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Growth Strategy, Technological Innovation and Performance of Manufacturing Firms in Southwest Nigeria

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Abstract

Growth strategy is critical to the performance of small and medium enterprises (SME) in an economy. This study examined the moderating effect of technological innovation on growth strategy and performance of SMEs. It adopts quantitative approach, and used 361 copies of questionnaire were distributed among SME owners in Southwest Nigeria and analysed with Structural Equation Modelling (SMART PLS). Results shows significant relationships between growth strategy and SMEs performance and technological innovation reinforces the relationships. It indicates that product development has 78% predictability on performance of SME, also 58% of variance in performance of SME is explained by market penetration. Market development has 73% predicting effect on performance of SME, and also that 70% of variance in performance of small and medium enterprise is explained by product diversification. It is recommended that owners of SMEs should invest in quality and diversified products, and invest in research and development that encourages intrapreneurship.

Keywords: Growth Strategies, Manufacturing, Product Development, SMEs Performance, Technological Innovation

Introduction

Globalization has contributed to the growth and expansion of businesses all over the world, which ultimately increases the level of competition among them. Moreso, firms strive to address ever-dynamic customer needs, while seeking to improve profitability, as well as performance (James, Ayodotun, Atolagbe, Maxwell, Augusta, & Taiye, 2018).

Similarly, small and medium enterprises are compelled to implement strategies that aid sustainable competitive advantage within local and international markets. Meanwhile, researchers have highlighted the significant influence of technological innovation and growth strategies on the

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performance of small and medium enterprises. However, the level of contribution of these parameters to the effective operations of SMEs in South-West Nigeria is yet to be ascertained (Donbesuur, Owusu-Yirenkyi, & Chu, 2020). Conversely, a critical objective of every business is to experience sustainable improvement in its market reach and revenue generated. Thus, this gives rise to the need for strategies that ensure growth takes place (Patel, 2023). The concept of strategy reflects how the business intends to win against its competitors (Braun, Latham, & Cannatelli, 2019). Similarly, companies aim at maximizing growth opportunities by adopting strategies such as market penetration, market development, product development as well as product diversification (Lopez, Pizzo, Gupta, Kennedy, & Funk, 2021).

Furthermore, market penetration as a growth strategy entail increasing the market share of a company's brand by increasing its consumption and competitiveness as well as improving the business's marketing efforts. (Hoang Tien, 2020). Meanwhile, firms can utilize market development strategies to introduce their products into new markets. On the other hand, products can be diversified to suit the new market as well (Stirbu, 2023). Consequently, SMEs and other large-scale businesses can develop new product concepts to address customer needs and align with modern trends (Adler, Mandelbaum, Nguyen, & Schwerer, 2023).

In addition, technological innovation combined with growth strategies enables firms to maximize available commercial opportunities. Moreso, this involves implementing new technology or modern techniques into the business's activities to facilitate growth, productivity and commendable performance. Salau, Osibanjo, Adeniji, Oludayo, Falola, Igbino, & Ogueyungbo, (2018). Likewise, technologically innovative practices can be executed across variables such as product innovation and process innovation which modify existing products and business operations. Thus, companies can provide unique solutions using sophisticated techniques (Porumboiu, 2021). The performance of a firms can be measured by ascertaining their level of competition, size of market share, the degree to which stakeholders are satisfied, service quality, productivity growth, profitability, as well as other financial metrics (Tang, Park, Agarwal, & Liu, 2020). Moreso, the satisfaction of customers is associated with their judgement of the goods and services offered and the level at which pleasure was derived. This ultimately influences customer loyalty to the brand and goodwill (Otto, Szymanski, & Varadarajan, 2020). Equally, service quality refers to a customer's perspective of the degree to which a firm's services are superior or inferior. Also, service quality contributes to the level of long-term relationships and customer retention, a business possesses. Additionally, an improvement in profitability reflects an increase in revenue generation and profit (Alshamsi., Alshurideh, Kurdi, & Salloum, 2021). Moreover, sustainable development goal 9 seeks to foster innovation, build infrastructure and advance sustainable industrialization. Hence, businesses are advised to develop a high-quality performance that contributes to economic growth and improved wellness of humans. This is made possible by research and development activities which raise the technological standards and capabilities of businesses across the globe (United Nations, 2020). Similarly, the United Nations supports the entry and integration of SMEs

into foreign markets, particularly in developing countries. Nevertheless, while the agriculture sector remains a primary source of employment and economic growth, over 500 million people are involved in manufacturing and entrepreneurship and low-income countries are investing in research and development to fulfil this goal (Sumeep, 2018). Nevertheless, certain challenges that limit the adoption of growth strategies and technological innovation by small and medium enterprises have been identified. For instance, a lack of capital may exist, a lack of required information, or an inability to sustain these strategies. Meanwhile, the level of investments made by SMEs in research and development determined the degree of exposure to growth opportunities. Likewise, the firms may lack the human personnel that are competent to foster these operations (Prasanna et al., 2019).

The country's constant failure of small and medium-sized businesses, as well as the history of poor performance of existing ones, is cause for concern (Okafor & Daferighe, 2019). Thus, the need to investigate certain parameters. Dabor and Oserogho (2019) in their work asserted that the challenges facing SMEs in Nigeria include high production costs, low employee productivity, inability to build competitive advantage through producing quality products and services, intermittent power supply, indiscriminate tax levies, low accessibility to loans from financial institutions and inability to keep proper financial records. All of these affect the performance of these SMEs.

According to SMEDAN (2022), SMEs in Nigeria do not have the same performance level when compared to others in developing economies such as Peru, Indonesia. Inferring from Dabor and Oserogbo (2019), this underperformance can be traced to lack of innovative product development which arises from some the challenges previously mentioned. Jamai, De Steur, Abidar, & Gellynck, (2021), submitted that making new products from old, making a new product or packaging the same product with diverse looks can be achieved by innovation strategies which is insufficient in the Nigerian landscape. Moreover, the demand in the market is such that customers especially Millennials (people born in the 1990s) are obsessed with exploring and experiencing new things and products.

The reports from the investigation of Larusi and Muthoni (2019) as well as Ojwaka and Deya (2018) show that market penetration strategy is significant in the pursuit of a company's success. However, the Nigerian SMEs are finding it hard to break into the market especially when a big player is involved. It has been found by a number of researchers such as Ayokunmi, Seman and Rashid (2022) as well as Ojo and Sadiq (2022) that the slow adoption of digital technologies among Nigerian SMEs hinders their market penetration efforts.

Lack of technological proficiency and access to e-commerce platforms limits their ability to leverage online marketing channels and reach a wider customer base. Igbokwe, Adio and Elikwu (2016) had earlier point out that market penetration through e-commerce is a competitive strategy for SMEs keen on growth. Since market penetration has been proved to be important, its effect

on the performance of SMEs is needed to be ascertained.

Despite the growing recognition of the importance of technological innovation and effective growth strategies for Small and Medium Enterprises (SMEs) in Nigeria, several challenges persist. SMEs face difficulties in accessing technological innovation, which hinders their performance (Tahir, Ibrahim, & Nad Babawulle, 2021). Incorrect adoption of growth strategies has also been attributed to SME failures (Tahir *et al.*, 2021).

Additionally, challenges such as limited market access and inadequate technological innovation adoption hinder SME growth (Mustafa & Yaakub, 2018). Thus, with an understanding of these problems encountered by SMEs, this research seeks to evaluate how these issues have been addressed and the techniques implemented by businesses to foster growth.

This study assessed the technological innovation moderate the effect of growth strategy on the performance of manufacturing Small and Medium Enterprises in Southwest Nigeria.

The specific objectives are to:

- i. assess the role of product development in influencing the performance of small and medium enterprises
- ii. ascertain the impact of market penetration on the performance of small and medium enterprises
- iii. investigate the influence of market development on the performance of small and medium enterprises
- iv. analyse the effect of product diversification on the performance of small and medium enterprises
- v. investigate how technological innovation moderate the effect of growth strategy on the performance of small and medium enterprise.

MATERIALS AND METHODS

The choice of research design is explanatory, according to Boru (2018), explanatory seeks to investigate the "what" and the "why" of a given phenomenon with facts to back the findings up. Therefore, using a descriptive survey, each variable will be thoroughly investigated to get the answers to the research questions set without manipulation (Seidlecki, 2020).

The Southwest region of Nigeria was selected for the research due to its number of manufacturing small and medium-sized businesses (SMEs). The southwest is one of Nigeria's six geopolitical zones, representing the country's southwest and geographic location. It comprises six states: Ekiti, Lagos, Ogun, Ondo, Osun, and Oyo. According to the 2020 National Bureau of Statistics (NBS) study, the Southwest States of Nigeria have the country's largest number of small and medium enterprises (SMEs).

Specifically, Lagos, Oyo, and Ogun states have been identified as the major hub of SME concentration in Southwest Nigeria; however, all six states were included in this study. Primarily the purposive sampling technique was employed in selecting the study area, and the major criteria for selection are the concentration of SMEs in this region.

The population from which the sample was obtained is the Nigerian SME manufacturing sector in Southwest Nigeria. The NBS survey estimates that Nigeria's overall number of businesses is 41.5 million, dispersed throughout the country's 36 states (Adesoji, 2020). According to Akintaro (2022), 51% of the SMEs in Nigeria are in the southwest.

This study focuses on small and medium-sized enterprises (SMEs) in the Southwest as Lagos, the commercial capital of Nigeria, had the largest number of manufacturing SMEs with 8,395, followed by Oyo (6,131), Osun (3,007), Ondo (2363), Ogun (2465), and Ekiti (928) (National Survey of Micro Small and Medium Enterprises (MSMEs) 2017; Adesoji, 2020). In line with this, the Southwest states of Lagos, Oyo, Osun, Ondo, Ogun, and Ekiti have about 23,289 SMEs representing the study population.

However, from the Tahardoost determination sample size for this research is 384 SME owners and managers for the questionnaire. Also, the simple random sampling technique will enable the sample to include all manufacturing SMEs in the six states included in the population and allows all population members an equal chance of being included in the sample. SME owners with different experiences will likely produce a robust result.

The self-designed questionnaire was based on the objectives of the study. The questionnaire was adapted from the already established instrument in the literature. Instruments on market development used by Omasa *et al.*, (2022), service quality and customer satisfaction Bidyut and Shillong (2021), profitability and market share Kamyra, (2016) were adopted. A Likert scale rates the opinion or perception on a particular issue. It is preferred because it is easy to operationalise participant perceptions of the questions asked by giving a numerical score which enables quantitative analysis.

The data collected was analysed using SEM-PLS. This analysis aims to employ established independent variables in predicting the outcome of one dependent variable. This test is based strictly on the primary data obtained from the use of the questionnaire. Ethical approval was obtained from Covenant Health Research Ethics Committee. The respondents were adequately informed about the objective of the study. Inform consent was also obtained from the respondents, and they were allowed to withdraw from participating in the study at any point they wished.

RESULTS

Hypothesis Testing

i) H₀: Product development does not have significant impact on the performance of Small and Medium Enterprises

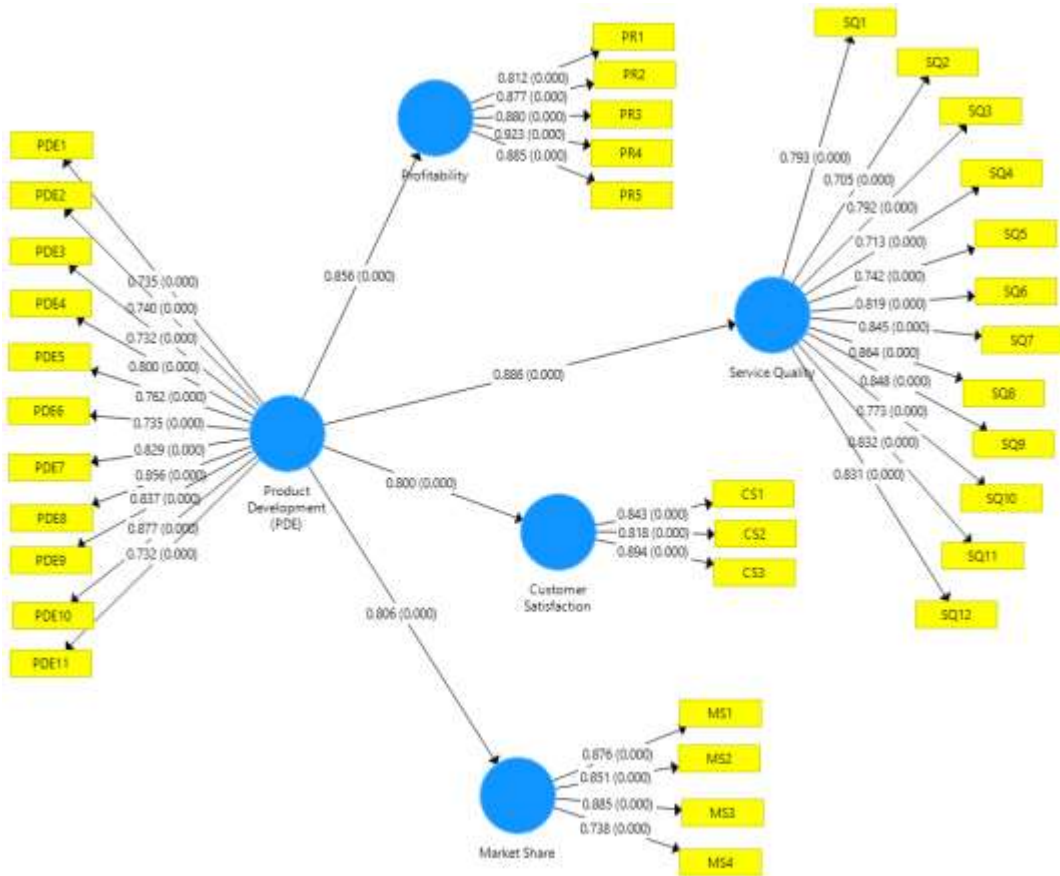


Figure 1 Product Development and Performance of SMEs (profitability, service quality, customer satisfaction, and market share) Model

Table 1 Coefficient Value of PD: Product Development, PR: Profitability, SQ: Service Quality, CS: Customer Satisfaction, MS: Market Share

Variables		Path Co-efficient	SE	T-Statistics	P Values	R ²	F ²	Q ²	Decision
H ₀₁	PDE → CS	0.800	0.048	16.561	0.000	0.640	1.780	0.454	Significant
H ₀₁	PDE →MS	0.806	0.057	14.237	0.000	0.650	1.857	0.444	Significant
H ₀₁	PDE → PR	0.856	0.048	17.646	0.000	0.732	2.736	0.547	Significant
H ₀₁	PDE → SQ	0.886	0.037	23.968	0.000	0.784	3.633	0.487	Significant

ii) H_0 : Market penetration does not have significant effect on the performance of Small and Medium Enterprises

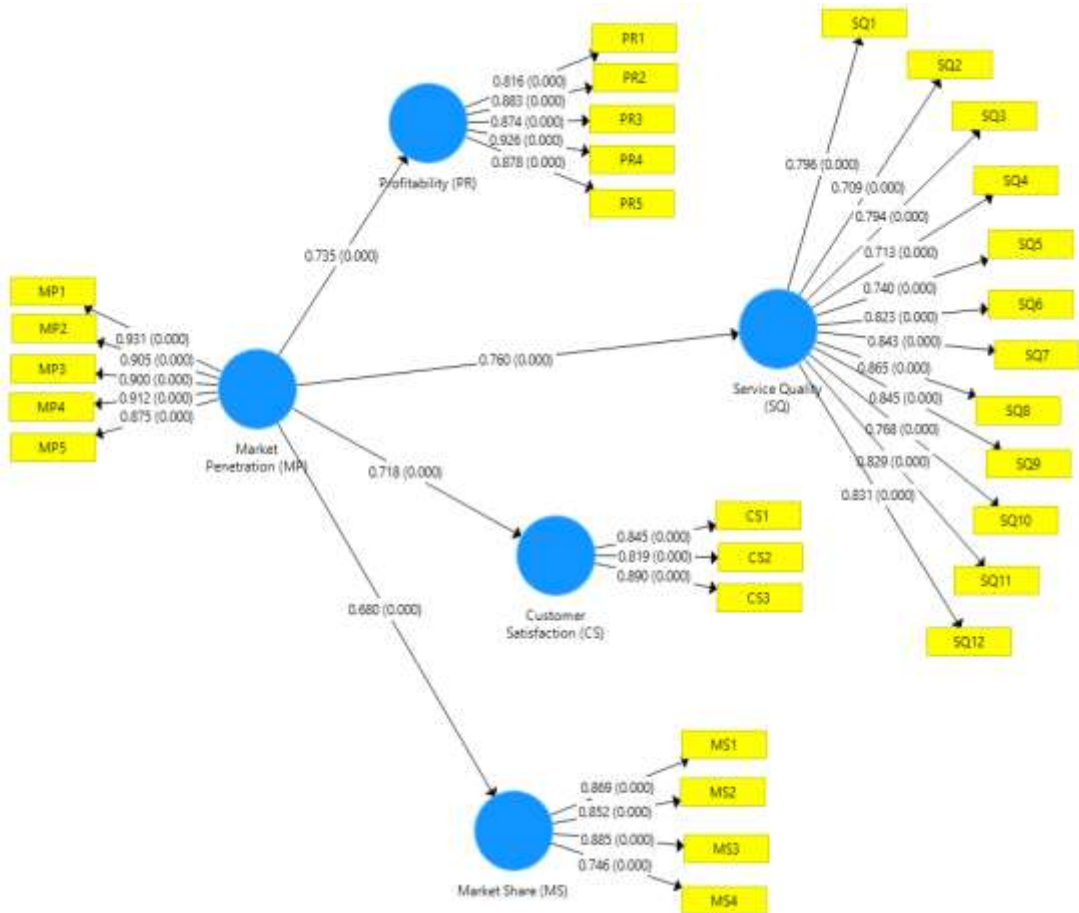


Figure 2 Market Penetration and Performance of SMEs (profitability, service quality, customer satisfaction, and market share) Model

Table 2. Coefficient value of MP: Market Penetration, PR: Profitability, SQ: Service Quality, CS: Customer Satisfaction, MS: Market Share

	Variables	Path Co-efficient	SE	T-Statistics	P Values	R ²	F ²	Q ²	Decision
H ₀₁	MP → CS	0.718	0.067	10.731	0.000	0.515	1.062	0.361	Significant
H ₀₁	MP → MS	0.680	0.086	7.892	0.000	0.462	0.860	0.311	Significant
H ₀₁	MP → PR	0.735	0.081	9.029	0.000	0.540	1.172	0.397	Significant
H ₀₁	MP → SQ	0.760	0.066	11.478	0.000	0.578	1.370	0.354	Significant

iii) H_0 : Market development does not have significant influence on the performance of Small and Medium Enterprises

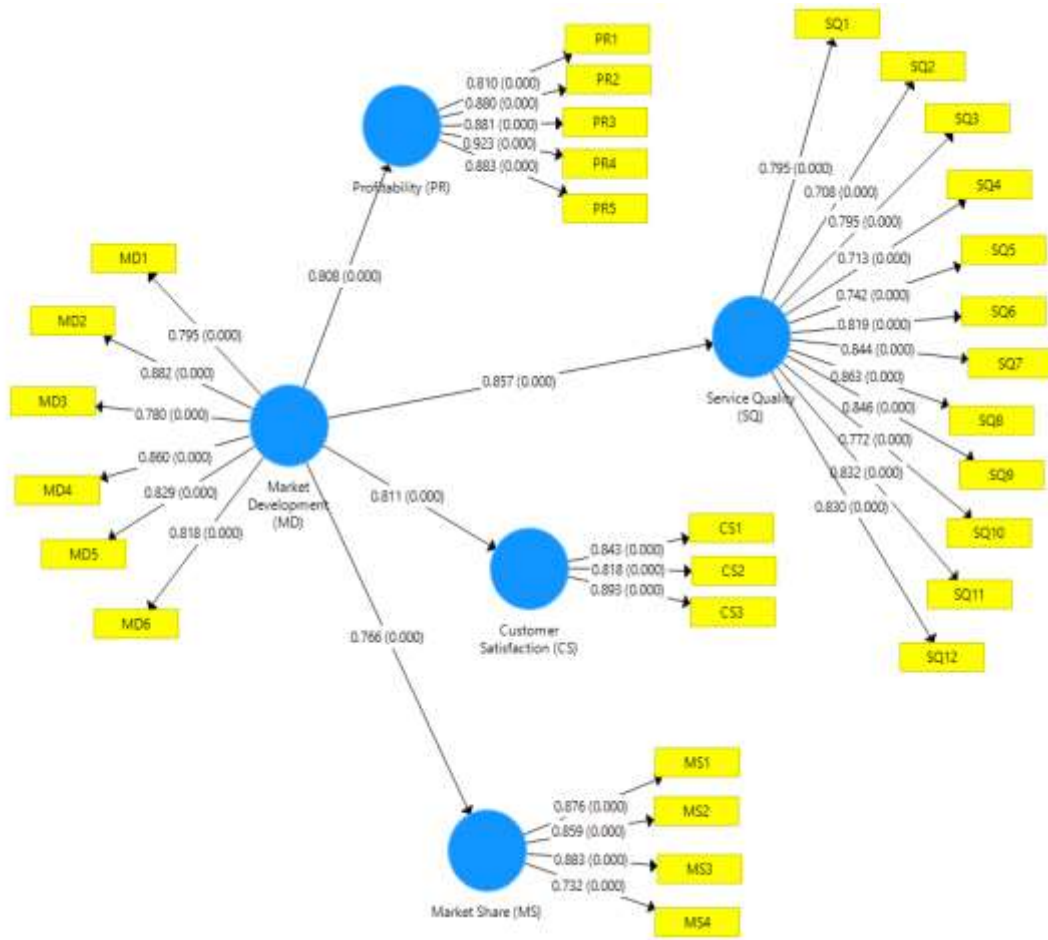


Figure 3 Market Development and Performance of SMEs (profitability, service quality, customer satisfaction, and market share) Model

Table 3. Coefficient value of MD: Market Development, PR: Profitability, SQ: Service Quality, CS: Customer Satisfaction, MS: Market Share

	Variables	Path Co-efficient	SE	T-Statistics	P Values	R ²	F ²	Q ²	Decision
H ₀₁	MD → CS	0.811	0.046	17.477	0.000	0.658	1.924	0.465	Significant
H ₀₁	MD → MS	0.766	0.064	11.992	0.000	0.587	1.422	0.398	Significant
H ₀₁	MD → PR	0.808	0.060	13.569	0.000	0.653	1.882	0.484	Significant
H ₀₁	MD → SQ	0.857	0.045	19.098	0.000	0.735	2.769	0.454	Significant

ii) H₀: Product diversification does not have significant outcomes on the performance of Small and Medium Enterprises

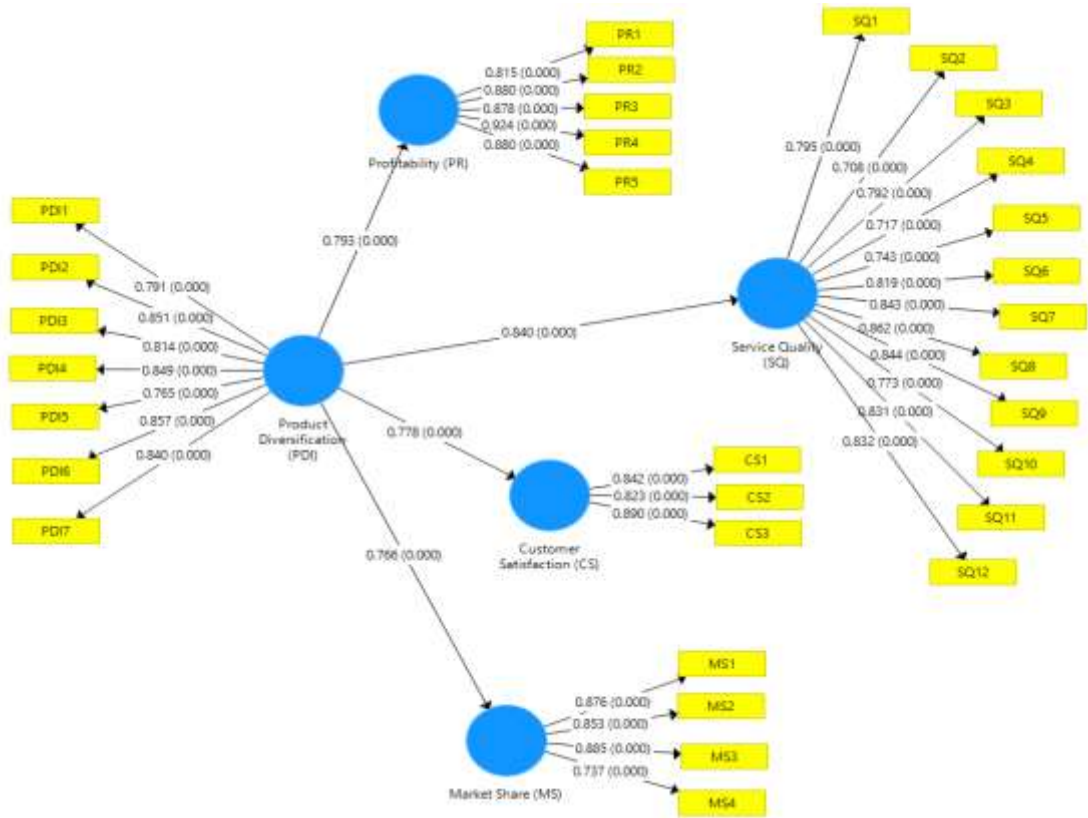


Figure 4. Product Diversification and Performance of SMEs (profitability, service quality, customer satisfaction, and market share) Model

Table 4. Coefficient value of Coefficient value of PD: Product Diversification, PR: Profitability, SQ: Service Quality, CS: Customer Satisfaction, MS: Market Share

Variables	Path Co-efficient	SE	T-Statistics	P Values	R ²	F ²	Q ²	Decision
H ₀₁ PDI → CS	0.778	0.054	14.288	0.000	0.605	1.531	0.428	Significant
H ₀₁ PDI → MS	0.766	0.065	11.855	0.000	0.587	1.420	0.402	Significant
H ₀₁ PDI → PR	0.793	0.067	11.889	0.000	0.628	1.691	0.468	Significant
H ₀₁ PDI → SQ	0.840	0.048	17.601	0.000	0.706	2.406	0.438	Significant

iv) H₀: Technological innovation does not moderate the relationship between growth strategy and performance of small and medium enterprise

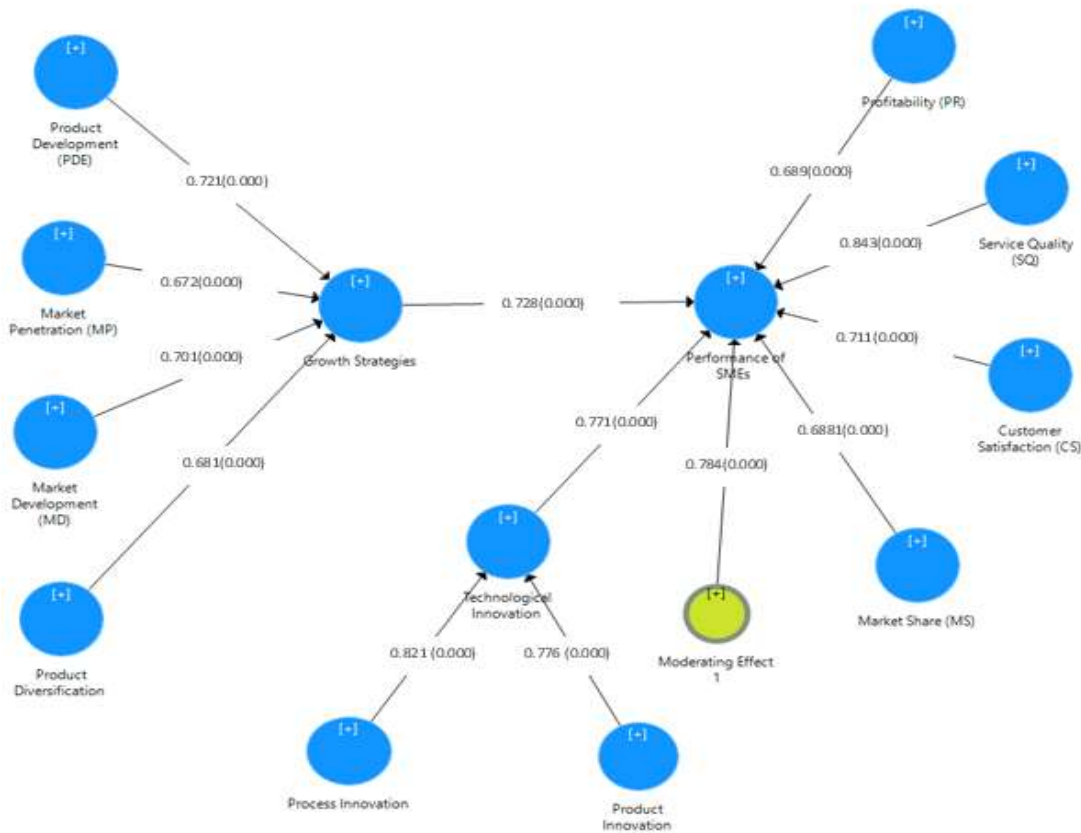


Figure 5. Growth Strategies, Technological Innovation, and Performance of SMEs Model

Table 5. Coefficient Value of Growth Strategies, Technological Innovation, and Performance of SMEs

Variables	Path Co-efficient	P Values	R ²	F ²	Q ²	Decision
GS → PSMEs	0.728	0.000	0.530	0.347	0.574	Significant
TI → PSMEs	0.771	0.000	0.594	0.452	0.621	Significant
Moderating Effect → PSMEs	0.784	0.000	0.615	0.349		Significant

DISCUSSION

Figure 2 shows the PLS algorithm model of product development and performance of SMEs with the loading values of each item of measurement of the constructs. This depicts the PLS Bootstrapping Model with β and P-coefficient values of product development and performance of SMEs. The p-value determines the amount of probability. Meanwhile, before the p-value can be regarded as significant, the probability must be less than 0.05. Therefore, at a p-value of 0.05, all the values of product development and performance of SMEs such as profitability, service quality, customer satisfaction, and market share measurements obtained in the research instrument are significant.

The first hypothesis examined the influence of product development and performance of SMEs (profitability, service quality, customer satisfaction, and market share). The findings show that product development has a substantial relationship with all the dimensions of performance of SMEs i.e., profitability, service quality, customer satisfaction, and market share covered by this study.

This implies that if the SMEs in the southwest of Nigeria continue to pay attention to policy governing the product development process, follow due process before the development of products, and be intentional about product development with the adoption of best practices, it will not only foster firms' expansion but also help the SMEs to stay ahead of competitors, increase the customer base that will culminate into improved profitability with appreciating the return on investment. Also, the findings implied that the promotional appeal by the SMEs in terms of advertisement drive on a different platform and contributes to product acceptance in the market coupled with responsiveness of the employees to customers' demands to satisfy customers.

In a related development, if SMEs in Southwest Nigeria continually give attention to innovation, and promote creativity among departments and intrapreneurship by investing in idea development with functional and well-funded research and development units, it will not only birth good products development, but the product sales will be greatly increased, thus the bottom-line of the firms will also be enhanced

These findings validate similar findings from Liu and Wand (2020). They noted that the increased performance and competitiveness of the firms are a function of well-planned and innovative product development. This was also corroborated by another similar finding by Mohammed (2019). He discovered that sale growth is affected by product development. This implies that the profitability, service quality, customer satisfaction, and market share of SMEs could be improved through the instrumentality of innovative and creative product development. Meanwhile, Hallencreutz and Parmler (2021) found that product development improves the existing product to meet customers' needs or creating new ones to meet the taste of the customers enhances the performance of a business in terms of customer satisfaction with the firm's products. This implies that SMEs should give attention to the existing products innovatively for possible rebranding

where necessary and as well fund their research and development base for product development that will satisfy customers' needs. Similarly, the finding of this study is also like the submission of Chaerudin and Syafarudin (2021). They discovered a significant relationship between product quality, customers' decision to purchase a particular product, service quality, and customer satisfaction.

In a nutshell, profitability, service quality, customer satisfaction, and market share of SMEs could be improved if attention is given to policy governing product development process, due process before the development of products, encouragement intrapreneurship and well-funded research and development unit of the firms.

The second hypothesis investigated the influence of market penetration and performance of SMEs (profitability, service quality, customer satisfaction, and market share). The findings showed that market penetration has a considerable positive relationship with the performance of SMEs variables used in this study i.e., profitability, service quality, customer satisfaction, and market share.

This suggests that if the management or owners of SMEs in Southwest Nigeria strive to dominate the market with their different well-packaged and innovative products that can compete favorably with competitors in the larger markets, and are readily available and easily accessed by customers, it could foster firms' growth, positioned SMEs to have the competitive edge over their competitors, increase the customer base that will culminate into improved sales and profitability with appreciable return on investment.

Similarly, the findings also implied that the market penetration drive of SMEs could drastically increase the sales volume of both existing and new products provided the needs of the existing and potential customers are met. This is also enhanced through advertisement and promotion appeal on different calculated and intentional platforms that could reach the target customers. Besides, if owners and managers of SMEs in Southwest can segment the market according to customers' desires, it will enhance market penetration, sales will be increased customers will be satisfied through service quality and profitability will also be enhanced.

These findings validate similar findings of Ojwaka and Deya (2018) who investigated the influence of growth strategies on the performance of commercial printing firms. They discovered that market penetration contributed significantly to the firm's success and performance. This was also supported by another similar finding by Suherna (2021). It was discovered by the author that SME performance correlates with networking. This networking is directed toward strengthening the market penetration capacity of the firm. It was posited that social relationships with customers are useful at all stages especially during product development to get familiar with the customers and understand their needs before penetrating the market discovered that sale growth is affected by product development. This implies that the profitability, service quality, customer satisfaction, and market share of SMEs could be improved through the instrumentation of groundbreaking and inventive product development.

Moreover, Assange and Asue (2020), Ojiambo (2021) and Mwangi (2021) found that market penetration contributes significantly to attracting customers' attention and meeting their needs to compete in the market. This suggests that SMEs need to prioritize strategies that will make them compete favourably with rivalries in the global business market by ensuring the availability of quality products in the market. Also, Calculated advertisement of products on different platforms could also contribute to the market penetration drive.

The third hypothesis explored the influence of market development and performance of SMEs (profitability, service quality, customer satisfaction, and market share). The findings revealed that market development has a considerable relationship with all the dimensions of performance of SMEs i.e., profitability, service quality, customer satisfaction, and market share used in this study.

This indicates that if the SMEs in the southwest of Nigeria can manage and retain their existing customers and attract more potential customers, it could perhaps drive firms' progressive growth and development, appreciable increase in the customer base and increased bottom-line of the SMEs. Also, the findings implied that venturing into new geographical areas with appropriate development of new market segments and well-carved-out new distribution channels could also contribute to enhancing firms' profitability, service quality, customer satisfaction, and market share.

In a related development, if SMEs in Southwest Nigeria continually focus on clear market development strategies, it will impact positively product sales, market share, customer satisfaction and financial viability.

These findings confirm similar findings of Andrie, Dinca, Mitan, and Vatamanescu (2021). They discovered that the increased strategic innovation, SMEs profitability, effectiveness and attractiveness of the firms is a function of well-planned and state-of-the-art market development. This was also corroborated by Min and Kim (2022) and Mwangi (2021) who noted that the capability of the firm to identify and make use of opportunities paves the way for rapid development, creating a link between performance and market development. This implies that the profitability, service quality, customer satisfaction, and market share of the SMEs could be better through innovative market development and distribution channels. Meanwhile, Laburtseva, Larina, Nahorna, Vinichenko, and Al-Shaban (2021) found that customers no longer take the prices of the products as the only criterion to choose a product as a preferred product, they, however, noted that aside from price and quality of product, personal attitude is also very critical for market development that will meet customer's needs. This implies that SMEs should give attention to the prices of the products, the quality of products and the quality of customer relationships. Similarly, the finding of this study is also like the submission of Hilman *et al.* (2018). They discovered a significant relationship between product development and the performance of firms. They noted that measures of the performances of the firm were competitiveness in the market and competitive advantage.

Hypothesis four investigated the influence of product diversification and the performance of SMEs

(profitability, service quality, customer satisfaction, and market share). The findings exposed that product diversification has a considerable positive relationship with the performance of SMEs variables used in this study i.e., profitability, service quality, customer satisfaction, and market share.

This suggests that if the management or owners of SMEs in Southwest Nigeria strive to invest in other products and are intentional about producing different products that will meet customer needs and satisfaction, it could promote firms' profitability, service quality, customer satisfaction, and market share.

Similarly, the findings also implied that introducing new products into the market regularly on the strength of the existing brand that contributes very much to the firm competitive advantage could considerably increase the sales volume of both existing and new products. This is also enhanced through intentional advertisement. Besides, the introduction of similar products contributes greatly to the reduction of business costs.

These findings validate similar findings of Ojo (2019) who investigated the relationship between diversity and the success of firms. They discovered that geographical variety positively benefited the firms' performance. This was also supported by another similar finding by Idehen and Yanetu (2021). It was discovered there is a positive relationship between diversification and profitability. According to them, the profitability of most firms increased at different ranges after diversification. This implies that the profitability, service quality, customer satisfaction, and market share of SMEs could be improved through product diversity.

Moreover, Hunjra, and Chani (2019) and Arte and Larimo (2022) found that firms perform better than their undiversified counterparts by focusing more on financial performance and categorizing corporate diversification into geographical and product diversification. They also noted that the performance of firms that diversified into an unrelated product is not as high as that of those that diversified into related products. In other words, firms that want to diversify should consider products that are related to their existing products. This suggests that managers or owners of SMEs need to prioritize their policies on product diversification to derive firms' sustainability and competitive edge in the highly competitive business world.

Hypothesis five investigated the moderating effect of technological innovation on growth strategies and performance of small and medium enterprises. The finding revealed that there is a considerable direct relationship between growth strategies and the performance of small and medium enterprises

The finding discovered that technological innovation has a significant relationship with the performance of small and medium enterprises. Technological innovation significantly moderates the relationship between growth strategies and the performance of small and medium enterprises. This implies that technological innovation strengthens the relationship between growth strategies and the performance of small and medium enterprises. Therefore, the drive for the growth strategies and performance of small and medium enterprises. is a function of process and product innovation. This implies that the adoption of innovative equipment, technical specifications for the

development of new products and increased capability to adjust to rapid changes reinforces the relationships between growth strategies and SMEs performance.

Similarly, the finding also implies that the development of current products results in improved ease of use for customers, improved customer satisfaction because of the development of new products, sophisticated machinery that helps SMEs to improve the quality of current products, environmentally friendly policies process and application of new equipment in improving customers' loyalty to firms' products reinforces the correlation between growth strategies and SMEs performance. In the same vein, embracing new and better ways in the firms' processes and removal of non-value-adding processes in production had helped the process innovation of the firms. Meanwhile, increased quality of the output in innovative techniques, and time of delivery processes from suppliers to customers also strengthens the interrelatedness between growth strategies and SMEs performance.

This finding aligns with the submission of Ozah, and Mzughulga (2021) who posited that communicating in a modern way is an innovative tool to assist firms to improve the quality of their production. They noted that innovation helps to attract more customers to the firm as well as prevents wasting time while transacting business. This implies that firms become safe from societal crime because of computerizing their business and adopting other forms of technological innovation.

The findings also validate the submission of Micah *et al.* (2019) who found out that profit made by SMEs can be boosted by adopting innovative technology. This implies that the adoption of innovative technology will enhance product development to gain access to the new market. Also, Okpalaoka *et al* (2022) found out that acquiring knowledge is paramount to the efficiency of technology innovation and leads to a great positive impact on the profitability of the firms. Besides, the finding is also like the submission of Nwankwo and Ezeibe (2021) who found that differentiation of innovation into a product and process improves the performance of SMEs. This was also supported by Mugogo (2020) who noted that process and product innovations are crucial to the performance of organizations.

Implications

This study provides helpful guide to small and medium enterprise owners and their associations, manufacturing industry and the government.

Government should create more enabling environment to support their policies as it relates to business establishment in Nigeria.

SME owners should learn strategies on how to gain competitive intelligences on their strong competitors who has survived and thrived long in the business, they can leverage on this knowledge and their wealth of experience.

SME owners should translate growth strategy into a mindset and a culture within the firm, from

the top of management to the unskilled workers in order to be able to achieve a sustainable growth.

Manufacturing sector can act as a change agent for SME owners to embrace technology as well as create a collaboration forum for organisational learning and continuous improvement as well as set a standard for quality control of production.

SMEs association can organise a hand on training for its members on the use of innovative technology and its advantage, so as to familiarise business owners and help them overcome perceived difficulty of usage that is likely to hinder their growth. They can also introduce a running system that financially support challenging business and also provide recommendation and mentorship to their members on surviving strategies in the industry. Also, on how to overcome potential threats in the market place and how to tap into the existing opportunity in the marketplace.

Future Research Direction

i) Future studies could increase the sample size for wider generalization, by including manufacturing SMEs in the six geo-political zones in Nigeria. Or a comparative analysis with the inclusive of service industry.

ii) Since this study is limited to southwest Nigeria, same study could be carried out within any other African or developed country for the purpose of further generalisation.

iii) Future study may employ an in-depth interview data collection in order to enhance the robustness of data.

iv) The concept of this study is multidimensional in nature, hence future studies may also consider exploring additional or new constructs like entrepreneurial orientation, liquidity for the measurement of growth strategies and performance of SMEs respectively. And can also examine the moderating effect of self-efficacy on the relationship between growth strategy and performance of SMEs to widen the research model.

iv) Further studies can adopt the use of longitudinal data collection process, for a comparative analysis and also to establish cause-effect relationship between the variables.

v) This study focuses on Ansoff matrix model and technological assessment model as the underpinning theory of this study, other study could focus on other related theories like resource-based view and dynamic capability theory.

CONCLUSION

This study concluded that SMEs could experience expansion and stay ahead of competitors with an appreciable increase in customer base that will culminate into improved profitability with appreciating a return on investment if the due process for product development is followed and

policies around product development are regularly reviewed in line with the business trends in the immediate and global business environment. Therefore, continuous updating of policies on product development coupled with innovation, well-funded research and development and intentional advertisement could foster product sales and increased profitability of SMEs

The overall performance of SMEs could be boosted through well-packaged and innovative products that can compete favorably with competitors in larger markets. To this end, the study concludes that the market penetration drive of SMEs could considerably upsurge sales of products provided the needs of the existing and potential customers are met. This is also enhanced through advertisement and promotion appeal on different promotional and advertisement platforms that could reach the target customers.

In related development, profitability, service quality, customer satisfaction, and market share could be enhanced through market development. However, managing and retaining their existing customers and attracting more potential customers would not only drive firms' progressive growth and development but also promote an appreciable increase in the customer base and increased bottom line of the SMEs. To this end, the study concludes that venturing into new geographical areas with appropriate development of new market segments with well-carved-out new distribution channels enhances firms' profitability, service quality, customer satisfaction, and market share.

The study also concludes that introducing new products into the market regularly on the strength of the existing brands contributes significantly to the SMEs' competitive advantage. Therefore, SME owners need to prioritize their policies on product diversification to drive sustainable performance. Also, the study concludes that technological innovation significantly moderates the relationship between growth strategies and the performance of small and medium enterprises.

Contributions to Knowledge

The followings are some of the contributions to the body of knowledge.

This study adds to the existing literature by evaluating how technological innovation can be used to strengthen the relationship between growth strategy and performance of manufacturing small and medium enterprise in southwest Nigeria. The findings herewith are of immense benefit to SME's owners, association of SMEs, researchers and governmental regulatory agencies. This study contributes to the multifaceted conceptualisation of growth strategy and performance in manufacturing SME sector. Practically speaking, this research will provide insight for SME owners to make decisions on the strategic growth of their businesses to enhance the performance of their businesses in an internationalized, advancing economy, by maximising their internal resource to take advantage of opportunity in their operating environment. This study is a boost to literature as its one of the few, original, empirical and latest account of the practical relationship between market penetration and performance of small and medium enterprise especially within the context of a developing economy like Nigeria. The Structural Equation Modelling (SEM) method adopted as a statistical tool further helped to provide the pattern of nexus among the variables. The findings of

this study theoretically add value to the existing literature on SME performance as well as it shows the significance of adopting technology to harness business growth in the long run.

This study has served to harness the valuable contribution of relevant theories such as Ansoff Model and technology assessment model. The application of the theory to this study boosts the robustness of the findings and result and enhance the diagnostic of the measurement instrument.

The study adds to the corpus of knowledge by focusing on sustainable development goals (SDGs), precisely Goal 9 of industry, innovation and infrastructure. It contributes to building resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

This study will enhance SME owners and their associations on how to strategic position their business for growth in the highly competitive business environment, by harness their diverse internal resources at different stages of their business to take advantage of the business opportunities.

Lastly, this study develops a model that provide empirical evidence on the moderating effect of technological innovation on the relationship between growth strategy and performance of small and medium enterprise. The benefit of this model is that it show the antecedents factors that precedes and can enable growth as well as enabling environment to promote adoption of technological innovation.

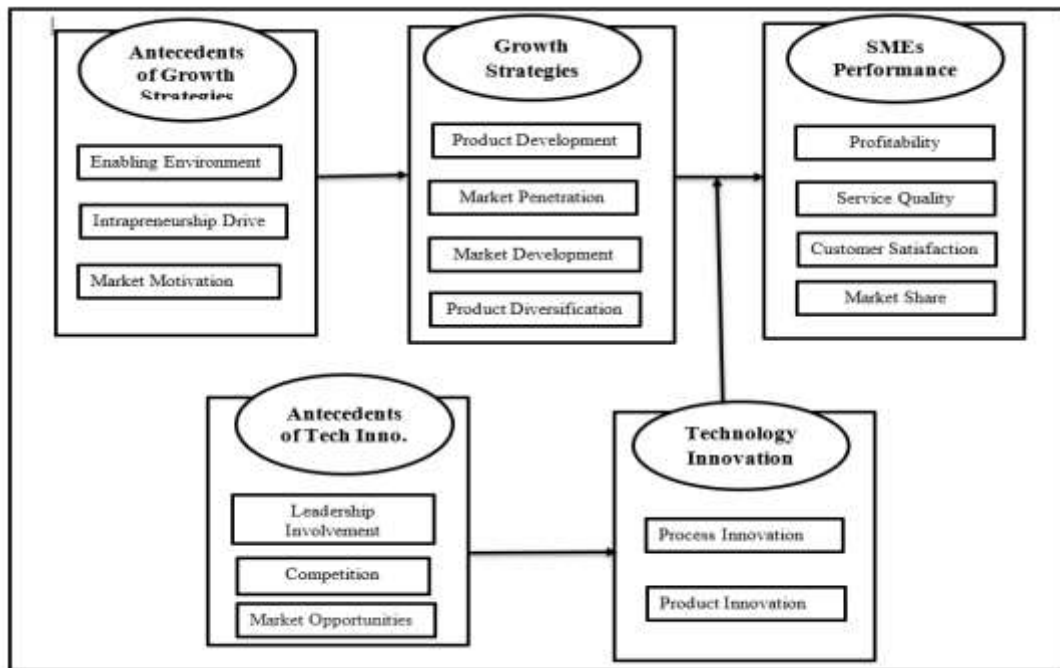


Figure 6 Growth Strategy and Performance and Technological Innovation

Limitation of the Study

The limitation of the study include:

- i) The researcher encountered challenges during data collection, with non-disclosure of information at first, with the assurance of confidentiality, they were able to give required information.
- ii) Based on the objective of the study, the researcher used was four dimensions of growth strategy, four dimensions of performance and two dimensions of technological innovation among several dimensions. The coverage of this study is limited to this construct.
- iii) Geographically, the study was limited in scope because it only focused on the manufacturing SMEs in southwest of Nigeria among the other six geopolitical zone that can be studied.

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