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EFFECT OF STRATEGIC INNOVATION ON THE OPERATIONAL PERFORMANCE OF AIRLINES: AN EMPIRICAL INVESTIGATION OF KENYA AIRWAYS

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Abstract

Scholars posit that strategic innovation has the capability of a firm to align its innovation activities with its overall business strategy and thus achieve superior long-term performance. However, many studies on innovation strategies are vague about the actual importance of different innovation strategies. This paper highlights how different strategic innovation practices, such as service innovation, process innovation, and business model innovation, can influence the operational performance of Kenya's airline sector. The study is guided by the resource-based view theory in a correlational research design. The study population constituted 4705 employees of Kenya Airways (KQ), who comprised managers and employees, out of which a sample of 355 respondents was chosen using Cochran's formula. Pilot results in N=36 showed a 25-item instrument with a reliability of Cronbach's alpha coefficient ranging from 0.80 to 0.86. The study found that strategic innovation—comprising service, process, and business model innovation—positively and significantly influenced ($R^2=65.9\%$, $p<.001$) Kenya Airways' operational performance. Service innovation emerged as the strongest predictor ($\beta = 0.411$, $p < .001$), followed by process innovation ($\beta = 0.298$, $p < .01$) and business model innovation ($\beta = 0.245$, $p < .05$), indicating that while all three contribute to efficiency and competitiveness, service and process innovations have a greater immediate impact on operational outcomes. In



conclusion, Strategic innovation significantly boosts Kenya Airways' operational performance, with service and process innovations driving the strongest immediate effects and business model innovation adding long-term value. Therefore, the study recommends that Kenya Airways should focus on enhancing service and process innovations while selectively adopting business model innovations to diversify revenue and sustain competitiveness.

Keywords: strategic innovation, service innovation, process innovation, business model innovation, and operational performance

INTRODUCTION

Strategic innovation as the capability of a firm to align its innovation activities with its overall business strategy and thus achieve superior long-term performance (Lichtenthaler and Lichtenthaler, 2009). Strategic innovation is believed to create superior performance in the organization that adopts it (Walker, 2004). As a result of strategic innovation practices, competitiveness has grown around the world in different business industries (Juma & Lilly, 2014). Strategic innovation not only drives growth but also enhances resilience by enabling organizations to anticipate and respond to market disruptions and emerging trends. The four different types of strategic innovations include service /product innovation, process innovation, marketing innovation, and Business Model innovation (Chen, Hsiao, Chen & Lee, 2018).

The first form of innovation is Process innovation, which is conceived as improving the processes and procedures utilized in the production and delivery of different products and services (Huang & Rice, 2012). The primary goal of process innovation is to generate a notable increase in productivity or to drive down costs significantly. This approach can help organizations achieve major reductions in process cost, improvements in quality, service levels, and other business objectives (Torfing & Triantafillou, 2016). The second form of strategic innovation is called service innovation, which is perceived as innovation taking place in the various contexts of services, including the introduction of new services or incremental improvements of existing services (Durst, Mention, & Poutanen, 2015). Further, Durst et.al (2015) contends that service innovation is intrinsically different from a "product", as it usually lacks the tangible nature of product innovations. The other form of strategic innovation is Business model innovation, which was conceived by Chesbrough and Rosenbloom (2002) as the process of creating, modifying, or defining the fundamental structure and components of a business model to create new value propositions, capture new market opportunities, and gain a competitive advantage.

Organizational performance refers to the extent to which a particular organization achieves its goals and objectives within a given time frame, while taking into account the resources used to achieve the objectives (Chowdhury, 2017). Organizational performance is a broad phenomenon that encompasses achievements by a firm in terms of market operations, growth, and profitability over a period of time (Feng et al., 2020). Operational performance measures how well a company performs its core business activities. It's measured using key performance indicators (KPIs), usually quantifiable measures of a process, process step, or program. This paper focused on aspects of the operational performance of the airline industry, including operating costs, operating revenues, fleet size, load factor, passengers carried, revenue passenger kilometers (RPK), and available seat kilometers (ASK). This is particularly important because Kenya's airline industry has faced many operational challenges, as indicated by its mid-year results of 2025. For instance, according to the Kenya Civil Aviation Authority (KCAA) of 2025, Kenya Airways reported a Ksh 12.2 billion after-tax loss, down from a profit of Ksh 513 million in 2024. Similarly, the airline suffered a 19% decline in turnover from Ksh 91.5 billion in 2024 to 74.5 billion in 2025. Additionally, the airline reported a 19% decline in passenger revenue from Ksh 5.96 billion in 2024 to Ksh 4.862 billion. Moreover, there was a decline of 8% in Cargo Volume from 35,087 tons in 2024 to 32,350 tons in 2025. Finally, there was also a reported decline of 14% in passenger numbers from 2.5 million passengers in 2024 to 2.18 million in mid-2025 (KCAA, 2025).

The aviation sector contributes approximately 1.1% to Kenya's GDP and supports over 137,000 jobs directly and indirectly (KCAA, 2024). Additionally, airlines such as Kenya Airways provide essential air transport services for business and leisure travelers, supporting economic growth and integration into global markets. However, despite its economic significance, the Kenyan airline industry has been facing operational performance challenges in recent years (KCAA, 2025)

LITERATURE REVIEW

A review of extant literature reveals that empirical studies on the relationship between strategic innovation and firm performance exist, but with an indifferent focus and context. For instance, a study (Alqahtani & Srinivasan, 2019) examined the effect of strategic innovation on firm performance in the Saudi Arabian construction industry and concluded that strategic innovation has a significant positive effect on firm performance. However, the study used self-reported data, which may cause biases in their findings and are not suitable for wider generalization. Feng et al. (2020) conducted a quantitative analysis on the relationship between service innovation and performance, and the outcome of the analysis revealed that service

innovation contributes to a business's performance considerably. However, the use of a small sample size and the possibility of non-representation of the larger population make it challenging to extrapolate the study's conclusions. In Kenya's airline sector, Farah (2015) investigated the relationship between strategic innovations and airline performance, and the findings revealed that there is a significant positive relationship between Kenyan airlines' performance and strategic innovations, including technology and service advances. However, Farah's (2015) research employed descriptive statistics with restricted capacity for inference. Although they are useful for describing data, descriptive statistics cannot be used to draw conclusions or infer relationships or causalities.

In Nigeria, Olughor (2015) conducted a study to determine the effect of innovation on the performance of SMEs, and the study results showed a positive and significant relationship between service innovation and market performance of the SMEs in Nigeria. Elsewhere, Polder et al. (2010) find that product and process innovations do not exert a positive effect without organizational innovation and conclude that the strongest productivity effects are derived from organizational innovation. Recently, Aldieri et al (2021) have studied the relationship between product, process, organizational, and marketing innovation activities combined with human and physical capital. They concluded that combining innovation types often increases the positive effects on a firm's productivity. However, Aldieri et al (2021) studied innovation types and not innovation strategies. Peter et al. (2024) conducted a study on the influence of different innovation strategies on firm performance, examining 15,000 firms, and found that firm performance was highest among firms with innovative strategies. Johnpaul, Young, and Wei (2024) conducted a study to investigate the impact of a strategic innovation system on firm innovative performance, concluding that it had a negative impact on firm innovative performance. However, Johnpaul et al. (2024) focused on firms' innovative performance rather than operational performance.

In Kenya, Pilisi, Namusonge, and Ngeno (2016) studied the influence of strategic innovation capability on the performance of vendor-managed Retail Medium and Large Supermarkets in Nairobi City and revealed that strategic innovation capability has a positive effect on the performance of retail supermarkets. However, Pilisi et.al (2016) study utilized descriptive research designs, which do not determine cause-and-effect relationships. In Kenya's Mombasa City, Kula and Karale (2022) studied how strategic innovation strategies can influence the organizational performance of the selected five-star Hotels. They concluded that strategic innovation strategies have a positive influence on organizational performance. Kula and Karale's (2022) study used a small sample of 78 respondents, which was deemed insufficient for wider generalization of its findings. Additional empirical evidences include a study (Kanyi and

Kihara, 2022), which studied how innovative strategies can influence the performance of internet service provider companies in Nairobi, Kenya, and concluded that strategic innovation strategies can positively influence the performance of those firms surveyed. However, Kanyi and Kihara (2022) used descriptive research designs, which do not determine cause-and-effect relationships.

From the foregoing reviewed literature, it is obvious that empirical evidence on the relationship between strategic innovation and firm performance exists, but in a different context. However, the majority of the reviewed studies (Pilisi et.al., 2016; Kula and Karale, 2022; Johnpaul et.al, 2024; Kanyi and Kihara, 2022; Olughor, 2015; Farah, 2015; Feng et al., 2020; Alqahtani & Srinivasan, 2019) that looked at strategic innovation do not consider an aggregated approach that seeks to combine all facets of strategic innovations, like service innovation, process innovation, and business model innovation in a single study. Additionally, reviewed studies did not focus on the multiple-criteria approach of operational performance evaluation in the Airline industry, such as operating costs, operating revenues, fleet size, load factor, passengers carried, revenue passenger kilometers (RPK), and available seat Kilometers (ASK). Instead, some studies (Aldieri et al, 2021) focused on firm productivity, while other studies (Farah, 2015; Feng et al., 2020; Alqahtani & Srinivasan, 2019) focused on overall firm performance, which are not standard measures of operational performance in the Aviation Industry. Moreover, many studies (Pilisi et.al., 2016; Kula and Karale, 2022; Johnpaul et.al, 2024; Kanyi and Kihara, 2022; Olughor, 2015; Farah, 2015; Feng et al., 2020; Alqahtani & Srinivasan, 2019) were done in other sectors such as the SME sector, Hospitality sector, Retail supermarkets, and construction industry, whose context and circumstances do not relate to the aviation sector in the African setting, hence cannot be generalized. Consequently, little is known about the influence of strategic innovation with its three facets (process, service, and Business Model innovation) on the operational performance of the airline industry in Kenya. Therefore, the purpose of the study is to analyze the influence of strategic innovation on operational performance in the Airline Industry in Kenya.

The study was guided by the following specific objectives

- i. To determine the effect of service innovation on the performance of the airline sector in Kenya.
- ii. To establish the effect of process innovation on the performance of the airline sector in Kenya.
- iii. To analyze the effect of business model innovation on the performance of the airline sector in Kenya.

To realize the outcome, the following hypotheses will underpin the study

- i. H01: Service innovation does not have a significant influence on the Operational performance of the airline sector in Kenya.
- ii. H02: Process innovation does not have a significant influence on the Operational performance of the airline sector in Kenya.
- iii. H03: Business model innovation does not have a significant influence on the Operational performance of the airline sector in Kenya.

METHODOLOGY

This study adopted a Correlational research design to obtain empirical data and address the study objectives. The study was anchored by the resource-based view theory. The study was carried out in Kenya Airways' Nairobi Headquarters. The study obtained a sample of 355 respondents, which comprised managers and employees of Kenya Airways (KQ) from a population of 4705 staff using Cochran's formula. To ensure representation from all organizational segments, the final figure was allocated proportionally across departments using stratified sampling as follows: Flight Operations (90), Ground Services & Customer Care (79), Engineering & Maintenance (72), Finance & Administration (45), Human Resources & Training (23), Sales, Marketing & Corporate Affairs (27) and Information Technology (19). A total of 36 respondents were used for a pilot study. Self-administered Questionnaires were used to collect primary data, while secondary data was collected from books, periodicals, and journals. Pilot results in $N=36$ showed a 25-item instrument overall mean reliability of Cronbach's alpha ($\alpha=0.83$), whereas a validity test was done using expert review. To analyze the respondents' demographic data, descriptive statistics, mean, standard deviation, and frequencies were employed. To compute inferential statistics and test hypotheses, regression analysis and ANOVA were employed. The data was presented using tables. The researcher used linear regression analysis to analyze the data. The regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \text{ -----equation 1}$$

Where:

Y = Operational Performance (dependent variable)

β_0 = Constant term (intercept)

$\beta_1, \beta_2, \beta_3$ = Regression coefficients for the independent variables

X1 = Service Innovations

X2 = Process Innovations

X3 = Business Model Innovation

ε = Error term (random disturbance)

The model assumes linear relationships between the independent variables and operational performance. Hypothesis testing was conducted at a 95% confidence level ($p < 0.05$) to determine the statistical significance of each predictor.

RESULTS AND DISCUSSION

Response Rate

The study achieved a 100% response rate as all 355 questionnaires distributed across Kenya Airways' departments were completed and returned. This exceptional rate was achieved through several deliberate measures. First, management approval was obtained before data collection, ensuring organizational support and employee cooperation. Second, questionnaires were administered using electronic formats, providing flexibility and convenience for participants. As a result, the high response rate significantly enhanced data reliability and minimized the risk of non-response bias.

Correlation Analysis

Correlation analysis was conducted to examine the strength and direction of relationships between Service Innovation, Process Innovation, Business Model Innovation, and Operational Performance. Pearson's correlation coefficient (r) was used, with significance assessed at the 0.05 and 0.01 levels.

Table 1: Correlation Matrix (Pearson's r) for Study Variables

Variable	1	2	3	4
1. Service Innovation	1			
2. Process Innovation	.712**	1		
3. Business Model Innovation	.658**	.701**	1	
4. Operational Performance	.745**	.732**	.689**	1

Note. $N = 355$. $p < .01$ (2-tailed).

The results indicate strong, positive, and statistically significant relationships between all variables. Service Innovation shows the strongest correlation with Operational Performance ($r = .745$, $p < .01$), followed by Process Innovation ($r = .732$, $p < .01$) and Business Model Innovation ($r = .689$, $p < .01$). These findings suggest that improvements in innovation strategies are closely associated with enhanced operational performance at Kenya Airways.

Multiple Regression Analysis

Multiple regression analysis was conducted to assess the combined and individual effects of Service Innovation, Process Innovation, and Business Model Innovation on Operational Performance.

Model Summary

The model summary indicated a strong positive relationship between the three innovation constructs and operational performance, with a coefficient of determination (R^2) of 0.659.

Table 2: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of Estimate
1	.812	.659	.655	0.423

Note. $N = 355$. Predictors: Service Innovation, Process Innovation, Business Model Innovation

This implies that 65.9% of the variation in operational performance can be explained by the combined influence of the three predictors, while the remaining 34.1% can be attributed to other factors not included in the model.

Analysis of Variance (ANOVA)

The ANOVA results confirmed that the overall regression model was statistically significant, $F(3,351) = 229.87$, $p < .001$, meaning that the set of predictors collectively provided a reliable explanation for operational performance.

Table 3: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	123.42	3	41.14	229.87	.000
Residual	64.12	351	0.18		
Total	187.54	354			

Regression Coefficients

An examination of the standardized coefficients (β) revealed that Service Innovation had the strongest contribution to operational performance ($\beta = 0.411$, $p < .001$), followed by Process Innovation ($\beta = 0.367$, $p < .001$) and Business Model Innovation ($\beta = 0.284$, $p < .001$).

Table 4: Regression Coefficients

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	0.756	0.128	-	5.91	.000
Service Innovation	0.362	0.041	0.411	8.83	.000
Process Innovation	0.298	0.038	0.367	7.84	.000
Business Model Innovation	0.215	0.035	0.284	6.14	.000

The regression model was in the form $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ and by adding the regression coefficient as shown in Table 4.

This later transformed into: $Y_i = .756 + 0.362X_i + .0298 X_i + 0.215X_i \dots\dots\dots$ equation 2

$t = 5.91 \quad 8.83, \quad 7.84, \quad 6.14$

$R^2 = 0.659$ (65.9%)

These findings suggest that improvements in service design, process efficiency, and business model adaptation all significantly and positively impact the airline's ability to achieve optimal operational outcomes. Furthermore, the relatively low standard errors of the estimates indicate a high level of precision in the coefficient estimates, and the positive unstandardized coefficients confirm that any increase in these innovation measures leads to a corresponding increase in operational performance.

Hypothesis Testing and Discussion

The study aimed to investigate the impact of Service Innovation, Process Innovation, and Business Model Innovation on Operational Performance at Kenya Airways. The multiple regression analysis indicated that the model explained 65.9% of the variance in operational performance, suggesting a strong predictive relationship between the innovation constructs and overall airline performance.

Hypothesis One: Service innovation does not have a significant influence on the Operational performance of the airline sector in Kenya.

The regression results revealed that Service Innovation was the most significant predictor of operational performance, with a standardized coefficient of $\beta = 0.411$, $p < .001$. This indicates that a one-unit increase in Service Innovation leads to an approximate 0.411 unit increase in operational performance, holding other factors constant. Therefore, the null hypothesis above was rejected.

Hypothesis Two: Process innovation does not have a significant influence on the Operational performance of the airline sector in Kenya.

The regression results revealed that Process Innovation had a positive and significant effect on operational performance ($\beta=0.298$, $p<.01$). Therefore, it does imply that a one-unit change in process innovation will lead to a 0.298-unit positive change in operational performance. This suggests that as Kenya Airways enhances its operational processes through automation, standardization, lean practices, and workforce flexibility, the airline experiences measurable improvements in efficiency and productivity. Consequently, the null hypothesis above was rejected.

Hypothesis Three: Business Model innovation does not have a significant influence on the Operational performance of the airline sector in Kenya.

Business Model Innovation also exhibited a positive influence on operational performance ($\beta=0.245$, $p<.05$), albeit weaker than service and process innovations. This indicates that innovative revenue models—such as subscription-based services, freemium models, pay-per-use pricing, and crowdsourcing strategies—support Kenya Airways' financial sustainability and competitive advantage. Therefore, it does imply that one unit change in business model innovation will lead to a 0.245-unit positive change in operational performance. Consequently, the null hypothesis above was rejected.

This finding is in concurrence with the findings of the study (Farah, 2015) that revealed that there is a significant positive relationship between Kenyan airlines' performance and strategic innovations, including technology and service advances. Similar findings were offered by the study (Boon-itt and Wongwanich, 2018), which investigated the relationship between strategic innovation and firm performance in the Thai food industry and found that strategic innovation has a positive effect on firm performance. More support for the study findings was given by a study (Alqahtani & Srinivasan, 2019) that examined the effect of strategic innovation on firm performance in the Saudi Arabian construction industry, which revealed that strategic innovation has a significant positive effect on firm performance. Additional studies (Pilisi et.al., 2016; Kula and Karale, 2022; Johnpaul et.al, 2024; Kanyi and Kihara, 2022; Olughor, 2015; Farah, 2015; Feng et al., 2020; Alqahtani & Srinivasan, 2019) concur with the findings of the current study, which states that strategic innovation capability has a positive effect on the performance of retail supermarkets. However, the result of the current study is at variance with that of the study by Johnpaul et.al (2024), who conducted a study to investigate the impact of a strategic innovation system on firm innovative performance, concluding that it had a negative impact on firm innovative performance.

CONCLUSION

Based on the findings of the first objective, the study concludes that service innovation has the most significant influence on operational performance at Kenya Airways. Enhancements in customer experience, digital integration, and personalized service delivery substantially improve efficiency, customer loyalty, and revenue outcomes. This underscores the critical role of customer-centric strategies and technological advancements in driving operational success. Similarly, based on the findings of the second objective, the findings indicate that process innovation positively contributes to operational performance. Automation, standardization, lean management, and workforce flexibility lead to improved efficiency, cost reduction, and operational reliability. These process improvements ensure optimized resource utilization and faster service delivery, reinforcing operational resilience. On the third objective, the study concludes that business model innovation significantly enhances operational performance, though to a lesser extent than service and process innovations. Alternative revenue models such as subscription services, tiered pricing, and value-added offerings strengthen financial sustainability and competitiveness, supporting long-term operational success.

RECOMMENDATIONS

Based on the foregoing findings and conclusions, the study therefore recommends the following. With regard to service innovation, Kenya Airways should invest heavily in digital service platforms such as mobile check-ins, self-service kiosks, and real-time flight updates to improve customer convenience and operational efficiency. Concerning process innovation, the study recommends that the airline should prioritize automation of key operational processes, including baggage handling, maintenance scheduling, and turnaround management, to reduce delays and human errors. Finally, on business model innovation, the study recommends that Kenya Airways should explore diversified revenue streams such as loyalty subscriptions, tiered pricing models, and ancillary service packages to increase financial sustainability.

LIMITATIONS OF THE STUDY

While this research offers insights into how various strategic innovations influence Operational performance at KQ, this study is not without limitations. Specifically, the study focused on one Airline in Kenya's aviation industry, thereby causing difficulty generalizing findings from one case study to other settings, but this weakness was remedied by a thorough literature review to compensate for the inadequacy, which gave different perspectives regarding the issue.

REFERENCES

- Aldieri, L., Barra, C., Vinci, CP., Zotti, R (2021). The joint impact of different types of innovation on a firm's productivity: evidence from Italy. *Econ Innov N Technol*. 30(2):151–182
- Alqahtani, S. M., & Srinivasan, P. (2019). Strategic innovation, organizational culture, and firm performance: evidence from the Saudi Arabian construction industry. *Journal of Engineering, Design and Technology*, 17(6), 1209-1225
- Chen, K. Y., Hsiao, C. H., Chen, P. Y., & Lee, C. F. (2018). The relationships among different types of market knowledge, ambidextrous learning, and different types of innovations. In Proceedings of International Academic Conferences (No. 8208758). International Institute of Social and Economic Sciences.
- Chesbrough, H. and Rosenbloom, R.S. (2002) The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation's Technology Spin-Off Companies. *Industrial and Corporate Change*, 11, 529-555. <http://dx.doi.org/10.1093/icc/11.3.529>.
- Durst, S., Mention, A.-L., & Poutanen, P. K. (2015). Service innovation and its impact: What do we know about? *Revista Europea de Direccion y Economia de la Empresa*, 21(2), 65-72. <https://doi.org/10.1016/j.iedee.2014.07.003>
- Farah, H. A., Munga, J., & Mbebe, J. (2018). Influence of competitive strategies on performance of commercial airlines in Kenya: A survey of the airline industry in Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(1), 170-189.
- Feng, C; Ma, R & Jiang, L (2020). The impact of service innovation on firm performance: a meta- analysis. *Journal of Service Management*. DOI - 10.1108/JOSM-03-2019-0089.
- Huang, F, & Rice, R (2012). "Openness In Product and Process Innovation, *International Journal of Innovation Management (ijim)*, World Scientific Publishing Co. Pte. Ltd.,16(04),1-24.
- Kanyi, E. G., &Kihara, A. (2022). Influence of innovation strategies on the performance of internet service provider companies in Nairobi Kenya. *Journal of Business and Strategic Management*, 7(3), 1-29.
- Kula, B., & Kavale, S. (2022). Strategic innovation strategies and performance of five-star hotels in Mombasa, Kenya. *The Strategic Journal of Business & Change Management*, 9 (2), 628 – 644.
- Lilly, L., & Juma, D. (2014). Influence of Strategic Innovation on Corporate Performance of Commercial Banks in India: The Case of India Commercial Bank in Kuala Lumpur County. *European Journal of Business Management*, 2(1), 336-341.
- Lichtenthaler, U. & Lichtenthaler, E. (2009). Capability-Based Framework for Open Innovation: Complementing Absorptive Capacity, *Journal of Management Studies*, 46(8),1315-1338. doi:10.1111/j.1467-6486.2009.00854.x
- Johnpaul, O. I., Yang, L., & Wei, F (2024): Strategic innovation system and firm innovation performance: empirical analysis based on dynamic capabilities and knowledge base view, *Technology Analysis & Strategic Management*, DOI: 10.1080/09537325.2024.2320245
- Peter, B., Lene, K., Aleksandrs, S., & Anders Sørensen (2024). Innovation strategies and firm performance, *Journal of Productivity Analysis*, Springer, 62(2), 175-196.
- Pilisi, H. N., Namusonge, & Ngeno. (2016). The Influence of Strategic Innovations Capability on Performance of Vendor Managed Retail Medium and Large Supermarkets in Nairobi City County in Kenya. *Global Journal of Interdisciplinary Social Sciences*, 5(4), 63-73.
- Polder M, Leeuwen G, Mohnen P, Raymond W (2010) Product, process and organizational innovation: drivers, complementarity and productivity effects, *CIRANO- Scientific Publications*. 2010s-28.
- Torring, J & Triantafillou, P (2016). Enhancing Public Innovation by Transforming Public Governance. Cambridge, UK: Cambridge University Press. Pp. 352.
- Salfore, N., Ensermu, M., & Kinde, Z. (2023). Business model innovation and firm performance: Evidence from manufacturing SMEs. 22;9(6).
- Walker, R.M. (2004). Innovation and organizational performance: Evidence and a research agenda. Advanced Institute of Management Research Working Paper, WP No: 002-June.