

Influence of Strategic Innovation on Performance of Insurance Companies in Kenya

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Abstract

Increased global and regional rivalries have led firms to create and sustain competitive edge by engaging in innovation. A first changing environment with constant abrupt changes makes it indispensable for firms to build up their capability to innovate. Owing to performance disparities among firms, it is important to investigate whether the level of strategic innovation adopted by these firms is a major source of variation. The overall objective of this study was to determine the influence of strategic innovation on performance of insurance firms in Kenya. The objectives of the study were; to examine the effect of product innovation on firm performance; to establish the effect of marketing innovation on firm performance; to determine the influence of process innovation on firm performance and finally to assess the effect of organizational innovation on firm performance. This study was anchored on Schumpeterian innovative theory, theory of innovative enterprise, resource based view theory and dynamic capability theory. The study employed descriptive research design. The population comprised of all the 41 insurance firms in Kenya and census survey was carried out. The study relied on both primary and secondary data. The study applied multiple regression analysis as the principal estimation tool. The findings suggest that product and process innovation were negatively and significantly related to performance while marketing and organizational innovation were positively and significantly associated with performance.. The study made significant contribution to management practice, policy formulation and theory development.

Keywords: *Strategic innovation, performance, regression analysis.*

1.1 Background of the Study

Owing to intensified global rivalry, acceleration in technological advancement, and shortening product life cycles, strategic innovation is progressively becoming a significant aspect in the quest for corporate excellence, and a vital competitive strategy. When firms make use of assorted differentiation strategies, strategic innovation is an integral focal point in business performance and sustainability (Suhag, Solangi, Larik, Lakho & Tagar, 2017). This not only benefits the firm's profits, growth and market share, but it equally makes it

harder for rivals to mimic it (Roach, Reyman & Mukani, 2016). Inevitably, many firms are leveraging their overall performance through strategic innovations in form of product, process, market and organization structure (Marinidaraga & Cuartas-Martin, 2019). Therefore, vast of the theoretical and empirical literature predict a positive relationship between strategic innovation and firm performance.

The conventional elucidation for the positive linkage between strategic innovativeness and firm performance is grounded on Schumpeter's (1942) profit extraction theory, which suggest that via innovative strategies, organizations gain provisional quasi-monopoly status that permit them to extract economic rents. These super normal rents can come to an end for two major reasons: imitations from rivals that erode the monopolistic status of the innovators or novel innovative strategies that makes the focal firm's innovation outdated (Tseng & Lee, 2020). Therefore, organizations can uphold their market supremacy over time via incessant streams of innovations and turn provisional gains from a solitary new product into unrelenting, superior performance with introduction of multiple products. According to Krasnicka, Glod and Wronka-Pospiech (2019), innovation positively contributes to firm performance by ameliorating the natural forces of rivalry or variations in consumption trends that tend to dissipate superior profits over time.

Strategic innovation is increasingly becoming more important for many firms, mainly owing to three key trends: challenging and disjointed and markets, varied and rapidly changing technologies and rigorous international competition (Viet, 2016). In the current tough economic environment, the innovation of a completely novel business models or the drastic redesign of existing business models is the only way firms can develop and wealth can be generated so as to augment performance (Ahu, 2015). Therefore, strategic innovation remains to be one of the essential instruments of corporate growth strategies to maintain a competitive edge and enhance market share. With ever-increasing rivalry in the international markets, companies in developing markets have realized the significance of strategic innovation that

rapidly changes the value added to products/services (Almatrooshi, Kumar & Faruk, 2016). Strategic innovation provides firms with a strategic orientation to conquer the challenges they face while they endeavor to attain sustainable competitive advantage. Organizations with the capability to innovate respond to environmental related challenges better and faster than non-innovative organizations (Bryan, 2016). Thus, strategic innovation is extensively considered as serious for the firms 'economic viability remains to be one of the key drivers of competitive advantage and long-term success. Recent meta-analytical investigations have offered sufficient evidence of a positive linkage between strategic innovation and overall performance (Hsui, 2017).

The concept of strategic innovation is increasing gaining ground and plays a critical role in success within the dynamic and competitive insurance industry. In Kenya, insurance companies operate in a volatile industry where clients' preferences and tastes, product/service technologies, and competitive weapons frequently vary unpredictably (Kariuki, 2018). To be stable and to improve performance, insurance companies are not only seeking new opportunities but are also becoming highly innovative in terms of product, process, market and organization structures so as to attain competitive edge in the market (Lichtenthaler, 2020). The insurance industry in Kenya has witnessed momentous changes in recently following the liberalization of the financial services sector. Insurance sector locally has undergone a myriad of changes in service delivery with the aim of enhancing the quality of service being offered to the clients (IRA report, 2020). The right type of investment and innovation in new technologies and strategies will help insurance companies to improve their performance (Rajapathiran & Hui, 2018).

1.2 Problem Statement

The insurance industry in Kenya marginally weathered COVID-19 pandemic, with gross premium income and assets growing by 1.5 and 7.4 percent in 2021, respectively. Profitability and Investments were, nonetheless, impacted negatively with investment income

reducing by 24.4 percent and profit after tax reducing by 42.6 percent and in 2021. The return on assets and return on equity dropped by 1.31 percentage points and 4.72 percentage points, respectively in 2021 due to increased expenditures and volatility in the capital markets, a crucial source of investment revenue, as result of COVID–19 pandemic. Furthermore, the rate of insurance penetration, proxied by the insurance premium to gross domestic product ratio, has largely remained low at 2.4 percent in 2021, and 2.4 percent in 2020, which is way below 7.4 percent global average. During this period (COVID-19), some insurance firms such as Britam, Jubilee, ICEA, AAR and UAP reported better performance in comparison to other insurance companies in the year 2021. It is therefore necessary to investigate whether this can be attributed to the variation in the levels of strategic innovations that have been adopted by various firms.

Going forward, insurance firms have to rethink about their operating models to leverage on technological innovation, deliver exceptional customer service, increase market penetration and manage appropriately their costs. The COVID-19 pandemic uncovered susceptibilities in the operating processes as quite a number of firms still rely on manual operational processes, obsolete software and too much paperwork. As firms readjust to the new ‘normal’, insurance firms need change their present ways of working, including paperless transaction processing and additional automations (Al-Kalouti, 2020). To attain this, insurance firms need to make tactical digital decisions to shift into the digital insurance in future. Due to increased competition in the insurance industry, many firms have shifted their focus to strategic innovation to allow them to effectively compete in the volatile market (Byukusenge & Munene). In Kenya, some insurance firms have adopted numerous distinguishing features to counter rivalry and elevate them among other industry players. The adoption of information technology, particularly the mobile technology in information dissemination and facilitate claim and premium payments is principally rife. Additionally, other insurance firms have customized certain products/ services to address the specific requirements of their customers,

as well as coming up with new distribution channels such as bank assurance that bring them closer to their target markets (AKI report, 2021).

In the contemporary world of exceedingly competitive business environment, it is critical for firms to stay ahead of its competitors and create competitive edge (Ho, Nguyen, Prasad, Miles & Bonney, 2018). One of the key forces that expedite this process is the capacity of an organization to utilize its innovative aptitude (Su, Cheng, Chung & Chen, 2018). A high level of flexibility permits an organization to respond to fluctuations in demand and clients preferences more hastily and readjust its product assortment in line with the most recent trends (Canh, Liem, Thu & Khuong, 2019). As innovation progresses with time, it permits the production of superior products, which, in turn leads to better firm performance.

Notably, the empirical outcomes associated with the firm performance implications on strategic innovation substantially vary across studies. This viewpoint is largely supported by divergence in the empirical findings. For instance, whereas the predominant view is that strategic innovation is positively connected to performance (e.g., Rocha, 2015; Kelay & Lynn, 2015; Taalbi, 2017), other scholars have documented negative or no significant effects of this relationship (e.g., Fassio, 2015; Fixavi & Pallez, 2016; Kummar & Sunderraj, 2016). The overriding approach to reunite these conflicting standpoints has been via the adoption of methodological modifications and a multiplicity of strategic innovation and performance measures, as well as diverse sets of control variables in distinct empirical investigations. Furthermore, contextual disparities between developed and developing markets as well as sectorial variations have equally contributed to mixed empirical findings with respect to strategic innovation-firm performance relationship. This study therefore seeks to address these research gaps by answering the research question, what is the influence of strategic innovation on performance of insurance companies in Kenya?

1.3 Research Objectives

The general research objective is to determine the influence of strategic innovation on performance of insurance companies in Kenya.

2.1 Theoretical Literature

The nexus relationship between strategic innovation and performance is anchored on Schumpeter's theory (Schumpeter, 1911) and theory of the innovative enterprises (Lazonick, 2003). Schumpeter's theory of innovation is relevant in explaining the relationship between strategic innovation and firm performance. This is important because anybody seeking profits must innovate. Strategic innovation in terms of product, marketing, process and organizational is critical if any organization is to survive and succeed in the current competitive market (Altit, 2017). The entrepreneurs innovate so as to contribute to the process of creative destruction that creates value and economic development. Schumpeter theory of innovation also informs the study of the numerous innovation dimensions that can be employed to create value. Based on Schumpeterian theory, innovation is the foundational bedrock of competitiveness and sustained economic progression.

Theory of innovative enterprises is relevant in explaining the role of strategic innovation and how it contributes to superior firm performance via the production of better products and services in the competitive market (Taalbi, 2017). Strategic innovation often leads to differentiation; which is an essential aspect in competitiveness that contributes to new exclusive processes, products, markets and organizational techniques (Lichtenthaler, 2020). This plays an integral role in aiding the organizations to cope up with competition in the extant market. The theory of innovative enterprises confirms the role of innovation in organizational performance. This theory is relevant as innovation economics suggest that constant increase of inputs in the production process is no longer adequate to clarify the increase of output thus can be credited to a organizations' innovation behaviour.

2.2. Empirical Literature

To probe the determinants of organizations innovative activities Hoang and Ngoc (2019) assessed the impact of innovation capacity on company's performance among the electronic companies in Vietnam with the cross-sectioned data obtained from 374 valid firms, the researchers employed confirmatory factor analysis (CFA), Cronbach's alpha analysis and structural equation model (SEM) in data analysis process. Innovation capacity was measured by product and process innovation while performance was captured by net profit. The findings revealed that innovation capability was significantly and positively related to organizational performance. This study however ignored other dimensions of innovation such as marketing and organizational innovation.

In United States (US), Hult, Hurley and Knight (2013) examined the antecedents of innovations and its impact of corporate performance. While employing a sample of 1000 companies with sales above US dollars 100 million per year, innovation was proxied by market, entrepreneurial and learning metrics. Performance on the other hand was measured by market share and ROA. To test the hypotheses, Structural Equation Model (SEM) alongside Confirmatory Factor Analysis (CFA) was used to estimate the cross-sectional data obtained from the primary sources of data. The findings validated the positive influence of innovation on business performance. The research gap identified in this study is that the findings obtained might not reflect the local context since the study was performed in a developed economy (USA) which is politically, economically and culturally different.

To examine the effects of innovation of manufacturing firms in Turkey, Karabulut (2015) conducted an empirical study using 198 manufacturing firm located in Istanbul. To estimate the data, multiple and factor analysis were applied on the cross-sectional dataset. Innovation was measured on the topology of Oslo manual (OECD, 2005), that is product market, process and organizational innovation. Performance was measured using both financial and non-financial measures. The findings established that innovation had a positive influence on business performance based on multiple regression analysis. Nonetheless, this study was

done in a developed county setting (Turkey) and therefore the empirical estimates may not hold locally.

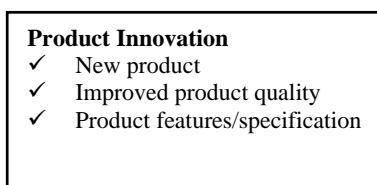
Using cross-sectional data from a sample of 1201 European companies from the last flash Eurobarometer-415, Mentresor and Vezzoni (2017) empirically investigated the link between design, innovation and performance at firm level. The study suggested that investment design may offer organizations with increased capacity for introducing organizational innovation. Innovation was captured by organization structure while performance was measured by non-financial performance measures. The econometric estimates using regression and correlation analysis confirmed the anticipated theoretical expectations. Notably, a higher level of innovation was associated with non-systematic design and increased firm performance. Nonetheless, this study was done in European market and findings cannot be extended to the Kenyan setting.

2.4 Conceptual Framework

The conceptual model augments the understanding of the perceived theorized linkages between the four objectives and the arrows show the proposed direction of the relationship. In this study, the independent variable is strategic innovation which is measured by product, marketing, process and organizational dimensions whereas firm performance is the outcome variable which is proxied by financial (ROA). Based on the research problem, empirical and theoretical literature reviews as well as variables constructs, the study established a conceptual framework, as depicted in Figure 2.1.

Independent Variables

(Strategic Innovation)



Dependent Variable

Figure 2.1: Conceptual Framework

3.1 Methodology

The key objective of this investigation was to examine the nexus between strategic innovation and performance. This study adopted the cross-sectional descriptive design since the study is dealing with events that already occurred and has no control over study variables. Cross sectional studies are more appropriate because of their ability to take into consideration the population characteristics in their natural settings. Sounders, Lewis and Thornhill (2016) argue that this approach is designed to provide in-depth information about the attributes of subjects within a specific field of study, thus aiding to identify relationships between the study variables. Porta (2014) opines that this design gives the researcher a profile to describe pertinent aspects of the phenomena of interest for an organization, individual, or other perspectives. Furthermore, this approach augments more credibility to the research findings by providing conclusions on data at once. The study utilized cross-sectional dataset drawn from 41 insurance firms in Kenya.

3.1.1 Data Sources and Variable Description

The study employed primary and secondary data which was collected with an aid of a structured questionnaire and data collection sheet. The key benefit of using questionnaires for data gathering is that it permits data collection from huge population and also is equally inexpensive. The study employed structured research instrument which encompassed homogeneous questions with choices stipulating precise words and order of questions (Rahi, 2017). The structured questionnaires applied a 5-point Likert scale where 1 implies strongly disagree and 5 denotes strongly agree. The chief advantage of Likert scale is that it permits a universal technique for survey gathering hence making it easy to be understood. The questionnaire responses are easy to quantify hence making the process of statistical analyses to be relatively easy.

Table 3.1: Operational Definition and Measurement of Variables

Variable	Operational Definition	Scale	Measurement	Predicted Sign
Product Innovation	This is the ability of an organization to single out and address to new client requirements via developing completely new or conspicuously improved products with new product categories.	ordinal	Composite score	+
Marketing Innovation	This is the operation of a new or significantly improved technique of promoting an organization's products with the objective of engaging with clients at varying levels.	ordinal	Composite score	+
Process Innovation	This is introduction of new techniques of tools and operations that changes the manner in which a business functions.	ordinal	Composite score	+
Organizational Innovation	This is implementation of a new or extensively improved organizational process in the workplace organization, business practice, or external affairs of a firm.	ordinal	Composite score	+
Financial performance	These are objective quantifiable monetary metrics used to measure how well a company is doing	ratio	ROA	+

3.1.2 Empirical Model

Cross-sectional dataset was estimated using ordinary least squares (OLS) method. OLS is widely applied technique for estimating regression weights of general linear models to

describe the linkages between one or more explanatory quantitative and outcome variables. The key advantage of OLS is that it allows for innate mathematical computations, permits flexible variable selection as well being suitable for cross-sectional dataset. To establish the relationship between strategic innovation and firm performance, a generalized linear regression model stated below was applied:

$$FP = B_0 + B_1PDI + B_2MI + B_3PCI + B_4OI + \xi$$

Where: **FP** = Financial Performance; **PDI** = Product Innovation; **MI** = Marketing Innovation; **PCI** = Process Innovation; **OI** = Organizational Innovation; ξ = Error Term

Table 4.1: Reliability Test, Descriptive Statistics and Correlation Analysis

Variable	α	M	SD	PDI	MI	PCI	OI	FP
PDI	0.78	3.95	0.61	1				
MI	0.77	4.08	0.65	0.60*	1			
PCI	0.86	3.83	0.54	0.28	0.37*	1		
OI	0.74	3.88	0.52	0.54*	0.46*	0.50*	1	
FP	0.70	0.99	1.01	0.13	0.52*	0.33*	0.46*	1

Where: *PDI* = product innovation, *MI* = marketing innovation, *PCI* = process innovation, *OI* = organizational innovation, *NFP* = non-financial performance, *FP* = financial performance.

*= Significant correlation

The results confirmed relatively high levels of internal consistency for study variables (product innovation, $\alpha = 0.78$; marketing innovation, $\alpha = 0.77$; process innovation, $\alpha = 0.86$; organization innovation, $\alpha = 0.74$ and non-financial performance, $\alpha = 0.790$). The findings suggest that the average score for the attributes employed to denote product innovation was (M = 3.95, S.D = 1.61) implying that that majority of the participants were in agreement that their firms had adopted product innovation in their organizations. The mean score for the statements describing marketing innovation was (M = 4.08, SD = 1.65) suggesting that majority of the respondents were in agreement that their organizations had adopted marketing innovation in their corporate strategies. The average score for the features depicting process innovation was (M = 3.83, SD = 0.54) inferring that vast of the respondents were in agreement that that their firms had adopted process innovation in their corporate strategies.

The mean score for the statements describing organizational innovation was ($M = 3.88$, $SD = 0.52$) signifying that most of the participants agreed that their organizations had adopted organizational innovation. The average value for ROA was 0.99. The standard deviation for the ROA on the other hand was 1.01 which is a clear indication of considerable variance in ROA among insurance firms in Kenya. This implies that insurance companies significantly vary in terms of financial performance.

The correlation findings indicates product innovation was moderately and significantly positively correlated with marketing innovation ($r = 0.60$, $p < 0.05$) and organizational innovation ($r = 0.54$, $p < 0.05$) while process innovation ($r = 0.28$, $p > 0.05$), non-financial performance ($r = 0.13$, $p > 0.05$) and financial performance ($r = 0.13$, $p > 0.05$) weakly positively, but insignificantly correlated with product innovation. Marketing innovation moderately and significantly positively correlated with process innovation ($r = 0.37$, $p < 0.05$), organizational innovation ($r = 0.46$, $p < 0.05$) and financial performance ($r = 0.52$, $p < 0.05$). Process innovation is positively and significantly correlated with organizational innovation ($r = 0.50$, $p < 0.05$) and financial performance ($r = 0.33$, $p < 0.05$). Furthermore, organizational innovation is moderately positively and significantly correlated financial performance ($r = 0.46$, $p < 0.05$).

5.1 Study Findings and Discussion

To establish the influence of strategic innovation on performance of insurance in Kenya, the null hypothesis specified below was tested.

H₀₁: The influence of strategic innovation on performance of insurance in Kenya is not statistically significant.

Table 5.1: Strategic Innovation and Financial Performance

FP	β	SE	t	p	R ²	Adj. R ²	F
Constant	-3.11	1.14	-2.72	0.01	0.45	0.39	F (4, 35) = 7.14, p = 0.00
PDI	-0.77	0.28	-2.73	0.01			

MI	0.91	0.25	3.59	0.00
PCI	0.05	0.28	0.18	0.86
OI	0.83	0.32	2.55	0.02

Source: Research Findings (2022)

Where: *PDI* = product innovation, *MI* = marketing innovation, *PCI* = process innovation, *OI* = organizational innovation, *FP* = financial performance.

Table 5.1 shows the empirical findings of the relationship between strategic innovation and financial performance. The adjusted coefficient of determination (R^2) suggest that 39% of variation in financial performance is collectively delineated by product, marketing, process and organizational innovation while the other 61% is accounted for other factors ignored in estimation model. Overall, the regression model was statistically significant $\{F(4, 35) = 7.14, p < 0.05\}$.

The results indicate there was a significant negative influence of product innovation on financial performance ($\beta = -0.77, t = -2.73, p = < 0.05$). Furthermore, the outcome suggest that financial performance was significantly and positively predicted by marketing innovation ($\beta = 0.91, t = 3.59, p = < 0.05$) and organizational innovation ($\beta = 0.83, t = 2.55, p = < 0.05$). On the contrary, the results established that process innovation was insignificantly associated with financial performance ($\beta = 0.05, t = 0.18, p = > 0.05$).

The outcome of this study resonate with the findings obtained by Hult *et al.* (2013) who while examining the antecedents of innovations and its impact of corporate performance established a positive influence of marketing innovation on performance. The findings also are in agreement with those of Laban and Deya (2019) who established a positive significant link between marketing innovation and performance of communication technology firms in Kenya. The findings of this study also support those of Muharam *et al.*, (2019) who probed the effect of market innovation on performance with the moderating influence of disruptive technology among Indonesian pharmaceutical companies and established a positive linkage between marketing innovation and performance with disruptive technology moderating the hypothesized linkage.

The findings of this study corresponds with those of Karabulut (2015) who while investigating the the effects of innovation of manufacturing firms in Turkey reported significant influence of process innovation on firm performance. The outcomes of this study reflect those of Yusheng and Ibrahim (2020) who explored innovation types, innovation capability and performance with the data set sourced from 451 participants consisting of clients and bank staff in Kumasi metropolitan and found significant influence of process innovation on performance. The findings of this study corroborate the findings of Varis and Littunen (2020) who found significant influence of process innovation on profitability of SMEs in Finland

5.2 Conclusions and Recommendations

The estimation results on the influence of strategic innovation on performance are diverse. This can be ascribed to the choice of performance employed in the empirical investigations. First, the study concludes that product innovation has a significant negative effect on performance. This can be attributed to the fact that product innovation is a costly exercise that consumes significant corporate resource in regard to development of new products, improvement of the quality of the existing products and coming up with additional features or specifications for the existing products.

Secondly, the study concludes that marketing information has significant influence on performance. This is because new markets, pricing strategies and promotional techniques play a key role in increasing the sales volume and enhancing customer satisfaction thus ameliorating the overall corporate performance. Thirdly, the study concluded that process innovation was negatively and significantly related with performance. This is due to the fact that process innovation is an expensive venture as a result of colossal cost associated with improved service delivery methods, new technologies, business logistics as well as research and development. Lastly, the study concludes that organizational innovation is negatively and significantly associated with performance. This is as ascribe to the fact that new business

practices, changes in organizational structure and improved external relations bring about additional benefits that enhances firm performance.

The current study is bivariate in nature; implying that the relationship between two variables only was empirically investigated. This merely describes the correlation as opposed to causal relationships. Empirical evidence suggests that the association between strategy implementation and organizational performance is not direct but it is largely influenced by control variables (external factors). Future studies should consider incorporating mediators and moderators so as to add more rigors to the study.

The current study is based on the cross-sectional dataset representing a snap shot at one point in time across a number of units. Future studies in the same area should consider using longitudinal data which is collected over a given period of time. Longitudinal data is ideal in establishing the appropriate sequence of events; it is capable of pointing out variations over time and also provides insights into cause and effect associations.

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