The Moderating Effect of Regulatory Framework on 4Ps of Innovation Strategies and Competitive Advantage of Insurance Companies in Nigeria

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Abstract

This study investigated the moderating effect of regulatory framework on 4Ps of innovation strategies and the competitive advantage of insurance companies in Nigeria. The cross-sectional descriptive research design and purposive sampling technique were employed. Data was collected from 54 insurance companies through structured questionnaires. The hierarchical multiple regression analysis was employed to test the research hypotheses. The results of findings indicated that product, process, and position innovation have a significant effect on competitive advantage of insurance companies. However, paradigm innovation showed an insignificant effect on competitive advantage. Moreover, a stricter regulatory framework reduces the positive impact of innovation strategies on competitive advantage. While innovation is crucial for Nigerian insurance companies to stay ahead, the regulatory framework can either help or hinder this effort. It was recommended that insurance companies should focus on improving their product, process and position innovation to meet the growing needs of individuals and businesses. Also, the government through the National Insurance Commission (NAICOM) should design regulatory policies that encourage growth, rather than stifle innovation in the insurance sector. Future research could explore how regulatory framework moderates between the 4Ps of innovation strategies on competitive advantage of commercial banks, manufacturing and the telecommunication sector to determine how different sectors of the Nigerian economy react to the measures under study.

Keywords: Competitive advantage, innovation, regulatory framework, insurance companies

1. Introduction

Innovation has long been recognised as an essential component of competitive advantage, ensuring the long-term sustainability, growth, and success of modern business enterprises in a dynamic and evolving competitive landscape. As competition increases, the corporate landscape changes due to globalization,

technological advances, economic volatility, sociopolitical influences, influence on consumer preferences, and unpredictable marketing dynamics (Farida & Setiawan, 2022). According to Omede and Aghanenu (2021) innovation is an essential component for the economic development, expansion, and survival of developing and emerging economies. Innovation comprises various dimensions that are crucial for insurance companies to adapt and thrive. This research focuses on the 4Ps of innovation; product, process, position, and paradigm to provide a systematic approach to examine the extent of innovation capabilities within the company to gain a competitive edge (Francis & Bessant, 2005).

While the 4Ps of innovation strategies are thought to be useful in gaining a competitive advantage, their effectiveness can be influenced by regulatory framework. According to Mishra and Kumar (2021), the regulatory framework is the supporting infrastructure that controls and implements the course of law, rule, or action that allows markets to function efficiently by creating a conducive environment for increased investment, private sector growth, and market-led economic growth. In contrast, the highly regulated insurance sector's major compliance criteria may present significant barriers to innovation, as the impact of regulation on innovation has been assessed as somewhat ambivalent (Blind, 2012; Hajela, 2024).

Previous studies by (Tamunomiebi & Okorie, 2019; Mugo & Namada, 2020; Kisuya *et al*., 2023) consistently showed a positive relationship between different types of innovation (product, process and marketing innovation) and organizational performance or competitive advantage. These studies provided a strong foundation for the present study's focus on innovation strategies. Additionally, a previous study by Kisuya *et al*. (20203) directly found that regulatory framework moderates the relationship between innovation strategies and competitive advantage in Kenyan insurance companies. This study is crucial as it directly supports the overall aim of the present study. Tessarolo *et al*. (2023) highlighted the importance of strategic positioning and how it interacts with market competition to affect performance, whereas Achilov (2016) discussed marketing role in global efficiency and competitive advantage, both of which provide a strategic context relevant to this study and possible marketing innovation implications on any of the four the 4Ps of innovation.

To address the shortcomings of previous literature, the present study aims to fill an important gap by focusing specifically on the Nigerian insurance industry because the regulatory environment and market dynamics are likely different from

those of Kenya and India. The study also focuses on examining all four Ps of innovation and exploring how regulatory framework affects the relationship between innovation and competitive advantage in the insurance industry. Thus, the following research hypotheses were tailored to test each of the 4Ps of innovation strategies on competitive advantage and the moderating role of the regulatory framework.

H_1: Product innovation does not affect competitive advantage.

H_2: Process innovation does not affect competitive advantage.

H_3: Position innovation does not affect competitive advantage.

H_4: Paradigm innovation does not affect competitive advantage.

H_5: The moderating effect of the regulatory framework on (a) product (b) process (c) position and (d) paradigm innovation such that the higher the regulatory framework, the lower the influence of product innovation, process, position and paradigm on competitive advantage.

2. Literature Review

2.1 Theoretical Review

Teece and Pisano (1994) introduced the dynamic capability theory to explain how firms achieve and sustain competitive advantage. Dynamic capabilities focus on how organisations achieve and maintain competitiveness by adapting to a constantly changing and unpredictable business environment. Teece *et al*. (1997) defined dynamic capacity theory as the firm's ability to integrate, build, and reconfigure internal and external competencies to respond to rapidly changing circumstances. Similarly, it represents an organization's ability to actively build, expand, or adapt its resource base (Helfat *et al*., 2007). Ellström *et al*. (2022) proposed that in a dynamic environment, a firm's resources may become constrained, resulting in a disadvantage when market conditions change. A firm's resources must be continuously developed through innovation to gain long-term competitive advantages and remain competitive in a dynamic market (Ambrosini *et al*., 2009). Eisenhardt and Martin (2000) argue that organisations in generally stable markets must have dynamic skills to acquire, develop, integrate, and rearrange resources in response to market changes.

Basically, dynamic capability theory would help insurance companies maintain a competitive advantage. It is about quickly learning and adapting using new tech and skills that allow them to identify and grasp opportunities through innovation. By constantly changing and improving, they stay competitive, especially when new regulations emerge or markets shift.

2.2 Empirical Review

Tessarolo *et al*. (2023) investigated how generic positioning strategies, such as cost leadership and product differentiation, whether executed simply or in a hybrid form, affect firm performance, as well as the moderating role of product market competition. The findings of their study suggest that enterprises that implement a hybrid strategy outperform those that use different approaches. The level of market competition influences the relationship between strategic positioning and operational performance.

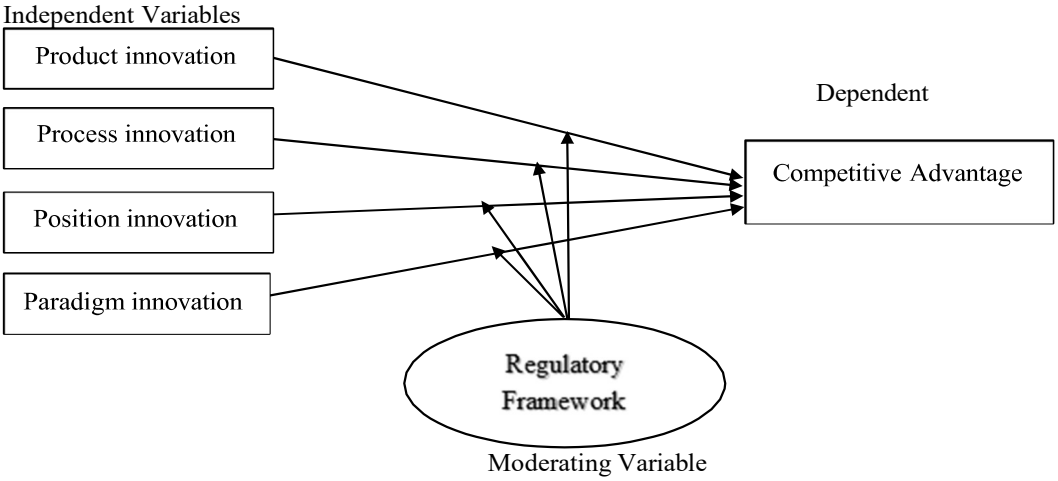
Kisuya *et al*. (2023) sought to determine the impact of innovation strategies on insurance firms' competitive advantage in Kenya. The study's findings indicated that product, process, and marketing innovation had a positive and significant impact on competitive advantage. Additionally, the regulatory framework was discovered to significantly moderate the relationship between innovation strategies and competitive advantage. The study found that innovation strategies (product, process, and marketing innovation) are critical in determining competitive advantage.

Mugo and Namada (2020) examined process innovation and competitive advantage in telecommunication companies. The result obtained from the linear regression model showed that process innovation has a significant effect on competitive advantage. It was recommended that telecommunication companies should design a process that provides optimum returns and the use of disruptive technology.

Tamunomiebi and Okorie (2019) investigated the relationship between product innovation and organizational performance among insurance companies. The findings revealed a relationship between product innovation and organizational performance indicators such as increased profitability and market share. As a result, the study recommended the implementation of robust product innovation policies to improve service quality and overall organisational performance. It was recommended that robust product innovation policies be implemented to improve service delivery quality and overall organizational performance.

Achilov (2016) examined a new marketing paradigm for creating global efficiency and competitive advantage for countries. The study outlined how marketing plays a role in providing global efficiency during periods of global trends for efficiency. It also addressed key issues of marketing that lead to a negative perception and periodic economic crises in economies. The study emphasised the importance of assessing marketing issues and proposing ideas for a new marketing paradigm to improve global efficiency in a variety of settings.

Figure 1. Conceptual framework on 4P's of innovation strategy, regulatory framework and competitive advantage



Source: Authors, 2024

3. Methodology

A cross-sectional descriptive research design was adopted in this study where data were collected and analysed from different insurance companies at a time. The targeted population of the study was 54 licensed insurance companies in Nigeria by the National Insurance Commission (NAICOM, 2024). A purposive sampling technique was adopted in this study. One key limitation of the adopted sampling method is that the sample may not represent the broader population for generalization due to the researcher's selection criteria of employees in management positions. However, it enabled the selection of research subjects based on their existence in a population of interest, qualities, experiences, or other criteria. The sample was chosen to reflect a group or population that is the objective of the investigation (Stratton, 2024). Data was therefore collected from

employees in the managerial cadre using a structured 5-point Likert scale questionnaire on the 4ps of innovation, competitive advantage and regulatory framework. In the opinion of Saunder *et al*. (2009) Likert scale shows how respondents strongly disagree or strongly agree with statements that form the questions. The hierarchical multiple regression method of analysis was employed to assess the individual impact of each independent variable (product, process, position and paradigm) on the dependent variable (competitive advantage) as well as the effect of interactions between the moderating variable (regulatory framework). This method of analysis was also employed to identify which of the independent variables are most influential in predicting competitive advantage, as well as any potential interactions between the variables (Lewis, 2007).

3.1 Model Specification

The model employed in this study to explain the moderating effect of regulatory framework on 4P's of innovation strategy and competitive advantage of insurance companies in Nigeria was adapted and modified from the study of Kisuya *et al*. (2023) who examined the effect of innovation strategies on the competitive advantage of insurance firms in Kenya. The model showed which variables are included in the study and how it is tailored to the study's specific unit of analysis and hypotheses while ensuring the reproducibility of the research (Wulferth, 2013).

The model for this study is therefore specified as;

$$CA = f(PRD, PRC, POS, PDM) \ldots\ldots (i)$$

$$CA = a + \beta_1 PRD + \varepsilon \ldots\ldots (ii)$$

$$CA = a + \beta_1 PRD + \beta_2 PRC + \varepsilon \ldots\ldots (iii)$$

$$CA = a + \beta_1 PRD + \beta_2 PRC + \beta_3 POS + \varepsilon \ldots\ldots (iv)$$

$$CA = a + \beta_1 PRD + \beta_2 PRC + \beta_3 POS + \beta_4 PDM + \varepsilon \ldots\ldots (v)$$

$$CA = a + \beta_1 PRDz + \beta_2 PRCz + \beta_3 POSz + \beta_4 PDMz \ldots\ldots (vi)$$

Where: CA = Competitive Advantage, PRD = Product Innovation, PRC = Process Innovation, POS = Position Innovation, PDM= Paradigm Innovation, Z= Regulatory Framework (Moderator Variable), β= beta coefficients, ε= Error term and α = Constant.

4. **Results and Discussions**

Here, the descriptive statistics and analysis of collected data were presented.

Table 1. Descriptive Statistics

Variables	**Mean**	**SD**	**Min.**	**Max.**	**N**
Independent Variables					
Product innovation	3.07	0.544	2.00	4.00	54
Process innovation	3.21	0.633	1.75	4.00	54
Position innovation	3.16	0.642	1.75	4.00	54
Paradigm innovation	3.26	0.504	2.25	4.00	54
Dependent Variable					
Competitive Advantage	3.24	0.538	2.00	4.00	54
Moderating Variable					
Regulatory framework	3.08	0.453	1.75	4.00	54

Source: Authors Computation, 2024

Table 1 shows the results of the descriptive analysis. The data revealed that the average value for product innovation was 3.07 out of 4 and a standard deviation of 0.544. This suggests that insurance companies are focused on product innovation, while standard deviation showed the responses were not too far from the average.

Process innovation had an average mean of 3.21 out of 4.0. The score showed that process innovation is a little higher than product innovation which suggests that insurance companies focus more on improving their internal processes and a standard deviation of 0.633 showed a reasonable spread of responses.

Position innovation had an average mean of 3.16 which is closer to product innovation. This implies a moderate effort by insurance companies in pursuing how policyholders perceive their insurance policies. A standard deviation of 0.642. a reasonable spread of responses.

The average mean for paradigm innovation was 3.26, with a standard deviation 0.504. This means that insurance companies are more focused on significant changes in their beliefs, values or business models.

Also, competitive advantage had an average mean of 3.24 and a standard deviation of 0.504 which shows that insurance companies perceive themselves as having a fair level of competitive advantage and will need to improve.

Finally, the regulatory framework had an average mean of 3.08 and a standard deviation of 0.453. This shows that on average, rate the regulatory framework as moderately supportive or challenging and it is not extremely high and not extremely low. This implies that regulatory framework could play a significant effect on how innovation influences competitive advantage.

Table 2: Hierarchical Multiple Regression

Variables	**Model 1**		**Model 2**		**Model 3**		**Model 4**		**Model 5**	
		CI:95%		**CI:95%**		**CI:95%**		**CI:95%**		**CI:95%**
PRD	0.61***	0.39, 0.82	0.41***	0.19, 0.62	0.29***	0.08, 0.50	0.27***	0.05, 0.48	0.26***	0.05, 0.47
PRC			0.44***	0.19, 0.56	0.13***	-0.13, 0.36	0.13***	-0.13, 0.36	0.15***	-0.12, 0.37
POS					0.47***	0.13, 0.65	0.35***	0.01, 0.57	0.36***	0.02, 0.58
PRD							0.19***	-0.56, 0.52	0.18***	-0.08, 0.50
Z _X_PRD									0.11***	-0.11, 0.46
Model Fit Statistics										
F-value	30.79***		16.79***		9.27***		2.63***		0.51***	
R^2	0.37		0.53		0.60		0.62		0.64	
ΔR^2	0.36		0.51		0.58		0.59		0.57	
Sig. F Change	.000		.000		.004		.112		.459	

Note: *** $P < 0.05$

Source: Authors Computation, 2024

The results of the hierarchical regression (Table 2) show that the inclusion of product innovation accounted for 37% variance in competitive advantage of insurance companies, $R^2 = 0.37$, $\Delta R^2 = 0.36$, $F(1, 52) = 30.79$, $P < 0.05$, and the analysis showed evidence of a significant effect of product innovation on competitive advantage ($\beta = 0.61$, CI = 0.39, 0.82, $P = .000$). Thus, research hypothesis 1 was rejected.

The inclusion of process innovation into model 2 added 51% variance in predicting the competitive advantage of insurance companies, $\Delta R^2 = 0.51$, $F(1, 51) = 16.79$, $P< 0.05$, and the analysis showed a significant effect of process innovation on competitive advantage ($\beta = 0.44$, CI = 0.19, 0.56, $P =.000$). Thus, research hypothesis 2 was rejected.

The analysis showed that the addition of position innovation showed an additional 58% variance in the competitive advantage of insurance companies, $\Delta R^2 = 0.58$, $F(1, 50) = 9.27$, $P < 0.05$, and it significantly predicted competitive advantage ($\beta = 0.47$, CI = 13, 0.65, $P = .004$). Thus, research hypothesis 3 was rejected.

Also, the analysis showed that the addition of paradigm innovation showed an additional 59% variance in the competitive advantage of insurance companies, $\Delta R^2 = 0.62$, $F(1, 49) = 2.63$, $P < 0.05$, and it does not significantly predict competitive advantage of insurance companies ($\beta = 0.19$, CI = -0.56, 0.52, $P = .112$). Thus, research hypothesis 4 was accepted.

The analysis further showed that only paradigm innovation interacted with the regulatory framework and the inclusion accounted for 57% variance in predicting competitive advantage, $\Delta R^2 = 0.57$, $F(2,47) = 0.51$, $P < 0.05$, and it significantly reduced the effect of paradigm innovation on competitive advantage ($\beta = 0.11$, CI = -0.11, 0.46, $P = .459$). Thus, hypothesis 5 was accepted.

4.1 Discussion of Findings

The result obtained from the study showed that product innovation has a significant effect on competitive advantage and hypothesis one was rejected. The finding is consistent with previous studies which showed that there is a positive association between product innovation and measures of organizational performance (Tamunomiebi & Okorie, 2019). The findings indicated that product innovation should be an ongoing process that will serve as a key driver of insurance companies' competitive strategy by consistently introducing new and improved products that would attract new customers and retain existing ones.

Also, the result showed that process innovation has a significant effect on competitive advantage. Therefore, hypothesis two was rejected. The finding is consistent with previous studies which showed a significant relationship between process innovation and competitive advantage (Mugo & Namada, 2020). This suggests that insurance companies that innovate their processes for designing and delivering products are more likely to be competitive.

Furthermore, the result showed that positional innovation has a significant effect on competitive advantage, thus hypothesis three was rejected. The finding is contrary to the study of Tessarolo *et al*. (2023) investigated how generic positioning strategies, such as cost leadership and product differentiation, whether executed simply or in a hybrid form, affect firm performance, and the moderating influence of product market competition. This implies that insurance companies must carefully analyse their market position, identify opportunities for differentiation, and innovate to capitalize on those positions.

The result showed that paradigm innovation has an insignificant relationship on competitive advantage, thus hypothesis four was accepted. The finding is inconsistent with the study of Achilov (2016) which shows that the marketing paradigm plays a role in providing global efficiency during periods of global trends for efficiency. The findings imply that insurance companies should focus less on paradigm innovation and resources allocated to paradigm innovation should be invested in other innovation strategies for better competitiveness.

The fifth hypothesis on the moderating effect of the regulatory framework of the (a) product (b) process (c) position and (d) paradigm innovation such that the higher the regulatory framework, the lower the influence of product innovation, process, position and paradigm on competitive advantage. The analysis revealed that the higher the regulatory framework, the lower the influence of innovation strategies on competitive advantage. The finding is inconsistent with the study of kisuya *et al.* (2023). This suggests that insurance companies operating in highly regulated environments should anticipate lower returns on adopted innovation strategies and should focus on innovation strategies that are less affected by regulation.

5. Conclusion and Recommendations

Based on findings from this study, product, process and position innovation have a positive influence on the competitive advantage of insurance companies. Contrarily, paradigm innovation has an insignificant influence on competitive

advantage. Furthermore, the moderating effect of the regulatory framework was seen to have reduced the effect of paradigm innovation strategies on competitive advantage. It was concluded that innovation has become an important strategy for insurance companies to leverage in achieving competitive advantage, a strategy that should be part of their strategic plan.

It was therefore recommended that insurance companies in Nigeria should improve on their innovation strategies by designing insurance policies that meet the growing needs of individuals and businesses and also enhance competitiveness. Also, the government through the National Insurance Commission (NAICOM) should design regulatory frameworks that reflect the current demand of the Nigerian insurance industry and to also align with emerging risks and insurance products to encourage innovations among insurance companies in Nigeria. The management of insurance companies should adopt the 4P of innovation strategies to steer competition by embracing product innovation, process innovation, and position innovation. One key potential barrier is that the findings and recommendations of this study do not apply to other sectors of the Nigerian economy. The study was limited to insurance companies in Nigeria and therefore, the result of findings could not be generalized to insurance companies in other countries. However, future studies should be conducted to understand why the findings on paradigm innovation deviate from previous findings by Achilov (2016). Overall, future studies should explore the how regulatory framework moderates between the 4Ps of innovation strategies on competitive advantage of commercial banks, manufacturing and the telecommunication sector to determine how different sectors of the Nigerian economy react to the measures under study.

References

Achilov, N. (2016). A New marketing paradigm for creating global efficiency and competitive advantage of countries. *Journal of Accounting & Marketing, 05*(04), 1-3. Doi:10.4172/2168-9601.1000189

Ambrosini, V., Bowman, C. & Collier, N. (2009). Dynamic capabilities: an exploration of how firms renew their resource base. *British Journal of Management, 20*(1), 9-24.

Blind, K. (2012). The influence of regulations on innovation: A quantitative assessment for OECD countries. *Research Policy, 41*(2), 391-400.

Eisenhardt, K.M. & Martin, J.A. (2000). Dynamic capabilities: what are they?. *Strategic Management Journal, 21*(10-11), 1105-1121.

Ellström, D., Holtström, J., Berg, E. and Josefsson, C. (2022), "Dynamic capabilities for digital transformation". *Journal of Strategy and Management, 15*(2), 272-286. https://doi.org/10.1108/JSMA-04-2021-0089

Farida, I. & Setiawan, D. (2022). Business Strategies and Competitive Advantage: The Role of Performance and Innovation. *Journal of Open Innovation: Technology, Market, and Complexity, 8*(3), 1-16. Doi:10.3390/joitmc8030163.

Francis, D. & Bessant, J. (2005). Targeting innovation and implications for capability development. *Technovation, 25*(3), 171-183.

Hajela, S. (2024). Overcoming innovation barriers: How CIOs can drive continuous innovation and lead transformation. Retrieved December, 2024 from https://cioindex.com/reference/overcoming-innovation-barriers-cio-drive-innovation-lead-transformation/

Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D.J. & Winter, S.G. (2007). *Dynamic capabilities: Understanding strategic change in organizations*. Blackwell Publishing, Oxford.

Kisuya, B., Kihara, A. & Macheru, J. (2023). Innovation strategies and competitive advantage of insurance firms in Kenya. *Journal of Business and Strategic Management, 8*(1), 1-26.

Lewis, M. (2007). Stepwise versus hierarchical regression: Pros and Cons. Pape presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.

Mishra, B. & Kumar, A. (2021). How does regulatory framework impact sectoral performance? A systematic literature review. *International Journal of Productivity and performance management, 72*(5), 1419-1444. https://doi.org/10.1108/IJPPM-07-2021-0398

Mugo, P.C. & Namada, J.M. (2020). Process innovation and competitive advantage in telecommunication companies. *International Journal of Business Strategy and Automation, 1*(4), 40-55.

National Insurance Commission (2024). Insurance industry. Retrieved November, 2024 from https://www.naicom.gov.ng/insurance_industry

Omede, K.N., & Aghanenu, A. (2021). Innovation and entrepreneurship performance in Aba, Abia State, Nigeria. *Journal of Management: Small and Medium Enterprises (SMEs), 14*(3), 257-275.

Saunders, M.N.K., Leis, P. & Thornhill, A. (2019). *Research Methods for Business Students* (8th Ed.), Pearson, New York.

Stratton, S. J. (2024). Purposeful Sampling: Advantages and Pitfalls. Prehospital and Disaster Medicine, 39(2), 121–122. doi:10.1017/S1049023X24000281

Tamunomiebi, M. D., & Okorie, P. N. (2019). Product innovation and organizational performance of insurance companies in Rivers State, Nigeria. *The Strategic Journal of Business & Change Management, 6*(3), 428 – 436.

Teece, D.J. (2007). Explicating dynamic capabilities: the nature and micro-foundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319-1350.

Teece, D.J. & Pisano, G. (1994). The dynamic capabilities of firms: an introduction. *Industrial and Corporate Change, 2*(3), 537-556

Teece, D.J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509-533

Tessarolo, G. L., Azolin, L. G., & Louzada, L. C. (2023). The Effect of the Positioning Strategy on the Firms' Performance Moderated by the Product Market Competition. *BAR-Brazilian Administration Review, 20*(4), 1-14. https://doi.org/10.1590/1807-7692bar2023210124

Wülferth, H. (2013). Model Specification. In: Managerial Discretion and Performance in China. Contributions to Management Science. Physica, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-35837-1_4.