Islamic banking assets, namely, Saudi Arabia, Malaysia, the UAE, Kuwait, Qatar, Turkey, Bahrain, Indonesia, Bangladesh, and Pakistan, hold about 91% of the global total Islamic banking assets (excluding Iran). This demonstrates the indubitable prominence of the Gulf and key Asian jurisdictions in the Islamic banking sector. In recent years, Turkey has emerged as a key player in the global Islamic finance industry, on the back of Islamic finance related initiatives implemented by the country's regulatory authorities and strong local retail and corporate demand for banking products and services that comply with the Shari'a law.

Statement of the Problem

While Islamic banks play roles similar to conventional banks, fundamental differences exist between the two models. The main difference between Islamic and conventional banks is that the former operates in accordance with the rules of Shariah, the legal code of Islam. Sharia prohibits the fixed or floating payment or acceptance of specific interest or fees known as Riba or usury for loans of money (Su'un Possumah et al., 2018; Wanjare & Motari, 2016). The dynamic customer needs, innovative financial products, processes, market, and technological upgrades are constantly reshaping the financial services the Islamic banking industry. In addition to the fluctuation of performance among the Islamic banks, majority of the banks are yet to outperform the conventional banks (Muia, 2013). This has been indicated by a fluctuating return on assets (ROA)

trend for instance by First Community Bank Limited where the profit after tax dropped from Kshs 185,655 ('000) in 2019 to Kshs 190,927 ('000) in 2020. In the year 2015 and 2016 respectively the profit after tax was negatively performing at Kshs 10,580 ('000) and Kshs 55,734 ('000) respectively (First Community Bank Limited, 2020). Taking the case of Gulf African Bank, total liabilities decreased to Kshs 30,488,018 in 2019 from Kshs 32,623,987 in 2020 (Gulf African Bank, 2020). This indicates that Kenyan Islamic banks are yet to perform way better given the infiltration of innovation tactics. The CBK is likewise, yet to come up with a Shariah-compliant deposit insurance scheme and is continuing to manage deposit insurance premiums in a single pool for all banks, a situation that could complicate compensation of depositors in the event a bank offering conventional and Islamic products collapses (Mwaniki, 2017).

However, it hypothesized in this study that those Islamic banks that invest in innovation practices also outperform those Islamic banks that do not. A report by Cynthia (2018) indicated that banks offering Shariah-compliant products are unable to meet growing demand for the products. Most banks offering Islamic banking lack the capacity to adequately cater for the growing demand for Sharia compliant product. Standard Digital revealed that, professionals in the Islamic Finance institutions in the country often have to travel outside the country to update their skills while technical workshops hosted locally are often conducted by foreign institutions (Ally, 2018). As Islamic products and services enter today's markets, an important consideration is the attitudes, perceptions and knowledge of market participants towards these new methods of finance (Farah, 2014). Reviewed studies which focus on the relationship between innovation practices and banking performance are not conclusive. According to Ongwen (2015), despite the undeniable importance of financial innovation practices, its effect on financial performance is not always obvious since there are reported cases of reverse causality between innovation practices and performance. For Islamic banks like Gulf African Bank, and the Sharjah Islamic Bank to compete effectively and enhance their sustainability, they have been forced to differentiate their services. The current study, therefore seeks to determine effect of innovation practices on the financial performance of Islamic banks in Kenya.

Objectives of the Study

- i. To determine the influence of product innovation practices on the organizational performance of Islamic banks in Kenya.
- ii. To establish the effect of process innovation practices on the organizational performance of Islamic banks in Kenya.
- iii. To examine the influence of technological innovation practices on the organizational performance of Islamic banks in Kenya.
- iv. To determine the effect of market innovation practices on the organizational performance of Islamic banks in Kenya.

Literature Review

Theoretical Review

Innovation Diffusion Theory

This theory was developed by an American sociologist, Everett Rogers in 1962. This theory focuses on the factors that influence whether or not and at what pace an idea was adopted by members of a particular culture or group. According to him, there are elements that support the diffusion of an idea that is, channels of communication, invention, time as well as the social system (Naqshbandi, et al., 2015). In diffusion theory the existence of an innovation is seen to cause uncertainty in the minds of potential adopters (Berlyne 1962), and uncertainty implies a lack of predictability and of information. Diffusion is considered to be an information exchange process amongst members of a communicating social network driven by the need to reduce uncertainty (Rogers 1995). Uncertainty can be considered as the degree to which a number of alternatives are perceived in relation to the occurrence of some event, along with the relative probabilities of each of these alternatives occurring. Those involved in considering adoption of the innovation are Page 3 motivated to seek information to reduce this uncertainty (Rogers 1995). Diffusion theory contends that a technological innovation embodies information, and so its adoption acts to reduce uncertainty (Silva et al., 2018). This theory is found relevant as it explains the link between process as well as market innovation and the performance of Islamic banks in Kenya. The theory advocates the process of innovation and it is spread across the various parties involved in the firm. Therefore, by use of the principles of the theory, the bank is able to incorporate new innovative processes towards automizing processes, markets and product development thus improve on efficiency and sales. This theory anchors the effect of process innovation and market innovation on the organizational performance of Islamic banks in Kenya.

Henderson – Clark Model

The model was developed by Henderson and Clark (1990) who noticed that the Incremental, Radical dichotomy alone was not enough to explain what company would be in a better position to innovate and under what circumstances. According to this model the idea to develop successful new products is divided into knowledge of the components, which relates to each of the core design concepts and how they relate to each other and the knowledge of the linkage between the components, which relates to how the components of a product are integrated and linked together into one piece. This model provides different types of innovation and their distinctions which is important to firms/companies as core competences, strategies and skills required might differ with different types of innovation (Naqshbandi et al., 2016). This model is found relevant as it explains the link between product innovation and the performance of Islamic banks in Kenya. This is because the model allows and informs banks to ensure they have enough architectural knowledge to ensure manipulation of new products to the market. Those with the capacity to initiate radical changes and explosiveness in the R&D are able to coin together new technologies, knowledge and

asset combination towards generating new products fit for the targeted customers. This theory anchors the influence of product innovation on the organizational performance of Islamic banks in Kenya.

Task Technology Fit (TTF) Theory

Goodhue and Thompson (1995) were the proponent of the task-technology fit metric that includes eight considerations: quality, locatability, licensing, adaptability, simplicity of use, output timing, system dependability, and user interaction. Each component is assessed using two to ten questions, with responses ranging from strongly disagree to strongly agree on a seven-point scale. This theory contends that that innovation probably positively affect singular execution and be utilized if the capacities of Information Communication and Technology (ICT) coordinate the assignments that the client must perform. TTF is built up in data frameworks to look into technology that empowers the examination of issues of attack of innovation to undertakings and also execution. One huge focal point of TTF has been on people to evaluate and clarify data frameworks achievement and effect on person execution (Goodhue and Thompson, 1995). Goodhue and Thompson (1995) specify the elements that measure undertaking innovation fit as; quality, locality, approval, and similarity, facilitates of utilization/preparing, creation auspiciousness, frameworks unwavering quality and association with clients. The TTF model attempts to solve limitations deemed as the major weakness of TAM (Dishaw & Strong, 1999). A weakness of Technology Acceptance Model (TAM) for understanding IT utilization is its lack of task focus. The model is valuable in the investigation of different setting of an assorted scope of data frameworks including electronic trade frameworks and joined with or utilized as an expansion of different models identified with data frameworks results of the banking sector. It builds upon the concepts of user acceptance to new technologies to encourage banks to invest in technologies that are user friendly and of perceived value to the customers. This in the long run attracts many users in the market and thus boost sales. By utilizing technological tenets, the bank is able to produce quality at lower prices and thus be able to offer services conveniently, efficiently and cost-effectively to customers. This theory is found relevant as it explains the link between technological innovation and the performance of Islamic banks in Kenya.

Shareholder's Wealth Maximization (SWM) Theory

The theory (extending to the concept of economic value added) was developed by Stern Stewart & Co. developed in 1989 to measure wealth generation. The theory was however, first coined by Friedman (1970) to spell out the sole responsibility of doing business, that is, to increase profits (Friedman 2007). The theory proposes that a business concern should only consider the decisions that maximize the market value of the share or the shareholders' wealth. The market value of share is treated as an indicator of efficiency and effectiveness of the firm. Shareholders' wealth maximization is the single substitute for shareholders' utility (Windsor & Boatright, 2010). When the firm maximizes the shareholders' wealth, the individual shareholder can use this wealth to

maximize his individual utility. It means that by maximizing shareholders' wealth the firm is consistently operating towards maximizing shareholders' utility (Khan & Hussanie, 2018). According to the theory, a business concern should undertake only those projects whose Net Present Value (NPV) is positive, that is, present value of cash inflows should be greater than present value of cash outflows. Hence, SWM is often translated as maximizing the Net Present Value (NPV) of a course of action to shareholders. In essence, investors contribute capital to firms in expectation of earning the relatively highest return on investment (Lea 2008). Therefore, aggregate shareholder wealth, measured as market capitalization or market value, is the value (i.e., market price) of each share times the number of shares outstanding: $MV = V \times S$;

Where;

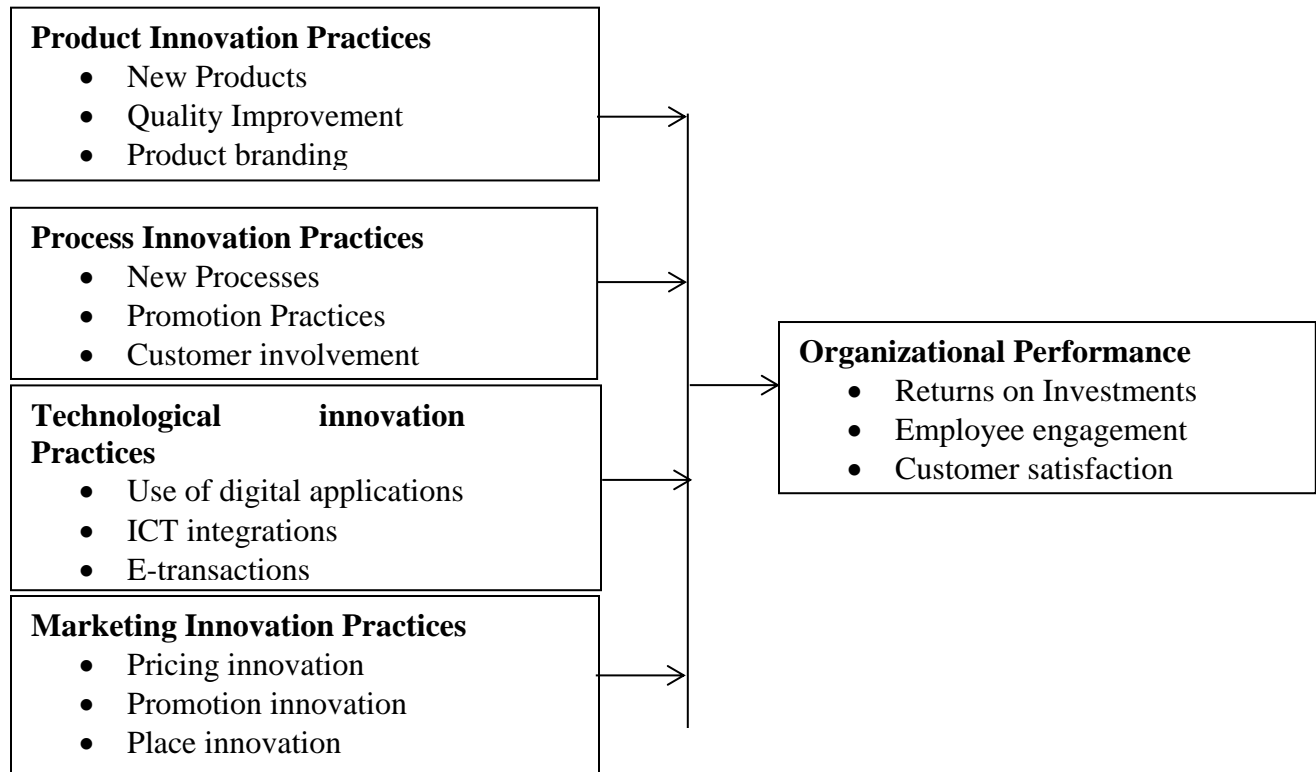
MV = market value

V = value of each share (i.e., of common stock)

S = number of shares outstanding (i.e., of common stock)

The market value added (MVA) of a firm is the difference between the value of equity and net debt and the book value of capital invested. If net debt is equal to book value, then the difference between market capitalization and book value of the shareholders' equity is the market value added. The MVA concept is a way of measuring gain over book value (Windsor & Boatright, 2010). Thus, EVA measures whether a firm is earning more than its true (i.e., economic) cost of capital. Basically, the concept of this theory is that economic profit begins only when capital cost is recovered. A firm could show accrual profit and be losing economic value. An investment project should return more than its costs of capital in order to be profitable (on an economic basis) and increase shareholder wealth (Friedman, 2016). Therefore, based on the main principle that businesses are set up with a goal to make profits and to maximize shareholders' wealth, the theory is found instrumental as it explains the how the Islamic bank managers can understand the principle and ensure the returns on investments are maximized for good performance. This theory therefore, informs the current study's dependent variable; organizational performance.

Conceptual Framework



Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

Product Innovation practices

Product innovation practices refer to the introduction of new products or services to the market. These consolidate basic upgrades in mechanical determinations, sections and materials, joined, or convenience among various capacities. That is, the ability of firms to develop new products according to the needs of clients (Tavassoli & Karlsson, 2015b). The outcome of product innovation is the introduction of a both marginally or radically improved good and/or service with respect to functions, characteristics, or components. Product innovation practices is mostly induced by demand factor, but supply side could be a significant driver for this type of innovation practices as well. Upgraded technologies, changing customer tastes, and shortening product life cycles, combined with overall increased global and regional competition, force firms to innovate relentlessly (Slater, Mohr & Sengupta, 2014). Canh et al. (2019) contend that new product introduction could exert a strong and positive impact on the growth of income and employment. Product innovation practices therefore, can be measured in terms of the number of new products introduced to the customers, the value/quality added to the existing products and the specification of the new products (Tsai et al., 2020). All these jointly have been indicated to improve market

share, sales revenues, sales growth, and the achievement of profit targets. That is, product innovation practices create continuous profit, thereby improving the related performance measures of an organization (Tajeddini, 2016). Therefore, the current study seeks to investigate how product innovation practices affect the performance of Islamic banks in Kenya.

Process innovation practices

Process innovation practices is the introduction of new and enhanced method of production or service delivery (Expósito & Sanchis-Llopis, 2019) by an enterprise that includes significant changes in techniques, equipment, and tool and machine (Obeng & Boachie, 2018). It is the improvement or introduction of new methods, devices, techniques, and information in creation of a product (Lichtenthaler, 2016). It involves small, incremental improvements coming from employees and not necessarily managers. The outcome of process innovation should be significant with respect to the level of output as increasing quality of product or decreasing cost of production or distribution (YuSheng & Ibrahim, 2020). Therefore, these processes determine the formation of company's strategy (Güttel & Konlechner, 2009; Ridder, 2012). As such, any process that seeks to enhance the delivery of services to customers would lead to improvement in the business. Process innovation, due to its cost-cutting nature, would have more influence on growth or firm performance. This involves the updated abilities, methods, operations and process that is applied in the procedure of converting or to transform inputs into outputs (Muharam et al., 2020). While product innovation improves the profitability of banks, process innovation improves the profitability as well as the efficiency of banks (YuSheng & Ibrahim, 2020). Therefore, process innovation practices can be operationalized according to the unit cost of production or delivery, enhanced quality, or new methods of production.

Technological innovation practices

Technological innovation practices are considered as a process which is science, technology and systems are incorporated into firm's processes to improve its overall performance. It depicts the firm's ability to acquire and exploit external knowledge and technologies to achieving and sustaining a competitive advantage (Fayomi et al., 2019). Technological innovation practices are a necessary precondition for a knowledge-oriented business which promote not only the economic competitiveness of the whole country, but also the welfare of each entrepreneur and the society (Canh et al., 2019). It is the main factor affecting global competitiveness of the companies in the current era since as technology changes, new technologies abolish the old ones. The competitiveness and the profitability of companies mainly depend on their ability to acquire and incorporate new technologies into their processes (Asunka et al., 2020). The technological context influences decision making on innovation in terms of compatibility, relative advantage, complexity, observability, confidentiality, and trialability. Of these attributes, only complexity, relative advantage, and compatibility relate to the concept of ICT innovation (Akinwale et al., 2017). Relative advantage refers to the extent to which firms perceive technology innovation as a

better option than the idea it replaces. It describes the value or loss that a firm may experience when it adopts or rejects a new technology (Akinwale et al., 2017). Technology compatibility refers to the extent to which technology innovation is seen to be consistent with the prevailing standards, previous experiences, and needs of new consumers or users (Chege et al., 2020). The compatibility of IT with current work practices enhances an SME's technology innovation (Ntwoku et al., 2017).

Market innovation practices

Marketing innovation practices bring together marketing activities in the innovation process. Marketing innovation plays a very important role in ensuring and increasing the success of innovation (Drucker, 2014). Marketing innovation covers all innovation management activities that help to promote market success of new products and services. It is the successful marketing of a new product or service for the satisfaction of customer needs. It anticipates future needs and helps identify future and new market opportunities (YuSheng & Ibrahim, 2020). Marketing innovation focuses on meeting customer's needs and buying preferences by selecting appropriate market mix and market selection. It generates significant improvements in some of the marketing elements, including product, price, promotion, and distribution (Ganzer et al., 2017). Marketing innovation is based on product differentiation, promotion, distribution, market or costs, in this case, the price (Yusheng & Ibrahim, 2019). Thus, marketing innovation leads to the utilization of new methods, with significant changes in product development, packaging, promotion, positioning, and pricing (4Ps). Therefore, the current study operationalized marketing innovation practices as the differentiation of the market in terms of the product packaging, promotion, pricing and positioning.

Research Methodology

The study used a descriptive research design. The target population comprised of 3 Islamic banks in Kenya with a total of 142 managers. The unit of analysis was therefore the 3 Islamic banks in Nairobi County and the management as the unit of observation. The managers were targeted at the middle-level managers. The study employed Yamane (1967) sampling formula to derive a sample of 105 respondents. The study used structured questionnaires to collect primary data. The study employed both descriptive and inferential statistics in analyzing the data. Descriptive statistics collected summary statistics including averages, standard deviations, counts and percentages while inferential statistics helped in measuring the causal relationship between the variables and included correlation analysis and regression analysis. SPSS was used in generating the statistics. The study adopted a multivariate model for assessing the relationship between the study variables. The model is illustrated below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$
Y= Firm performance, β_0 = Regression constant, $\beta_1, \beta_2, \beta_3, \beta_4$ = Change in Y with respect to a unit change in X_1, X_2, X_3, X_4 respectively, X_1 = Product innovation practices, X_2 = Process innovation practices, X_3 = Technological innovation practices, X_4 = Market innovation practices, and e = Error term assumed to be normal in distribution with mean zero and variance σ^2 .

Results

The study issued 105 questionnaires to the target respondents comprising of middle level managers of the respective commercial banks. 89 questionnaires were filled and returned for analysis. This accounted for 84.8% response rate. The response rate was adequate and sufficient for analysis as stated by Mugenda and Mugenda (2013) who highlighted a response rate of above 70% is considered adequate for analysis. The high response rate was attributed to adoption of drop and pick methods during data collection.

Descriptive Statistics

The purpose of using descriptive statistics was to provide the researcher the ability to explain the distributions of scores or measurements. In order to provide the descriptive findings of the study, both means and standard deviation were employed. Prior to providing the average means and standard deviation, the replies were rated on a scale of 1–5, then the criteria for adopting the means and standard deviations were applied. Respondents were given statements relating to each of the independent variables in the questionnaires, and they were asked to rate the statements on a scale of 1 to 5, where 1 =Strongly Disagree, 2 Disagree, 3=Not sure, 4 =Agree, and 5 =Strongly Agree. The following subsection contains the results:

Product Innovation practices

The first objective of the study aimed at determining the influence of product innovation practices on the organizational performance of Islamic banks in Kenya. The study provided respondents with statements on product innovation practices and requested them to indicate their levels of agreement. The results outlined in table 1 shows that respondents were in agreement with the statements that the bank continuously introduces new products in form of technologies to suit the prevailing markets (mean=4.13), that the bank has introduced new Automated Teller Machines (mean=4.21), that the bank has established mobile banking platforms (mean=4.09) and that the bank has established internet banking platforms (mean=3.76). Respondents further agreed with the statements that the bank has invested in payment via card systems (mean=4.25), that the bank uses biometric systems of payment as well as QR Code payment system (mean=3.91) and that there is customization of all products offered by the bank (mean=3.86). On average, all respondents were in agreement with the statements on product innovation practices as shown by average response mean of 4.03. The results tallies with Tavassoli and Karlsson (2015) who established that the outcome of product innovation is the introduction of a both marginally or radically improved good or service with respect to functions, characteristics, or components.

Table 1: Descriptive Statistics on Product Innovation practices

Product Innovation Practices	N	Mean	Standard Deviation
The bank continuously introduces new products in form of technologies to suit the prevailing markets	89	4.13	0.578
The bank has introduced new Automated Teller Machines	89	4.21	0.489
The bank has established mobile banking platforms	89	4.09	0.516
The bank has established internet banking platforms	89	3.76	0.913
The bank has invested in payment via card systems	89	4.25	0.308
The bank uses biometric systems of payment as well as QR Code payment system	89	3.91	0.733
There is customization of all products offered by the bank	89	3.86	0.521
Average	89	4.03	0.58

Process innovation practices

The second objective of the study aimed at establishing the effect of process innovation practices on the organizational performance of Islamic banks in Kenya. The study provided respondents with statements on process innovation practices and requested them to indicate their levels of agreement. The results outlined in table 2 shows that respondents were in agreement with the statements that the organization's technical team develops new programs and process from time to time (mean=4.38), that the organization updates and improves its programs and process on regular intervals (mean=4.32), that the commercial bank takes into consideration the views of customers while making new innovations (mean=4.53) and that the organization adopts modern technology in the development of new processes (mean=3.96). Respondents further agreed with the statements that process innovations are key to the effective operation of the commercial banks (mean=4.42), that the bank has more than one distribution channels to ensure diversification of processes (mean=3.97) and that the bank has diversified its promotional and sales channels to ensure continuity of business (mean=4.06). An average mean of 4.23 and average standard deviation of 0.466 shows all respondents agreed with the statements on Process Innovation Practices. The results concurs with YuSheng and Ibrahim (2020) who agrees that process innovation practices can be operationalized according to the unit cost of production or delivery, enhanced quality, or new methods of production.

Table 2: Descriptive Statistics on Process Innovation Practices

Process innovation practices	N	Mean	Standard Deviation
The organization's technical team develops new programs and process from time to time	89	4.38	0.401
The organization updates and improves its programs and process on regular intervals	89	4.32	0.456
The commercial bank takes into consideration the views of customers while making new innovations	89	4.53	0.287
The organization adopts modern technology in the development of new processes.	89	3.96	0.738
Process innovations are key to the effective operation of the commercial banks.	89	4.42	0.252
The bank has more than one distribution channels to ensure diversification of processes	89	3.97	0.687
The bank has diversified its promotional and sales channels to ensure continuity of business	89	4.06	0.438
Average	89	4.23	0.466

Technological innovation practices

The third objective of the study aimed at examining the influence of technological innovation practices on the organizational performance of Islamic banks in Kenya. The study provided respondents with statements on technological innovation practices and requested them to indicate their levels of agreement. The results outlined in table 3 shows that respondents were in agreement with the statements that the respective commercial bank has established various social media channels for communicating with customers (mean=4.41), that the social media platforms enables our bank acquire feedback essential for improving banking practices (mean=4.28) that the bank regularly uses social media platforms to showcase our product/Service and solicit sales (mean=3.98) and that the bank have integrated operation where customers can access products and services irrespective of location (mean=4.51). Additionally, the respondents were in agreement with the statements that the bank has developed mobile applications for personalized communication and marketing to our customers (mean=3.86), that the bank have invested heavily

in technical infrastructure (mean=4.32) and that the bank has continuously invested more in e-commerce-enabled websites (mean=4.16). An average response mean of 4.22 and average standard deviation of 0.541 implied that the respondents agreed with the statements on Technological innovation practices. The results are in tandem with Canh *et al.*, (2019) who noted that technological innovation practices are a necessary precondition for a knowledge-oriented business which promote not only the economic competitiveness of the whole country, but also the welfare of each entrepreneur and the society.

Table 3: Descriptive Statistics on Technological innovation practices

Technological innovation practices	N	Mean	Standard Deviation
Our commercial bank has established various social media channels for communicating with customers	89	4.41	0.198
The social media platforms enables our bank acquire feedback essential for improving banking practices	89	4.28	0.428
The bank regularly uses social media platforms to showcase our product/Service and solicit sales	89	3.98	0.852
Our bank have integrated operation where customers can access products and services irrespective of location	89	4.51	0.377
The bank has developed mobile applications for personalized communication and marketing to our customers	89	3.86	0.973
We have invested heavily in technical infrastructure	89	4.32	0.461
The bank has continuously invested more in e-commerce-enabled websites	89	4.16	0.496
Average	89	4.22	0.541

Market Innovation Practices

The fourth objective of the study aimed at determining the effect of market innovation practices on the organizational performance of Islamic banks in Kenya. The study provided respondents with statements on market innovation practices and requested them to indicate their levels of agreement. The results outlined in table 4 shows that respondents were in agreement with the statements that their respective commercial bank have developed pricing strategies for our

products and services (mean=4.19) , that the prices are attractive as compared to other commercial banks(mean=4.01), that the commercial bank have strategized on marketing through introduction of marketing innovation practices (mean=4.11) and that the marketing innovation practices ensures that customers and potential customers are informed on the bank’s products and services (mean=4.41). Consequently, respondents agreed with the statements that their respective commercial banks informs customers on changes in the operations of the commercial banks through branded marketing (mean=4.39), that the commercial bank have decentralized operations where products and services can be accessed from all parts of the country (mean=3.74) and that the bank serves new and existing customers both locally and internationally (mean=4.09). An average mean of 4.13 and average standard deviation of 0.433 shows implies that respondents were in agreement with the statements on market innovation practices. The results concurs with Ganzer *et al.*, (2017) who noted that marketing innovation focuses on meeting customer’s needs and buying preferences by selecting appropriate market mix and market selection and generates significant improvements in some of the marketing elements, including product, price, promotion, and distribution.

Table 4: Descriptive Statistics on Market Innovation Practices

Market innovation practices	N	Mean	Standard Deviation
Our commercial bank have developed pricing strategies for our products and services	89	4.19	0.328
The prices are attractive as compared to other commercial banks	89	4.01	0.313
Our commercial bank have strategized on marketing through introduction of marketing innovation practices	89	4.11	0.549
The marketing innovation practices ensures that customers and potential customers are informed on the bank’s products and services	89	4.41	0.369
Our commercial informs customers on changes in the operations of the commercial banks through branded marketing	89	4.39	0.264
Our commercial bank have decentralized operations where products and services can be accessed from all parts of the country	89	3.74	0.728
The bank serves new and existing customers both locally and internationally	89	4.09	0.483
Average	89	4.13	0.433

Organizational Performance

The study sought to establish the level of organizational performance realized by the Islamic commercial banks operating in Kenya. The study issued respondents with statements pertaining to organizational performance and were requested to indicate their level of agreement. The results presented in table 5 shows that respondents agreed that their commercial banks had achieved cost saving in service delivery (mean=4.45), increased growth of in terms of profits/returns (mean=4.16), improved quality of products and services in the market (mean=4.33) and improved employee engagement (mean=3.98). Remarkably, respondents indicated that the commercial banks had recorded a reduction in employee turnover (mean=3.67), customer/Member loyalty has been realized (mean=3.9), increased investment return on the members (mean=4.12) and market leadership (mean=4.23). Respondents were in agreement with statements on organizational performance as shown by average response mean of 4.12 and average standard deviation of 1.46. The results matches with Tulvinschi (2013) who noted that organizational performance can be measured by financial metrics such as profits and return on investment, Return on Equity and Earning per Share and nonfinancial metrics such as financial health, business growth, customer satisfaction, employee relations, organizational efficiency, employee turnover.

Table 5: Descriptive Statistics on Organizational Performance

Organizational Performance	N	Mean	Standard Deviation
Cost saving in service delivery	89	4.45	0.297
Increased growth of in terms of profits/returns	89	4.16	0.313
Improved quality of products and services in the market	89	4.33	0.121
Improved employee engagement	89	3.98	0.524
Reduced employee turnover	89	3.67	0.731
Customer/Member loyalty has been realized	89	3.9	0.847
Increased investment return on the members	89	4.12	0.519
Market leadership has been achieved	89	4.23	0.331
Average	89	4.12	0.46

Inferential Statistics

Correlation Analysis

Product innovation practices, process innovation practices, technological innovation practices, and marketing innovation practices were the independent variables, and a correlation analysis was done to determine links between them and the dependent variable (Organizational Performance). Table 6 illustrates the correlation analyses' findings. According to the results, product innovation practices and organizational performance of Islamic commercial banks operating on Kenya positively and significantly correlates. This is shown by a Pearson's correlation value of 0.436 and a significant value 0.000. The results bears the implications that enhancing product innovation practice leads to increased levels of organizational performance amongst the commercial banks. The results concurs with Canh *et al.* (2019) who agrees that new product introduction exerts a strong and positive impact on the growth of income and employment and contributes to continuous creation of profit, thereby improving the related performance measures of an organization. The results also shows that process innovation practices and organizational performance of Islamic commercial banks operating on Kenya positively and significantly correlates. This is shown by a Pearson's correlation value of 0.376 and a significant value 0.001. The results bears the implications that enhancing process innovation practices leads to increased levels of organizational performance amongst the commercial banks. The results contends with Muharam *et al.*, (2020) who established that process innovation, due to its cost-cutting nature, would have more influence on growth or firm performance as it entails updated of abilities, methods, operations and process that is applied in the procedure of converting or transforming inputs into outputs.

The results further shows that technological innovation practices and organizational performance of Islamic commercial banks operating on Kenya positively and significantly correlates. This is shown by a Pearson's correlation value of 0.589 and a significant value 0.000. The results bears the implications that enhancing technological innovation practices leads to increased levels of organizational performance amongst the commercial banks. The results concurs with Wachira (2016) who established a positive and significant relationship between banks' performance in terms of profitability and adoption of various technological innovation practices including customer independent technology, customer assisted technology and customer transparent technology. The results finally revealed that marketing innovation practices and organizational performance of Islamic commercial banks operating on Kenya positively and significantly correlates. This is shown by a Pearson's correlation value of 0.312 and a significant value 0.009. The results bears the implications that enhancing marketing innovation practices leads to increased levels of organizational performance amongst the commercial banks. The results are consistent with Prifti and Alimehmeti (2017) findings while investigating the market orientation relation with innovation and firm performance and established that marketing innovation practices are significant in influencing firm performance.

Table 6: Correlation Matrix

		Product Innovation Practices	Process Innovation Practices	Technological innovation Practices	Marketing Innovation Practices	Organizational Performance
Product Innovation Practices	Pearson Correlatio n	1				
	Sig. (2-tailed)					
Process Innovation Practices	Pearson Correlatio n	0.281	1			
	Sig. (2- tailed)	0.091				
Technologica l innovation Practices	Pearson Correlatio n	-0.111	-0.215*	1		
	Sig. (2- tailed)	0.198	0.104			
Marketing Innovation Practices	Pearson Correlatio n	0.295	0.138	-0.148	1	
	Sig. (2- tailed)	0.142	0.091	0.246		
Organization al Performance	Pearson Correlatio n	.436*	.376*	.589*	.312*	1
	Sig. (2- tailed)	0	0.001	0	0.009	
	N	89	89	89	89	89

Multiple Regression Analysis

To determine the strength of the relationship between the variables in the study, a multiple regression analysis was performed. The analysis was done with a 95% level of confidence. Table

7 findings show that there is a relatively high relationship ($R=0.664$) between the organizational performance of Islamic commercial banks and practices related to product innovation, process innovation, technological innovation, and marketing innovation. The product innovation practices, process innovation practices, technological innovation practices, and marketing innovation practices together account for 44.1% of the organizational performance of Islamic commercial banks, according to the R-Squared value, which is a measure of the coefficient of determination.

Table 7: Model Summary

R	R Square	Adjusted Square	R Std. Error of the Estimate
.664 ^a	0.441	0.396	1.0489662

To determine if the model used in the study was statistically significant in examining the relationship between the variables of the study, an analysis of variance (ANOVA) was undertaken. The findings demonstrated in table 8 shows that the model was statistically significant. This was arrived at by comparing the value of F-Calculated (17.6235), and the F-Critical value at (4.84), which is 2.49. The computed value of F is greater than the critical value of F, indicating that the model is statistically significant.

Table 8: ANOVA (Model Significance)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	169.918	4	42.4795	17.6235	0.02857 ^b
Residual	202.473	84	2.4104		
Total	372.391	88			

Table 9 outlines the model's coefficients of the study. According to the results, Product Innovation Practices positively and significantly influences organizational performance of Islamic commercial banks in Kenya ($Beta=0.398$, $sig=0.002<0.05$). The results implies that increasing Product Innovation Practices with one unit results to 0.398 units increase in the levels of organizational performance of Islamic commercials in Kenya. The results tallies with Tavassoli and Karlsson (2015) who established that the outcome of product innovation is the introduction of a both marginally or radically improved good or service with respect to functions, characteristics, or components. The results also shows that Process Innovation Practices positively and significantly influences organizational performance of Islamic commercial banks in Kenya

(Beta=0.311, sig=0.009<0.05). The results implies that increasing Process Innovation Practices with one unit results to 0.311 units increase in the levels of organizational performance of Islamic commercials in Kenya. The results contends with Muharam *et al.*, (2020) who established that process innovation, due to its cost-cutting nature, would have more influence on growth or firm performance as it entails updated of abilities, methods, operations and process that is applied in the procedure of converting or transforming inputs into outputs.

The results further shows that Technological innovation Practices positively and significantly influences organizational performance of Islamic commercial banks in Kenya (Beta=0.443, sig=0.000<0.05). The results implies that increasing Technological innovation Practices with one unit results to 0.443 units increase in the levels of organizational performance of Islamic commercials in Kenya. The results are in tandem with Canh *et al.*,(2019) who noted that technological innovation practices are a necessary precondition for a knowledge-oriented business which promote not only the economic competitiveness of the whole country, but also the welfare of each entrepreneur and the society. The results finally revealed that Marketing Innovation Practices positively and significantly influences organizational performance of Islamic commercial banks in Kenya (Beta=0.295, sig=0.011<0.05). The results implies that increasing Marketing Innovation Practices with one unit results to 0.295 units increase in the levels of organizational performance of Islamic commercials in Kenya. The results are consistent with Prifti and Alimehmeti (2017) findings while investigating the market orientation relation with innovation and firm performance and established that marketing innovation practices are significant in influencing firm performance

Table 9: Model Coefficients

Predictors	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	0.216	0.175		1.2343	0.041
Product Innovation Practices	0.398	0.116	0.325	3.4310	0.002
Process Innovation Practices	0.311	0.128	0.271	2.4297	0.009
Technological innovation Practices	0.443	0.107	0.379	4.1402	0
Marketing Innovation Practices	0.295	0.198	0.245	1.4899	0.011

The model therefore becomes;

Organizational Performance = 0.216 + 0.443 (Technological innovation Practices) + 0.398 (Product Innovation Practices) + 0.311(Process Innovation Practices) + 0.295 (Marketing Innovation Practices)

Hypothesis Testing

The study employed the results from the regression analysis to either reject or accept the hypothesis formulated in the study. The summary of the hypothesis testing is formulated in table 10.

Table 10: Hypothesis Testing

Hypothesis	Method and Criteria	Remark
H₀₁ : There is no significant effect of product innovation practices on the organizational performance of Islamic banks in Kenya	<ul style="list-style-type: none"> Multivariate regression analysis (P< 0.05) 	Reject H₀₁
H₀₂ : There is no significant effect of process innovation practices on the organizational performance of Islamic banks in Kenya	<ul style="list-style-type: none"> Multivariate regression analysis (P< 0.05) 	Reject H₀₂
H₀₃ : There is no significant effect of technological innovation practices on the organizational performance of Islamic banks in Kenya	<ul style="list-style-type: none"> Multivariate regression analysis (P< 0.05) 	Reject H₀₃
H₀₄ : There is no significant effect of market innovation practices on the organizational performance of Islamic banks in Kenya	<ul style="list-style-type: none"> Multivariate regression analysis (P< 0.05) 	Reject H₀₄

Conclusion

The findings from both correlation and regression analysis led to conclusion that product innovation practices affects organizational performance of Islamic commercial banks in Kenya to a positive and significant level. Similarly, product innovation practices inclusive of continuously introducing new products such as Automated Teller Machines, mobile banking platforms, internet banking platforms, investing in payment via card systems, using biometric and QR Code payment systems and customizing all products offered by the bank further contributes to organizational performance of the Islamic commercial banks. The findings from both correlation and regression analysis also led to conclusion that process innovation practices affects organizational performance

of Islamic commercial banks in Kenya to a positive and significant level. Additionally, process innovation practices such as developing new programs and process from time to time, updating and improving programs and process on regular intervals, taking into consideration the views of customers while making new innovations, adopting modern technology in the development of new processes and diversifying promotional and sales channels to ensure continuity of business further contributes to enhanced organizational performance of the Islamic commercial banks.

The findings from both correlation and regression analysis further led to conclusion that technological innovation practices affects organizational performance of Islamic commercial banks in Kenya to a positive and significant level. Additionally, technological innovation practices such as establishing various social media channels for communicating with customers, regularly using social media platforms to showcase product/Service and solicit sales, integrating operation where customers can access products and services irrespective of location, developing mobile applications for personalized communication and marketing to our customers, investing heavily in technical infrastructure and continuously investing more in e-commerce-enabled websites further contributes to enhanced organizational performance of the Islamic commercial banks. The findings from both correlation and regression analysis finally led to conclusion that marketing innovation practices affects organizational performance of Islamic commercial banks in Kenya to a positive and significant level. Additionally, marketing innovation practices such as developing pricing strategies for products and services, having attractive prices compared to other commercial banks, strategizing on marketing through introduction of marketing innovation practices, informing customers on changes in the operations of the commercial banks through branded marketing, and decentralizing operations where products and services can be accessed from all parts of the country further contributes to enhanced organizational performance of the Islamic commercial banks.

Riba is an Islamic finance concept that refers to interest charges. Usury, or the charging of unreasonably high interest rates, has also been used to describe Riba. Riba is forbidden under Sharia law for several reasons. Its purpose is to assure equity in exchange. It is intended to protect people's wealth by making unjust and unequal trades illegal. Islam encourages charitable giving and acts of kindness toward others. To eliminate selfish and self-centered feelings that might lead to social aversion, distrust, and resentment. By making iba illegal, Sharia law creates chances and settings in which people are encouraged to lend money without charging interest.

Recommendations for the Study

There is a need for the Islamic commercial banks operating in Kenya to enhance their product innovation practices in the operations of the banks since the practices bears a positive and significant effect on organizational performance. The banks can achieve this through endeavoring in practices such as continuously introducing new products such as Automated Teller Machines, mobile banking platforms, internet banking platforms, investing in payment via card systems, using biometric and QR Code payment systems and customizing all products offered by the bank.

The study further recommends the Islamic commercial banks to enhance process innovation practices as the practices are associated with increased organizational performances. The banks can achieve this through practices such as developing new programs and process from time to time, updating and improving programs and process on regular intervals, taking into consideration the views of customers while making new innovations, adopting modern technology in the development of new processes and diversifying promotional and sales channels to ensure continuity of business.

There is a need for the Islamic commercial banks operating in Kenya to enhance their technological innovation practices in the operations of the banks since the practices bears a positive and significant effect on organizational performance. The banks can achieve this through endeavoring in practices such establishing various social media channels for communicating with customers, regularly using social media platforms to showcase product/Service and solicit sales, integrating operation where customers can access products and services irrespective of location, developing mobile applications for personalized communication and marketing to our customers, investing heavily in technical infrastructure and continuously investing more in e-commerce-enabled websites. The study recommends the Islamic commercial banks to enhance market innovation practices as the practices are associated with increased organizational performances. The banks can achieve this through practices such as developing pricing strategies for products and services, having attractive prices compared to other commercial banks, strategizing on marketing through introduction of marketing innovation practices, informing customers on changes in the operations of the commercial banks through branded marketing, and decentralizing operations where products and services can be accessed from all parts of the country.

References

- Akinwale, Y. O., Adepoju, A. O., & Olomu, M. O. (2017). The impact of technological innovation on SME's profitability in Nigeria. *International Journal of Research, Innovation and Commercialisation*, 1(1), 74-92.
- Ally J., (2018). Kenyan firm tapped to train Islamic Finance professionals. <https://www.standardmedia.co.ke/business/article/2001272213/kenyan-firm-tapped-to-train-islamic-finance-professionals>.
- Asunka, B. A., Ma, Z., Li, M., & Anaba, O. A. (2020). Linking Innovation to Firm Performance in Developing Countries: the Role of Trade Liberalization. *European Journal of Business and Management Research*, 5(3).
- Berlyne, D. E. (1962). 'Uncertainty and Epistemic Curiosity'. *British Journal of Psychology* 53: 27-34.

- Canh, N. T., Liem, N. T., Thu, P. A., & Khuong, N. V. (2019). The impact of innovation on the firm performance and corporate social responsibility of vietnamese manufacturing firms. *Sustainability*, 11(13), 3666.
- Chege, S. M., Wang, D., & Suntu, S. L. (2020). Impact of information technology innovation on firm performance in Kenya. *Information Technology for Development*, 26(2), 316-345.
- Cynthia I, (2018). Islamic banking needs exceed supply – Olaka. https://www.the-star.co.ke/news/2018/03/15/islamic-banking-needs-exceed-supply-olaka_c1729457
- Dishaw, M. T., & Strong, D. M. (1999). Extending the technology acceptance model with task–technology fit constructs. *Information & management*, 36(1), 9-21.
- Drucker, P. (2014). *Innovation and entrepreneurship*. Routledge.
- Elg-Vinnova, L. (2014). Innovations and new technology-what is the role of research. *Implications for public policy*.
- Expósito, A., Sanchis-Llopis, A. J. (2019). The relationship between types of innovation and SMEs’ performance: A multi-dimensional empirical assessment. *Eurasian Business Review*, 9, 115–135.
- Fayomi, O. S. I., Adelakun, J. O., & Babaremu, K. O. (2019, December). The Impact Of Technological Innovation On Production. In *Journal of Physics: Conference Series* (Vol. 1378, No. 2, p. 022014). IOP Publishing.
- First Community Bank Limited. (2020). *Audited Financial Statements and Other Disclosures As At 31st Dec 2020*. <https://firstcommunitybank.co.ke/uploads/AUDITED%20FINANCIAL%20STATEMENTS%20AND%20OTHER%20DISCLOSURES%20AS%20AT%2031st%20Dec%202020.pdf>
- Friedman, M. (2007). The social responsibility of business is to increase its profits. In *Corporate ethics and corporate governance* (pp. 173-178). Springer, Berlin, Heidelberg.
- Friedman, M. (2016). The social responsibility of business is to increase its profits. *Business in Ethical Focus: An Anthology*, 74.
- Friedman., M. (1970) The Social Responsibility of Business is to Increase its Profits
- Ganzer, P. P., Chais, C., & Olea, P. M. (2017). Product, process, marketing and organizational innovation in industries of the flat knitting sector. *RAI Revista de Administração e Inovação*, 14(4), 321-332.
- Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS quarterly*, 213-236.

- Gulf African Bank. (2020). *Audited Financial Statements and Other Disclosures for The Year Ended 31 December 2020* <https://gulfafricanbank.com/wp-content/uploads/2021/03/GAB-Financials-Year-ended-December-2020.pdf>
- Hoepner, A., Rammal, H., & Rezec, M. (2018). Islamic Mutual Funds' financial performance and International Investment Style: Evidence from 20 countries. *The European Journal of Finance*, 17(9-10), 829–850.
- Khan, Z. A., & Hussanie, I. (2018). Shareholders wealth maximization: Objective of financial management revisited. *International Journal of Enhanced Research in Management & Computer Applications*, 7(3), 739-741.
- Khatkhatay, H., & Nisar, S. (2017). Shariah Compliant Equity Investments: An Assessment Of Current Screening Norms. *Islamic Economic Studies*, 15(1), 48–76.
- Muharam, H., Andria, F., & Tosida, E. T. (2020). Effect of process innovation and market innovation on financial performance with moderating role of disruptive technology. *Systematic Reviews in Pharmacy*, 11(1), 223-232.
- Mwaniki, C., (2017). IMF warns Kenya of loopholes in Islamic banking regulation. <https://www.businessdailyafrica.com/news/IMF-warns-Kenya-risk-Islamic-banks/539546-3981960-jbhr1pz/index.html>
- Naqshbandi, M. M., Kaur, S., & Ma, P. (2015). What organizational culture types enable and retard open innovation? *Quality & Quantity*, 49(5), 2123-2144.
- Naqshbandi, M. M., Singh, S. K. G., & Ma, P. (2016). The link between organisational citizenship behaviours and open innovation: A case of Malaysian high-tech sector. *IIMB Management Review*, 28(4), 200-211.
- Ntwoku, H., Negash, S., & Meso, P. (2017). ICT adoption in Cameroon SME: application of Bass diffusion model. *Information Technology for Development*, 23(2), 296-317.
- Obeng, B. A., Robson, P., & Haugh, H. (2014). Strategic entrepreneurship and small firm growth in Ghana. *International Small Business Journal*, 32(5), 501-524.
- Pietrzak, B., Polański, Z., Woźniak, B. (2008). *System finansowy w Polsce*. Vol 1. Warszawa: PWN.
- Prifti, R., & Alimehmeti, G. (2017). Market orientation, innovation, and firm performance—an analysis of Albanian firms. *Journal of Innovation and Entrepreneurship*, 6(1), 1-19.
- Silva, T. I. M., Cavalcante, R. B., Silva, H. R. M., Santos, R. C., Guimarães, E. A. A., & Pinheiro, M. M. K. (2018). Diffusion of the technological innovation e-SUS AB: acceptance or rejection. *Cogitare Enferm.[Internet]*, 23(3), e55911.

- Slater, S. F., Mohr, J. J., & Sengupta, S. (2014). Radical product innovation capability: Literature review, synthesis, and illustrative research propositions. *Journal of Product Innovation Management*, 31(3), 552-566.
- Su'un Possumah, B. T., Appiah, M. K., & Hilmiyah, N. (2018). Determinants of Islamic banking adoption across different religious groups in Ghana: a panoptic perspective. *Journal of International Studies*, 11(4).
- Tajeddini, K. (2016). Financial orientation, product innovation and firm performance—An empirical study in the Japanese SMEs. *International Journal of Innovation and Technology Management*, 13(03), 1640005.
- Tsai, M. H., Chang, J. H., Lin, Y. S., & Cheng, K. C. (2020). The Impact of Product innovation on Performance: The Influence of Uncertainty and Managerial Accounting Information Systems.
- Wachira, E., & Ondigo, M. H. (2016). The effect of technological innovation on the financial performance of commercial banks in Kenya. *International Journal of Finance and Accounting*, 1(2), 61-76.
- Wanjare, J., & Motari, M. (2016). Manuscript Info Abstract. *International Journal*, 4(5), 17-26.
- Windsor, D., & Boatright, J. R. (2010). Shareholder wealth maximization. *Finance ethics: Critical issues in theory and practice*, 437-455.
- YuSheng, K., & Ibrahim, M. (2019). Service innovation, service delivery and customer satisfaction and loyalty in the banking sector of Ghana. *International Journal of Bank Marketing*.
- YuSheng, K., & Ibrahim, M. (2020). Innovation capabilities, innovation types, and firm performance: evidence from the banking sector of Ghana. *SAGE Open*, 10(2), 2158244020920892.