

Performance of Insurance Brokerage Firms: The Role of Insurance Process Innovation as an Entrepreneurial Innovation

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Abstract

This study investigates the impact of process innovation as a form of entrepreneurial innovation on the performance of insurance brokerage firms in Kenya. The research is set against the backdrop of persistent underperformance in the sector despite the critical role these firms play in promoting insurance penetration. The inability to enhance process efficiency has been identified as a key factor contributing to their poor performance. Grounded in the diffusion of innovation theory, the study employed a cross-sectional descriptive research design, surveying all 216 insurance brokerage firms in Kenya through a census approach. Data was collected via questionnaires and analyzed using both quantitative (descriptive and inferential statistics) and qualitative (content analysis) methods, with SPSS software used for the quantitative analysis. The findings indicate that process innovation has a significant and positive influence on the performance of these firms. The study concludes that many insurance brokerage firms fail to fully embrace process innovation, resulting in inefficiencies that hinder their operational performance and long-term success.

Keywords: Insurance Process Innovation, Entrepreneurial Innovation, Insurance Brokerage Firms, Firm Performance

A. INTRODUCTION

Process innovation refers to the introduction of new production methods or commercial practices that have not yet been tested in a given industry (Schumpeter, 2004). It is a critical factor for the success of any business, involving changes in production processes aimed at reducing costs, minimizing waste, and enhancing efficiency (Terziovski, 2010). In small and medium-sized enterprises (SMEs), process innovation has a direct and immediate impact on productivity, often being implemented more rapidly and at lower costs than in larger firms due to their organizational simplicity (Higgins, 2015).

The insurance industry is currently facing numerous challenges, including economic, political, regulatory, legal, social, and technological pressures (Rajapathirana & Hui, 2017). These challenges have intensified competition, stunted growth, and led to excess capital in the sector. Technological advancements, such as the increased connectivity of household and workplace devices, autonomous vehicles, and the rising threat of cyber-attacks, are reshaping the risks individuals must mitigate through insurance products. To remain competitive and grow, insurers must adapt their business models to address these emerging risks (Deloitte, 2017).

Innovation is recognized as a key success factor in a competitive global economy. It provides opportunities for firms to enhance performance by mastering new methods of production and service delivery. Specifically, process innovation helps firms improve product quality, organizational routines, marketing strategies, and production techniques, all while reducing costs, improving human welfare, and ensuring environmental sustainability (Kibert, 2016). In the insurance sector, process innovation, including business process reengineering, is crucial for maintaining efficiency and competitiveness (Clayton & Michael, 2013).

In Kenya, the insurance industry faces a particularly low market penetration rate. According to recent data, only 6.8% of the Kenyan population has insurance coverage, leaving 93.2% uninsured (GoK, 2021). With an insurance penetration rate of just 3.4%, Kenya lags behind the global average of 3.65% and significantly behind African counterparts such as South Africa, which has a rate of 14%, and Namibia, with 8% (IRA, 2023). This declining performance in the insurance brokerage sector necessitates an examination of the factors influencing firm performance, including the role of innovation.

Previous studies have shown mixed results regarding the impact of innovation on firm performance. Some studies, such as those by (Mazviona et al., 2017; Kimani and Njuguna, 2016), found a positive relationship between entrepreneurial innovation and firm performance. However, others, such as (Canh et al. 2019), suggest

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that innovation does not play a significant role in firm performance. Given these conflicting findings, this study seeks to fill the existing contextual, conceptual, and methodological gaps by investigating the relationship between process innovation and the performance of insurance brokerage firms in Kenya.

This study aims to determine the extent to which insurance brokerage firms in Kenya have adopted process innovations and to assess the relationship between these innovations and the firms' performance. By examining the level of adoption, the research seeks to identify how extensively firms have integrated new methods and technologies into their operational processes. Additionally, it evaluates how these innovations impact the overall performance of the firms, providing insights into whether process innovation contributes to improved efficiency, cost reduction, and competitive advantage in the insurance brokerage sector.

Theoretical Review

The study was grounded in the Diffusion of Innovation (DOI) Theory by Rogers (1962), which focuses on how potential adopters perceive innovations in terms of relative advantage or disadvantage. Factors such as innovativeness, complexity, compatibility, and relative advantage form the framework for this approach (Anderson, 2016). The theory posits that firms heavily utilizing a particular technology are prime candidates for early adoption of the next generation of that technology, thereby enhancing competitiveness in the market. In this study, the DOI theory is crucial for understanding the dynamics of innovation adoption in small and medium enterprises (SMEs), specifically in the insurance sector. Both organizational and individual adoption discourses are relevant, as many decisions in SMEs are influenced by the owner-manager, whose personal perceptions and attitudes toward technology affect the firm's choices. The diffusion of innovations within the insurance industry is often facilitated through interpersonal or inter-firm networks. Based on this theoretical foundation, the study hypothesized that H0: Insurance process innovation has no significant influence on the performance of insurance brokerage firms in Kenya.

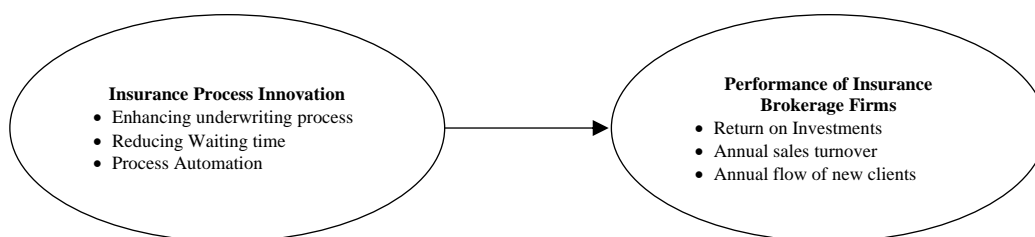


Figure 1: Conceptual Framework

Review of Empirical Literature

(Gunday et al., 2012) conducted a study to examine the effects of organizational, process, product, and marketing innovations on various aspects of firm performance, including innovative, production, market, and financial performances. Their study, based on a sample of 184 manufacturing firms in Turkey during 2006-2007, utilized multivariate statistical analyses to validate the research framework. The findings revealed that innovations had a positive and significant impact on firm performance, suggesting that innovative firms tend to achieve higher market share and total sales. Similarly, (Ngumi, 2013) explored the effect of bank innovations on the financial performance of Kenyan commercial banks. Using a descriptive survey design, Ngumi studied 20 commercial banks and found that innovations such as ICT advancements (e.g., ATMs and e-banking) significantly influenced financial performance, improving return on assets, profitability, income, and customer deposits.

Process innovation, which involves improvements in production methods and supporting activities like accounting, maintenance, and purchasing, plays a crucial role in firm operations. According to (Mweria, 2016), process innovation is the implementation of new or significantly improved production or delivery methods. This type of innovation focuses on enhancing quality function deployment and reengineering business processes to achieve greater operational efficiency (Bergfors & Larsson, 2009). (Gunday et al., 2009) also highlighted that suppliers who consistently work on process innovations can deliver similar performance at lower costs, which may or may not be passed on to consumers as price reductions.

In terms of service-oriented firms, (Bauer and Leker, 2013) note that process innovation is particularly challenging due to the interpersonal nature of services, but it remains essential for improving quality and maintaining competitive standards. Process innovation involves transforming inputs such as raw materials and

labor into outputs through a series of interconnected activities (O'Sullivan and Dooley, 2009). It represents a change in production techniques, software, or equipment (Omachonu and Einspruch, 2010) and can be developed either internally or through collaboration with other firms (Polder et al., 2010). Adopting process innovation helps firms enhance their operations and introduce improved products, ultimately boosting firm performance.

Technological innovations are a major component of process innovations, with significant effects on firms' competitiveness (Zhou and Wu, 2010). Although process innovations do not directly create economic impacts, they contribute to operational efficiency in production, manufacturing, and distribution (Collins and Smith, 2016). Firms that successfully implement process innovations often experience improvements in product quality, delivery times, and customer satisfaction, which translate into enhanced sales, market ranking, and corporate image (Noorani, 2014). Automation in production and delivery processes further enhances efficiency and productivity (Sipos and Ionescu, 2015), with larger firms more likely to adopt process innovations to achieve cost efficiencies (Reichstein, 2006).

Studies have consistently shown that process innovation is positively correlated with organizational performance. (Noorani, 2014; Olughor, 2015) both found that process innovation contributes significantly to market and financial performance. Additionally, (Przychodzen and Przychodzen, 2015) examined four types of eco-innovation (product, process, market, and supply sources) and their impact on financial performance in Polish and Hungarian corporations. Their study, covering the period from 2006 to 2013, revealed that eco-innovators tend to achieve higher returns on assets and equity while exhibiting lower earnings volatility.

B. RESEARCH METHOD

This research study utilized a cross-sectional descriptive survey design. According to (Cooper and Schindler, 2015), the descriptive survey method focuses on identifying "who, what, where, when, and how much," making it suitable for capturing comprehensive insights about the phenomenon under investigation. This design also allows for the collection of qualitative data, providing a deeper and more detailed understanding of the subject matter. The chosen design was appropriate for establishing the effect of insurance process innovation on the performance of insurance brokerage firms in Kenya. The study's target population was comprised of insurance brokerage firms in Kenya. According to the (Insurance Regulatory Authority, 2023), there were 216 licensed insurance brokers in Kenya as of December 2022. These 216 firms constituted the unit of analysis for this study. The units of observation were the owners or managers of these enterprises. A census approach was adopted, where all 216 licensed insurance brokers were included in the sample size. A structured questionnaire was used as the primary data collection tool. The questionnaire was administered using the drop-and-pick method. Once collected, the data was analyzed using the Statistical Package for the Social Sciences (SPSS), generating both descriptive and inferential statistics. A univariate regression analysis was performed to test the study's hypothesis. The regression model used is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where:

- Y = Performance of Insurance Brokerage Firms
- X₁ = Insurance Process Innovation
- β₀ = Constant
- β₁ = Beta coefficient for the independent variable
- ε = Error term

C. RESULTS AND ANALYSIS

Response Rate of the Study

The study involved 216 respondents, who were surveyed using a structured questionnaire. The questionnaires were distributed to the respondents, who were asked to complete and return them upon finishing. As shown in Table 4.1, out of the 216 surveyed respondents, 159 returned fully completed questionnaires, resulting in a response rate of 73.6%. This response rate was deemed sufficient for the study. According to (Creswell, 2016), a response rate exceeding 60% is considered adequate for analysis and can reliably reflect the views of the entire sample population.

Table 1. Response Rate

	Count	Percentage
Response	159	73.6%
Non-Response	57	26.4%

	Count	Percentage
Total	216	100%

Source: Research data, 2024

Survey Results

The study aimed to assess the extent to which insurance brokerage companies in Kenya had adopted insurance process innovations. A Likert scale was used, with respondents asked to indicate the degree to which specific process innovation statements had been implemented in their companies. The findings are summarized in Table 2. The results show that most respondents (55.3%) indicated their firms had simplified the underwriting process for policies and claims compared to the previous state, while 53.2% stated their companies lacked efficient criteria for evaluating insured assets and services. Respondents also noted that their firms had eliminated non-value-adding steps in the underwriting process (Mean = 3.02, SD = 1.43) and that customer waiting time had decreased compared to before (Mean = 3.08, SD = 1.26).

Additionally, 46.8% of respondents believed their firms had consistently streamlined the delivery of insurance certificates to enhance customer value. The findings further revealed that digital mechanisms, such as online services to improve access, were not effectively adopted in most of the surveyed firms (Mean = 2.57, SD = 1.21). Moreover, modern communication methods, such as chatbots for 24/7 customer engagement, were underutilized in many firms. Most insurance brokerage companies also lacked automated response platforms for customer inquiries (Mean = 2.42, SD = 1.26) despite the importance of such tools in improving customer service and satisfaction (Hojnik & Ruzzier, 2016).

Table 2. Embrace of Process Innovation

Statements	SD	D	N	A	SA	Mean	Std. Dev.
We have made the process of underwriting policies and claims easier than when we were starting	12.8%	10.6%	21.3%	36.2%	19.1%	3.38	1.28
The evaluation of insured assets and services is done more efficiently in our firm	23.4%	29.8%	21.3%	19.1%	6.4%	2.55	1.23
We have removed non-value-adding procedures in our underwriting process	23.4%	14.9%	12.8%	34.0%	14.9%	3.02	1.43
Customers wait for less time for our services than it was before	17.0%	14.9%	19.1%	40.4%	8.5%	3.08	1.26
We have embraced the easy delivery of insurance certificates to our customers	25.5%	6.4%	21.3%	36.2%	10.6%	3.00	1.38
We have embraced digital mechanisms, including online services, to ensure easier access to our services	21.1%	31.6%	21.1%	21.1%	5.3%	2.57	1.21
Our enterprise has embraced chatbots for round-the-clock customer engagement	26.3%	26.3%	21.1%	26.3%	0.0%	2.47	1.17
Through automated customer response platforms, we are able to make the processes easier in our enterprise	36.8%	10.5%	26.3%	26.3%	0.0%	2.42	1.26
We have a plan to embrace an automated artificial intelligence (A.I.) program to bring more convenience to customers	21.1%	31.6%	36.8%	10.5%	0.0%	2.36	0.95
Through enhanced processes, our firm has seen enhanced effectiveness in service delivery	0.0%	36.8%	42.1%	21.1%	0.0%	2.84	0.76

Source: Research data, 2024

The study sought to establish the relationship between insurance process innovation and the performance of insurance brokerage firms using a regression model. Based on this objective, the following null hypothesis was postulated: H.O.: Insurance process innovation has no significant influence on the performance of insurance brokerage firms in Kenya. The following model equation was used to test the hypothesis:

$$Y = \beta_0 + \beta_1 X_1 + e$$

The results presented in Table 3 show that the correlation coefficient (r) for the model was 0.725, indicating a strong positive relationship between insurance process innovation and the performance of insurance brokerage firms. Additionally, the R-Square (R²) value was 0.526, meaning that 52.6% of the variation in the performance of insurance brokerage firms in Kenya could be attributed to insurance process innovation. This suggests that the model is well-suited to determine the relationship between these two variables and to draw conclusions and recommendations.

The ANOVA results, as depicted in Table 4, revealed that the F-calculated value was 174.270, which is greater than the F-critical value, indicating the model's overall significance. Furthermore, the mean was 40.652,

reinforcing the model's validity. The P-value was 0.000, which is less than the 0.05 threshold, providing additional evidence that the model is statistically significant in predicting the relationship between insurance process innovation and the performance of insurance brokerage firms in Kenya.

Table 3: Model Summary and ANOVA Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 ^a	.526	.523	.48298

Analysis of Variance (ANOVA)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.652	1	40.652	174.270	.000 ^b
	Residual	36.623	157	.233		
	Total	77.275	158			

a. Dependent Variable: Performance of Insurance Brokerage Firms
 b. Predictors: (Constant), Process Innovation

Source: Research data, 2024

The regression coefficient results, as shown in Table 4, indicate that the constant coefficient (β) was 0.764, while the coefficient for the independent variable (insurance process innovation) was 0.759. This results in the following model equation: $Y = 0.764 + 0.759X_1$. This means that a one-unit increase in insurance process innovation could lead to a 75.9% improvement in the performance of insurance brokerage firms in Kenya.

The results also show that the P-value for the independent variable was 0.000, which is less than the significance level of 0.05. This indicates that insurance process innovation has a statistically significant influence on the performance of insurance brokerage firms. Therefore, the null hypothesis was rejected, and the study concluded that insurance process innovation positively affects the performance of insurance brokerage firms in Kenya.

Table 4. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.764	.201		3.800	.000
	Process Innovation	.759	.058	.725	13.201	.000

a. Dependent Variable: Performance of Insurance Brokerage Firms

Source: Research data, 2024

Discussion

The study assessed the effect of insurance process innovation on the performance of insurance brokerage companies in Kenya. The findings revealed that most insurance brokerage firms had improved the process of underwriting policies and claims, making it easier than before. However, many of these firms lacked efficient evaluation criteria for insured assets and services. Respondents noted that their firms had eliminated non-value-adding procedures in the underwriting process, and customer waiting times had decreased compared to previous periods. Additionally, the study found that many insurance brokerage firms did not consistently streamline the delivery process of insurance certificates to enhance customer value. The adoption of digital mechanisms, including online services for easier access, was not effectively implemented in most surveyed firms. Similarly, the use of modern communication tools, such as chatbots for round-the-clock customer engagement, was largely underutilized. The inferential results indicated that insurance process innovation had a significant effect on the performance of insurance brokerage firms in Kenya.

D. CONCLUSION

The study concluded that insurance process innovation significantly impacts the performance of insurance brokerage firms in Kenya. It was determined that improving existing systems and processes, along with introducing new service delivery methods, are essential drivers of performance by enhancing customer value. The research also indicated that the declining performance of insurance brokerage firms in Kenya may be attributed to their ineffective adoption of insurance process innovations, which hinders their ability to meet customer needs and expectations. To enhance their performance, insurance brokerage firms, through their management teams, should prioritize effective insurance process innovations. Customers expect processes to be flexible, efficient and advanced to accommodate their evolving needs. To build customer confidence and improve performance, insurance companies must implement seamless systems and processes that are cost-effective and time-efficient. This approach will enhance customer value and, in turn, improve the firms' overall performance. Furthermore,

the Insurance Regulatory Authority (IRA) should intervene to support insurance brokerage firms by promoting learning initiatives and fostering an environment of innovation among entrepreneurs, ultimately leading to enhanced performance and service delivery.

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