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IMPACT OF BUSINESSS PROCESS RE-ENGIEERING ON ORGANIZATIONAL PERFORMANCE OF MEDICAL SUPPLY COMPANIES IN ENUGU, NIGERIA

[1]Sunday, Ikechukwu Emmanuel, [2]Prof. Fred O. Eze and [3]Prof. Chris C. Orga

[1]ESUT Business School, Department of Business Administration, Enugu State University of Science and Technology, Enugu State.
[2]Department of Public Administration, Enugu State University of Science and Technology, Enugu State.
[3]Department of Business Administration, Enugu State University of Science and Technology, Enugu State.
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Abstract: The study evaluated the impact of business process re-engineering on organization performance of medical supply companies in Enugu state Nigeria. The specific objectives were to: examine the impact of leadership commitment on quality improvement and evaluate the impact of ongoing continuous improvement on costs reduction of medical supply companies in Enugu state. The area of the study was food and beverage firms in Enugu State. The study used the descriptive survey design approach. The instrument data collection was questionnaire. A total population of 813 selected staff of the study organisations. The adequate sample size of two hundred and sixty-one (261) using Freund and William's statistic formula at 5 percent margin of error. Two hundred and nineteen (219) staff returned the questionnaire and accurately filled. That gave 88 percent response rate. Data was presented and analyzed using Likert Scale and the hypotheses using the Z- test. The findings indicated Leadership commitment had significant positive impact on quality improvement, Z =5.473 < 7.906, P. <.05 and Ongoing continuous improvement had significant positive impact on costs reduction of medical supply companies in Enugu state, Z(= 6.369 < 8.869, P. <.05. The study concluded that Leadership commitment and ongoing continuous improvement had significant positive impact on costs reduction and quality improvement of medical supply company in Enugu state. the study recommended among others that the companies should endeavour to be committed Leadership as this will enhance and shape organization, aligning goals with customer needs, fostering continuous improvement, building trust, and driving innovation.

Keywords: Business process re-engineering, leadership, commitment, ongoing continuous improvement & performance.

INTRODUCTION

1.1 Background of the Study

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In today's business setting with rapid change and world expansion, the trends are also dynamic. Organizations are moving from product centered approach to customer-oriented approach. Therefore, the priorities are also changing and the firms are putting effort to satisfy their client's or customers to deliver what they want in terms of values. Thus, to meet customer's expectation and need to get competitive advantage, a need to change in existent process arises. Companies need to identify the tasks that are not relevant, causing delay and inefficiency, identification of areas and jobs that can be reengineered with the help of developed and up to date technology. Thus, BPR provides roadmap to achieve organizational goals that gives birth to profit optimization and productivity growth, (Habib, 2013).

Each of private and public organizations is either subject to use business process re-engineering (BPR) or look for alternative methods which achieve the same results. Although a lot of organizations embraced the concept of BPR programs, only a few of them succeed, while the others fail with a high failure rate (e.g. 70%), (AbdEllatif, Farhan & Shehata, 2018). Implementing BPR can be a difficult and complex process that requires significant changes to an organization's culture, processes, and people. Employees may resist the changes, especially if they feel their job security is at risk, leading to decreased morale and increased turnover. Maximising Business Potential: The Pros and Cons of Business Process Reengineering (BPR)

Companies must adapt, innovate, and optimise their operations to remain competitive. BPR is one approach that has garnered considerable attention. Let us explore the pros and cons of this transformative strategy. Business Process Reengineering (BPR) can bring organisations significant transformation and competitive advantages. However, before embarking on BPR initiatives, it is crucial to evaluate the benefits and drawbacks. Effective leadership, clear communication, and strategic planning are vital to navigating the complexities and maximising the benefits of BPR. BPR can be a powerful tool for driving efficiency, innovation, and customer satisfaction on the journey towards operational excellence. However, to achieve success, it's essential to understand and mitigate the challenges while leveraging the advantages to unlock the full potential of your organisation, (Bonny, 2024).

The concept of business process may be as traditional as concepts of tasks, department, production, and outputs, arising from job shop scheduling problems in the early 20th century. Business process management (BPM) is a structured approach to improving the processes organizations use to get work done, serve their customers and generate business value. It is a broad discipline and, by definition, a dynamic one given how the organizational roles, rules, tactics, business goals and other elements it encompasses are constantly changing (Tucci, 2022).

Nigeria has many operational problems that disrupt, even hampering the health service delivery to the patients in much occasional practice and Enugu state is not an exception. It is often occurred regularly in the daily routine such as damaged medical devices, limited number of doctors, the process of taking drugs that take a longtime, and damaged drugs condition. To improve the service and solve the problems, Nigeria can conduct iterative and incremental process to the health activities through certain adjustment such as business process reengineering (BPR). It aims to generate competitive and sustainable processes by increasing the effectively and efficiency lead to the quality improvement, costs reduction, simplifying the life cycle. (Lubis, Winiyanti & Lubis, 2022). As health care costs increase, there is a need for healthcare service providers to look for ways to contain costs and to achieve a higher efficiency at their operating facilities without sacrificing quality (Kumar & Ozdamar, 2004).

1.2 Statement of the problem

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Business process reengineering (BPR) is identified as one of the most important solutions for organizational improvements in all performance measures of business processes. However, high failure rates 70% is reported about using it the most important reason that caused the failure is the focus on the process itself; regardless of the surrounding environment, and the knowledge of the organization. The other reasons are due to the lack of tools to determine the causes of the inconsistencies and inefficiencies.

Business Process Reengineering (BPR) face several pitfalls and issues related to poor project management and execution: Lack of clear project scope definition, project goals and requirements. Inadequate risk management, lack of risk identification and a risk management plan to mitigate and monitor risks. Many BPR projects fail because of inadequate training. Adequate training is to be provided to members of reengineering team to impact technical skills needed for reengineering processes.

Since BPR contributes to reducing the cost of activities through the analysis and redesign of workflows and processes, it serves as a crucial tool for organizations to remain competitive. In the current fast-paced and ever-evolving market, failure to implement BPR can lead to inefficiencies, increased operational costs, and an inability to adapt to technological and market changes. Without the insights gained from BPR, organizations risk falling behind competitors who leverage these strategies to improve their processes and maintain sustainable growth (Omidi & Khoshttinat, 2016).

1.3 Objectives of the Study

The main objective of the study was to evaluate the impact of business process re-engineering on organization performance of medical supply companies in Enugu state Nigeria. The specific objectives were to:

i. Examine the impact of leadership commitment on quality improvement of medical supply companies in Enugu State.

ii. Evaluate the impact of ongoing continuous improvement on costs reduction of medical supply companies in Enugu State.

1.4 Research Questions

The following research questions guided the study

i. What is the impact of leadership commitment on quality improvement of medical supply companies in Enugu State?

ii. What is the impact of ongoing continuous improvement on costs reduction of medical supply companies in Enugu State?

1.5 Statement of Hypotheses

The following hypotheses guided the study

i. Leadership commitment has impact on quality improvement of medical supply companies in Enugu State.

ii. Ongoing continuous improvement has impact on costs reduction of medical supply companies in Enugu State.

REVIEW OF THE RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Business

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Business is the practice of making one's living or making money by producing or buying and selling products (such as goods and services). It is also any activity or enterprise entered into for profit. In business, goods are defined as physical products that are either purchased or produced for the purpose of being sold. Goods can be either tangible or intangible, but they must have value and be able to be exchanged for something else of value.

2.1.2 Process

Processes integrate systems, data, and resources within and across organizations and any failure can bring corporate life to a standstill. Processes determine the potential of an organization to adapt to new circumstances and to comply with a fast-growing number of legislative requirements. Processes adopted by business organizations influence the revenue potential of the business as much as they shape the cost profile of an organization, (Dumas, Marcello, Mendling & Reijer, 2012).

2.1.3 Reengineering

Reengineering is defined as the fundamental rethink and radical redesign of business processes to generate dramatic improvements in critical performance measures - such as cost, quality, service and speed. In practice, reengineering means to start over with a clean sheet of paper and rebuild the business better (Umar, 2014). Reengineering often referred to as reverse engineering or software reengineering, is a practice that involves the analysis, design, and modification of pre-existing software systems. The primary goal of this process is to enhance their quality, performance, and maintainability.

2.1.4 Business Process Reengineering

Business Process Reengineering is a dramatic change initiative that contains seven major steps: Refocusing company values on customer needs and eliminating low-value work. Simplifying and standardizing overly complex work, and automating repetitive work. Enabling processes with modern systems and data. Business Process Reengineering is the radical redesign of business processes to achieve dramatic improvements in productivity, cycle times, quality, and employee and customer satisfaction. Companies start by assessing what work needs to be done to deliver customer value (Brain, 2023). Managing business processes is a huge challenge in most organizations especially in medical supply companies. Managers and business owners always assume that it involves huge expenses that it is only worth it for massive processes. However, business process management is important no matter the size of the business (Kiss, 2023).

2.1.4.1 Leadership commitment

Leadership commitment means making sure that you put in the hard work and practice the perseverance required to overcome obstacles and achieve success for your team. A committed leader will not seek personal glory before the welfare of her team, and will always put the team first. An effective leader should try to take charge within his or her scope of authority. Be prepared to step out of a tactical role to assume a leadership role. Be proficient in his or her job. Make sound and timely decisions. Commitment means an unwavering dedication and responsibility displayed by a leader towards their organization, team, and goals. It means making sure that you put in the hard work and practice the perseverance required to overcome obstacles and achieve success for your team. A committed leader will not seek personal glory before the welfare of her team, and will always put the team first. This is what it means for leaders to eat last, that they make sure that everyone else has eaten before they do, (Ahmed, 2023).

2.1.4.2 Ongoing Continuous Improvement

The core belief of continuous improvement also known as kaizen is that we can live increasingly fulfilling lives by constantly striving to improve ourselves and our lives. In a business context, this idea suggests that small, incremental improvements made over time can lead to major changes in the long run. Keep reading as we examine different models, tips, and benefits for continuous improvement, (Laoyan, 2024).

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Continuous improvement is an ongoing process of identifying, analyzing, and making incremental improvements to systems, processes, products, or services. Its purpose is to drive efficiency, improve quality, and value delivery while minimizing waste, variation, and defects. Continuous improvement is a company culture that encourages all employees to look for ways to enhance the business's operations. This includes suggesting ideas to improve efficiencies, evaluating current processes, and finding opportunities to cut unproductive work, (Productplan, 2024). The continuous improvement definition is to reduce waste by streamlining processes. It is used by businesses to save money and time, as well as take advantage of new opportunities. Continuous improvement is often referred to as "Kaizen", which translates to "good change" or "improvement" in Japanese. Continuous improvement can be used informally by employees to make changes to their daily processes. Larger companies are more likely to formalize continuous improvement by taking an agile approach (Shilling, 2022).

2.1.5 Organization performance

2.1.5.1 Quality improvement

Quality Improvement is the process of continuously striving to improve services, products or processes. It is a systematic and coordinated process that includes: the identification of problems; the systematic use of data, methods and tools to design and select solutions. Quality improvement focuses on care that is safe, timely, effective, efficient, equitable and patient-centered.". It is care that is effective, efficient, equitable, patient-centered, safe and timely. Improving healthcare quality and safety is a growing focus for the nursing field and healthcare systems as a whole, as medical institutions aim to achieve efficiency, reduce healthcare costs and ensure high-quality patient outcomes (Gagnon, 2024). Every health care system is built on a complex network of care processes and pathways. The quality of the care delivered by the system depends to a large extent on how well this network functions, and how well the people who provide and manage care work together (Jones, 2021).

2.1.5.2 Costs reduction

Cost reduction is the process of identifying and reducing expenses associated with running a business. The goal of cost reduction is to lower the overall costs of operating the business without compromising quality or negatively impacting other areas of the company. Cost reduction is crucial to a business's long-term profitability and sustainability. By reducing expenses, a company can increase its profits and reinvest those funds into other business areas or use them to lower prices and become more competitive (DealHub, 2024). Cost reduction refers to the process of permanently reducing the expenses involved in manufacturing products or rendering services. It comes about without unduly impairing the end use or quality of the product or service. Companies can maximize their profits by either raising their product's sale price or by reducing its cost per unit. Since raising prices may not be an ideal option for some SMEs, given the competitive landscape they function in and the cash flow they need to be aware of, cost reduction is a more appropriate choice of action, (Ruparelia, 2024).

2.1.6 Conceptual Framework of the study

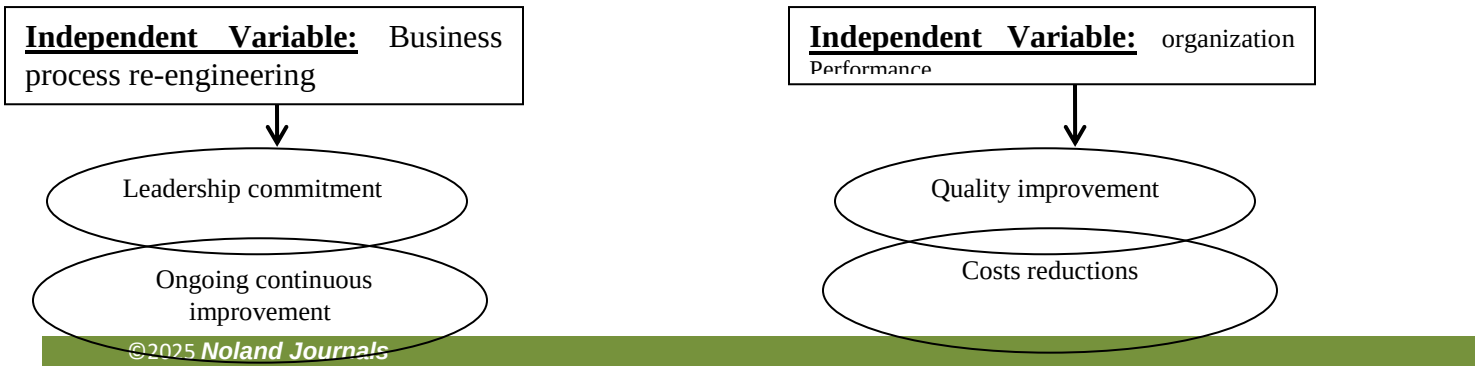

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Fig: 2.1 Conceptual model of the study
Source: Author's Model, 2024.

2.2 Theoretical Framework

The study adopted the ability-motivation-opportunity theory. The theory proposed that organization utilizes the AMO theory to provide organizational leaders with a management tool that can impact performance.

2.2.1 Ability-Motivation-Opportunity Theory

The AMO framework was initially proposed by Bailey (1993). The AMO theory suggests that there are three independent work system components that shape employee characteristics and contribute to the success of the organization. According to the theory, organizational interests are best served by a system that attends to the employee's ability, motivation, and opportunity (AMO). Organization needs to align well with the AMO theory to: Increases the ability of the employee; Motivates employees and Provides opportunities to contribute to the company. If any one of the three characteristics is missing, performance is likely to be inhibited, but if all three are present, then performance is likely to be enhanced. High employee performance is a strong factor that contributes to organizational success (Amber, 2019).

2.3 Empirical Review

2.3.1 Leadership commitment on quality improvement

Rifa, Komariah, Permana & Sudarsyah (2018) conducted a study on the influence of quality leadership and quality commitment on the performance of higher education organizations. The sample in this study consisted of academic community (educators and education staff) from 44 study programs in 5 state higher education institutions in the Province of Bangka Belitung Islands. The results showed that, there was a positive significant influence on quality leadership on organizational performance. In addition, there is a positive significant influence too on staff quality commitment to organizational performance through quality leadership. So as improving organizational performance, the elements of higher education leadership must be more quality oriented and also need to be supported by academics whose are committed to quality

Warri (2021) Conducted a study on leadership and quality of services have been linked together, where both influence each other in a significant manner. Effective leadership in the field of healthcare has attracted research attention over the last few years. One of the key areas of focus by the Cameroon government, which is believed to better the country's health care sector, has been the quality of leadership. Claims have been made that the most effective way of achieving high-quality service delivery would be through strong leadership. On the other hand, the strength of the leadership within an organization was linked to the type of leadership style adopted by the organization. Therefore, it is paramount that research is conducted to assess the link between the type of leadership style and the quality of services among health workers. The study used a descriptive research design method with a simple random size of 150 health workers of the CBCHS. Data were collected using closed-ended questions and analyzed using IBM SPSS Statistics™ Version 20. Inferential statistics were used to determine the effects of leadership style on the performance of health workers. The mean comparison of quality scores across the different types of leadership styles was using One Way ANOVA results. The most common

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leadership style among the hospitals of the CBCHS is the transformational leadership style followed by task-focused, person-focused, transactional and passive-laissez-faire. Transformational leadership style was associated with higher scores for maintaining good public relations and customer care than other leadership styles. The effect of leadership styles on the quality of work was not confirmed as the results were not statistically significant.

2.3.2 Ongoing Continuous Improvement on Costs Reduction

Olumide, Shmueli, Omotade, Adebayo, Alonge & Ogun (2021) conducted a study on the estimate the economic cost of selected NCDs—lung cancer, liver cancer and liver cirrhosis. These diseases are known to be associated with key modifiable health risk behaviours (smoking and alcohol use), which are prevalent in Nigeria and often commence during the adolescent years. Methods Data were obtained between 2016 and 2017, from mortality records of patients managed for the selected diseases in the University College Hospital, a major referral centre in Nigeria. Information on costs of treatment, clinic visits, admission and transportation was obtained. Average costs of terminal in-patient care and transportation costs (in 2020 prices) were computed per patient. Costs were converted to the US dollar equivalent using the current official rate of US$1: ₦360.50. Results Twenty-two (out of 90 cases recorded) could be retrieved and all the patients had been diagnosed in the terminal stages of the disease. The average direct costs were ₦510 152.62 (US$1415.13) for an average of 49.2 days of terminal care for lung cancer; ₦308 950.27 (US$857.00) and ₦238 121.83 (US$660.53) for an average of 16.6 and 21.7 days of terminal care for patients managed for liver cancer and liver cirrhosis, respectively.

Olutuase, Iwu-Jaja, Akuoko, Adewuyi & Khanal (2022) conducted a study on medicines and vaccines supply chains represent critical systems for realising one of the major targets of the United Nations' third Sustainable Development Goals (SDGs)—access to safe, effective, quality, and affordable essential medicines and vaccines, for all. However, evidence suggests the system is confronted with several challenges in many low-medium income countries, including Nigeria. This scoping review aims to summarize the available evidence on the challenges of medicines and vaccines supply chain system in Nigeria. We searched relevant databases including Scopus and Web of Science for studies published between January 2005 and August 2020 on the challenges associated with medicines and vaccines supply chain systems in Nigeria. Our findings implicate several factors including difficulty with medicines or vaccines selection, procurement, distribution, and inventory management. Others included poor storage infrastructure, financial constraints, insecurity, transportation challenges, inadequate human resources, weak, or poorly implemented policies.

Ogundeji, Abubakar, Ezeh, Hussaini, Kamau, Love, Ongboche, Opuni, Walker & Gilmartin (2023) conducted a study on the availability of quality primary health care (PHC) services in Nigeria is limited. The PHC system faces significant challenges and the improvement and expansion of PHC services is constrained by low government spending on health, especially on PHC. Out-of-pocket (OOP) expenditures dominate health spending in Nigeria and the reliance on OOP payments leads to financial burdens on the poorest and most vulnerable populations. To address these challenges, the Nigerian government has implemented several legislative and policy reforms, including the National Health Insurance Authority (NHIA) Act enacted in 2022 to make health insurance mandatory for all Nigerian citizens and residents. Our study aimed to determine the costs of providing PHC services at public health facilities in Kaduna and Kano, Nigeria. We compared the actual PHC service delivery costs to the normative costs of delivering the Minimum Service Package (MSP) in

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the two states. We collected primary data from 50 health facilities (25 per state), including PHC facilities health posts, health clinics, health centers—and general hospitals. Data on facility-level recurrent costs were collected retrospectively for 2019 to estimate economic costs from the provider's perspective. Statewide actual costs were estimated by extrapolating the PHC cost estimates at sampled health facilities, while normative costs were derived using standard treatment protocols (STPs) and the populations requiring PHC services in each state. We found that average actual PHC costs per capita at PHC facilities—where most PHC services should be provided according to government guidelines—ranged from US$ 18.9 to US$ 28 in Kaduna and US$ 15.9 to US$ 20.4 in Kano, depending on the estimation methods used.

Uwah (2023) conducted a study on throughput accounting as an operational accounting method which has a nexus with the theory of constraints in manufacturing concerns. Theory of constraints as a management strategy describes methods to maximize operating profit, but both must deal with bottleneck resource which can hamper the profit. The proxies which are common to throughput accounting and theory of constraints have effect on Economic Value Added in firms used in the study. The *ex post* facto research design was used as the data were extracted from the Nigerian Exchange Group fact books for the period 2015 to 2021. The population of the study was the average of 83 companies in the manufacturing sector which were listed in the stock exchange during this period. The sample size used was 69. Four research questions were answered, and four hypotheses were tested at 0.05 level of significance. Multiple and simple regression analysis were used to test the data collected. Findings indicate that a significant relationship exists between the joint measurement of throughput accounting with theory of constraints and Economic Value Added of listed manufacturing firms in Nigeria.

2.4 Gap in Empirical Review

The studies done were carried outside the impact of business process re-engineering on organization performance of medical supply companies in Enugu state Nigeria and did not focus to best of my knowledge on the leadership commitment on quality improvement, ongoing continuous improvement on costs reduction of medical supply comparer in Enugu state. Most of the studies reviewed analysed their data through A purposeful sampling technique, Descriptive statistics and appropriate inferential statistics, Purposive Sampling technique, Pearson Moment Correlation Coefficient, Multiple sampling technique, Partial Least Square Structural Equation Modeling (PLS-SEM), Multiple Regression Analysis (MRA) method, Simple linear regression and Pearson correlation coefficient (r) while the present study made use of Z test to test the hypotheses. Therefore, the study aimed at filling this research gap by evaluating the impact of business process re-engineering on organization performance of medical supply companies in Enugu state Nigeria.

METHODOLOGY

3.1 Research Design

The study employed survey research design. The survey research is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. In other words, only a part of the population is studied, and findings from this are expected to be generalized to the entire population. This knowledge allows generalization to be made about characteristics, opinions, beliefs, attitudes etc of the entire population to be studied. This method was used because it is economical

3.2 Area of the Study

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The area of the study was selected medical supply companies in Enugu state, Nigeria. This includes: Juhel company, Nkwobor Emene, AC Drugs, Thinkers Enugu and Michelle Laboratories Limited, Old Abakiliki Road. The major ethnic group had various traditional values which of course could be found in their culture, food, dressing and religion.

3.3 Sources of Data

Data are classified as either primary or secondary data. The classification was based on the two possible sources: primary source and secondary source.

3.3.1 Primary Sources

The primary data for the study was collected through two main sources: the administered questionnaire and field observations. The questionnaire, as an instrument for data collection, was distributed to the respondents. The responses gathered from the participants in the organization provided the necessary data for the research. Additionally, field observations and surveys contributed further primary data.

3.3.2 Sources of Secondary Data

Secondary data source is the one which the data is obtained from published materials, internet websites, reports, dailies, text books and so on.

3.4 Population of the Study

The target population of the study (911) consists of the customers and employees of the selected medical supply companies in Enugu state

Table 3.1: Breakdown of the population size

S/N	Companies	Number
1	Juhel Ltd.	311
2	AC Drugs	218
3	Michelle Laboratories Limited	284
	Total	**813**

Source: Field survey, 2024.

3.5 Sample Size Determination

Based on the above population, the sample size for this study was determined using Cochran (1963) formula. This formula is used where the population size for the study is known. Thus, it is stated:

$$n = \frac{Z^2Npq}{Ne^2 + Z^2pq}$$

Where;

n = Sample size

N = Total Population

Z = standard error of the mean (usually 95%, corresponding to 196 in the z-distribution table).

p = Proportion of population likely to be included in the sample (50% or 0.5 is assumed

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q = Proportion of population not likely to be included in the sample (50% or 0.5 is assumed

e = margin of error

$$\frac{(1.96)^2 \text{ X } 813(0.5)\ (0.5)}{813(0.05)^2 + (1.96)^2\ (0.5)\ (0.5)}$$

$$\frac{3.84 \text{ X } 813(0.25)}{813\ (0.0025) + 3.84(025)}$$

$$\frac{780.805}{2.0325+.96}$$

$$\frac{780.805}{2.9925} = 260.920 \Rightarrow 261$$

A stratified sampling method was adopted so as to give a fair representation to the designated organizations. The Bowley's proportional allocation formula is given as:

$$n = \frac{nNh}{N}$$

Where;

n_h = Number of units allocated to each firm/staff category.

Nh = Number of employees in each firm/staff stratum in the population

n = Total sample size

N = The total population size under study

Table 3. 2: Questionnaire Allocation

	Name of the SMEs	Population	Calculation	Sample
1.	Juhel Ltd	311	$\frac{311\ x\ 261}{813}$	100
2.	AC Drugs	218	$\frac{218\ x\ 261}{813}$	70
3.	Michelle Laboratories Limited	284	$\frac{284\ x\ 261}{813}$	91
	Total	**813**		**261**

Source: Field survey, 2024

3.6 Sampling Techniques

A stratified random sampling procedure was used for selecting the participants in this study. This technique was employed to ensure a fairly equal representation of the variables for the study. Within each section, selection of staff was by simple random sampling. This was achieved by writing out the names of the staff in piece of paper which was folded and put in a basket. After thorough reshuffling, the researcher selects an element, records it and puts it back in the basket until the required number is obtained. That is, researcher applied sampling with replacement.

3.7 Instrument for Data Collection

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Questionnaire was used. In the method both structured and unstructured questions was prepared and given to selected respondents. The secondary data was collected from firms, journals, publication, textbooks and the internet.

3.8 Validity of the Instrument

The instrument was given to two experts from the industry and academia to measure face and content validity. To make sure that the research instruments applied in the work are valid, the research ensure that the instrument measure the concept they are supposed to measure. Proper structuring of the questionnaire and a conduct of a pre-test of every question contained in the questionnaire were carried out to ensure that they are valid.

3.9 Reliability of the Research Instrument

A test method was used to test the reliability of the instrument. This was done by administering 20 copies of the prepared questionnaire to the sample of the study, Cronbah's Alpha was used in determining the extent of consistency of the reliability.

3.10 Method of Data Analyses

Data from the questionnaire was further analyzed using simple percentages, mean and standard deviation. For the 5-poi;/nt Likert scale questions, the scale and decision rule stated below was used in analysing the findings. Z- test was used to test the hypotheses with the aid of SPSS.

Scale: Strongly Agree (SA) = 5, Agree (A) = 4, Neutral(N) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1.

Decision Rule: If Mean >3.0, the respondents agree**.** If mean ≤3.0, the respondents disagree

DATA PRESENTATION AND ANAYLSIS

4.2 Data Presentation

4.2.2 The impact of leadership commitment on quality improvement of medical supply company in Enugu state.

Table 4.2.2.1: Responses on the impact of leadership commitment on quality improvement of medical supply company in Enugu state.

		5 SA	4 A	3 N	2 DA	1 SD	∑FX	- X	SD	Decision
1	Leaders' commitment to company values inspire and engage employees and ensure accuracy	405 81 37.0	104 26 11.9	195 65 29.7	44 22 10.0	25 25 11.4	773 219 100.0	3.53	1.372	Agree
2	There is increasing retention and job satisfaction and this enhance reliability in the company through leadership commitment.	570 114 52.1	104 26 11.9	117 39 17.8	22 11 5.0	29 29 13.2	842 219 100.0	3.84	1.441	Agree
3	Committed leaders demonstrates the importance of dedication and sterility	490 98 45.0	104 26 11.9	165 55 25.2	22 11 5.0	28 28 12.8	809 219 100.0	3.71	1.409	Agree
4	Effective leadership in business bolster and promote teamwork and contribute to error-free	535 107 48.9	180 45 20.5	99 33 15.1	36 18 8.2	16 16 7.3	866 219 100.0	3.95	1.277	Agree

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5	People cooperate at a higher level when they share commitment and promote services provided to customers	585 117 53.4	172 43 19.6	66 22 10.0	32 16 7.3	21 21 9.6	876 219 100.0	4.00	1.341	Agree
	Total Grand mean and standard deviation									

Source: Field Survey, 2024

Table 4.2.1.1, 107 respondents out of 219 representing 48.9 percent agreed that Leaders to company values inspire and engage employees and ensure accuracy commitment with the mean score of 3.53 and standard deviation of 1.372. 140 respondents representing 64 percent agreed that there is increasing retention and job satisfaction and this enhance reliability in the company through leadership commitment with mean score of 3.84 and standard deviation of1.441. 124 respondents representing 56.9 percent agreed that committed leaders demonstrate the importance of dedication and sterility with mean score of 3.71 and standard deviation of1.409. 152 respondents representing 69.4 percent agreed that Effective leadership in business bolster and promote teamwork and contribute to error-free with mean score of 3.95 and standard deviation of1.277. 160 respondents representing 73 percent agreed that People cooperate at a higher level when they share commitment and promote services provided to customers with a mean score of 4.00 and standard deviation of 1.341.

4.2.2 The impact of ongoing continuous improvement on costs reduction of medical supply comparer in Enugu state.

Table 4.2.2.1: Responses on the impact of ongoing continuous improvement on costs reduction of medical supply company in Enugu state.

		5 SA	4 A	3 N	2 DA	1 SD	∑FX	- X	SD	Decision
1	Continuous improvement helps the company Streamline clinical care processes and improve work flow	465 93 42.5	224 56 25.6	54 18 8.2	46 23 10.5	29 29 13.2	818 219 100.0	3.74	1.435	Agree
2	Company constantly enhances their performance through continuous improvement which promotes competitiveness	490 98 44.7	316 79 36.1	57 19 8.7	10 5 2.3	18 18 8.2	891 219 100.0	4.07	1.169	Agree
3	Identifying areas of weakness reduces administrative burden as a result of continuous improvement	580 116 53.0	268 67 30.6	54 18 8.2	22 11 5.0	7 7 3.2	931 2119 100.0	4.25	1.021	Agree
4	By continually looking for ways to improve enhances improved profitability	540 108 49.3	312 78 35.6	39 13 5.9	10 5 2.3	15 15 6.8	916 219 100.0	4.18	1.110	Agree
5	Continuous improvement encourages contribution and creates cost-effective care	375 75 34.2	384 96 43.4	39 13 5.9	32 16 7.3	20 20 9.1	850 219 100.0	3.86	1.226	Agree

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Total Grand mean and standard deviation	**4.114**	**1.085**

Source: Field Survey, 2024

Table 4.2.2.1, 149 respondents out of 219 representing 68.1 percent agreed that Continuous improvement helps the company Streamline clinical care processes and improve work flow

With the mean score of 3.74 and standard deviation of 1.435. 177 respondents representing 80.8 percent agreed that Company constantly enhance their performance through continuous improvement which promotes competitiveness with mean score of 4.07 and standard deviation of1.169. 183respondents representing 83.6 percent agreed that Identifying areas of weakness reduces administrative burden as a result of continuous improvement with mean score of 4.25 and standard deviation of1.021. 186 respondents representing 84.9 percent agreed that by continually looking for ways to improve enhances improved profitability with mean score of 4.18 and standard deviation of 1.110. 171 respondents representing 77.6 percent agreed that Continuous improvement encourages contribution and creates cost-effective care with a mean score of 3.86 and standard deviation1.226.

4.3 Test of Hypotheses

4.3.1 Hypothesis One: Leadership commitment has impact on quality improvement of medical supply companies in Enugu state.

One-Sample Kolmogorov-Smirnov Test

		Leaders commitment to company values inspire and engage employees and ensure accuracy	There is increasing retention and job satisfaction and this enhance reliability in the company through leadership commitment.	Committed leaders demonstrates the importance of dedication and sterility	Effective leadership in business bolster and promote teamwork and contribute to error-free	People cooperate at a higher level when they share commitment and promote services provided to customers
N		219	219	218	219	219
Uniform Parameters[a,b]	Minimum	1	1	1	1	1
	Maximum	5	5	5	5	5
Most Extreme Differences	Absolute	.370	.521	.450	.489	.534
	Positive	.114	.132	.128	.073	.096
	Negative	-.370	-.521	-.450	-.489	-.534
Kolmogorov-Smirnov Z		5.473	7.703	6.637	7.230	7.906
Asymp. Sig. (2-tailed)		.000	.000	.000	.000	.000

a. Test distribution is Uniform.

b. Calculated from data.

Decision Rule

If the calculated Z-value is greater than the critical Z-value (i.e. $Z_{cal} > Z_{critical}$), reject the null hypothesis and accept the alternative hypothesis accordingly.

Result

With Kolmogorov-Smirnon Z – value of 5.473 < 7.906 and on Asymp. Significance of 0.000, the responses from the respondents as display in the table is normally distributed. This affirms the assertion of the most of the respondents that Leadership commitment had significant positive impact on quality improvement of medical supply companies in Enugu state.

Decision

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Furthermore, comparing the calculated Z- value of 5.473 < 7.906 against the critical Z- value of .000 (2-tailed test at 95percent level of confidence) the null hypothesis was rejected. Thus, the alternative hypothesis was accepted which states that **Leadership commitment had significant positive impact on quality improvement of medical supply** companies **in Enugu state.**

4.3.2 Hypothesis Two: Ongoing continuous improvement has impact on costs reduction of medical supply companies in Enugu state.

One-Sample Kolmogorov-Smirnov Test

		Continuous improvement helps the company Streamline clinical care processes and improve work flow	Company constantly enhance their performance through continuous improvement which promotes competitiveness	Identifying areas of weakness reduces administrative burden as a result of continuous improvement	By continually looking for ways to improve enhances improved profitability	Continuous improvement encourages contribution and creates cost-effective care
N		219	219	219	219	219
Uniform Parameters[a,b]	Minimum	1	1	1	1	1
	Maximum	5	5	5	5	5
Most Extreme Differences	Absolute	.430	.558	.586	.599	.526
	Positive	.132	.082	.032	.068	.091
	Negative	-.430	-.558	-.586	-.599	-.526
Kolmogorov-Smirnov Z		6.369	8.261	8.666	8.869	7.788
Asymp. Sig. (2-tailed)		.000	.000	.000	.000	.000

a. Test distribution is Uniform.
b. Calculated from data.

Decision Rule

If the calculated Z-value is greater than the critical Z-value (i.e $Z_{cal} > Z_{critical}$), reject the null hypothesis and accept the alternative hypothesis accordingly.

Result

With Kolmogorov-Smirnon Z – value of 6.369 < 8.869 and on Asymp. Significance of 0.000, the responses from the respondents as display in the table are normally distributed. This affirms the assertion of the most of the respondents that **Ongoing continuous improvement had significant positive impact on costs reduction of medical supply comparer in Enugu state.**

Decision

Furthermore, comparing the calculated Z- value of 6.369 < 8.869 against the critical Z- value of .000 (2-tailed test at 95percent level of confidence) the null hypothesis was rejected. Thus, the alternative hypothesis was accepted which states that ongoing continuous improvement had significant positive impact on costs reduction of medical supply comparer in Enugu state.

4.4 Discussion of Findings

4.4.1 Leadership commitment had significant positive impact on quality improvement

From the result of hypothesis one, the calculated Z- value of 5.473 < 7.906 against the critical Z- value of .000. Which implies that Leadership commitment had significant positive impact on quality improvement of medical supply company in Enugu state? In the support of the result in the literature review, Sfantou, Laliotis, Patelarou, Sifaki-Pistolla, Matalliotakis and Patelarou (2017) conducted a study on Effective leadership of healthcare

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professionals is critical for strengthening quality and integration of care. Leadership styles were found to be strongly correlated with quality care and associated measures. Leadership was considered a core element for a well-coordinated and integrated provision of care, both from the patients and healthcare professionals. Rifa, Komariah, Permana & Sudarsyah (2018) conducted a study on the influence of quality leadership and quality commitment on the performance of higher education organizations. The results showed that, there was a positive significant influence on quality leadership on organizational performance. In addition, there is a positive significant influence too on staff quality commitment to organizational performance through quality leadership.

4.4.2 Ongoing continuous improvement had significant positive impact on costs reduction

Furthermore, comparing the calculated Z- value of 6.369 < 8.869 against the critical Z- value of .000 which implies that ongoing continuous improvement had significant positive impact on costs reduction of medical supply company in Enugu state. In the support of the result in the literature review, Uwa (2014) conducted a study on assessing the health care waste management practices by hospital staff. The study showed that the health institutions adopt minimal activities of recycling, reduce and reuse, although not regularly. It is therefore imperative that new technologies and innovations should be put in proper place for improved healthcare management practices, in Enugu metropolis. Olutuase,Iwu-Jaja,Akuoko, Adewuyi & Khanal (2022) conducted a study onmedicines and vaccines supply chains represent critical systems for realising one of the major targets of the United Nations' third Sustainable Development Goals (SDGs)—access to safe, effective, quality, and affordable essential medicines and vaccines, for all.

5.0 Summary of Findings, Conclusion, Recommendations and Contribution to Knowledge

5.1 Summary of Findings

i. Leadership commitment had significant positive impact on quality improvement of medical supply company in Enugu State, Z(95, n = 219), 5.473 < 7.906, P. <.05

ii. Ongoing continuous improvement had significant positive impact on costs reduction of medical supply company in Enugu state, Z(95, n = 219), 6.369 < 8.869, P. <.05.

5.2 Conclusion

The study concluded that Leadership commitment and ongoing continuous improvement had significant positive impact on costs reduction and quality improvement of medical supply company in Enugu state. Business Process Reengineering (BPR) is a technique for critical analysis and radical redesign of prevailing business processes to obtain improvements in performance measures. Though BPR projects seem promising and offer many benefits to organisations, researchers have found that typically around seventy percent of reengineering projects fail in action due to various issues, (Fasna & Gunatilake, 2019). BPR contributes to reduce the cost of activities via the analysis and redesign of the workflow and processes of the organisation, in the current competitive market, it is considered as an effective managerial tool to cope with technological and marketing changes (Omidi and Khoshttinat, 2016).

5.3 Recommendations

Based on the findings, the followings recommendations were proffered**,**

i. The companies should endeavour to be have committed Leadership as this will enhance and shape organizational culture, aligning goals with customer needs, fostering continuous improvement, building trust, and driving innovation.

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ii. To help individuals and organizations to constantly enhance their performance and achieve better results there is need Continuous improvement. By continually looking for ways to improve, we can identify areas of weakness, streamline our processes, and enhance our skills and knowledge.

5.4 Contribution to Knowledge

The studies done were carried out on the impact of business process re-engineering on organization performance of medical supply companies in Enugu state Nigeria and did not focus to best of my knowledge on the leadership commitment on quality improvement, ongoing continuous improvement on costs reduction of medical supply companies in Enugu state. Most of the studies reviewed analysed their data through A purposeful sampling technique, Descriptive statistics and appropriate inferential statistics, Purposive Sampling technique, Pearson Moment Correlation Coefficient, Multiple sampling technique, Partial Least Square Structural Equation Modeling (PLS-SEM), Multiple Regression Analysis (MRA) method, Simple linear regression and Pearson correlation coefficient (r) while the present study made use of Z test to test the hypotheses. Therefore, the study aimed at filling this research gap by evaluating the impact of business process re-engineering on organization performance of medical supply companies in Enugu state Nigeria.

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