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The Impact of Quality Management Practices on Competitive Advantage: A Case Study of Manufacturing Firms in Rivers State, Nigeria

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Abstract: *The paper examined the relationship between quality management practice and competitive advantage of manufacturing industries in Rivers State. The study's objective was to empirically examine how quality management practice relates with competitive advantage of manufacturing industries in Rivers State in terms of brand reputation, customer service and product quality. The study made use of the explanatory cross-sectional survey research design. The study population consisted of selected 20 manufacturing firms in Rivers State with two hundred and thirty-nine (239). The number of respondents was obtained from the Human Resource Departments of the manufacturing firms. These respondents consist of Directors, HODs, Human Resource Managers, and Supervisors. Using the census sampling technique, the study's sample size consisted of the entire two hundred and thirty-nine (239) respondents from the selected 20 manufacturing firms in Rivers State. A total of two hundred and thirty-nine (239) copies of the questionnaire were distributed and the researcher could retrieve 227 copies of the questionnaire correctly filled. The data obtained from the field were analyzed using Spearman's Rank Order Correlation Coefficient and t-test with the aid of SPSS Version 22.0. Three hypotheses were tested using Spearman Rank Order Correlation. Rooted from the empirical analysis carried out, the study showed that: (i) there is a strong positive relationship between quality management and brand reputation of manufacturing industries in Rivers State; (ii) quality management practice has a strong positive relationship with customer service of manufacturing industries in Rivers State, and; (iii) there is a very strong positive relationship between quality management practice and product quality of manufacturing industries in Rivers State. The study concluded that quality management practice enhances manufacturing firms' competitive advantage, especially in terms of brand reputation, customer service and product quality. The study recommended, among others, that management should pay keen attention to the plights of their customers, as these will form guides that will keep them in line with serving their customers best.*

Keywords: Quality Management Practice, Competitive Advantage, Brand Reputation, Customer Service, and Product Quality.

Background of Study

There are intense competitive impulses across the corporate world. The fourth industrial revolution, globalization, and liberalization are all current international phenomena. This period's changes and innovations have made global business competitiveness more intense. Manufacturing companies in particular must concentrate on their location, the level of competition, and changes in client expectations if they want to win the game (Acquaah, 2013). Due to these elements, businesses must have a competitive advantage (Liu, 2013). If a company has a competitive advantage, it has more resources and performs better financially than its competitors (David & David, 2017); it also has a more profitable product (Barney & Hesterly, 2012); and it has a well-established market position. On the other side, a business with a long-term, sustainable competitive edge can grow and develop lasting corporate values (Barney & Hesterley, 2015). Twin (2022) defines competitive advantage as elements that enable a company to produce goods or services more effectively or at a lower cost than its competitors.

A business climate with healthy competition among businesses expands faster than anticipated. Therefore, finding firms that are actively competing with one another becomes crucial. Competitiveness at the organizational level is the capacity of a company to develop, produce, and market goods that are superior to those provided by rivals, taking into account both price and non-price attributes (D'Cruz, 2012). Competitive processes—those that aid in determining the significance and current performance of core processes like strategic management processes, human resources processes, operations management processes, and technology management processes—are how organizational competitiveness occurs. Healthy competition between competitors is one of the aspects that might assist a company in identifying its unique competitive edge. However, gaining a competitive advantage is one thing; managing it to keep from losing it shortly is quite another. Therefore, businesses like manufacturing companies need use

quality management techniques that would achieve this. Nevertheless, the product quality, the level of customer service, and the brand's reputation can all be used to gauge competitive advantage.

Brand reputation measures how highly consumers, business partners, suppliers, competitors, and the general public hold an organization's goods and services compared to those of its sister companies in the same sector. According to James (2016), brand reputation is an intangible asset on the asset side of a company's balance sheet and represents non-physical assets like brand name and reputation. Suppose a manufacturing company, for example, has a better brand reputation than another. In that case, everyone who uses its goods and services holds them in higher regard than those provided by other lodging establishments in the same region. Customer service is a consumer's response to a perceived discrepancy between prior expectations or experiences and the execution of the goods or services they have purchased (Che-Ha & Hashim, 2017). The corporate idea behind providing satisfactory service involves anticipating and managing customers' expectations and demonstrating the capacity and obligation to meet their demands (Karima & Latif, 2018).

Another thing that might provide a manufacturing company a competitive edge over its rivals is the caliber of the products that come out of that company. Kotler & Amstrong (2012) made the supposition that a product's or service's quality is a factor in its capacity to meet explicit or implicit consumer wants. It is significant to stress that the customer's perspective, rather than the company's, is used to evaluate the product's quality.

In order to sustain a desired degree of excellence, all necessary activities and tasks must be managed for quality. This comprises formulating a quality strategy, coming up with and carrying out quality assurance and planning, as well as quality control and improvement. Additionally, it is known as complete quality management (TQM). Generally speaking, quality management prioritizes long-term objectives while implementing short-term plans. Quality management practices are measures made to guarantee the consistency of goods and services provided to customers and the methods utilized to do so, according to Anton *et al*. (2020). Organizations must design and deliver high-quality goods on schedule while adhering to client and regulatory requirements when using distributed teams and remote workers. In order to serve the entire business, not just a select group of essential employees, an organization must have next-generation quality management processes and technologies.

While the study assumes that adopting quality management will improve the competitive advantage of manufacturing firms, it is yet to gain empirical evidence. The study therefore aims at empirically establishing a relationship between quality management and competitive advantage of manufacturing firms in Rivers State, measured in terms of brand reputation, customer service and product quality.

Aim and Objectives of the Study

The study aimed to determine the relationship between quality management practice and competitive advantage of manufacturing industries in Rivers State. The specific objectives of the study include the following:

1. To determine the relationship between quality management practice and brand reputation of manufacturing industries in Rivers State.
2. To ascertain the relationship between quality management practice and customer service of manufacturing industries in Rivers State.
3. To examine the relationship between quality management practice and product quality of manufacturing industries in Rivers State.

Research Hypotheses

The researcher tested the following null hypotheses at 0.05 level of significance:

Ho_1: Quality management practice does not have any significant relationship with brand reputation of manufacturing industries in Rivers State.

Ho_2: Quality management practice does not have any significant relationship with customer service of manufacturing industries in Rivers State.

Ho_3: Quality management practice does not have any significant relationship with product quality of manufacturing industries in Rivers State.

Theoretical Framework

The study is strengthened through Resource-Based View (RBV) Theory. Barney Jay propounded the theory in 1991. The theory sees resources as key to superior firm performance. According to Barney (1991), if a resource exhibits value, rarity, imitability and organization (VRIO) attributes, the resource enables the firm to gain and sustain competitive advantage. The assumptions of the theory include the following:

i. **Heterogeneous**. The first assumption is that organizational skills, capabilities and other resources differ from company to company. If organizations would have the same amount and mix of resources, they could not employ different strategies to outcompete each other. What one company would do, the other could follow and no competitive advantage could be achieved. This is the perfect competition scenario, yet real world markets are far from perfectly competitive. Some companies, exposed to the same external and competitive forces (same external conditions), can implement different strategies and outperform each other. Therefore, RBV assumes that companies achieve competitive advantage using different resource bundles (Rothaermel, 2012).

ii. **Immobile**. The second assumption of RBV is that resources are not mobile and do not move from company to company, at least in short-run. Due to this immobility, companies cannot replicate rivals' resources and implement the same strategies. Intangible resources, such as brand equity, processes, knowledge or intellectual property are usually immobile (Rothaermel, 2012).

It is noteworthy to note how different businesses' organizations' capabilities, skills, and other resources might be. Nevertheless, every company aims to have a competitive advantage and continue to be at the forefront of advancement. Since these elements will mobilize additional resources to generate organizational actualizations across organizations, they must greatly improve their comparative and differentiated advantages through brand recognition, customer service, and product quality to accomplish these feats. This would be feasible if management adopted a modern quality management strategy that aimed to increase product and service quality to a level that would be very challenging for competitors to counter, keeping the company floating on a high performance wheel. For example, manufacturing companies that wish to beat their rivals must use quality management practices to successfully and efficiently manage their products and services while attaining their predetermined goals and objectives. Senior management must meet the flow of external and competitive factors in a corporation. They will learn how to balance the efficiency of the management information system in their company.

Quality management practices must be implemented to balance the success of the business through brand reputation, customer service, and product quality. Upper management can also foster an environment that fosters good management practices while enhancing competitive advantage thanks to the immovability of resources. Brand reputation, customer satisfaction, and product quality are all obvious instances of immobile intangible resources. For businesses to perform better through competitive advantage, implementing good quality management practices to promote customer satisfaction with products and services is crucial.

Concept of Quality Management Practice

Monitoring various organizational activities and tasks to make sure that the provided goods and services, as well as the methods used to deliver them, are consistent is known as quality management (CFI Team, 2022). It aids in achieving and preserving the organization's intended level of quality. In order to achieve the long-term success that results from customer satisfaction, quality management seeks to ensure that all of the organization's stakeholders collaborate to enhance the business's procedures, products, services, and culture. To ensure that the goods and services they produce meet the necessary criteria or are appropriate for a given purpose, a team develops standards as part of the quality management process. The procedure begins when the firm establishes quality goals that must be achieved and which the client has approved. After then, the organization specifies how the goals will be evaluated. Next, it performs the tasks necessary for measuring quality. Then, it starts making adjustments after identifying any quality problems. Reporting the overall degree of quality attained is the last stage. Finally, the procedure ensures that the team's goods and services meet customers' expectations.

The four components of quality management are quality planning, quality improvement, quality control, and quality assurance. Quality planning is determining the quality standards relevant to the project and deciding how to meet them. Quality improvement is the deliberate alteration of a process to increase the confidence or reliability of the outcome (Mansa, 2022).

The managerial measures known as quality management practices pertain to quality management activities (Calvo-Mora *et al*., 2014). Quality management practices are measures made to guarantee the consistency of goods and services provided to customers and the methods utilized to do so, according to Anton et al. (2014). Quality management techniques are strategies used by project managers to more effectively and efficiently plan, carry out, check for, and take appropriate action to raise quality standards. A solid reputation for quality is a key distinction in today's market. More satisfied customers translate into higher sales—the impact of globalization and a widely dispersed supply chain on product and service quality. Organizations must design and deliver high-quality goods on schedule while adhering to client and regulatory requirements when using distributed teams and remote workers. In order

to serve the entire business, not just a select group of essential employees, an organization must have next-generation quality management processes and technologies. However, quality management principles must be established and regularly reviewed for an effective quality management system.

Concept of Competitive Advantage

A brand's capacity to offer clients goods or services that are higher-performing or more affordable than those of rivals is known as competitive advantage (SendPulse, 2022). It enables businesses to increase sales and profit margins. Competitive advantage is crucial because it increases consumers' perceived value of a good or service. Therefore, brands develop distinctive and high-quality items, decrease prices, offer exceptional customer service, interesting features, or liberal return and exchange policies to attract customers and influence people to choose their products or services. By doing this, businesses can increase sales volume, profit margins, and client loyalty.

A company's ability to create goods or services faster, more efficiently, or affordably than its competitors is a competitive advantage (Twin, 2022). These elements enable the producing unit to outperform its competitors in terms of sales or margins. Cost structure, branding, the standard of the product offers, the distribution system, intellectual property, and customer service are just a few of the variables contributing to competitive advantages. For example, a manufacturing business that provides clients with a superior offer is highly sought after by customers. As a result, such a company increases sales and earns a healthy profit for its owner. Companies use a variety of strategies to differentiate themselves from rivals and outperform them in various areas, including utilizing cutting-edge technology, hiring a qualified staff, ensuring superior customer service, and developing outstanding services. They gain a greater ROI and expand their market share thanks to these actions. As a result, entrepreneurs strive to create profitable brands while increasing productivity and efficiency.

Businesses profit greatly from a sustained competitive advantage, therefore business owners pursue it in various ways (Twin, 2022). They launch new, innovative items that others cannot imitate, implement innovation, and more. This gives them an advantage over rivals. A corporation may allocate resources effectively and with certainty when it has a distinct competitive edge. Businesses that enjoy a competitive edge enjoy a special position that benefits their stakeholders. Comparative and differentiated advantages are the two primary competitive advantages you can use to expand your firm.

Comparative Advantage: A company's capacity to produce goods more effectively than its rivals; it happens when a business can create goods comparable to alternatives offered by its rivals while charging less for them. The tactic increases revenue and attracts additional clients. Assume that two businesses provide exact equivalents, but one charges less for the same thing. A buyer will undoubtedly select the less expensive option, particularly if there is no discernible difference between the two. For instance, a customer wishes to purchase sneakers from a specific brand in a physical store. This customer has two open stores to select from. This customer has two open stores to select from. These running sneakers may be purchased for N18,000 at one retailer and N15,000 at another. To save money, the customer will purchase from the second brand.

Differential Advantage: In this scenario, a business produces goods or services of a higher caliber, have more features, provide benefits, or have a distinctive appearance. To produce high-quality goods, brands frequently use cutting-edge technology, a distinctive brand identity, and their best employees. These essential elements contribute to a company's growth in market share and ROI. The best illustration of a brand having a differentiating advantage is Apple. The business creates cutting-edge goods like iPhones, MacBooks, and AirPods. Customers are so happy with the brand's product quality and attractiveness that they are even willing to spend a considerably higher price for its laptop or smartphone.

Organizations must always discover ways and plans to prevail against competitors in their fields as corporate competition has recently become more fierce (Schymik, 2018). Businesspeople should ideally be able to mix internal elements, particularly resources, and external considerations such as industry structure when selecting the business models and concepts to be applied (Mihaela & Iulian, 2012; Rokhayati *et al*., 2021). By developing numerous advantages, the corporation may have maximized all internal resources (resources) after studying the industry structure in light of external circumstances. Factors of competitive advantage can be acquired, developed, or created (Guo & Lu, 2021). The strategic decisions made by a corporation to capture market possibilities lead to competitive advantage (Friesenbichler & Reinstaller, 2022). A business plan, also known as a competitive strategy, is often created at the divisional level and focuses on enhancing the competitiveness of a company's goods and services in the particular market or industry area the division targets (Sanchez-Henriquez & Pavez, 2021). The division's business plan can emphasize maximizing earnings by creating and selling goods and services (Agustia *et al.*, 2020). To accomplish divisional goals, business plans should incorporate a variety of functional operations (Abdelbadie & Salama, 2019). Notwithstanding, this study measures competitive advantage of manufacturing firms using parameters such as brand reputation, customer service and product quality.

Brand Reputation: According to one definition, a brand's reputation is an extrinsic cue related to the product but does not directly affect its physical makeup. The constant evolution of a brand's reputation is mostly due to the dissemination of information from one user to another (Herbig & Milewicz, 2013). Reputation encapsulates the general opinion of an organization's public, rivals, suppliers, customers, and workers (Fombrun & Shanley, 2019). Companies strive for brand recognition because they know that those with a solid reputation across all of their products may expect to command the highest sales prices, making them more powerful than their rivals (Loureiro & Kaufmann, 2016).

The phrase "brand reputation" also applies to brand reputation (Harit & Chetioui, 2017). Corporate reputation is described as the collective evaluations of a corporation's past deeds and capacity to consistently produce better financial returns for some investors by The Online Business Dictionary (2018). For instance, many companies rate their reputations based on financial stability, management competence, level of goods and services, and market competition. According to James (2016), brand reputation is an intangible asset on the asset side of a company's balance sheet and represents non-physical assets like brand name and reputation. He also made the observation that companies frequently buy other businesses in order to build their brand reputation.

Based on those mentioned above, the study defines brand reputation as the ranking of an organization's goods and services compared to those of its sister companies in the same sector by its clients, staff, suppliers, promoters, competitors, and the general public. If, for example, a manufacturing company has a greater brand image than another, everyone who interacts with its goods and services holds them in higher regard than those from other companies operating in the same region—this reputation results from the high caliber of the company's goods and services. Therefore, the ability of an organization, such as a manufacturing firm, to earn a higher evaluation from its customers, admirers, and rivals due to the quality of services and products they provide is what is meant by brand reputation as a measure of organizational competitiveness. Therefore, a company is deemed to be competing well if its brand is well-known.

Customer Service: Another factor that can be used to assess a manufacturing company's competitive advantage over rivals is customer service. Customer service focuses on satisfying and gratifying client/customer interests. Additionally, it symbolizes that a client's or shareholder has assured acceptance of anything as satisfying, dependable, true, honest, and content in the form of goods, services, and investment returns. Customers experience this internal satisfaction of realizing their sincere tailored aspirations connected to specific interactions with an enterprise. They feel satisfied and comfortable when this is improved. It verifies an organization's success because when customers are dissatisfied with the products and services they receive, they frequently file complaints. The organization risks losing these complaints to other sister organizations who provide such substitutes if they are not swiftly resolved. The organization's shareholders are likewise subject to this. Dissatisfaction permeates when investment returns fall short of the level of shareholder confidence in their ownership stakes in the company. Dissatisfaction can cause shareholders to stop investing in a company, making it less effective and inefficient in its operations and result in poor performance.

Customer response to perceived discrepancy between prior expectations or experiences and actual performance of consumed goods or services is another definition of customer service (Che-Ha & Hashim, 2017). The corporate idea behind providing satisfactory service involves anticipating and managing customers' expectations and demonstrating the capacity and obligation to meet their demands (Karima & Latif, 2018). The gap between a customer's expectations and their experience is considered to be the consumer's dignity. Any service-oriented industry's major success factors are service quality, service fees, perceived value, and customer happiness (Olorunniwo & Hsu, 2006). However, operational and marketing challenges make it difficult to gauge service quality and consumer satisfaction (Carrillat *et al.*, 2015). The manufacturing industry is under great pressure to cut expenses overall while increasing productivity, profitability, and shareholder value. To that purpose, the banks have significantly invested in technical advancements, marketing plans, and promotion (Abishua, 2010). While marketing and promotion are critical for businesses, banks have realized that happy customers are even more crucial as this can significantly improve their financial performance. Additionally, satisfied customers are less likely to leave the bank and will often continue to use one or more of its products (William & Nelson, 2015). Therefore, it is in the best interest of manufacturing companies to put all essential equipment in place to ensure that they have happy consumers. This will ensure a smooth operation of business and increased competitive advantage.

Product Quality: The quality of products that emanate from a manufacturing firm is another factor that can give it a competitive advantage over its rivals. A manufacturing company that seeks competitive advantage will not only strive to attain superior quality, but ensure that it maintains and improves it as situation demands. Such an organization will find better ways of balancing price and quality to ensure that it does not lose its competitive advantage, especially in the face of a hash economy as it is in Nigeria today. Kotler and Amstrong (2012) made the supposition that a product's or service's quality is a factor in its capacity to meet explicit or implicit consumer wants. It is significant to stress that the customer's perspective, rather than the company's, is used to evaluate the product's quality.

Along with that, it brought up two critical elements—the expected product quality and the perceived product quality—that have a significant impact on the product's quality. In more specific terms, if the perceived product quality matches the expectation, the consumer will feel satisfied and consider the product good quality. In contrast, if the customer's perception of the product quality is lower than predicted, the product is considered poor. As a result, whether a product is seen as good or terrible depends on the company's capacity to satisfy client demands. Quality is the attribute of toothpaste that has the greatest impact on its capacity to satisfy explicit or implicit client requirements. According to Garvin (2010) and Kotler and Keller (2012), the performance, features, reliability, compliance, durability, serviceability, aesthetics, and perceived quality of the product are all important markers of its quality. Primary determinants of product quality include:

(i) The type of raw materials used for making a product.
(ii) How well are various production-technologies implemented?
(iii) Skill and experience of workforce that is involved in the production process.
(iv) Availability of production-related overheads like power and water supply, transport.

Enhancing items and eliminating flaws or defects can ensure product quality and provide characteristics that satisfy consumer needs and wishes (Mbah & Ekechukwu, 2015). The sort of raw materials utilized to create a product is one of the key determinants of product quality. How effectively are different production technologies used? The workforce's expertise and experience in the industrial process. Availability of production-related expenses such as transportation, water and electricity supplies (Gaurav, 2013). Product quality refers to the product's suitability for use and its characteristics after purchase and use. Statistical methods for quality control and improvement support this definition by looking for consistency (Mbah & Ekechukwu 2015). The aspects of a product that affect its capacity to meet stated or implied needs collectively make up its quality (Kotler & Amstrong, 2012). Everyone will rate products differently since the standards for determining whether they are high-quality are relative. A product's quality can be demonstrated by contrasting the quality of comparable products from various manufacturers and putting them through tests regarding their ease of upkeep. Consumers prefer buying high-quality goods, function well, and have the best features, according to Kotler and Amstrong (2012). Good product quality attracts, keeps, and cultivates devoted customers.

Methodology

The study made use of the explanatory cross-sectional survey research design. The study population consisted of selected 20 manufacturing firms in Rivers State with two hundred and thirty-nine (239) respondents (Source of Manufacturing Firms: Rivers State Yellow Page, 2022). Number of respondents was obtained from the Human Resource Departments of the manufacturing firms. These respondents consist of Directors, HODs, Human Resource Managers, and Supervisors. Using the census sampling technique, the study's sample size consisted of the entire two hundred and thirty-nine (239) respondents from the selected 20 manufacturing firms in Rivers State.

Concerning primary data, the study used a structured questionnaire titled “Quality Management Practice and Competitive Advantage Questionnaire (QMPCAQ)”. It was designed in five point likert scale with the following response options: Very High Extent (VHE) 5, High Extent (HE) 4, Moderate Extent (ME) 3, Low Extent (LE) 2, and Very Low Extent (VLE) 1. The instrument was face and content validated by the researcher’s supervisor and two research experts in the Management Department of Ignatius Ajuru University of Education, Port Harcourt, Rivers State. Cronbach’s alpha via SPSS (Statistical Package for the Social Sciences) was used to ascertain the instrument's reliability. The least Cronbach’s alpha level obtained was 0.75, indicating a highly reliable coefficient. Based on Nunnaly (1978) criterion of 0.70, reliability coefficient above 0.70 was considered as indicating good or reliable instruments. A total of two hundred and thirty-nine (239) copies of the questionnaire were distributed and the researcher could retrieve 227 copies of the questionnaire correctly filled. In handling the data analysis, hypotheses were tested using Spearman’s Rank Order Correlation Coefficient via the Statistical Package for Social Sciences (SPSS) version 20.0. The Spearman’s (rho) correlation was used to analyze the relationship between independent and dependent variables at $P < 0.05$ (two-tailed test). The formula is presented below:

$$r = 1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

Where:
n = number of pairs of data
d = difference between the ranking in each data set.
∑ = Summation.
Decision Rule: The tests of hypotheses will be considered two tailed and is carried out at a 95% confidence interval.

Results/Findings

Ho_1: Quality management practice does not have any significant relationship with brand reputation of manufacturing industries in Rivers State.

Ho_2: Quality management practice does not have any significant relationship with customer service of manufacturing industries in Rivers State.

Ho_3: Quality management practice does not have any significant relationship with product quality of manufacturing industries in Rivers State.

Table 1: Correlation between Quality Management Practice and Competitive Advantage

			Quality Management Practice	Brand Reputation	Customer Service	Product Quality
Spearman's rho	Quality Management Practice	Correlation Coefficient	1.000	0.776**	0.798**	0.865**
		Sig. (2-tailed)	.	.000	.000	.000
		N	227	227	227	227
	Brand Reputation	Correlation Coefficient	0.776**	1.000	0.991**	0.775**
		Sig. (2-tailed)	.000	.	.000	.000
		N	227	227	227	227
	Customer Service	Correlation Coefficient	0.798**	. 0.991**	1.000	0.867**
		Sig. (2-tailed)	.000	.000	.	.000
		N	2227	227	227	227
	Product Quality	Correlation Coefficient	0.865**	0.775**	0.867**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	227	227	227	227

****. Correlation is Significant at the 0.01 level (2-tailed).**

Source: SPSS Output

Column two of the above table 1 above shows r value of 0.776 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating quality management practice and brand reputation. Since the significance value is less than the alpha level of 0.05, the null hypothesis (Ho_1) states that quality management practice does not have any significant relationship with the brand reputation of Rivers State manufacturing industries was rejected. This implies a strong positive relationship between quality management and brand reputation of manufacturing industries in Rivers State.

Column three of the above table 1 shows r value of 0.798 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating quality management practice and customer service. Since the significance value is less than the alpha level of 0.05, the null hypothesis (Ho_2) which states that quality management practice does not have any significant relationship with customer service of manufacturing industries in Rivers State was rejected. This implies that quality management practice has a strong positive relationship with customer service of manufacturing industries in Rivers State.

Column four of the above table 1 shows r value of 0.865 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating quality management practice and product quality. Since the significance value is less than the alpha level of 0.05, the null hypothesis (Ho_3) which states that quality management practice does not have any significant relationship with product quality of manufacturing industries in Rivers State was rejected. This implies a strong positive relationship between quality management practice and product quality of manufacturing industries in Rivers State. Therefore, these results revealed that quality management practice has a significant positive relationship with the competitive advantage of Rivers State manufacturing industries.

Summary of Findings

From the above empirical analysis, the following findings were made:

1. There is a strong positive relationship between quality management and brand reputation of manufacturing industries in Rivers State.
2. Quality management practice has a strong positive relationship with customer service of manufacturing industries in Rivers State.
3. There is a very strong positive relationship between quality management practice and product quality of manufacturing industries in Rivers State.

Conclusions

Judging from the data analysis and discussion of findings, the study concluded that quality management practice enhances the competitive advantage of manufacturing firms, especially in terms of brand reputation, customer service and product quality. However, the study also concluded that declining organizational competitiveness could be recorded in terms of poor brand reputation, poor customer service and poor product quality for manufacturing firms that fail to pay close attention and respond positively to situations that jeopardize the quality of their products and services. This implies that manufacturing firms that intends to keep their rivals at a distance, should, among other things, employee strategize that will help oversee all activities and tasks that must be accomplished to maintain a desired level of excellence in product and service delivery.

Recommendations

Based on the findings, the study recommends the following:

i. Management should pay keen attention to the plights of their customers, as these will form guides that will keep them in line with serving their customers best.
ii. Management of manufacturing firms should employ innovative workforce alongside state-of-the-art technologies that will form synergy to produce best quality products, enhancing brand reputation.
iii. Management of manufacturing firms should ensure that competitive advantage is sustained through regular evaluation of her quality management practices.

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