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The Impact of Lean Production and Flexible Manufacturing Strategies on Financial Performance of Manufacturing Companies in Nigeria

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Abstract
This research aims to investigate the impact of lean production strategy (LPS) and flexible manufacturing strategy (FMS) on financial performance (FP) in the Nigerian manufacturing sector (NMS). A quantitative research approach was applied, and a simple random sampling technique was chosen to identify the samples for this study. For this reason, data were collected from 101 manufacturing companies in Nigeria and a statistical tool; Statistical Package for Social Science (SPSS) version 26 was used to analyze the data. The result shows a significant relationship among the factors examined. Among the factors, the independent variable (LPS) had shown the most decisive impact compared to (FMS) on the dependent variable (FP) the study suggested. Findings from the study contribute and support Porter's generic theory on existing literature, and practically to the Nigerian manufacturing companies by providing insights into this research area.

Keywords*:* Lean production, financial performance, strategy, manufacturing companies, Porter's theory, Nigeria.

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INTRODUCTION

With recent developments in the last couple of decades, there had been a series of new operational approach attempting to reduce financial performance cost, improve service quality, enhance competitive positions and productivity in various sectors of the economy, most especially the manufacturing and distributive sector in the Nigeria economy (Zu'bi, 2015). These approaches range from just in time manufacturing companies, manufacturing productive companies, the total quality management of manufacturing companies and the lean production systems (Chiarini & Brunetti, 2019). In the developing nation such as Nigeria, the impact of lean production or flexibility management are new. Although other operational propositions had started getting popular in some developing nations (Bevilacqua et al., 2017). However, the freezing competitive circumstances have shifted towards an international basis, thus, making several manufacturing companies in emerging nations such as Nigeria to adopt innovative operational approaches and practice to remain relevant and competitive among manufacturing companies (Onwughalu et al., 2017). Globalization and free trade agreement (FTA) are among the factors that have led to the competitive shift and situation on lead production in the manufacturing industry to gain a competitive financial performance.

Nigeria as a nation has a major lack in the manufacturing industry with a recent shift in economic resources. Manufacturing companies in Nigeria has been struggling due to several reasons that include; unrecovered impacts of previous and recent global economic recession crisis, the impact of free trade agreements and the instability of economic crisis among its west African sub-region (Losonci & Demeter, 2013; Onwughalu et al., 2017). Therefore, with the implementation and impact of lean production strategy, lean production has been identified as a perfect response and retaliation to the current challenges or issue that Nigerian manufacturers and manufacturing companies face and encounter. To remain in a competitive market like Nigeria, and to rival in its regional market, lean productivity and flexibility strategy should be adequately implemented. Numerous studies had argued that lean production focal point is to improve manufacturing process efficiency and planning to meet consumer demand and effectiveness (Zu'bi, 2015; Onwughalu et al., 2017). Some studies had argued that flexibility manufacturing strategy could be re-evaluated based on the manufacturing company's flexibility to provide a responsive change to businesses and meet market targets (Abdallah et al., 2009). Numerous studies have stated the impact and benefit of lean production on manufacturing productivity and improvement, or inventory reduction in financial performance, performance and quality improvement (Abdallah, 2013; Al Hasan & Zu'bi, 2014).

Previous studies had investigated the impacts of lean performance with different factors that include employee performance and operational performance. However, there is a lack of studies that examined the impact of lead production on financial performance and flexible manufacturing strategy in emerging nations and the Nigeria context. There are

apparent literature and the empirical gap in studies explicating lean production strategy practices and companies' financial performance in Nigeria. While lean production and flexible manufacturing strategy are explicitly important, it will eventually be applied to measure the improvement of financial performance in Nigeria manufacturing sector. Subsequently, these strategies will constantly enhance efficiency by eliminating financial waste and better production in the manufacturing sector. Therefore, it is against these backdrops this study is being investigated to contribute to the existing literature in the Nigeria manufacturing sector. Thus, the study attempts to answer two research questions based on the conceptual framework;

RQ1. What is the impact of lean production strategy on financial performance?

RQ2. What is the impact of flexible manufacturing strategy on financial performance?

The study will contribute to the contemporary lean production practices in the dynamism of financial performance of Nigeria manufacturing companies, and the obtained results will make some contributions to theoretical and practical implications.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Porter's Generic Strategies Theory

The major factor of this study is that it examines the relationship of streams of strategies on financial performance using Porters Generic Strategy Theory (Porter, 1980, 1985). Porter (1985) identified cost leadership and product differentiation strategy as two important strategies to maintain firm performance. The differentiation strategy is the ability of a firm to create a product that offers special attributes that are valued by consumers and thus perceived to be better than or different from the rival products. The value added by the uniqueness of the product may allow the firm to charge a premium price for it. Contrastingly, the cost leadership emphasizes low cost relative to competitors. For firms that pursue the cost leadership strategy, they often sell their products either at average industry price to earn a profit higher than that of rivals, or below the average industry prices to gain market share (Porter, 1980).

However, most companies acquire a competitive cost advantage that will be improving process efficiencies and gaining unique access to a large source of lower-cost materials, making optimal outsourcing and vertical integration decisions. However, the low-cost strategy has its risks. For instance, some companies may lower their cost and outperform companies that pursue a low-cost strategy. Technically, technological improvements make it easy for competitors to utilize their production capabilities to eliminate the competitive advantage hitherto enjoyed by companies that pursue a low-cost strategy. Many firms that pursue a focus strategy and target various narrow markets can attain an even lower cost within their chosen segments, thereby gaining considerable market shares (Grant & Jordan, 2015). Based on the limitation of cost leadership strategy, numerous firms are now focusing on a differentiation strategy to maintain a competitive advantage. The differentiation strategy can be attained through lean production and flexibility manufacturing strategy.

Spencer et al., (2009), and Dirisu et al., (2013) argued that manufacturing sector is beginning to struggle to compete solely based on a low-cost basis, hence, they now prefer flexible production approach to produce customized goods that would give them a competitive edge over rivals. As costs of materials and labour become high, manufacturing companies now pursue competitive edge over rivals by utilizing lean production and flexible manufacturing strategies to respond to emerging consumer demands through customizable products that meet the consumers' unmet needs. However, only limited studies have investigated the direct relationship between lean production and companies' financial performance (Zhu & Lin, 2017). Besides, no prior study has attempted to investigate the relationship between lean production, flexible manufacturing strategy on the financial performance of companies. Based on this research gap, this current study is being investigated.

Financial Performance

Porter (1985) generic strategies are structurally tied to companies' financial performance with the prospect of some terminologies. Financial performance (FP) is the ability of a company's structure to bring about increment and generate profit margin or shares for its business; it also measures how a company manage its revenue to gain profit and maintain credit performance. According to Porter's theory, financial performance are the fundamental resources required to wind up incompatible assets (Porter, 1980, 1985) and subsequent study have supported the claim (Kim et al., 2004; Tansey et al., 2014).

Researchers like Marcus et al., (2004) argued that profitability determines how well a company utilizes its assets to generate appropriate returns of investment for its shareowners. Research has been able to use Porter's generic theory to provide financial performance with a sizeable dominance to determines how well a manufacturing company earns profit from each sale and leverage on it flexibility (Tansey et al., 2014). Profitability level of any manufacturing company could be determined at the operating level or the net income share level (Porter, 1985; Kim et al., 2004). The amount left after deducting the cost of goods sold is known as the gross profit while the amount left after deducting all expenses is known as the net profit. In financial performance, the Porter Generic Strategies (PGS) model has been applied to reduce financial cost and enhance financial performance (Porter, 1980). The PGS model has identified two unique strategies; cost leadership and product differentiation. These strategies are uniquely deploying in manufacturing companies to reduce financial cost to a level below the company's competitors and enhance financial performance.

Lean Production

The lean production strategy (LPS) are knowledge and philosophy used to advance the practices of total quality management and companies just in time to decrease financial waste and enhance company's performance or quality (Hofer et al., 2012; Tortorella & Fettermann, 2018). Some research had argued that Porter's generic strategies are tied with lean production strategies to enhance adequate firm financial performance (Kim et al., 2004). For instance, Porter's generic (differentiation) strategy aligned with Miles et al., (1978) prospector strategy and also align with Dess & Davis (1984) cost leadership strategy to meet companies' performance. However, with the impact on the implementation and applications of lean production strategy and practice in the manufacturing companies, it is expected to improve and better operational outcome in the financial performance sector that

includes; reduction of inventories and high-quality finance system of productiveness that could improve financial performance.

The lean production practices indicate some factors propagating between lean production strategy and financial performance. This paradigm is consistent with the study of Hofer et al., (2012) which highlight the concatenation to supplementary process and structure within companies' profitability and benefit. One of the focus of this study is the impact of lean production on the performance of manufacturing companies in Nigeria to enhance financial performance. It anticipated that lean production implementation will not only benefit direct financial management but also result in the overall company's financial inventory which will ameliorate the financial performance of manufacturing companies. The Porter (1985) strategy is very much in focus like the Miller and Friesen (1986) innovator niche strategy, in conformity with the research model, the first aim is to stream the relationship between LPS and FP within the structure of manufacturing companies in Nigeria. Porter's (1980) framework put forward that companies must desire to set out wide or small market segment through lean production approach uniqueness (i.e., differentiator). Therefore, a manufacturing company that follow lean production strategy will attain positive financial growth and performance by targeting the uniqueness of small market segment. Hence, based on the highlighted reviews, the study proposed the following hypothesis.
Hypothesis 1: There is a significant relationship between lead production strategy and financial performance.

Flexible Manufacturing Strategy

According to Porter's (1985) generic strategy some companies do not pursue a viable strategy thereby leading to company middle stuck (i.e., not able to convince consumers in their offers). Stuck in the middle occurs if a company fail to implement a generic business strategy (Porter, 1980). For instance, when a company is unable to differentiate and develop its operation from its competitors, this could lead to the attainment flexibility of manufacturing strategy to provide the unique feature to provide a balance in convincing its customers. However, a flexible manufacturing strategy (FMS) helps to respond to customer demand and maximize the financial performance of a company. Porter (1980), also argued that companies can become stuck in the middle by simultaneously demanding multiple strategies. Therefore, manufacturing companies that uniquely follow flexible strategy will be able to offer unique services to its customers through a technological impact to gain competitive advantage (Gerwin, 2015).

The measurement of flexibility in manufacturing industry remained one of the most crucial tasks in financial performance and management studies (Narain et al., 2000). Empirically, no invariably acceptable measurement or structure exists for measuring flexibility or flexible strategy. This is due to the absence of justifications from past studies. However, this suggests a theoretical bias and limited in scope (Narain et al., 2000). In this study, a methodological fit does exist in flexible manufacturing strategy on financial performance. Since the increasing share of manufacturing production has made it difficult for manufacturing companies to compete merely on a bargaining framework, thus, several manufacturing companies now present flexible systems of production to achieve competitive advantage and attain increase bargain margin. This is because flexible manufacturing strategies authorize manufacturing companies to make customized products that reduce financial wastes, improve company efficiency and increase manufacturing revenue. Based on the highlighted reviews, the study proposed the following hypothesis.
Hypothesis 2. There is a significant relationship between flexible manufacturing strategy and financial performance.

The purpose of this study to investigate the impact of lean production strategy (LPS) and flexible manufacturing strategy (FMS) on financial performance (FP) in the Nigerian manufacturing sector (NMS). Hence, the research framework depicted in Figure 1 conceptualizes these factors. LPS and FMS were conceptualized as independent variables while FP was conceptualized as the dependent variable. Based on this, a framework was formed.

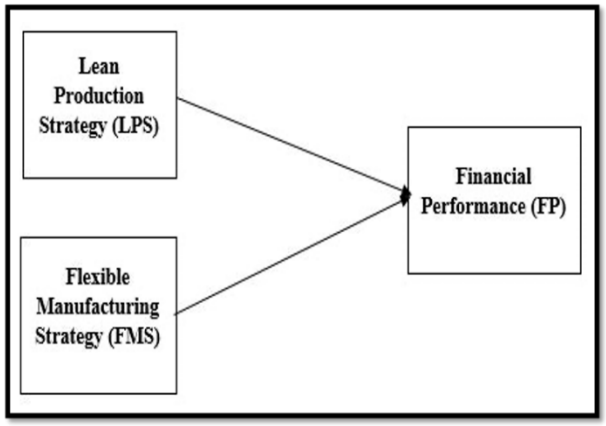

Figure 1: Research Framework of the Study

RESEARCH METHODOLOGY

This study utilised a self-administered questionnaire to examine research data. The questionnaires were distributed among employees of manufacturing companies in Lagos, Nigeria who knew about lean production on flexible manufacturing strategy over the past three years. A total of 101 manufacturing companies is selected from the total population of 420 companies (Odusanya et al., 2018). In this process, Krejcie & Morgan (1970) sample table was utilised and 101 sample size was chosen. Other factors were also considered in the selections of sample size determination such as; budget availability and time required to complete the study. However, Bryman & Bell (2011) argued that the sample size should be chosen to represent the population, save time and money. This support the studies of Spencer et al., (2009) who used a sample size of 84 manufacturing companies in Australia.

The study applied a simple random sampling technique because of its simplicity, lack of bias and offer less risk of carrying error due to equal chance of selection process (Jawale, 2012). The study had used a 5-point Likert scale of (1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree) to meet the study objective. The survey questions were classified into sections with a total of 17 closed-ended questions focusing on the impact of lean production strategy (5 items) and flexible manufacturing strategy (5 items) on the financial performance (7 items) of manufacturing companies in Nigeria. To meet the study

objective, statistical package for social science (SPSS) version 26 was used to analyze the statistical data.

RESULT AND DISCUSSIONS

Respondent demographic profile

In this study, the survey samples include 101 employees of manufacturing companies in Lagos, Nigeria. The characteristics of the demographic respondents as follows. Results of employees indicate that majority of the companies have a workforce of more than 15 workers representing 30.7%, this means manufacturing companies in Lagos, Nigeria need many workers to handle multiple tasks such as design, testing and developing new products to target new customers. Regarding companies' years of operational service, the study indicates that the participating companies had been operating for less than 20 years representing 28.7%, and a minimum of 38 years of operation representing 11.9%, this means most of the manufacturing companies in Lagos, Nigeria were established in recent years. The study also shows that majority of the company's employees are attached to the private limited companies representing 50 (49.5%), thus, they adopt the private liability ownership structure to compete with their competitors and meet consumer demand. The annual revenue shows that 46 employees representing 45.5% had received a minimum of $1,000,000, in total asset value of above $2.1 million assigned to 37 employees representing 36.6%. The study reveals that the management structure of 48 employees had accepted functional structure representing 47.5%. patterning to organizational culture, a total of 52 employees had accepted the stability-oriented culture representing 51.5%. Table 1 present the demographic profile.

Table 1: Demographic Profile

Indicators	Attributes		n=101	Percent (100%)
	Number of Employees	1-5	21	20.8
		6-10	27	26.7
		11-15	22	21.8
		> 15	31	30.7
	Company's Years of Operation	< 20 years	29	28.7
		21 – 26	22	21.8
		27 – 32	14	13.9
		33 – 38	24	23.8
		> 38 years old	12	11.9
	Company Type	Sole proprietorship	11	10.9
		Partnership	13	12.9
		Private limited company	50	49.5
		Public company	27	26.7
	Annual Revenue	< $100,000	20	19.8
		$100,000 – $500,000	21	20.8
		$500,001 – $1,000,000	14	13.9
		> $1,000,000	46	45.5
	Total Asset Value	< $500,000	13	12.9
		$500,000 – $1million	16	15.8
		$1,000,001 – $1,6million	12	11.9
		$1,600,001 – $2.1million	23	22.8
		> $2.1million	37	36.6
	Types of Management Structure	Team structure	22	21.8
		Matrix structure	8	7.9
		Divisional structure	13	12.9
		Functional structure	48	47.5
		Administrative structure	10	9.9
	Types of Organizational Culture	Innovative culture	5	5
		Aggressive culture	9	8.9
		People-oriented culture	7	6.9
		Result-oriented culture	10	9.9
		Stability oriented culture	52	51.5
		Team-oriented culture	16	15.8
		Detail-oriented culture	2	2

Financial Performance

Reliability test was conducted for financial performance based on Cronbach Alpha values. Table 2 given below is the reliability statistics, which provides the Cronbach alpha (α) values for the examined factors. Following the results from the analysis, the study shows that the Cronbach alpha value for financial performance is (0.773), and are above the threshold value for (α).

Table 2: Reliability Results for Financial Performance

Variable	Number of items	Cronbach Alpha
Financial Performance (FP)	7	0.773

A descriptive statistic for financial performance was calculated, showing the descriptiveness of the factors and showing the mean and standard deviation values. The study shows that financial performance has a mean value in ranges from 3.65 to 3.86, suggesting average mean standard. These results indicate that manufacturing companies had attained a desirable profit margin. However, the majority of the manufacturing companies agreed that they performed better than their counterparts in terms of profit margin to attain competitive advantage. They had performed better because they utilized the lean production strategy and flexible manufacturing strategies to design new innovative products and services, thus, attracted more customers and increase their sales revenue to meet the financial performance. According to Gerwin (2015), a company's ability to create a product that offers unique attributes and services are valued by their customers and allow businesses to grow in revenue and public image. The results from this financial performance had revealed that the companies agree they had generated an adequate return on investment ROI for their shareholders. This also indicates that the company had earned more dividends that their contenders in the manufacturing companies.

Table 3: Results of Descriptive Statistics for Financial Performance

No.	Variables/ Measurement items n=101	Mean (M)	Standard Deviation (SD)
		Financial Performance (FP):	
FP1	Attaining desired profit margin	3.75	1.043
FP2	Generating sufficient returns on investment for the shareholders	3.65	.994
FP3	Attaining new customers	3.75	1.099
FP4	Achieving the desired market share	3.71	.983
FP5	Ability to meet short-term financial obligations	3.86	.872
FP6	The company has a good track record of inventory turnover rate	3.79	.840
FP7	Achieving good solvency rate	3.77	1.018

Lean Production

Table 4 provides the reliability results for lean production. Following the results from the analysis, the study shows that the Cronbach alpha value for financial lean production strategy is (0.730) and are above the threshold value for (α). This indicates the data generated from items used in measuring lean production yielded a statistically reliable result with a sound conclusion.

Table 4: Reliability Results for Lean Production

Variable	Number of items	Cronbach Alpha
Lean Production Strategy (LPS)	5	0.730

The descriptive statistics for lean production strategy was also calculated, Table 5 also presents the results for the statistics. The study shows that lean production strategy has a mean value in ranges from 3.66 to 3.94, suggesting average mean

standard. These results indicate that majority of manufacturing companies concur that lean production strategy attempt to abolish superfluity and overproduction in removing all form of manufacturing waste and tends to produce products only demand by its clients. These results are similar to the study of Gerwin (2015) who argued that the cost resource (i.e., labour and materials) had set off in the West and most emerging countries. In line with this, most manufacturing companies are beginning to consider and embrace the lean production strategy to meet consumer demand and content with their contenders. The study had suggested that adopting a lean production strategy is the right way to go for most manufacturing companies if they are to leverage on improve product quality to satisfy their customers. According to Bolatan et al., (2016), lean production strategy will enable a manufacturing company to reach fineness standard and performance. Thus, this study also suggests, therefore manufacturing companies must follow a lean strategy to attain companies' goal.

Table 5: Results of Descriptive Statistics for Lean Production

No.	Variables/ Measurement items/ n=101	Mean (M)	Standard Deviation (SD)
Lean Production Strategy (LPS):			
LPS1	Lean production strives to eliminate overproduction	3.78	.889
LPS2	The lean system cuts waste in the production system	3.94	.810
LPS3	Lean production improves product quality	3.66	1.002
LPS4	Lean production makes the business more efficient	3.79	.930
LPS5	The lean strategy minimizes activities that do not add value to the production process, such as holding of stock, repairing faulty product and unnecessary movement of people and product around the business.	3.71	.983

Flexibility Manufacturing

Table 6 shows the reliability results for flexibility manufacturing construct. The reliability indicates that the research instrument is reliable maintaining the threshold value of Cronbach Alpha Score. Flexible manufacturing strategy maintained a value of (0.718), and are above the threshold value for (α).

Table 6: Reliability Results for Flexibility Manufacturing Strategy

Variable	Number of items	Cronbach Alpha
Flexibility Manufacturing (FMS)	5	0.781

The descriptive statistics for flexible manufacturing strategy was also calculated, Table 7 also presents the results for the statistics. The study shows that flexibility manufacturing strategy has a mean value that ranges from 3.80 to 4.00, suggesting above-average mean standard values for all examined items. These results indicate that majority of manufacturing companies concur that flexibility manufacturing strategy will help to reinstitute the company's responsiveness to marketing needs. Because, this strategy helps to understand consumer needs, producing good quality products will allow companies to offer design or customize products to its customer. Flexibility strategy allows individual customers to need to me melt, thus, increasing the operational performance of the company and the same time the financial performance due to customer satisfaction at any product order. Manufacturing companies that follow flexibility manufacturing strategy are likely to respond to consumer demand on improved service quality Ogiemwonyi et al., (2020a,2020b) by rendering service and products with unique attributes and variations (Gerwin, 2015; Bowen et al., 1989), leading to customer loyalty (Ogiemwonyi et al., 2020a), retention and satisfaction (Ogiemwonyi et al., 2020b). Therefore, this study had suggested that manufacturing companies that embrace to the strategy of consumer-focused flexible manufacturing (CFFM), offer different technologically upper-level products to consumer as well as gaining a competitive advantage over their competitors. Table 7 presents the descriptive statistics for flexible manufacturing strategy.

Table 7: Results of Descriptive statistics for Flexibility Manufacturing Strategy

No.	Variables/ Measurement items/ n=101	Mean (M)	Standard Deviation (SD)
Flexibility Manufacturing (FMS)			
FMS1	Flexible manufacturing strategy helps the company to be more responsive to market needs	4.00	.741
FMS2	Flexible manufacturing strategy allows the company to offer customers with customized products	3.83	.970
FMS3	Flexible manufacturing makes the company more effective	3.80	.959
FMS4	The flexible strategy reduces waiting time in the manufacturing process	3.80	.894
FMS5	The flexible strategy allows the company to do the simple things well in the manufacturing process	3.81	.879

Furthermore, a validity test was calculated to determine the extent to which the statistical test accurately measure the intended measurement that is being examined. The results presented in Table 8 shows the reflectiveness capacity of the measures factors. the results indicate that the findings are an accurate reflection of the dimensions being studied. This is because the significant relationship between lean manufacturing and flexibility production strategies and financial performance of the survey manufacturing companies in Nigeria depends on lean manufacturing and flexibility production strategies.

Table 8: Results of the Validity test for Correlation

	Variable n=11	Performance	Lean Production	Flexi Production
Financial Performance	Pearson Correlation	1	.413**	.243*
	Sig. (2-tailed)		.000	.015
	N	101	101	101
Lead production	Pearson Correlation	423*	1	.380**
	Sig. (2-tailed)	.000		.000
	N	101	101	101
Flexible Production	Pearson Correlation	.243*	.380**	1
	Sig. (2-tailed)	.015	.000	
	N	101	101	101

Multiple Regression Test

Furthermore, a multiple regression test was conducted to determine the relationships between independents variables (i.e., lean production strategy, flexible manufacturing strategy) on the dependent variable (i.e., financial performance). It is used to identify the change in two or more factors (i.e., independent variables) which contribute to change in a dependent variable (Piaw, 2013). According to the results

presented in Table 9, determine the multiple regression coefficients (R) and the proportion of variance shared by the two predictor variances (R^2), is also known as the coefficient of determination and is (R^2 = 0.345), showing 34.5% of the change in predictive variable contribution. Also, the standard coefficient Beta results for lean production strategy was the strongest (0.357). This is an indication that lean production strategy has the most significant impact than flexibility manufacturing strategy on the financial performance of manufacturing companies in Lagos, Nigeria.

The study further reveals that the implementation of a lean strategy can intensify companies' production and performance via the reduction of the company's production cost. The results are consistent with a recent study made (Fullerton et al., 2014). Similarly, the study of Sila (2007) had argued that the improvement of company's operative performance is attained via lean manufacturing strategy vis a via will result in waste, cost reduction and ameliorate the financial performance of a company. This study also suggests thus, are consistent with the findings of one study made in another developing country (i.e., Indian) that investigated performance analysis of auto component manufacturer (Potdar & Routroy, 2017). Therefore, the results from this study are statistically significant in the path between lean production strategy, flexibility manufacturing strategy and financial performance. Table 9 presents the results.

Table 9: Multiple Regression Results

Variables	**Unstandardized Coefficients**		**Standardized Coefficients**	***t***	**Sig.**
	β	Std. Error	*Beta*		
Financial Performance (FP)	1.918	.428		4.486	.000
Lean Production Strategy (LPS)	.385	.101	.375	3.795	.000
Flexible Manufacturing Strategy (FMS)	.100	.099	.100	1.012	.314
R^2	0.345				
Adjusted R^2	0.312				

*p<0.05

DISCUSSION OF FINDINGS

The study had investigated the impact of lean production and flexibility manufacturing strategies on financial performance among Nigeria manufacturing companies. The study had revealed that lean production strategy flexible strategy could ameliorate the financial performance of Nigerian manufacturing companies. Results also depict that the ability for companies to gain better financial performance will solely depend on the lean strategy production. Thus, since the company could eliminate manufacturing waste and cost of production, its revenue will double and gain shares. When a company deploy the right strategy to decreases its cost of production, it will attract the right customer and the profit margin will significantly increase in value and volume (Huang et al., 2017).

According to Bolatan et al., (2016) effective production strategy could enable manufacturing companies to maintain quality performance and boost effective service quality. Ogiemwonyi et al., (2020a) had argued that companies with the right attitude and behaviour will only retain loyal customers if manufacturers service delivery satisfy consumer demands in the manufacturing retail markets, thus, this current study also suggests. Furthermore, the regression analysis had revealed that the production strategy had a stronger impact on the financial performance of the company in Nigeria. These findings imply that it could strengthen company performance and drive the reduction of cost through. Also, these implications can help manufacturing companies in Nigeria to boost profitability level and market shares.

MANAGERIAL AND THEORETICAL IMPLICATIONS

To establish the impact of lean production and flexible manufacturing strategies on the financial performance of manufacturing companies in Nigeria with previous researches, the findings from this study provide both managerial and theoretical implications. Firstly, it will enable manufacturing companies in Nigeria and other developing nations to improve their profitability level. This is because the study revealed the best manufacturing strategy to improve financial performance is by focusing on lean manufacturing strategy using Porter's generic approach. Therefore, manufacturing companies that want to increase their earnings and returns on investment should focus on lean manufacturing strategies such as continuous improvement, wastes reduction, perfection, the value stream. This could enable the operation managers of the manufacturing companies to formulate policies and strategies that will enhance the production efficiency and financial performance of their businesses. Secondly, the study provides a theoretical framework for further researchers to expand. This indicates that the outcome of the study contributes to the body of knowledge as it helps to close the research gap using Porter's generic theory, thereby contributing to addressing the limitation and gaps existing in the contemporary literature.

LIMITATIONS AND FUTURE RESEARCH DIRECTION

Although the study offers some valuable insights on the impact of lean manufacturing and flexible production strategies on financial performance in the manufacturing companies in Nigeria, the study has some limitations that future research must address. Firstly, the study only focused on manufacturing companies. This means that the findings may not apply to companies operating in other industries such as the agricultural and services industries. Therefore, this should be treated as a limitation and future studies should investigate lean production in this mentioned industry and sector. Secondly, the data were only collected from manufacturing companies in Lagos State, Nigeria. The implication is that the results generated from the study cannot be generalized to manufacturing companies that are operating in other states or countries due to differences in socio-cultural factor, technological and infrastructural differences. Concerning the limitations, this research suggested that future studies should include other industries and the data should be collected from respondents in other states, regions or other developing countries to produce and contribute to existing knowledge.

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