Revolution and Export Productivity of Nigerian Companies in Special Economic Zones

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Abstract
Given the scope and complexity of the issues at hand, a survey research strategy was adopted to investigate the impact of special economic zones in Nigeria on the innovation and export performance of multinational corporations. All of the SEZs in Lagos State that are operational make up the study population. A sample size of 250 employees were selected from the 11 operational SEZs in Lagos State. A method called "purposive sampling" was used in the research. Questionnaires using a five-point Likert scale were used to collect the bulk of the data. Descriptive and inferential statistics were used to analyze the data. To determine if there are statistically significant relationships between the variables, a Spearman Rank Order Correlation Coefficient analysis was performed. A favourable correlation between product, process, and marketing innovations and export performance was found through statistical analysis. The results of the study show a strong connection between innovation and the export success of businesses located in Nigeria's special economic zones. Businesses in SEZs should invest heavily in R&D to create cutting-edge products for the international market. In order to increase their export competitiveness, businesses in SEZs should undertake process audits and use cutting-edge manufacturing practices. Businesses operating in SEZs would do well to investigate innovative and individualized approaches to marketing in order to break into new international markets and clearly articulate the value they provide to clients in those countries.

Keywords: Innovation, Export Performance, Special Economic Zones

1.1   Introduction

Since its inception in 1975, Special Economic Zones (SEZ) have grown in number to over 5,400 in 2018 (UNCTAD, 2019). In the last five years alone, more than 1,000 SEZ have been established as supply chains and commerce become increasingly globalised. Policies for a special economic zone are developed by nations to attract FDI into regional economies through the provision of tax breaks and other forms of infrastructure support. Special Economic Zones (SEZs) are specialised regions inside the borders of a nation where certain types of economic activity are encouraged by rules that do not normally apply to the rest of the country. SEZ is characterised by UNCTAD according to three basic criteria: a clearly designated geographical territory, regulatory administration that is different from the rest of the economy, and infrastructure assistance (UNCTAD, 2019). Countries establish SEZs for a wide range of economic and strategic reasons, including but not limited to: diversifying and developing exports while maintaining certain protective barriers; increasing the number of jobs; testing out new policies; increasing the overall effectiveness of supervision over businesses and infrastructures in a specific city; and so on (World Bank, 2017). In Nigeria, there are now 38 SEZs, 20 of which are operational and spread over eight states,

while the remaining 18 are inactive. The Economic Recovery and Growth Plan (ERGP) for 2017–2020 incorporated the strategic objectives of the Nigeria Industrial Revolution Plan (NIRP), which include support for firms in Special Economic Zones (SEZs). The regime of incentives for firms in SEZs is anticipated to foster innovation and develop firms with rising capacity to boost manufacturing output and exports of high-quality intermediate and finished goods. Though the ERGP legally ended in 2020, the NIRP, which was originally created as a five-year plan and launched in February 2014, has a longer-term vision for industrialization and supports the revolution and export performance of companies in SEZs (Adeoti et al, 2022).

Growth tactics based on innovation have historically been used to break into new markets, expand market share, and differentiate oneself from the competitors. The rising intensity of competition on global marketplaces has prompted companies to recognise the critical need of innovation in order to maintain their position in the marketplace. As a result, innovations are a crucial part of business strategies for a variety of reasons, including improving manufacturing efficiency, increasing market share, bolstering brand loyalty, and securing a competitive edge in the marketplace. Because of its relevance to modern life, research on innovation has surged in popularity during the past two decades. When it comes to resolving challenges and gaining a lasting competitive edge, organisations may get valuable strategic insight from innovations (Carrillo, 2021).

The concept of innovation encompasses not just new items and methods, but also new approaches to advertising. Innovations in both products and processes are intrinsically tied to the idea of technological progress. Product innovation can take many forms, including but not limited to enhanced technical standards, components and materials, integrated software, and other functional features. Products can be either physical or immaterial in nature. New product developments may be based on the discovery of previously unknown facts or on the creative use of previously developed technology. When a new or significantly improved method of manufacturing or distribution is introduced, this is known as a process innovation. This necessitates significantly varied adjustments to methods, devices, and/or programmes. Introducing innovative processes can help bring down production or shipping costs, boost product quality, or even create whole new and vastly improved items. While marketing innovation is the implementation of a brand-new marketing strategy, such as rethinking the product's presentation through packaging, positioning, promotion, or pricing (Gunday et al, 2016).

Firms that are export-oriented place a premium on innovation, and so innovation and export performance are inextricably linked. The positive effects of innovation on a firm's export performance may materialize as enhanced productivity (for instance, as a result of process innovations) or competitive advantages through innovative products that result in a price premium or (temporary) monopolies of the company's products. Export performance refers to how well a corporation does while selling a product in a foreign market. Export performance is one indicator of a company's international success (Bakhtiari & Fagsandeh, 2018). Following from the foregoing, the purpose of this research is to explore how innovation affects the success of businesses in Nigeria's special economic zones when it comes to exports.

1.2   Statement of the Problem

Companies are becoming more interested in expanding their operations into international markets as a result of the global economy. At the same time, researchers in international marketing place a high value on studying company behavior and export performance (Hashimabad & Reza, 2016).

Organizations struggle to address several issues that crop up due to the intricate nature of the export process in today's global market (Alawijeh & Tahereh, 2014). Addressing these problems, facilitating exports, and earning foreign cash were the primary goals of establishing SEZs. When compared to other parts of the globe, Africa's success in special economic zones (SEZs) in terms of investments, exports, and employment is difficult to assess due to a lack of statistics (Zeng, 2015). According to the available evidence reported by FIAS (2008) and Farole (2011) in Adeoti et al. (2022), sub-Saharan Africa's experience with SEZs has been relatively poor in terms of employment generation and export performance. SEZ exports make up a significant portion of national exports, as evidenced by examples from several Asian nations. In 2015, for instance, the Asian Development Bank reported that exports from SEZs represented 17%, 44%, 49%, and 67% of national exports, respectively (ADB, 2015). The same cannot be said for SEZs in Nigeria, as Newman and Page (2017) resolved that, in absolute terms and in comparison, to more dynamic SEZs abroad, manufacturing exports from African SEZs are negligible. Despite these extensive case study analyses of SEZs, there is no empirical evidence of their economic effects, particularly in terms of innovation and export promotion (Zeng, 2015). Therefore, this study aims to examine how enterprises in Nigeria's special economic zones fare when it comes to export performance and how innovation plays a role in this.

Research Hypotheses

The following research hypotheses were constructed in null basis to guide the researcher.

Ho$_1$: There is no connection between product revolution and export performance of multinationals in SEZs in Nigeria.

Ho$_2$: There is no connection between process revolution and export performance of multinationals in SEZs in Nigeria.

Ho$_3$: There is no connection between marketing revolution and export performance of multinationals in SEZs in Nigeria.

2   Literature Review
2.1   Conceptual Review
2.1.1   Innovation

The introduction of novel processes, concepts, or commodities into the economy is generally accepted as an example of innovation. Schumpeter (1936) stated in Adeoti, Adeyinka, Alamu and Popoola (2022) that innovation is a comprehensive process that begins with the conception of an idea and continues until a marketable product that has the potential to positively influence the economy is created. Innovation is the ability to generate, develop, and implement new features or processes. Additionally, innovation may be rapid or gradual. Innovation is radical when a previously nonexistent technology or product is introduced to solve a problem, whereas innovation is incremental when it aims to improve existing technologies or products.

2.1.2 Indicators of Innovation

2.1.2.1 Product Innovation

The word "product innovation" is used by the Oslo Innovation Manual to describe the introduction of new or substantially enhanced goods or services in relation to their capabilities or intended use (OECD, 2015). Possible areas for significant development include technical requirements, materials and components, software integration, user-friendliness, and other functional aspects. Product innovations, on the other hand, do not include alterations to a product's design that do not materially affect the product's practical features or intended applications. In addition to improvements made to the core product itself, product innovation can also refer to changes made to the methods by which businesses distribute their goods to the public (Mensah & Acquah, 2015).

2.1.2.2 Process Innovation

Introducing a never-before-used production technique is an example of process innovation. Process innovation may also be thought of as the act of reengineering a business process in order to improve its internal functioning and capabilities (Rosli & Sidek, 2016). Manufacturing, technical design, administration, and commercial operations are all a part of these processes. It includes the latest in product development, distribution channels, software, and user preferences, as well as the aforementioned procedures, policies, and organisational structures. Reduced manufacturing or distribution costs, higher product quality, and new or significantly improved goods are all goals of process innovation (OECD, 2015).

2.1.2.3 Marketing Innovation

When a new marketing strategy is implemented, it often involves making significant changes to product design, packaging, placement, promotion, or pricing. This is known as marketing innovation. The innovating company may develop new marketing strategies for both new and existing products, or they may adapt strategies from other businesses or organizations. Marketing innovations include major modifications in product design that are components of a new marketing idea; changes in product packaging and positioning largely entail the implementation of new sales channels. The purpose of marketing innovations is to increase sales volume by meeting consumer requirements more effectively, penetrating new markets, and strategically placing a product on the market (OECD, 2015).

2.1.3 Export Performance

Due to the expansion of the global economy and the rapid advancement of technology, exporting has become a must for companies eager to access the international market. Exporting may improve the financial statement and technology of a company, boost capacity utilization, and achieve the desired performance of a company. Tun (2021) in Leonidou et al (2007) as stating that exporting can lead to increased sales, profitability, and economic growth. As a result of worldwide market competition, trade liberalization, market economic reform, and local market saturation, export performance has developed and grown significantly.

2.1.4 Export Performance Determinants

The export performance drivers may be divided into two groups:
a)   Internal determinants and; b) External determinants.

A.   Internal Determinants

Company age, size, level of foreign expertise, export commitment, managerial viewpoint, export marketing mix techniques, and product characteristics are all examples of internal elements that could affect export success.

B.   External Determinants

A company cannot function independently from its surroundings. Opportunities and threats that businesses encounter in foreign markets are believed to have a significant impact on their ability to export successfully. Since government rules and the socio-cultural, legal, and political circumstances of a country are more likely to effect an international firm, Czinkota et al (2014) believe that no manager can afford to disregard these variables. Whether a corporation decides to export depends on trends in the home or global market. Three important determinants have been found in the research on export success: the attractiveness of international markets, the competitiveness of export markets, and export promotion schemes (Sraha, 2016).

This research has identified three important factors: overseas market pull, export market competition, and export promotion programmes (Sraha, 2016).

2.1.5   Special Economic Zones (SEZs)

SEZs or free trade zones (FTZs) are areas inside a country where enterprises operate under a different set of regulations than in the rest of the country. Indirectly impacting the performance of export-focused firms are policies such as duty cuts or exemptions on import tariffs, sales tax exclusions or reduced sales tax on exported items, and tax holidays or tax refunds on corporate taxes. Tax vacations are occasions in which firms or other specialty taxes are forgiven for a certain number of years. This technique is straightforward to deploy, and it has the potential to raise tax income for the government by promoting robust early development in chosen industries. A flat rate of corporate tax is more obvious than tax holidays, where investors may attempt to avoid paying taxes by pretending to be in other industries. This is because all enterprises created in the SEZ would be exempt from these taxes. (G20 Development Working Group, 2015; OECD, 2017).
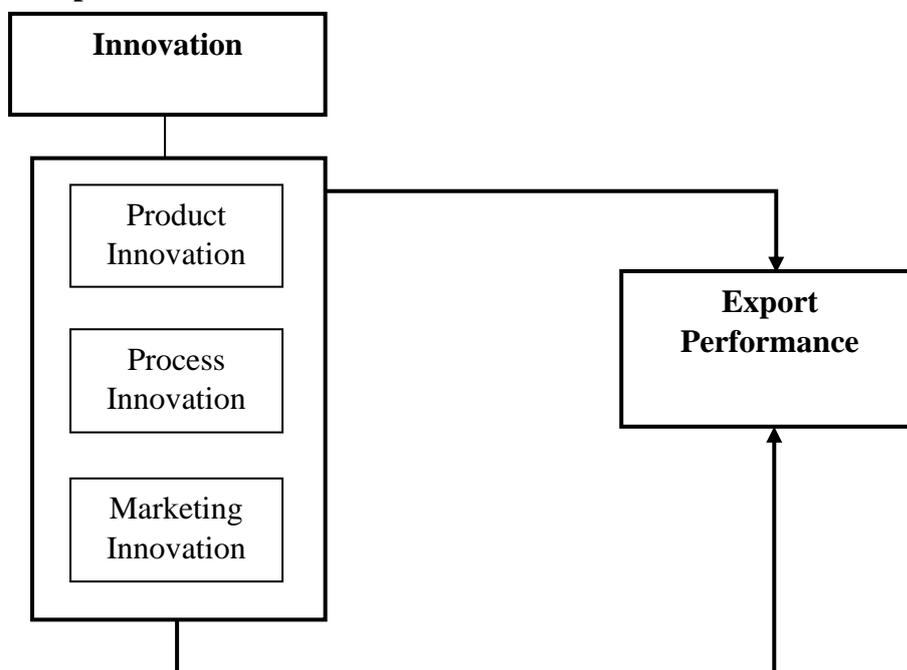
Relationship between Innovation and Exports

The connection between exports and innovation-related actions may be seen from two different angles. One perspective looks at international trade models through the lens of product cycle characteristics of manufactured goods. These models presume that innovation affects export quantities and consider it as an external variable. The fundamental idea is that, due to specific economic advantages, developed nations export innovative products globally. Once these products reach maturity, developing nations duplicate them and export them to developed nations. Exports and innovation are inextricably linked because, in order to maintain high levels of exports and revenue, nations must continually create new activities (Jusufi et al, 2020).

The second viewpoint refers to endogenous growth patterns. These models account for the effects of a market economy. By making innovation's degree and extent endogenous, these models highlight the dynamic consequences of international commerce on creative activity. Innovation propensity, the likelihood of introducing a new product or service, increases as the size of a company grows (as measured by the number of employees), but it decreases for the

biggest companies that have not reorganized, according to Aralica et al. (2008), as mentioned in Jusufi et al (2020).

Conceptual Framework

Source: Researcher's Conceptualization (2023)

Figure 2.1: Conceptual framework of the connection between innovation and export productivity.

2.2   Theoretical Framework

2.2.1   Schumpeterian Theory of Innovation and Entrepreneurship

This hypothesis is a component of Joseph Schumpeter's (a famous 20th-century economist) innovation-based endogenous growth theories. The role of innovation and entrepreneurial spirit in fostering economic expansion is elucidated in the theory. According to the theory, economies and markets undergo a continual process of transformation. In such a dynamic economy, the entrepreneur embodies the power responsible for economic development and expansion. Schumpeter characterizes the entrepreneur as a change agent and an agent of innovation (Kiveu, 2017). According to him, innovation and entrepreneurship are important to economic success in a world that is continually growing. The foundation of economic progress is discontinuous and abrupt change, and entrepreneurs are tasked with creating new combinations of industrial inputs that facilitate these transitions.

A number of factors contribute to economic growth, according to Schumpeter (1934). These include the introduction of new products or modifications to existing ones, new production methods, new markets, new sources of supply or raw materials, and new industry structures.

When it comes to the economy, he sees innovation as a process of industrial transformation that brings about change through what he calls "creative destruction." Creative destruction is the process by which new products and services displace older ones in the market, hence creating profit for investors and paving the way for the advent of new businesses (Schumpeter,

1942). Innovation is a device adopted by entrepreneurs to open up new markets for their products. According to this school of thought, a business owner needs to innovate in order to stay ahead of the competition.

2.3   Empirical Review

Najafi and Yeganegi (2022) used descriptive correlational and applied research to determine the impact of innovation strategies on the textile industry's export performance. A questionnaire was used to collect the data for the investigation. The poll contains five parts: innovations in marketing, technology, goods, processes, and collaborations with external organisations to drive innovation. The sample population for this study includes 135 members of the commercial division of the Arak Chamber of Commerce and 30 export, sales, and marketing experts from Savis. 115 people were picked at random from the pool of people included in Krejci and Morgan's sample table. The hypotheses of the study were examined by means of correlation and regression analysis. The results show that innovative tactics have an impact on textile export efficiency.

Pella et al. (2022) looked at whether or not manufacturing enterprises in the Mercosur countries (Argentina, Brazil, Paraguay, and Uruguay) are more likely to export if they make an effort to innovate. Three econometric models with a binary outcome (probit, bivariate probit, and the Heckman selection model) were used on cross-sectional data to address issues of endogeneity and sample selection bias, respectively. The World Bank's Enterprise Surveys database was used to collect information on individual businesses. The findings showed that innovation favourably affects the likelihood of exporting for businesses in Argentina, Brazil, and Uruguay. The usage of imported inputs was also a major factor that influenced these countries' propensity to export.

Tun (2021) investigated the relationship between the export performance of SMEs in Myanmar's food industries and factors including firm capacity, product innovation, process innovation, and product quality. The quantitative study included 52 participants from the decision-making, founding, and ownership levels of SME food processing businesses (26 from exporting companies and 26 from non-exporting organisations). The study found that cooperation between companies increased the exporting companies' ability to innovate. Furthermore, the outcomes showed that product quality does not significantly affect export results.

Papadopoulou (2021) investigated the impact of innovation on firm performance, taking into account the four types of innovation identified by the Oslo Manual (product, process, organizational, and marketing) as well as a variety of performance aspects (financial, product, innovative, and market). A mixed methodological approach was employed, comprising a survey of 50 firms active in the Greek aluminum industry and an examination of pertinent case studies. The research showed that all four types of innovation were linked, which shows how innovation can improve performance in a synergistic way. In addition, the types of innovation were shown to be positively and substantially connected with all business performance metrics, indicating that innovation has a positive influence on firm performance. Lastly, OLS research showed that product and process innovations affect performance more than organizational and marketing innovations.

Jusufi et al. (2020) looked at the product innovation and export performance of SMEs in Kosovo. One hundred manufacturing and exporting SMEs in Kosovo were analysed using a probit model to determine their levels of innovative activity. Their findings show that export growth is related to the kind of product innovations. There was a strong positive correlation between incremental innovation and export expansion among SMEs.

Khan, Khan, and Haq (2020) examined the effect of different technologies on the slim and fat margins of exports using data collected from manufacturers in four South Asian nations. The estimations were generated using the probit and fractional response models. Improvements in operations, administration, and promotion boosted export margins across the board.

The impact of special economic zones on export behavior was examined by Davies and Mazhikeyev (2019) using firm-level data from Asia and Africa. In open economies, businesses located in special economic zones (SEZs) were 25% more likely to export than non-SEZ organizations. However, in closed economies, the inverse was true. It was found that nations with import restrictions had a 3.6 percentage point increase in export value when special economic zones (SEZs) were implemented.

Exporting is a more probable consequence for organisations that have adopted particular forms of innovation, according to study by Cielik et al. (2018). The empirical research used the probit model and the firm-level data set between 2003 and 2012 to get its conclusions. The results revealed that characteristics including product and process improvements, larger enterprises, foreign capital participation, and foreign technology increased the possibility of exporting. The study also discovered that product innovations played a more important effect in export performance in 2012 than process innovations did in 2003.

3   Methodology

Given the issues and aims, this study adopted a survey research strategy. This is the most suitable design when a study requires structured questionnaire administration.

The study population consists of all active special economic zones in Lagos State.

A sample size of 250 employees were selected from the 11 active SEZs in Lagos State, as shown in Table 3.1. The study utilized a purposive sampling technique. Conducting research on all employees in all 11 SEZs could be time-consuming, costly, and resource-intensive, thus, the choice for a purposive sampling technique.

Table 3.1   Sample Size Distribution

S/N	SEZs	Admin.
1.	Dangote Industries Free Zone	23
2.	Ladol Free Zone	23
3.	Lagos Free Trade Zone	23
4.	Lekki Free Zone	23
5.	Newrest Airline Services & Logistic EPZ	23
6.	Nigeria Aviation Handling Company	23
7.	Nigeria International Commerce City	23
8.	Pan African Catering Services FZ	23
9.	Quits Aviation Services FZ	23
10.	Snake Island Integrated Free Zone	23
11.	Tomaro Industrial Park	20

Total	**250**

A questionnaire was administered to employees of the firms that are located in active special economic zones. Participants were given a five-point Likert scale on which to rate how much they agreed with the study's tenets and assumptions. Through piloting and subject checking of responses against study goals, we also established the instrument's content validity. Cronbach's alpha was used for a reliability analysis of the assessment tools. Since the suggested number for reliabilities is 0.7 (see appendix II), this value was utilized as the standard.

The data was analyzed using descriptive and inferential statistics. Data collected from the survey questionnaire were cleaned, formatted, coded, and analyzed in SPSS 25.0, which allowed for the conversion of textual information into numerical values. Descriptive statistics were used to define, summarize, and display the data for analysis. The study employed metrics of central tendency and dispersion, including frequency distributions, percentages, and sample means and standard deviations, to reach its conclusions. Descriptive statistics may be used to learn more about the data that underpinned inferential statistics. We employed inferential statistics to test our assumptions regarding the interplay of several factors. Spearman Correlation To check for statistically significant associations between the variables, a coefficient analysis was performed. Applying regression analysis, we next determined how much each independent variable impacted the dependent one.

The linear regression model was applied to determine the link between the independent and dependent variables.
For econometric estimations:
$EXP = \beta_0 + \beta_1 PRI + \beta_2 PSI + \beta_3 MKI + \varepsilon$
Where:
EXP = Export Performance; PRI = Product Innovation; PSI = Process Innovation, MKI = Marketing Innovation; β_0 = Constant; β_1 - β_3 = Coefficients of the regression model; ε = Error term

4   Results and Discussion
4.1   Results
4.1.1   Data Presentation
The data for the study were provided in the form of a table and were analysed using basic percentage, mean and inferential statistics. The questionnaires administered were 250 to the sample respondents, however, 225 were found useful and was used for the study, representing 90% as the successful response. The response rate of the respondents are summarized in the table below.

Table 4.1 Questionnaire Administration and Retrieval

Questionnaire	Frequency	Percentage
Number Distributed	250	100%
Number Retrieved and used in Analysis	225	90%
Number Not Returned	25	10%

Source: Field Survey (2023)

4.2   Presentation and Analysis of Results
4.2.1   Correlation Analysis
For the purpose of this analysis, the spearman's rank correlation was used. To examine the strength and direction of a link between two or more variables, researchers often employ the Spearman rho.

Table 4.2   The Rule of Thumb for the Correlation Coefficient

Coefficient Range	Strength of Association
± 0.91 - ± 1.00	Very strong
± 0.71 - ± 0.90	High or Strong
± 0.41 - ± 0.70	Moderate
± 0.21 - ± 0.40	Small but definite relationship
± 0.01 - ± 0.20	Slight, most negligible

Source: Adapted from Weiliang, Mun, Fong and Yuan (2011)

Table 4.3   An inverse relationship between product innovation and export success has been discovered..

			PRODUCT INNOVATION	EXPORT PERFORMANCE
Spearman's rho	PRODUCT INNOVATION	Corr Coef.	1.000	.887**
		Sig	.	.000
		N	225	225
	EXPORT PERFORMANCE	Cor Coef.	.887**	1.000
		Sig.	.000	.
		N	225	225

 **. Correlation is significant at the 0.05

Source: SPSS Outcome 23.0

The table above shows a correlation between product innovation and SEZ export performance. The positive and statistically significant correlation between product innovation and export performance is displayed in Table 4.8 (r = 0.887, p = 0.000). The coefficient of correlation between the variable and itself is 1.000, which is the highest possible value. The p-values show both the trend of the association and its statistical significance. The greater the number, the greater its significance. A value of 0.887 for the Spearman rank coefficient indicates a very high or strong correlation between the two variables.

Table 4.4   Findings from the correlation coefficient between performance in exports and process innovation

			PROCESS INNOVATION	EXPORT PERFORMANCE
Spearman's rho	PROCESS INNOVATION	Corr. Coef.	1.000	.980**
		Sig.	.	.000
		N	225	225
	EXPORT PERFORMANCE	Cor. Coef.	.980**	1.000
		Sig.	.000	.

				225	225

Source: SPSS Outcome 23.0

Data from SEZ is displayed in the table above, along with the results of a correlation analysis between process innovation and export performance. A 0.980 correlation coefficient and a 0.000 probability of significance between process innovation and export success can be shown in table 4.9. The variable's correlation coefficient with itself is 1.000, meaning that the two are perfectly correlated. The p-values indicate the strength and direction of the link. The higher the value, the more significant it gets. There is a substantial correlation between the variables studied, as indicated by the high value of the Spearman rank coefficient (0.980).

Table 4.5   Findings from the correlation coefficient between Successful Exports and Innovative Marketing

			MARKETING INNOVATION	EXPORT PERFORMANCE
Spearman's rho	MARKETING INNOVATION	Cor Coef	1.000	.969**
		Sig.	.	.000
		N	225	225
	EXPORT PERFORMANCE	Corr Coef/	.969**	1.000
		Sig.	.000	.
		N	225	225

**. Correlation is significant at the 0.05

Source: SPSS Outcome 23.0

Results of the association between marketing innovation and SEZ export performance are shown in the table above. Based on the data in Table 4.5, there is a strong and positive correlation between innovative marketing and export performance ($r = 0.969$, $p = 0.000$). With a coefficient of 1.000, the variable exhibits perfect intra-variable correlation. The p-values reveal the strength and direction of the association. The higher the value, the more significant it gets. A Spearman rank coefficient of 0.969 indicates an extremely high degree of link between the two variables.

Table 4.6   Correlation coefficient for Innovation (Combined) and Export Performance

			INNOVATION	EXPORT PERFORMANCE
Spearman's rho	INNOVATION	Corr Coef.	1.000	.983**
		Sig.	.	.000
		N	225	225
	EXPORT PERFORMANCE	Cor Coef.	.983**	1.000
		Sig.	.000	.
		N	225	225

Source: SPSS Outcome 23.0

The foregoing statistics demonstrate the connection between export success and innovation generally (including product, process, and marketing innovation). The table above shows a correlation between product innovation and SEZ exports. With a correlation coefficient of 0.983 and a p-value of 0.000 (p-value 0.05), the data demonstrates a highly significant link between innovation and export achievement. The variable has a perfect correlation with itself, with a coefficient of 1.000. Both the direction and intensity of the association may be seen in the p-value. The higher the value, the more significant it gets. A Spearman rank coefficient of 0.983 indicates an extremely high degree of correlation between the two variables.

4.2.2   Regression Analysis

Table 4.7   Model Summary

Model	R	R Sq	Adj. R Square	Std. Error
1	.993ᵃ	.985	.985	.60929

Source: SPSS Outcome 23.0

The effectiveness of the regression model in describing the independent variables is displayed in Table 4.7. A correlation coefficient of 0.993 indicates a substantial link between the predictor (innovation) and the outcome (export performance). R squared is a measure of the strength of the association between innovation as an independent variable and export success as a time series. With a R squared score of 0.985, we may infer that the independent factors account for nearly all of the variation in our dependent variables.

Table 4.8   Analysis of Variance (ANOVA)

Model	Sum	Df	Mean	F	Sig.
1 Regression	5575.316	3	1858.439	5006.059	.000ᵇ
Residual	82.044	221	.371		
Total	5657.360	224			

Source: SPSS Outcome 23.0

The complete model was validated by ANOVA findings, as shown in Table 4.8. The 0.000 probability value backed up this theory. The stated p-value was determined to be statistically significant at a level lower than the typically accepted 0.05 (p-value 0.05). The results prove that the independent factor (innovation) is a good predictor of the dependent variable (export performance).

Table 4.9   Regression Coefficients

Model	Unstand. Coeffi.		Stand. Coeffi.		
	B	Std. Er.	Beta	t	Sig.
1 (Const.)	-1.073	.273		-3.926	.000
PRI	.156	.049	.117	3.161	.002
PSI	.387	.046	.380	8.464	.000
MKI	.500	.036	.505	13.945	.000

Source: SPSS Outcome 23.0

Table 4.9 shows that beta coefficients of 0.156, 0.387, and 0.500 for product innovation, process innovation, and marketing innovation, respectively, are positively associated to export performance. The innovations in product, process, and marketing all had significant p-values (0.002, 0.000, and 0.000, respectively).

4.3   Discussion of Findings

Companies operating in Nigeria's special economic zones were analyzed to see how much of an impact innovation has on their ability to export goods. The study's findings contradict the null hypothesis that "product innovation and export performance are unrelated," instead showing a positive correlation between the two. Tun (2021) and Jusufi, Ukaj, and Ajdarpai (2020) discover similar results.

In contrast to the second hypothesis, which held that there was no connection between process innovation and export success, the study discovered a positive link between the two. These findings are supported by the work of Edeh et al. (2020).

Despite the fact that the third hypothesis predicted no correlation between marketing innovation and export success, the study found a favourable correlation between the two. These findings were corroborated by the work of Najafi and Yeganegi (2022).

Overall, the joint correlation between innovation and export performance was found to be significant. This finding concurred with the study of Najafi and Yeganegi (2022).

5   Summary, Conclusion and Recommendations

Summary of Findings

The findings of this study are summarized as follows:

1.   Product innovation has a substantial nexus with export productivity.
2.   Process innovation has a substantial nexus with export productivity.
3.   Marketing innovation has a substantial nexus with export productivity.

Conclusion

Companies operating in Nigeria's special economic zones were analyzed to see how much of an impact innovation has on their ability to export goods. The study's goals were addressed through the use of three research questions that probed different aspects of innovation. A favourable association between innovation in product, process, and marketing and export success was found using the spearman rank correlation coefficient. Therefore, the study draws the inference that innovativeness has a strong correlation with the success of exporting companies in Nigeria's special economic zones.

Recommendations

The study concludes the following based on its findings:

1. Businesses operating in SEZs should place a premium on R&D in order to produce cutting-edge goods that meet the needs of consumers abroad. To improve their export potential

and market share, firms may obtain a competitive edge by consistently innovating and improving their product offers.

2. Firms in SEZs should conduct process audits and implement modern manufacturing techniques to enhance efficiency, reduce costs, and ensure consistent product quality, ultimately boosting export competitiveness.

3. Companies in SEZs should explore creative and tailored marketing strategies to penetrate new international markets and effectively communicate their value proposition to foreign customers.

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