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Strategic Financial Innovations and Performance of Oil Firms in Nigeria

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Abstract---As today's business environment becomes highly competitive, firms are becoming more aggressive and dynamic in identifying competitive strategies that will ensure profitable existence. Therefore, Innovations provide firms a strategic orientation to overcome the problems they encounter while striving to achieve sustainable competitive advantage. To this end, this study, therefore, examined the impact of strategic innovations on organizational performance, focusing on oil and gas firms (such as Seplat Petroleum Development Company Plc, Masters Energy Oil and Gas Ltd) in Delta and River state, Nigeria. A total of 97 valid structured questionnaire data was collected among five (3) selected firms' staff randomly. And the text of hypotheses was based on Pearson Correlation analysis via SPSS 21 analytical tools. Findings revealed that strategic innovation has an impact on organizational performance. Thus it is concluded that organizational innovation, product innovation, process innovation, and market innovation have a significant relationship with organizational performance. The study recommends that Oil and Gas Companies should expand their product base and devise ways of using the already existing infrastructure to add value to their products and services. Also, Oil and Gas Companies to continue investing in market innovation strategies since they have the highest influence on performance.

Keywords---market innovation, organizational innovation, process innovation, product innovation, strategic innovation.

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Introduction

Strategic innovation is the implementation of new ideas, processes, products, or services (Kodama, 2018). According to Witjara et al., (2019), strategic innovation is a future-focused business development and framework that identifies breakthrough growth opportunities, accelerates business decisions, and creates near-term, measurable impact within the context of a longer-term vision for sustainable competitive advantage. Strategic innovation challenges an organization to look beyond its established business and an important factor for an organization to achieve sustainable competitive advantage and financial performance (Nybakk & Jenssen, 2012).

According to Curado, Muñoz-Pascual, and Galende (2018), innovation is part of the strategy implementation and is a direct requisite for specific strategies (Camisón & Villar-López, 2014; Langerak et al., 2004). Innovation, therefore, serves as a medium of creating new business with exceptional control mechanisms, value addition, and risk reduction. Strategic innovation is essential in improved performance amongst many firms and is reflected by increased profitability and market share growth (Doran & Ryan, 2016). As a result, firms that desire to remain competitive by enhancing their growth capacities and capitalizing on the available opportunities can achieve all these by embracing strategic innovation.

Innovations have become the main source of competitive advantage in a modern business environment (Curado et al., 2018; Feeny & Rogers, 2003). Although being innovative is a risky choice, successful firms must take risks that enable them to reach and sustain high performance (Karabulut, 2015). Proactive firms seize market opportunities and make innovations that give them a competitive advantage that makes them remain market leaders. Innovation entails new products, processes of production, new sources of supply, new markets, and new ways in which businesses carry out their activities (Osuga, 2016). Also, it has been suggested that in service industries like in the Oil and Gas industry, where competition can move very quickly and new players can enter easily because of the viability of the industry in Nigeria, there is a constant need to think strategically about what is going on (Coccia, 2017). This appears to be precise what Oil and Gas firms in Nigeria, in particular, have begun to do in recent years (Hajar, 2015; Ongeti, 2014; Kothari, 2004).

This recommendation that companies must embrace innovation strategies does not take into account whether a firm can improve its activities in pursuit of more complex and advantageous strategies. Hence, even small and medium manufacturing industries must respond by adopting more innovation to establish or sustain a competitive advantage in the marketplace (Drucker, 2014). Strategic innovation directly affects the ability of companies to develop their products to fulfill a wide range of customer and market needs.

Statement of the problem

Innovation is challenging and faces uncertainties that exist in both incremental innovations, such as updated versions or extensions of current products and

processes and radical innovation that is based upon the development or application of new ideas and novel technologies. Uncertainty is inherent in the organizational development of an innovation. Both market and technological uncertainties affect the organizational orientation towards innovation and the activities while implementing innovation (Kuratko & Hoskinson, 2018; Kuratko et al., 2015).

Technological changes have resulted in a short product life cycle making it difficult for companies to maintain a sustained competitive advantage. However, firms that are constantly innovating have a higher chance of survival since several empirical studies have found a positive relationship between innovation and firm performance (Löfsten, 2014; Calisir et al., 2015). On the contrary, other studies have also found that innovations (organizational innovation, process innovation, product innovation, and marketing innovation) have negative effects on performance indicators (Guisado et al., 2013; Kariuki, 2014). While other researchers also argue that the influence is sector-specific. These mixed results and alternative views from different countries and writers are mainly a result of the lack of comprehensive analysis of how multiple innovations influence performance indicators which formed the basis of this study (Malen, 2015; Mirvis et al., 2016; Mwangi & Bwisa, 2013).

Despite the importance of strategic innovations on the performance of firms in Nigeria, no study has been conducted on the impact of strategic innovation on firm performance in the Oil and Gas industry in Nigeria, meanwhile, the few studies conducted on the subject matter are focus on the telecommunication industry thereby neglecting the Oil firms which is the mainstay of the Nigeria economy (Nelson & Winter, 1982; Olannye, 2006). It is against this background, this study is conducted to fill the gap in the literature in the Nigerian context. To produce strategic competitiveness in the new competitive landscape, these Oil and Gas firms have embraced new ways of doing business that not only add value to customers but earn them a premium. Strategic innovation is practiced both for survival, sustenance, and enhance performance. Thus, this study investigates strategic innovation (organizational innovation, process innovation, product innovation, and marketing innovation) about the performance of oil and gas firms in Nigeria (Delegations, 2020; Pisano, 2015; Rubera & Kirca, 2012).

Literature Review

Concept of strategic innovation

Strategic innovation involves the implementation of new ideas involving significant changes in product design or packaging, product placement, product promotion, or pricing (Kanyuga, 2019). Strategic innovations target addressing customer needs better, opening up new markets, or newly positioning a firm's product on the market to increase the firm's sales (Kotler, 2011). Ramus (2018), posits that organizational innovation is the implementation of a new organizational method in the firm's business practices, workplace organization, or external relations. Organizational innovations tend to increase firm performance by reducing administrative and transaction costs, improving workplace satisfaction (and thus labor productivity), gaining access to non-tradable assets

(such as non-codified external knowledge), or reducing costs of supplies (Su et al., 2006; Teece, 1986; Teece, 1999).

Kodama (2018), pointed out that; Strategic innovation is considered a critical requirement for the growth and profitability of organizations. It has a considerable impact on corporate performance by producing an improved market position that conveys competitive advantage and superior performance. A study by Gebauer et al., (2012), found that strategic innovation enhances competitiveness, overall productivity, and value maximization of the firm. The need for strategic innovation is more to private sector organizations operating in an increasingly competitive market and which case innovation is often a condition for survival (Tidd et al., 1997). Organizations that have adopted strategic innovation strategies achieve their success by moving beyond industry norms or „sustaining“ innovations to achieve certain business model innovation, thereby disrupting established competitors and generating value for themselves, their customers, and their shareholders (Bason, 2018).

Strategic innovation is considered to be one of the most important factors influencing firm performance worldwide (Yang, 2014). It refers to the entire process through which companies redesign their business processes and products to enable them to provide more superior products and services to their customers (Seybold, 2014). Strategic innovation refers to the process undertaken by firms, which changes the nature of competition within an industry as well as the gaining of competitive advantage by employing strategies different from their competitors (Afuah, 2009). Innovation does not just refer to activities in the Research & Development department performed for the creation of next-generation products and services; they also challenge the conventional wisdom in particular areas (Belderbos et al., 2015). Innovation involves recreating markets, consumers' needs, and the entire value-delivery chain. Through innovation, companies can also redesign methods used by their businesses, and, ultimately, bring more value to customers in the marketplace (Yang, 2014).

Organizational innovation

Organizational innovation is defined as the creation of valuable and useful new products or services, and more efficient and adaptive administrative mechanisms that support product or service innovation. Thus organizational innovation refers to all parts of the organization, but innovation also can pertain specifically to technological or organizational forms (Le Bas et al., 2015). Chief executive officers who display transformational leadership accelerate organizational innovation by encouraging information sharing, cultivating trust, and fostering shared vision among members. First, transformational leaders develop close emotional ties and higher levels of trust with team members who can then trust one another's intentions regarding decisions and implementation during times of uncertainty and vulnerability (Jiménez & Fuentes, 2013).

Jiménez & Fuentes (2013), posit that knowledge combination capability may be necessary for the success of the innovative performance of organizations' technology. The implications of their findings are that mere possession of knowledge is not enough to obtain benefits from it, what is key, is the ability to

combine this knowledge and capabilities into unique goods and services. For firms to succeed, managers should therefore disseminate and promote knowledge combination capability among all members of their organization to support the development of innovations and generate better results (Therrien et al., 2011; Warnier et al., 2013).

Process innovation

According to Un & Asakawa (2015), process innovation refers to the new techniques and processes introduced into operations that help to promote efficiency or effectiveness, and lower the costs of production and delivery. Process innovation is often a complex and risky activity that requires experienced employees and access to tacit knowledge (Wijethilake et al., 2018; Makur, 2014). When firms obtain technical information and support and leverage on imported advanced technologies their employees can learn skills and knowledge from foreign competitors which can significantly improve process innovation resulting in sustainable competitive advantages (Shu et al., 2015).

Employees are prone to protect existing processes, practices, and routines that enabled their prior development even though they are required to be on the frontline to innovate strategic processes. Rosenbusch et al. (2011), continues to emphasize the need for process innovation to be understood and embraced by the whole organization requiring social impetus, and functional groups coordinated effort resulting in a challenge to link the processes of organization parts to a whole. By doing this the organization promotes process innovation to transform its existing structure and practices strategic innovative practices leading to greater firm performance (Kjellberg et al., 2015; Storbacka & Nenonen, 2015).

Product innovation

Product innovation consists of firms developing new products or new production processes to better perform their operations, in which case the new products could be based on the new processes (Solans, 2003). In the financial services industry, product innovation is viewed as the act of creating and popularizing new financial instruments, technologies, institutions, and markets, which facilitate access to information, trading, and means of payment (Tao, 2012). Product innovation means introducing new products/services or bringing significant improvement in the existing products/services (Polder et al., 2010). For product innovation, the product must either be a new product or significantly improved concerning its features, intended use, software, user-friendly, or components and material. The first digital camera and microprocessors are examples of product innovation. Change in design that brings a significant change in the intended use or characteristics of the product is also considered as a product innovation (OECD, 2005).

Marketing innovation

Market innovation is concerned with improving the mix of target markets and how chosen markets are best served (Mitchell, 2013). Its purpose is to identify better (new) potential markets, and better (new) ways to serve target markets. Skillful

market champions appreciate the specific ways in which different customers buy (Duffie & Rahi, 1995; Koberg et al., 1996). They know that some customers will have a preference for certain types of offers, while other customers will have quite different preferences (Narver & Slater, 1990). This means that the same core product can - and indeed, should - be offered quite differently to different market segments, if the aim is to meet buyers' preferences as closely as possible. There is nothing startlingly new in this. In many markets, profitability turns on the ability to sell the same core product - such as airline or train seats - at different prices to different buyers. What skillful market champions appreciate is that the same core product can be differentiated by varying the support (Hurley & Hult, 1998).

Organization performance

Organizational performance is the single most important determinant of the success of a business. This in turn reflects its ability to effectively implement strategies that achieve institutional objectives (Almatrooshi et al., 2016). Tomal & Jones (2015), define organizational performance as the actual results or output of an organization as measured against that organization's intended outputs. Effective performance measures enable management to measure how well they are doing concerning meeting set goals, customer satisfaction, whether processes are in control, and what needs to be improved which enables managers to make more intelligent decisions (Frambach & Schillewaert, 2002; Armbruster et al., 2008).

Business model effectiveness and organizational leadership as reflected in the relationship between a manager and subordinates and managers' skills are also key to successful firm performance. Leadership influences the way strategies are implemented which affects firm performance. Silva (2014), described the essence of leadership as a conditional relationship that exists between a manager and his or her followers. Successful leadership must be flexible to accommodate change and overcome any hurdles in the quest to achieve organizational objectives. The effectiveness of an organization is also largely dictated by the efficiency of each of its employees which is a function of the organization's leadership (Martin & Grbac, 2003).

Theoretical Review

Knowledge-based theory

This neoclassical theory of the firm was pioneered by Coase (1937), and further elaborated by Penrose (1959). It shifts the conceptualization of the firm from an institution arising from market failure and transaction costs economizing to a progeny of superior knowledge governance. This theory affirms that a firm's ability to innovate is largely determined by the pool of knowledge available within an organization. Whereas the generation of new knowledge has traditionally been connected to a firm's in-house research and development (R&D) activities recent literature points to the benefit from complementarities arising from the advantages of combining internal investments with external resources. In other words, firms stand to benefit more if they open up their innovation processes for external knowledge (Papinniemi, 1999; Aryani et al., 2016; Agbaeze et al., 2017).

Strategic innovation is therefore grounded in the knowledge-based theory of the firm. The theory strengthens organizational innovation strategies as it seeks to link the organization to both internal and external effects. This trend commonly referred to as "Open Innovation" allows firms to access and exploit external knowledge while internal resources are focused on core activities (Lily & Juma, 2014).

Diffusion of innovation theory

Diffusion of Innovation (DOI) Theory, developed by Rogers (2010), explains how, over time, an idea or product gains momentum and diffuses through a specific population or social system. Through diffusion, people adopt the product, behavior, or new idea. The theory presumes that a new idea, practice, or object has a perceived channel, time, and mode of being adopted by individuals or organizations. For adoption to take place, the person must perceive the idea, behavior, or product as new or innovative. In this theory therefore adoption means the decision to fully use innovation as the best alternative and thus the person does things differently from the way they did previously.

Owolabi (2013), states that innovation is an idea, object, or practice, that is perceived as new by an individual or other unit of adoption, and diffusion is the process by which an innovation is communicated within a social system, and adopted or rejected by its members. DOI views innovation as being transferred through certain mediums over time and in a specific social system. The movement of innovation greatly underscores the innovative marketing strategies that a firm employs.

Empirical Review

Laban & Deya (2019), investigated the effect of strategic innovations on organizational performance, focusing on the ICT industry of Nairobi. A descriptive survey design was adopted, focusing on 14 ICT firms in the cellular mobile, data, and internet service segments that control 96.4% of the market share operating in Nairobi County. Data was collected/analyzed using SPSS 21 with the aid of a structured questionnaire from 98 respondents which included chief strategy officers, directors of strategy, and directors of innovation and line managers. Findings indicated that; Market innovation, product innovation has the topmost relationship while organizational innovation had the lowest impact on organizational performance. It's recommended that ICT companies should invest more in research and development activities to ensure new products are launched on time. Also, ICT companies to continue investing more in market innovation strategies for higher performance.

Njeri (2017), assessed the Effects of Innovation Strategy on Firm Performance in the Telecommunications Industry, Kenya. To achieve the objectives, the study targeted 2,970 staff of Safaricom (K) Limited drawn from the customer service department. A descriptive survey research design was adopted; using a structured questionnaire and SPSS to analyze data. The study indicated that product innovation relates positively to the growth and increase in revenues. It was concluded from the results that, among the innovation strategies included in the

study, product innovation strategy had the most influence on the performance of Safaricom (K) Limited. The study recommended that Safaricom (K) Limited should consistently analyze and measure their services operations to enhance operations efficiency. This can be achieved by keeping up with best practices in the global telecommunication sector and integrating these processes in their operations to maintain their competitive advantage.

Orji et al., (2017), conducted a study to determine the Impact of New Products Development on the Profitability of Nigerian Deposit Money Banks. The main objective of the study was to evaluate the impact of new products developed on the profitability of Nigerian deposit money banks. A descriptive survey research design was adopted; data was collected via a structured questionnaire and SPSS 21 was used to analyze all hypotheses raised. The study targeted the entire staff of 24 Nigerian major licensed Commercial/deposit money banks. Findings revealed that there was a positive and significant relationship between new product development and profitability in Nigerian deposit money banks. Based on the results, the study recommended that Nigerian deposit money Banks should pay more attention and intensify their research efforts to provide timely information on product development and other areas of their operation to maximize profit.

Nyathira (2012), assessing the effects of financial innovation on commercial bank's financial performance in Kenya on 30th June 2012. Carolyn studied all 43 registered commercial banks at that time for 4 years. She used secondary data from published central banks' annual reports whereby the independent variable was financial innovations unique to commercial banks while the dependent variable was the consolidated financial performance of all banks. She found out that financial innovation indeed contributes to and is positively correlated to profitability in the banking sector particularly that of commercial banks.

Ngari & Muiruri (2014), in assessing, the relationships between credit cards, mobile banking, the influence of internet banking, and agency banking on the performance of commercial banks in Kenya. They studied 40 commercial banks registered in Kenya by the central bank for the period 2008-2012. They used secondary data from published financial statements whereby the independent variables were credit cards, internet banking, mobile banking, and agency banking and the dependent variable was financial performance. They found out that some banks in Kenya had adopted some financial innovations such as credit cards, mobile, internet, and agency banking, and indeed financial innovations had a great impact on the financial performance of the banks.

Method

The study was conducted focusing on Oil and Gas firms such as Seplat Petroleum Development Company Plc, Masters Energy Oil and Gas Ltd respectively in Delta and River States, Nigeria. The primary data were collected from 103 staff of the aforementioned firms. The research instrument was a 20-item validated structured questionnaire to measure responses. All items were assessed on a five-point Likert scale, ranging from 1-5 (Strongly Disagree to Strongly Agree). Cronbach Alpha was used for estimating the reliability of the questionnaire.

Favorable reliable scores were obtained from all the items since all values were above the coefficient value of 0.6, exceeding the common threshold of Cronbach Alpha value recommended by [Malhotra \(2004\)](#). Out of 103 questionnaires administered, ninety-seven (97) 94.17% were retrieved and properly filled while five (5) 4.54% were not returned. Thus, the sample to be used for the study will be a total of ninety-seven (97) respondents. To test the hypotheses developed, a Pearson correlation coefficient model which expresses the organizational growth and development as a function of strategic innovation was stated.

$$\text{STIN} = f(\text{ORGI}, \text{PI}, \text{PDI}, \text{MKTI}, \text{DIFS}, \text{PERF}) \dots \text{eq1}$$

This can be written in explicit econometric form as:

$$\text{STRIN} = \beta_0 + \beta_1 \text{ORGI} + \beta_2 \text{PI} + \beta_3 \text{MKTI} + \text{DIFS} + \text{PERF} + \text{Eit} \dots \text{eq2}$$

Where:

- STRIN = Strategic Innovation
- ORGI = organizational Innovation
- PI = Process Innovation
- PDI = Product Innovation
- MKTI = Market Innovation
- PERF = Performance (dependent variable)
- B0 = Intercept;
- B1- β_4 = Parameters to estimated
- Eit = Stochastic or disturbance term.

Research Hypotheses

- H₁: There is no significant relationship between Organizational Innovation and Organizational Performance.
- H₂: There is no significant relationship between Process Innovation and Organizational Performance.
- H₃: There is no significant relationship between Product Innovation and Organizational Performance.
- H₄: There is no significant relationship between Marketing Innovation and Organizational Performance.

Test of Hypotheses

This is to test if there is a correlation between all strategic innovation constraints on the performances of oil firms in Nigeria.

H₀₁-H₀₅

Table 1
Correlations

		ORGI	PL	PDI	MKTI	PERF
ORGI	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	97				

PI	Pearson	.432**	1			
	Correlation					
	Sig. (2-tailed)	.000				
PDI	N	97	97			
	Pearson	.550**	.537**	1		
	Correlation					
MKTI	Sig. (2-tailed)	.000	.000			
	N	97	97	97		
	Pearson	.378**	.339**	.399**	1	
PERF	Correlation					
	Sig. (2-tailed)	.000	.001	.000		
	N	97	97	97	97	
	Pearson	.367**	.365**	.398**	.977**	1
	Correlation					
	Sig. (2-tailed)	.001	.020	.002	.001	
	N	97	97	97	97	97

Source: SPSS Version 23 Output, 2020.
Correlation is significant at the 0.01 level (2-tailed).

From table 1 above, the Pearson Correlation, reveals that there was a strong positive correlation with a coefficient (r) value 0.367, 0.365, 0.398, and 0.977 between Organizational Innovation (ORGI), Process Innovation (PI), Product Innovation (PDI), and Market Innovation (MKTI) and Organizational Performance (PERF) among Oil Firms in Nigeria. The P-value was 0.001, 0.020, 0.002, and 0.001 implying that all variables highlighted above are significant to Organizational Performance in the Oil Firms in Nigeria, since they are lesser than the accepted level of 0.05 of 95% confidence interval, thereby accept the alternate hypothesis and reject the null hypothesis which says there are is no significant relationship between Organizational Innovation, Process Innovation, Marketing Innovation, and Organizational Performance among Oil Firms in Nigeria.

Conclusion

The study tends to identify how Strategic Innovations thrive towards improving the Performance of Oil Firms in Nigeria. The hypotheses of the study were tested using the Pearson correlation coefficient statistical tool with the aid of SPSS version 23. The result of the test shows that Organizational Innovation (ORGI), Process Innovation (PI), Product Innovation (PDI), and Marketing Innovation (MKTI) have a significant influence on Performance among Oil Firms in Nigeria which led to the rejection of the four null hypotheses raised in this study. Thus, the study concludes that there is a significant relationship between Strategic Innovations and the Performance of Oil Firms in Nigeria.

Recommendations

Based on the analysis and findings, the following recommendations are made:

- Oil and Gas Companies should expand their product base and devise ways of using the already existing infrastructure to add value to their products and services. Further, with improved procedures aiming at effective and

efficient operations, it is evident that the same products can be manufactured with fewer costs and thereby improve on the returns.

- Oil and Gas Companies to continue investing in market innovation strategies since they have the highest influence on performance. Firms with higher marketing capability can generate more innovative ideas and products because of the close relationship with customers which enables them to meet their needs before competitors.
- Whereas continued investments in process innovations are recommended, Oil and Gas Companies should also focus more on aligning strategic innovations in HRM to achieve organizational performance.

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References

- Afuah, A. (2009). *Strategic innovation: new game strategies for competitive advantage*. Routledge.
- Agbaeze, K. E., Monyei, E. F., & Agu, O. A. (2017). Impact of talent management strategies on organizational performance in selected deposit money banks in Lagos State, Nigeria. *International Research Journal of Management, IT & Social Sciences*, 4(2), 135-151.
- Almatrooshi, B., Singh, S. K., & Farouk, S. (2016). Determinants of organizational performance: a proposed framework. *International Journal of Productivity and Performance Management*.
- Armbruster, H., Bikfalvi, A., Kinkel, S., & Lay, G. (2008). Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys. *technovation*, 28(10), 644-657.
<https://doi.org/10.1016/j.technovation.2008.03.003>
- Aryani, I. G. A. I., & Rahayuni, N. K. S. (2016). Innovation of teaching and learning english applied to animal sciences' student with the combination of computer media and audio visual. *International Journal of Linguistics, Literature and Culture*, 2(1), 1-7.
- Bason, C. (2018). *Leading public sector innovation 2E: Co-creating for a better society*. Policy press.
- Belderbos, R., Carree, M., Lokshin, B., & Sastre, J. F. (2015). Inter-temporal patterns of R&D collaboration and innovative performance. *The Journal of Technology Transfer*, 40(1), 123-137.
- Calisir, F., Gumussoy, C. A., & Guzelsoy, E. (2013). Impacts of learning orientation on product innovation performance. *The Learning Organization*.
- Camisón, C., & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of business research*, 67(1), 2891-2902.
- Coase, R. H. (1937). Some notes on monopoly price. *The Review of Economic Studies*, 5(1), 17-31.
- Coccia, M. (2017). Sources of technological innovation: Radical and incremental innovation problem-driven to support competitive advantage of firms. *Technology Analysis & Strategic Management*, 29(9), 1048-1061.

- Curado, C., Muñoz-Pascual, L., & Galende, J. (2018). Antecedents to innovation performance in SMEs: A mixed methods approach. *Journal of Business Research*, 89, 206-215.
- Delegations, H. O. P. (2020). Organisation for Economic Co-Operation and Development—OECD. *Organization*.
- Doran, J., & Ryan, G. (2016). The importance of the diverse drivers and types of environmental innovation for firm performance. *Business strategy and the environment*, 25(2), 102-119.
- Drucker, P. (2014). *Innovation and entrepreneurship*. Routledge.
- Duffie, D., & Rahi, R. (1995). Financial market innovation and security design: An introduction. *Journal of Economic Theory*, 65(1), 1-42. <https://doi.org/10.1006/jeth.1995.1001>
- Feeny, S., & Rogers, M. (2003). Innovation and performance: Benchmarking Australian firms. *Australian Economic Review*, 36(3), 253-264.
- Frambach, R. T., & Schillewaert, N. (2002). Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research. *Journal of business research*, 55(2), 163-176. [https://doi.org/10.1016/S0148-2963\(00\)00152-1](https://doi.org/10.1016/S0148-2963(00)00152-1)
- Gebauer, H., Worch, H., & Truffer, B. (2012). Absorptive capacity, learning processes and combinative capabilities as determinants of strategic innovation. *European Management Journal*, 30(1), 57-73. <https://doi.org/10.1016/j.emj.2011.10.004>
- Guisado-González, M., Guisado-Tato, M., & Sandoval-Pérez, Á. (2013). Determinants of innovation performance in Spanish hospitality companies: analysis of the coexistence of innovation strategies. *The Service Industries Journal*, 33(6), 580-593.
- Hajar, I. (2015). The effect of business strategy on innovation and firm performance in the small industrial sector. *The International Journal of Engineering and Science*, 4(2), 1-9.
- Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of marketing*, 62(3), 42-54.
- Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of business research*, 64(4), 408-417.
- Kanyuga, L. (2019). Influence of strategic innovation on performance of telecommunication firms: A case of Safaricom Company. *Journal of Strategic Management*, 3(1), 21-39.
- Karabulut, Ahu Tuğba. (2015). "Effects of innovation strategy on firm performance: a study conducted on manufacturing firms in Turkey." *Procedia-Social and Behavioral Sciences* 195 (2015): 1338-1347. <https://doi.org/10.1016/j.sbspro.2015.06.314>
- Kariuki, J. N. (2014). *The effect of strategic innovation on performance of mobile telecommunication firms in Kenya* (Doctoral dissertation, University of Nairobi).
- Kjellberg, H., Azimont, F., & Reid, E. (2015). Market innovation processes: Balancing stability and change. *Industrial marketing management*, 44, 4-12. <https://doi.org/10.1016/j.indmarman.2014.10.002>
- Koberg, C. S., Uhlenbruck, N., & Sarason, Y. (1996). Facilitators of organizational innovation: The role of life-cycle stage. *Journal of business venturing*, 11(2), 133-149. [https://doi.org/10.1016/0883-9026\(95\)00107-7](https://doi.org/10.1016/0883-9026(95)00107-7)

- Kodama, M. (2018). *Sustainable growth through strategic innovation: Driving congruence in capabilities*. Edward Elgar Publishing.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of marketing*, 75(4), 132-135.
- Kuratko, D. F., & Hoskinson, S. (2018). Introduction: The challenges of corporate entrepreneurship in the disruptive age. In *The Challenges of Corporate Entrepreneurship in the Disruptive Age*. Emerald Publishing Limited.
- Kuratko, D. F., Hornsby, J. S., & Hayton, J. (2015). Corporate entrepreneurship: the innovative challenge for a new global economic reality. *Small Business Economics*, 45(2), 245-253.
- Laban, O. M., & Deya, J. (2019). Strategic innovations and the performance of information communication technology firms in Nairobi Kenya. *International Journal of Academic Research in Progressive Education and Development*, 8(2), 1-24.
- Langerak, F., Hultink, E. J., & Robben, H. S. (2004). The impact of market orientation, product advantage, and launch proficiency on new product performance and organizational performance. *Journal of product innovation management*, 21(2), 79-94.
- Le Bas, C., Mothe, C., & Nguyen-Thi, T. U. (2015). The differentiated impacts of organizational innovation practices on technological innovation persistence. *European Journal of Innovation Management*.
- Lilly, L., & Juma, D. (2014). Influence of strategic innovation on performance of commercial banks in Kenya: The case of Kenya Commercial Bank in Nairobi County. *European Journal of Business Management*, 2(1), 336-341.
- Liu, C. M., Lin, K. W., and Huang, C. J. (2014). Effects of product development on operating performance in the textile industry. *The Anthropologist*, 17(1), 157-163.
- Löfsten, H. (2014). Product innovation processes and the trade-off between product innovation performance and business performance. *European Journal of innovation management*.
- Makur, P. M. (2014). *The effects of financial innovation on the financial performance of commercial banks in South Sudan* (Doctoral dissertation, University of Nairobi).
- Malen, J. (2015). Motivating and enabling firm innovation effort: integrating penrosian and behavioral theory perspectives on slack resources. *Hitotsubashi journal of commerce and management*, 37-54.
- Malhotra, D. (2004). Trust and reciprocity decisions: The differing perspectives of trustors and trusted parties. *Organizational Behavior and Human Decision Processes*, 94(2), 61-73. <https://doi.org/10.1016/j.obhdp.2004.03.001>
- Martin, J. H., & Grbac, B. (2003). Using supply chain management to leverage a firm's market orientation. *Industrial marketing management*, 32(1), 25-38.
- Mirvis, P., Herrera, M. E. B., Googins, B., & Albareda, L. (2016). Corporate social innovation: How firms learn to innovate for the greater good. *Journal of Business Research*, 69(11), 5014-5021.
- Mitchell, R. W. (2013). Education Must Not Simply Teach Work It Must Teach Life Student Affairs Administrators Leading the Charge. *College Student Affairs Journal*, 31(2).

- Mwangi, H. W., & Bwisa, H. (2013). The effects of entrepreneurial marketing practices on the growth of hair salons: A case study of hair salons in Kiambu Township. *International Journal of Academic Research in Business and Social Sciences*, 3(5), 467.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of marketing*, 54(4), 20-35.
- Nelson, R. R., & Winter, S. G. (1982). An evolutionary theory of economic change Harvard University Press. *Cambridge, MA and London*.
- Ngari, J. M. K., & Muiruri, J. K. (2014). Effects of financial innovations on the financial performance of commercial banks in Kenya.
- Njeri, A. (2017). *Effects of innovation strategy on firm performance in telecommunications industry: A case of Safaricom Kenya limited* (Doctoral dissertation, United States International University-Africa).
- Nyathira, C. N. (2012). *Financial innovation and its effect on financial performance of commercial banks in Kenya* (Doctoral dissertation).
- Nybakk, E., & Jenssen, J. I. (2012). Innovation strategy, working climate, and financial performance in traditional manufacturing firms: An empirical analysis. *International Journal of innovation management*, 16(02), 1250008.
- OECD, (2005). Oslo Manual: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data. Paris.
- Olannye, A. P. (2006). Research Methodology for Business, A Skill Building Approach.
- Ongeti, W. J. (2014). *Organizational resources, corporate governance structures and performance of Kenyan state corporations* (Doctoral dissertation, University of Nairobi).
- Orji, M. G., Andah, R., Chima, K., & Abba, S. B. (2017). Impact of New Products Development on the Profitability of Nigerian Deposit Money Banks. *International Journal of Economics, Finance and Management Sciences*. Vol, 5, 213-221.
- Osuga, P. O. (2016). *The effects of strategic innovation on the performance of SMES in Nairobi County* (Doctoral dissertation, United States International University-Africa).
- Owolabi, M. O. (2013). Consistent determinants of post-stroke health-related quality of life across diverse cultures: Berlin-I badan study. *Acta Neurologica Scandinavica*, 128(5), 311-320.
- Papinniemi, J. (1999). Creating a model of process innovation for reengineering of business and manufacturing. *International Journal of Production Economics*, 60, 95-101. [https://doi.org/10.1016/S0925-5273\(98\)00146-7](https://doi.org/10.1016/S0925-5273(98)00146-7)
- Penrose, L. S. (1959). Self-reproducing machines. *Scientific American*, 200(6), 105-117.
- Pisano, G. P. (2015). You need an innovation strategy. *Harvard business review*, 93(6), 44-54.
- Polder, M., Van Leeuwen, G., Mohnen, P., & Raymond, W. (2010). Product, process and organizational innovation: drivers, complementarity and productivity effects.
- Ramus, C. A. (2018). *Employee environmental innovation in firms: Organizational and managerial factors*. Routledge.
- Rogers, E. M. (2010). *Diffusion of innovations*. Simon and Schuster.

- Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of business Venturing*, 26(4), 441-457.
- Rubera, G., & Kirca, A. H. (2012). Firm innovativeness and its performance outcomes: A meta-analytic review and theoretical integration. *Journal of Marketing*, 76(3), 130-147.
- Seybold, P. B. (2014). *Outside innovation*. HarperCollins e-books.
- Shu, C., Wang, Q., Gao, S., & Liu, C. (2015). Firm patenting, innovations, and government institutional support as a double-edged sword. *Journal of Product Innovation Management*, 32(2), 290-305.
- Silva, A. (2014). What do we really know about leadership?. *Journal of Business Studies Quarterly*, 5(4), 1.
- Solans, E. D. (2003, February). Financial innovation and monetary policy. In *Excerpts of speech delivered at the 38th SEACEN Governors Conference and 22nd Meeting of the SEACEN Board of Governors on "Structural Change and Growth Prospects in Asia—Challenges to Central Banking", Manila (13 February 2003)*.
- Storbacka, K., & Nenonen, S. (2015). Learning with the market: Facilitating market innovation. *Industrial Marketing Management*, 44, 73-82. <https://doi.org/10.1016/j.indmarman.2014.10.009>
- Su, C. T., Chen, Y. H., & Sha, D. Y. (2006). Linking innovative product development with customer knowledge: a data-mining approach. *Technovation*, 26(7), 784-795.
- Tao, T. (2012). *Topics in random matrix theory* (Vol. 132). American Mathematical Soc..
- Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research policy*, 15(6), 285-305.
- Teece, D. J. (1999). Design Issues for Innovative Firms: Bureaucracy, Incentives and. *The dynamic firm: The role of technology, strategy, organization and regions*, 134.
- Therrien, P., Doloreux, D., & Chamberlin, T. (2011). Innovation novelty and (commercial) performance in the service sector: A Canadian firm-level analysis. *Technovation*, 31(12), 655-665.
- Tidd, J., Bessant, J. R., & Pavitt, K. (1997). *Managing innovation: Integrating technological, market and organizational change*. Wiley.
- Tomal, D. R., & Jones, K. J. (2015). A comparison of core competencies of women and men leaders in the manufacturing industry. *The Coastal Business Journal*, 14(1), 13.
- Un, C. A., & Asakawa, K. (2015). Types of R&D collaborations and process innovation: The benefit of collaborating upstream in the knowledge chain. *Journal of Product Innovation Management*, 32(1), 138-153.
- Warnier, V., Weppe, X., & Lecocq, X. (2013). Extending resource-based theory: considering strategic, ordinary and junk resources. *Management Decision*.
- Wijethilake, C., Munir, R., & Appuhami, R. (2018). Environmental innovation strategy and organizational performance: Enabling and controlling uses of management control systems. *Journal of Business Ethics*, 151(4), 1139-1160.
- Witjara, E., Herwany, A., & Santosa, S. P. (2019). The Influence Of Industry Environment And Company Asset On Strategic Innovation And The Implication

On Business Valuation Of Digital Industry In Indonesia. *Sustainable Collaboration In Business, Technology, Information And Innovation (Scbtii)*.
Yang, Z. (2014). *Molecular evolution: a statistical approach*. Oxford University Press.