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PRODUCTION CAPACITY IMPROVEMENT AND ORGANIZATIONAL PERFORMANCE OF MANUFACTURING FIRMS IN RIVERS STATE, NIGERIA

By

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Abstract

This study empirically examined the relationship between production capacity improvement and organizational performance of manufacturing firms in Rivers state, Nigeria. The cross-sectional survey was adopted in the study. The population of two hundred and thirty-two (232) employees from 10 selected manufacturing firms were covered in the study. A sample size of one hundred and forty-seven (147) was drawn from the population. The systematic sampling technique was employed on each of the selected firms. Copies of questionnaires were issued to respondents and the Spearman's rank order correlation was used in analysing the bivariate hypothesis. It was observed from the analysis that there is a significant positive relationship between the dimensions of production capacity improvement (capacity utilization and capacity maintenance/control) with the measures of organizational performance (goal attainment and operational efficiency). Hence, it was concluded that an optimal capacity utilization and proper capacity control and maintenance will help boost the operational efficiency and goal attainment of the manufacturing firms in Rivers state, Nigeria. It was recommended among others that the management of the manufacturing firms should ensure optimal utilization of operation capacity of the firm to boost the efficiency in the organization's operation.

Key Words: Organizational Performance, Goal Attainment, Capacity Maintenance/Control, Capacity Utilization, Operational Efficiency, Production Capacity Improvement.

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1.0 Introduction

Issues bothering on organizational performance have continuously been a core aspect of contemporary management literature for its significance in organizations regardless of the kind of industry or sector (Musau, Namusonge, Makokha, & Ngeno, 2017). Similarly, Ouma and Kombo (2016) revealed that organizational performance is sine qua non as it depicts the fairness of organisation in meeting its set goals and objectives. In addition, Gavrea, Ilieş, and Stegerean (2011) contended that despite the popularity of organizational performance as a construct in management studies, its explanation seems to be complex as the idea is multidimensional in nature. Supportively, Lebans and Euske (2006) opined that organizational performance could be viewed based on two distinct dimensions, which are financial and non-financial that provides information on meeting organization's objectives.

Similarly, Khadra and Rawabdeh (2006) stated that measuring performance is adire indicator that shows how effective any firm is, thus, performance requires to be examined to discover theweakness and strengths of organizations, utilize opportunities and minimize gaps. Consequently, the controversy on examination of organizational performance result to identification of several standards adapting in examining the construct. For instance, Pycraft, Singh, Phihlela, Slack, Chambers and Johnston (2010) suggest adapting different standards such as historical standards, target performance standards and absolute performance standards.

Similarly, Akindele, Oginni, and Omoyele (2012) noted that a focus on aiding manufacturing firms to work continuously requires proper management of time spent on the job. The authors opined that organizations need to consciously design and build up the most appropriate and versatile production technique that will empower and enhance their performance outcomes. A move to enhancing performance of organization ranges from enhancing machines and human materials that engage in getting the job done. Supportively, Cascio (2015) noted that performance signifies the achievement level of the mission at the work place, which is done by an employee.

In addition, the competitiveness among Nigeria based manufacturing companies has made the focus and attention in organizational performance more essential in a bid to measure up with the subtleties in the environment and be capable of surviving in the world of business (Vitalis, Agbeaze, Joseph, & Solomon, 2019). Olaniyi and Adewale (2010) revealed that organizational performance has received serious attention because agencies like International Standard Organization (ISO) and Standard Organization of Nigeria (SON) are playing significant role in ensuring their production outcomes.

Consequently, production capacity improvement entails implementation of managerial plans that boost organization's level of output. Likewise, Kumar and Maht (2013) noted that the core objective of production capacity improvement is distribution of the task evenly over the work station to minimize idle time of humans and machines. This follows that improvement of production capacities especially among manufacturing firms include achieving adequacy production planning, production scheduling and control with the organizational production chain (Umoh, Wokocha & Amah, 2013). Similarly, Pisuchpen and Chansanga (2014) identified other production capacity improvement techniques such as work study which entails a systematic examination of work method thus improve workforce productivity. In addition, Ortikmirzaevich (2017) noted that production capacity depends on several factors which could be categorized into technical, social, economic and organizational factors. The author added that production capacity improvement entails implementation of different

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interrelated functions-analysis of the utilization of production capacity, quantity estimation and technical operations of equipment, plan for development of production capacity, motivation of employees and control of task implementations. Same study identified several processes adapted in management production capacity to include estimation of volumes, investigating technology, risk evaluation, performance model, build and test.

Furthermore, issues bothering on production capacity improvement of organizations have undergone different studies with different terms for explaining the idea behind improving or enhancing companies' production systems to enable target objectives to be reached. For instance, Ezezue (2015) showed that inadequate training and attention in value management principles reduces chances of survival, which implies that better capacity improvement techniques could lead to high performance. Ouma and Kombo (2016) asserted that organizational learning and its use will increase in knowledge stocks which will result in effectiveness, which also increases organizational performance.

Similarly, Vitalis, Agbeaze, Joseph, and Solomon (2019) conducted a study which paid keen attention to value analysis and its effects on performance of manufacturing companies including its relation with productivity, quality of product and its challenges among manufacturing sectors yet, the constructs where not identified and scientifically examined to assess their impacts. However, very few studies incorporated dimensions of production capacity improvement in their study models thereby creating a gap in that area of studies. Thus, the current seeks to examine empirically the relationship between production capacity improvement and organizational performance of manufacturing firms in Rivers State.

Statement of Problem

Manufacturing firms play a crucial role in advancing the wellbeing of any country. In time past, the firms involving in manufacturing were the major revenue source to the Nigeria government which helped boost their GDP for several years. Unfortunately, despite the booming rate of these firms and their economic development contributions of many countries around the globe, Nigerian manufacturing firms have been dwindling over the years. Although Nigeria has vast natural endowment that could possibly enhance the processes of the manufacturing sector, evidence has revealed that not much has been achieved as expected. In addition, Nigeria has great amount of workforces or manpower that may perhaps be registered into series of manufacturing activities. Yet, it seems most Nigerian manufacturing industries are not making much progress and things seem not to be as supposed, this is because they still find it very difficult to carryout production activities effectively. Lack of effective performance among Nigerian manufacturing organizations has been on increase due to certain influences as; rising cost of raw materials which emanates to escalated prices of input materials to about 45% (Hussein & Kachwamba 2011). Observably, inadequate input materials have also resulted into scarcity in most states in Nigeria of which Rivers State is not absented. More recently, the rise of economic crises caused by Coronavirus (COVID-19) as at early February, 2020 had negatively affected the manufacturing ability of the few firms available thereby making it more cumbersome for these firms to attain their goals and achieve operational efficiency.

Also, ineffective performance could deprive a firm of achieving its objectives as inefficient capacity implies inability to perform a task at a relative cost without negotiating quality. This shows why there is scarcity of manufacturing firms in Rivers State and in Nigeria at large, as the country is not among the top manufacturing countries in the world. Evidently, virtually all major products ranging from cars, mobile phones, diesels, gas, and lots more are imported

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making the country a total consumer country and less manufacturing in nature. Supportively, Onwuka (2009) observed that the manufacturing firms are slowed down due to reasons like inadequate and functional socio-economic infrastructure like power or electricity, bad roads, lack of food supply, contaminated water, and inadequate technological development as manufacturing sectors still adapt obsolete innovation. The author added that innovation stands as an irreplaceable instrument to boost performance of businesses yet it is a huge challenge for the manufacturing sectors in Nigeria and this makes it more cumbersome benefit from the goods of globalization. Consequently, Aluko (2004) noted that globalization enhances manufacturing organizations' performance yet nations are not reaping the benefits. This results from the problems emanating from lack of major equipment needed to harness global opportunities. Same study added that these problems could be traced to certain factors like political stability, corruption, and unfriendly trade terms and of course, these factors are present in Rivers State and Nigeria at large. Additionally, studies as in Iheriohanma (2007) show that manufacturing firms suffer the problem of lack of human capacity trainings as managers are failing in implementing manpower acquisition and retention strategies to enable effective and improved production capacities. Further, close observation reveals that manufacturing firms in Rivers State still have the problem of low performance despite the proliferation of computer-aided manufacturing tools across the nation, thus employing effective production capacities improvement such as capacity utilization, capacity maintenance and control, that may enable the increase in organizational performance is imperative. This study is therefore geared towards proffering solutions to the underlined problem.

Objectives of the Study

The specific objectives are to examine the relationship between

I. Capacity utilization and operational efficiency of manufacturing firms in Rivers state, Nigeria.
II. Capacity utilization and goal attainment of manufacturing firms in Rivers state, Nigeria.
III. Capacity maintenance/control and operational efficiency of manufacturing firms in Rivers state, Nigeria.
IV. Capacity maintenance/control and goal attainment of manufacturing firms in Rivers state, Nigeria.

Research Hypotheses

These under listed hypotheses serve as tentative answer to the research questions;

HO_1: There is no significant relationship between capacity utilization and operational efficiency of manufacturing firms in Rivers state, Nigeria.

HO_2: There is no significant relationship between capacity utilization and goal attainment of manufacturing firms in Rivers state, Nigeria.

HO_3: There is no significant relationship between capacity maintenance/control and operational efficiency of manufacturing firms in Rivers state, Nigeria.

HO_4: There is no significant relationship between capacity maintenance/control and goal attainment of manufacturing firms in Rivers state, Nigeria.

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2.0 Literature Review

The resource-based theory (RBT) serves as the theoretical foundation of this work. It emphasizes the resources of the firm as the primary determinants of competitive advantage and success. In evaluating origins of comparative advantage, it adopts two conclusions (Peteraf & Barney, 2003). First, this model assumes that companies within an industry (or within a strategic group) may be heterogeneous in terms of the resource bundle they control. Secondly, it assumes that resource heterogeneity can continue for a long time because the materials used to carry out the strategies of firms are somewhat immobile across firms. Heterogeneity of resources is seen as a vital requirement for a pack of resources to enhance a competitive advantage. The statement goes "If all firms on a sector have the same supply of capital, there is no approach open to one business that will not be applicable to the other companies on the market" (Cool, Almeida, Costa & Dierickx, 2002). RBT majors on the idea that the company's internal resources can become a direct source for the firm's continuous competitive advantage (SCA). This is different from traditional notions of competitive advantage first popularized by Porter (1985), which emphasized competitive advantage for the company was achieved through external means such as products, location or customer base. Sveiby (2000) distinguishes that while traditional ideas of competitive advantage are based on product, such as Porter's, RBT is on the basis of knowledge. This theory is important to this research because organisation's resource base can help enhance their performance in the industry.

Research Model

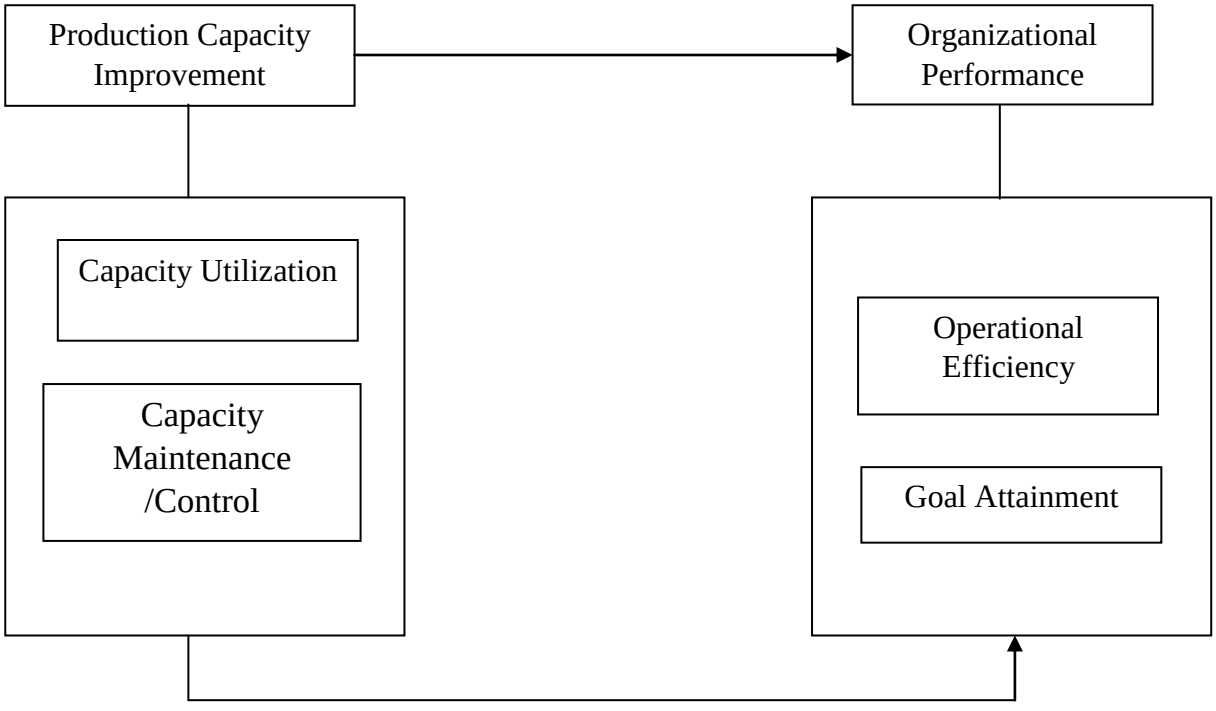

Figure 1.1 Conceptual framework showing the link between production capacity improvement and organizational performance.
Source: Adapted from Ortikmirzaevich (2017) and Carton (2004).

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Concept of Production Capacity Improvement

Productivity improvement is about doing the right things better and making it part of continuous process (Antosz & Stadnicka, 2012). It is therefore important to implement an effective methodology for increasing efficiency to ensure productivity growth for individuals and organizations. In general, a company's production capacity is defined as the highest output a company produces under the given conditions of technology and organisation. The production capacity fluctuates daily, even for different reasons. That may be because of sudden staff absences, unforeseen machinery and facilities failure, or issues that may occur with the distribution of products, media and components (Antosz &Stadnicka, 2012);

Firm's production capacity dynamics reflect not only the use and replacement of the means of production but also the technology improvement and the organization of production. Production capacity therefore depends not only on specific factors used in the production process, such as operating resources, labor objects and workforce, but also on technical and organizational progress (Gulati & Smith, 2009).

Capacity Utilization (CU)

CU is crucial to firms because it enables them to know the rate at which the existing production capacity is being used in production process. The economic theory favours the valuation of CU owing that a precise valuation of the many production function entails the capital employed or used and not the capital available or in place (Solow, 1957). The capital available or in place represents the whole capital stock which are available for use during production process, while the capital used reflects the proportion of the entire available capital stock really utilized. Capacity is optimal potential output achievable from specified capital equipment within a particular time. Capacity utilization (CU) denotes the actual or real out flow of output in view of technically possible output level. Thus, it is ratio or proportion between real output and optimum possible output. For Klein and Summers (1996), an establishment productive capacity is the over-all level of production or output that it can produce within a specific time period. CU denotes the proportion of the firm's total possible production capacity which is being employed (Nyaoga, Wang &Magutu, 2015).

Firms Capacity is the optimal degree of output which each plant in a set industry can realise in the standard work schedule, bearing in mind the normal interruption and assuming that adequate inputs to control equipment are availability (Corrado&Mattey, 1997). Saikia (2012), report that simple pointers like output gap based on intended capacity are employed in measuring CU. Nyaoga, Wang and Magutu (2015) posit that CU measures of a firm's productive aptitude that influences the over-all level of firm's production or output that may possibly be produced within a given time.

Capacity Maintenance/Control

Capacity control is the standpoint of organizations to map out and analyse their capabilities. Thus, capacity control is a major performance element of a functional business (Sernola, 2011). The researcher further noted that capacity control when executed through careful and considerate calculation can aid an organization profit to boom. Furthermore, capacity control is an organization capacity to gather data, measure impact and also assess results to strengthen the organization work over time. Further, capacity control includes; (a) Evaluation/Control planning (b) data collection (i.e. the capacity to collect quality data is

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often indicated by clear data collection) (c) measuring impact (this refers to organization to measure their impact if they use validated valuation tools that align with their service intervention, their short and long- term intended outcomes; and (d) Evaluation/ control use, learning and continues improvement.

Capacity maintenance is a major approach toward the attainment of the organization performances and goals (Taib et al., 2017). Hence, capacity maintenance plays a role in avoiding disruption and stoppage of daily operations of an organization.

Concept of Organizational Performance

Noyé (2002) assumes that the performance consists of meeting the goals that have been granted in the incorporation of organization orientations. Performance is not, in his view, a pure observation of an outcome but rather the result of a contrast between the outcome and the target. Unlike other scholars, Didier Noyé finds this definition to be in essence a contrast of the results and the target. This definition is far from straightforward, as results and goals differ from one area of operation to another, most frequently. Lebas (1995) typifies the performance as forward-looking, designed to reflect the peculiarities of each organization / individual and based on a causal model that links components with products. He describes an affluent company as one that will meet the targets set by the alliance of management, not simply one that will attain them. Thus, performance depends just as much on ability as on the future.

Performance is related to achieving the above-mentioned criteria which is also known as performance goals. According to Rolstadas, performance cannot be precisely defined because it relies on the seven performance criteria, which cannot be clearly defined. For Whooley (1996), performance is not an objective reality, waiting to be calculated and analyzed elsewhere, but a socially constructed truth in peoples' minds, if it exists anywhere. Quality can include: materials, goods, effects, impact which may also be related to productivity, performance, efficacy, cost effectiveness or equity.

Operational Efficiency

The term operational efficiency consists of two words 'Operations' and 'Efficiency' and in plain terms, Operational Efficiency is a task or work metric. This is targeted at supplying consumers with dominance (product / service) in the most successful behaviour. Consumption of resources, production, distribution, and management of inventories are all common aspects of operational efficiency. Operational efficiency is the pillar of all businesses. It applies to how the specific company processes are conducted effectively. It measures an enterprise's inputs and output performance. An enterprise's input is cost, people, time and work. Production, service, and quality results are the outputs. A company organisation's working productivity is the average output gotten from the supplied inputs. In addition, it reduces costs and increases capital capacity to ensure customer-friendly consistency of products and service. It is discovering losable processes and resources that drain company's gain. It helps to discover new methods of work to enhance the quality of output. Operational performance has a robust impact on a company's profit margin. It is a serious drive for Excellence in business. To produce optimum returns, it is the structured control of the company's assets.

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Mandl et al. (2008) argue that efficiency is the connection between inputs and effects, so efficiency displays effects irrespective of the inputs or resources needed to realise the goals. Robbins and Coulter (2005) note that productivity requires achieving the highest output possible from the smallest input quantities. The research in question discusses different approaches for calculating operational performance. Mandl et al. (2008) argue that the output cannot be specifically calculated, so various statistical methods and analytical methodology are used.

Goal Attainment

The goal expresses a fundamental purpose which represents a desire that is an end in itself in relation to the present situation (Bond, Carlson & Keeney, 2008). Goals are ambitious, i.e. they are not assumptions of what an entity is, but instead what it wishes to become. While that may mean they are eternal, in many terms they cannot be completely accomplished, they would be both aspirational and time-bound in certain troublesome circumstances – they are aspirational throughout a span of duration. Using a real example, a goal in academics could be "strong research"; for an agency dealing with social and economic restoration, it could be "improving the area's living atmosphere." Other examples of a goal could be "building the strongest digital brand" or "growing business through diversification" However, "developing further ties with local entrepreneurs" is definitely not a aim, because it is actually worded in a way that implies a means to an end rather than an end itself, while it can represent a "goal purpose" that leads to the attainment of fundamental goals (Bond et al 2008).

Studies by Locke, Latham and their collaborators have shown more precise and aggressive goals causing more change in results than basic or general goals. It indicates a strong straight connection between task challenge and job success (Locke, 2006). Subsequent study reveals that achieving the goal expands self-efficacy and provides a feeling of pride and achievement (Mento, Locke & Klein, 1992).

Empirical Framework

Musau, Namusonge, Makokha and Ngeno (2017) examined the impact of inventory management on supply chain performance of textile manufacturing firms in Kenya. The research had been inspired by the philosophy of resource management. The research followed the view of parallel convergent mixed approaches. 196 respondents from procurement department employees and department heads of 15 textile manufacturing industries operating in Nairobi County were the study target. And the sample size was 139 respondents. Stratified, and from the corresponding clothing firms. Questionnaires and plans for interviews were used to gather the data from primary sources. Data was analyzed using a social sciences statistical package (SPSS version 22). The study revealed that Kenyan garment manufacturing companies have embraced resource control as a performance-influencing element in the supply chain. It was concluded that inventory management has the ability to positively impact Textile firms' output in and therefore recognizes the value of inventory management and has developed specific structures and invested in current material flow systems to control smooth and consistent material movement that can be monitored along a supply chain.

Kariuki and Murimi (2015) studied the empowerment of workers and how it impacts the performance of organizations. The study explored a firm in Magadi, Kenya and found that

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empowerment of employees through dissemination of information sharing and teaching tended to have a moderate impact on organisation's performance. Chimwani, Iravo and Tirimba (2014) argue that in order for any responsive organization to fulfill its desired procurement goals such as: process functions; information inventory; customer products; performance profit and relationship transactions, key procurement performance measures should be continuously monitored. It suggests that given the wide variety of metrics that can be applied to assess procurement efficiency, the measurement's effectiveness simply relies on a few calculated variables by using the standardized score card (Chimwani et al., 2014). The combined scorecard reflects the acquisition targets that are always a combination of organizations internal resource efficiency control policies and consumers' planned overall quality policies.

Tabernero, Chambel, Curral and Arana (2009) examined how groups develop normative contracts that are based on beliefs about the obligations that other group members have to fulfill in achieving group's goals. The survey pool was made up of 72 participants (24 3-member groups). All departments worked on a modeling programme: a dynamic strategic decision-making job. Studies found that leaders who are task-oriented have achieved more efficacy and positivism among group members. Through comparison, relationship-oriented leaders brought more unity to the party members. The final group outcome is clarified from the group efficacy and relative normative contract viewpoint.

Owolabi and Makinde (2012) investigated the impact of Production control on corporate performance. It further investigated how this has affected the effectiveness of management as control of production in corporate organizations is essential. The analysis used primary and secondary data. The research used the questionnaire to get information from Babcock University employees. Data analysis was by concise and inferential measures. The theories were evaluated using the Pearson's Product Moment Correlation Coefficient to assess the relationship between the various variables used in performance measurement. The results of the hypotheses showed a significant positive correlation between control of production and the performance of companies. It concluded that manufacturing control assists companies in achieving defined targets and advises that universities and other organizational organisations should participate in manufacturing control to enhance corporate performance.

Ikoro and Nwosu (2017) examined, production scheduling impact on organizational performance. The survey design was used and the sample size of 124 was calculated using the model of Taro Yamen. Findings showed is a link between effective production scheduling and organizational performance and also that lack of transparency, lack of dedication and lack of awareness of the role in the execution cycle are challenges in the implementation of the production schedule and therefore propose, among others, that Nigerian businesses give more serious consideration to this.

Ovunda, Isaac and Ndor (2019) ascertained the application of production planning and control and it important to operational cost minimization. The sample obtained from three organisations is 97. The descriptive and inferential statistics were included in the research. The research carried out found that the corporations used production preparation and monitoring in taken decisions. Furthermore, the findings showed that utility of production planning and control to expenditure minimization is important. Nevertheless, the mean responses obtained suggested that inventory monitoring, budgeting and preparation, prompt distribution of production order, management judgment, product consistency and the correct

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use of raw material and equipment, minimizes overhead cost of material and equipment usage, and as a result, decreased the operating expense of the firms. Therefore, to specifically calculate the expense decreased, an expense model was suggested. The outcome study showed that operating cost declined, but when the output components were completely used, operational cost rose to 0.1198 reflecting 4.18 percent change in cost reduction. This meant that, there was not only a partnership between production planning and operating expenditure, the successful execution of production planning and control would boost the overall manufacturing firms' performance by improved income.

Gilbreath and Benson (2004) indicated that many workers believe supervisors influence the well-being of workers, and a correlation between supervisory behaviour and psychological well-being of employees exist. Nevertheless, the extent of the relationship with boss activity contrasts with that of other factors considered to influence health has not been apparent. This exploratory research tackles the issue. Their theory was that supervisor actions would lead to the estimation of psychological disorder above other prominent variables' contributions. They created a new, questionnaire-based tool for measuring supervisory behaviour. With a convenience sample of 167 men and women working in U.S. organisations, and stepwise regression was used for analysis. Results confirmed their hypothesis: boss behaviour contributed statistically strongly to predicting psychological distress within a step-one range of age, clinical habits, support from family and co-workers, traumatic life events, and stressful work events. This provides further evidence that supervisory actions can affect the well-being of workers and indicates that oversight cannot be ignored by those trying to build safer workplaces. They agree there is already good proof to view boss actions important predictor for those dealing with psychosocial work environments.

Umoh, Wokocha, and Amah (2013) studied the relationship between Nigerian manufacturing sector output preparation and corporate productivity efficiency. Corporate Productivity Performance is assessed in this respect in the areas of cost minimisation, improved equity capital. Three theories were proposed and questionnaire was sent to 80 respondents from the 100 sampled manufacturing firms. 62 copies of the questionnaire were used for the analysis, with the firms' financial statements for 5 years. It was shown that Nigerian manufacturing industry's planning for production has impacted operational efficiency, increased equity capital and growth. This finding shows that company Corporate Productivity Performance is significantly affected by production Planning. Based on these, among others, the study advises that the manufacturing firms in Nigeria should review and enforce its production planning principles to restore the industry as the base of all growth.

3.0 Methodology

The cross-sectional survey which is a type of the quasi experimental design was used in this study. The accessible population was the 10 selected manufacturing firms in Rivers state, Nigeria. The Taro Yamene (1968) formula for sample size determination was used to arrive at a sample size of 147. Thus, a total of 147 questionnaires were distributed to employees in the 5 selected firms. The systematic sampling technique was used in this study. This technique was used because it gives a true representative of the entire population and reduces the tendency for researcher bias in selecting the sample case. The independent variable (production capacity improvement) was measured in terms of capacity utilization and capacity maintenance/control. 5 items were used in measuring capacity utilization (e.g. The capacity utilization of our firm is often above average in constant product output) and 5 items

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was used in measuring capacity maintenance/control (e.g. In my organization, proper control and maintenance are carried out to ensure that output equal to it installed capacity). Also, the dependent variable (organizational performance) was measured using operational efficiency and goal attainment. 6 items were used in measuring operational efficiency (e.g. My organization is able to cut cost of production) and 5 items for goal attainment (e.g. My organization achieve targeted goals before the deadline). Items were rated on a 4-point Likert scale ranging from 1-strongly disagreed, 2-disagree, 3-agree and 4-strongly agreed. The spearman rank order correlation coefficient statistical analysis was used in analysing the bivariate hypotheses through the help of Statistical Package for Social Sciences (SPSS) version 21.

4.0 Result

A total of 147 questionnaires was distributed to respondents, however, only 109 (74%) copies were retuned. However, only 104 (71%) were well completed and used for the study. The hypotheses test was undertaken at a 95% confidence interval implying a 0.05 level of significance. The decision rule is set at a critical region of $p > 0.05$ for acceptance of the null hypothesis and $p < 0.05$ for rejection of the null hypothesis.

Table 1: Capacity Utilization and Operational Efficiency

Correlations

			CAPACITY UTILIZATION	OPERATIONAL EFFICIENCY
Spearman's rho	CAPACITY UTILIZATION	Correlation Coefficient	1.000	**.658**
		Sig. (2-tailed)	.	**.000**
		N	104	104
	OPERATIONAL EFFICIENCY	Correlation Coefficient	**.658**	1.000
		Sig. (2-tailed)	**.000**	.
		N	104	104

The result of the analysis in Table 1 shows a significant level $p< 0.05$ ($0.000< 0.05$), rho = 0.658 between Capacity Utilization and Operational Efficiency. This means that there is a significant relationship between Capacity Utilization and Operational Efficiency. The first null hypothesis is rejected, and we restate that *there is a significant relationship between Capacity Utilization and Operational Efficiency*.

Table 2: Capacity Utilization and Goal Attainment

Correlations

			CAPACITY UTILIZATION	GOAL ATTAINMENT
Spearman's rho	CAPACITY UTILIZATION	Correlation Coefficient	1.000	**.627**
		Sig. (2-tailed)	.	**.000**
		N	104	104
	GOAL ATTAINMENT	Correlation Coefficient	**.627**	1.000
		Sig. (2-tailed)	**.000**	.
		N	104	104

The result of the analysis in Table 2 shows a significant level $p< 0.05$ ($0.000 < 0.05$), rho = 0.627 between Capacity Utilization and Goal Attainment. This means that there is a significant relationship between Capacity Utilization and Goal Attainment. The second null

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hypothesis is rejected, and we restate that *there is a significant relationship between Capacity Utilization and Goal Attainment*.

Table 3: Capacity Maintenance/Control and Operational Efficiency

Correlations

			CAPACITY MAINTENANCE/ CONTROL	OPERATIONAL EFFICIENCY
Spearman's rho	CAPACITY MAINTENANCE/CONTROL	Correlation Coefficient	1.000	**.787**
		Sig. (2-tailed)	.	**.000**
		N	104	104
	OPERATIONAL EFFICIENCY	Correlation Coefficient	**.787**	1.000
		Sig. (2-tailed)	**.000**	.
		N	104	104

The result of the analysis in Table 3 shows a significant level $p< 0.05$ ($0.000< 0.05$), rho = 0.787 between Capacity Maintenance/Control and Operational Efficiency. This means that there is a significant relationship between Capacity Maintenance/Control and Operational Efficiency. The third null hypothesis is rejected, and we restate that *there is a significant relationship between Capacity Maintenance/Control and Operational Efficiency*.

Table 4. Capacity Maintenance/Control and Goal Attainment

Correlations

			CAPACITY MAINTENANCE/CONTROL	GOAL ATTAINMENT
Spearman's rho	CAPACITY MAINTENANCE/CONTROL	Correlation Coefficient	1.000	**.702**
		Sig. (2-tailed)	.	**.000**
		N	104	104
	GOAL ATTAINMENT	Correlation Coefficient	**.702**	1.000
		Sig. (2-tailed)	**.000**	.
		N	104	104

The result of the analysis in Table 4 shows a significant level $p< 0.05$ ($0.000 < 0.05$), rho = 0.702 between Capacity Maintenance/Control and Goal Attainment. This means that there is a significant relationship between Capacity Maintenance/Control and Operational Efficiency. The fourth null hypothesis is rejected, and we restate that *there is a significant relationship between Capacity Maintenance/Control and Goal Attainment*.

5.0 Discussion of Findings

Emanating from the findings of the field survey, the study realized the following.

Relationship between Capacity Utilization and Operational Efficiency

The outcome of table one showed a significant relationship between Capacity Utilization and Operational Efficiency. This relationship existing base on the fact that the p-value was lower than the level of significance ($p=0.000 < 0.05$). Thus, the null hypothesis was rejected and the alternate hypothesis accepted. Furthermore, the spearman correlation coefficient revealed that Capacity Utilization correlates with Operational Efficiency at .658. This shows a strong positive relationship between Capacity Utilization and Operational Efficiency. Thus, enhancing Capacity Utilization will subsequently boost Operational Efficiency in the

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organization. This finding is in agreement with that of Ovunda, Isaac and Ndor (2019) who found that the corporations utilised production capacity and monitoring in taking decisions. This was obvious by clear response to questions on the utilisation of capacity for material demand, production ability and just in time.

Relationship between Capacity Utilization and Goal Attainment

The results in table two reveals a significant relationship between Capacity Utilization and Goal Attainment. The spearman correlation coefficient reveal that the p-value of 0.000 was less than 0.05 ($p=0.000<0.05$) which implies that Capacity Utilization has a significant relationship with Goal Attainment. Thus the null hypothesis was rejected and the alternate hypothesis was accepted. The result of the correlation coefficient (r) is 0.627. This thus reveals that there is a significant relationship between Capacity Utilization and Goal Attainment. Thus, enhancing Capacity Utilization will help enhance Goal Attainment. Thus, the first objective of the study which sought to examine if Capacity Utilization relates with Goal Attainment was achieved. This finding agrees with the works of Musau, Namusonge, Makokha and Ngeno (2017) who concluded that capacity has the ability to positively change employee work behaviour and enhance attainment of Goal.

Relationship between Capacity Maintenance/Control and Operational Efficiency

The data in table three shows that Capacity Maintenance/Control relates significantly with Operational Efficiency. The p-value of 0.000 which is less than the significant level of 0.05 ($p=0.000 < 0.05$) indicate that there is a significant relationship between Capacity Maintenance/Control and Operational Efficiency. The correlational (r) value of 0.787 implies that there is a very weak positive correlation between Capacity Maintenance/Control and Operational Efficiency. This implies that a change in Capacity Maintenance/Control will have a little significant impact on Operational Efficiency. If allowed, Capacity Maintenance/Control will help enhance effective Operational Efficiency. This finding is in alignment with that of Owolabi and Makinde (2012) who revealed that there is a significant positive correlation between capacity control and the performance of companies. Hence, production capacity control assists companies in achieving defined targets.

Relationship between Capacity Maintenance/Control and Goal Attainment

The data in table four showed a significant relationship between Capacity Maintenance/Control and Goal Attainment. This is based on the evidence that the significance value was less than 5% level of significance (i.e. $p=0.000 < 0.05$). Thus the null hypothesis was rejected and the alternate hypothesis was accepted. The correlation coefficient is 0.702. This shows that an increase in Capacity Maintenance/Control will lead to a corresponding increase in Goal Attainment. This finding agrees with the findings of Ikoro and Nwosu (2017) who suggested that there is a link between effective production maintenance and organizational performance and also that lack of transparency, lack of dedication and lack of awareness of the role in the execution cycle are challenges in the implementation of the production schedule.

6.0 Conclusion and Recommendation

Organizations continuously operate in an ever-dynamic business world. Organizations achieve the best when their capacities are fully utilized. From the findings, capacity utilization has high significant and positive relationship with the firm's operational efficiency. The higher the capacity utilization of the manufacturing firms, the higher

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operational efficiency they will achieve. This implies that the operational efficiency of the manufacturing firms will be negatively affected when the firm operating capacity is not fully utilized. Again, all firms are goal oriented and a way to ensure the goal attainment of the manufacturing firms is to ensure the capacity utilization.

Furthermore, capacity maintaining and control in organizations help enhance their operational efficiency. Any firm that ensures a proper maintenance of their capacity is most likely to increase efficiency in operations. Thus, increased capacity maintenance and control lead to subsequent increase in firm's operational efficiency. When organizations continuously maintain and control their capacity, they will stand the better chance of attaining the ever-desired goals. In conclusion, an optimal capacity utilization with proper capacity control and maintenance will help boost the operational efficiency and achieve goals of manufacturing firms in Rivers state. The study proffers the following recommendation;

I. Manufacturing firm's management should ensure firm's optimal utilization of operation capacity to boost the efficiency in the operation of the organization.
II. Constant production schedule should be ensured by the management to enhance their capacity utilization and thus boost the firm's goal attainment.
III. Firms should engage in proper capacity control and maintenance to ensure that output equal to its installed capacity and thus boost the firm's operational efficiency.
IV. The management of the manufacturing firms should further ensure proper capacity maintenance to attained optimal utilization of the firms installed capacity which will thus result in higher performance of the organization

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