

ENTERPRISE RESOURCE PLANNING APPLICATION AND THE EFFECTIVENESS OF SELECTED MANUFACTURING FIRMS IN PORT HARCOURT

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ABSTRACT

This study examines the relationship between enterprise resource planning application and effectiveness of selected manufacturing firms in Port Harcourt. Correlational survey research design was adopted for this study as this study seek to determine the relationship between the two variables. The population of this study is thirty-two (32) manufacturing companies in Rivers State which are registered with the Rivers State branch of Manufacturers Association of Nigeria (MAN). Three key managers (production manager, marketing manager and logistics manager) were chosen as respondents from each using simple random sampling of the thirty-two firms constitute the study subject. This gave us a total of ninety-two (92) for the study. Structured questionnaire instrument title "Enterprise resource planning application and Effectiveness of selected manufacturing firms in Port Harcourt". questionnaire was developed on five-point likert scale. The result of the Cronbach's Alpha reliability test indicates .810 which is above .70 which implies that the items are reliable. Pearson product moment correlation was used to test the hypotheses using SPSS (statistical package social sciences). This study revealed that there is a significant relationship between financial application and resource utilization of selected manufacturing firms in Port Harcourt. There is a significant relationship between human capital management and adaptability of selected manufacturing firms in Port Harcourt. There is a significant relationship between corporate services and goal accomplishment of selected manufacturing firms in Port Harcourt. The study concluded that there is a positive relationship between enterprise resource planning application and effectiveness in selected manufacturing firms in Port Harcourt. The study recommended that implementing regular workforce planning exercises to forecast future manpower needs based on business growth projections and industry trends.

INTRODUCTION

Enterprise Resource Planning (ERP) systems have evolved as crucial tools for integrating and streamlining various business processes within an organization. Enterprise resource planning applications typically include modules for financial management, human capital management (HCM), and corporate services. The financial application dimension focuses on automating and managing financial transactions, reporting, and budgeting, providing real-time insights into an organization's financial health. Human capital management, on the other hand, involves overseeing employee recruitment, training, payroll, and performance evaluation, making it an essential tool for aligning workforce management with business objectives. The corporate services dimension encompasses the automation of non-core services such as legal, administrative, and compliance activities, ensuring smooth operations across the organization (Gupta & Kohli, 2022; O'Leary, 2020).

These applications contribute to enhanced production output and improved market responsiveness, making them vital for sustaining profitability and growth in a dynamic business environment (Ajayi & Fagbohun, 2021; Nwankwo & Uche, 2023). By integrating financial, human capital, and corporate service management into a single platform, manufacturing firms can optimize resource allocation, minimize errors, and improve decision-making processes. Moreover, enterprise resource planning systems help address challenges such as inventory management, supply chain coordination, and workforce efficiency, which are critical in the manufacturing sector.

Effectiveness in organizational contexts is a multifaceted concept that encompasses various dimensions, including resource utilization, adaptability, and goal accomplishment. Resource utilization refers to the efficient and optimal use of available resources human, financial, and material to achieve desired outcomes (Katz & Kahn, 1978). This measure is crucial as it directly impacts an organization's ability to maintain competitiveness and sustainability in a rapidly changing environment. Adaptability signifies an organization's capacity to adjust its strategies and operations in response to external changes or internal challenges (Burns & Stalker, 1961). It reflects the agility of an organization in navigating market fluctuations and technological advancements. Goal accomplishment is the ultimate measure of effectiveness; it assesses whether an organization meets its strategic objectives within a specified timeframe (Drucker, 1954). Together, these measures provide a comprehensive framework for evaluating organizational effectiveness.

The manufacturing sector plays a vital role in economic development and job creation within the region. However, firms often face challenges related to resource constraints and market volatility. By focusing on resource utilization, adaptability, and goal accomplishment, manufacturing firms can enhance their operational efficiency and resilience against external pressures (Adeleke et al., 2020). For instance, effective resource management can lead to reduced waste and increased productivity, while adaptability can foster innovation in production processes. Ultimately, achieving set goals not only contributes to individual firm success but also bolsters the overall economic landscape of Rivers State.

Statement of the Problem

The effectiveness of manufacturing firms in Port Harcourt can be evaluated through various measures, including resource utilization, adaptability, and goal accomplishment. Resource utilization refers to how efficiently a firm employs its available resources such as labor, materials, and capital to produce goods. Inefficient resource utilization can lead to increased operational costs and reduced competitiveness (Slack et al., 2010). In the context of Port Harcourt, many manufacturing firms face challenges related to inadequate infrastructure and inconsistent supply chains, which hinder optimal resource use. This inefficiency not only affects profitability but also impacts the overall productivity of the sector (Kumar & Singh, 2018).

Adaptability is another critical measure of effectiveness for manufacturing firms. It pertains to a firm's ability to respond to changes in market conditions, consumer preferences, and technological advancements (Teece et al., 2016). In Port Harcourt's dynamic economic environment, firms must be agile enough to pivot their strategies in response to fluctuating demand or regulatory changes. However, many local manufacturers struggle with rigid operational frameworks that limit their capacity for innovation and responsiveness. This lack of adaptability can result in missed opportunities for growth and market expansion (Bessant & Tidd, 2015).

Goal accomplishment is the final measure of effectiveness that reflects whether a firm meets its strategic objectives. For manufacturing firms in Port Harcourt, achieving set goals often involves navigating complex challenges such as competition from imports and fluctuating raw material prices (Meyer & Skak, 2002). The inability to meet these goals can stem from poor planning or insufficient alignment between organizational resources and strategic aims. Consequently, firms may find themselves unable to sustain long-term growth or maintain a competitive edge within both local and international markets (Kaplan & Norton, 2001).

Conceptual Framework

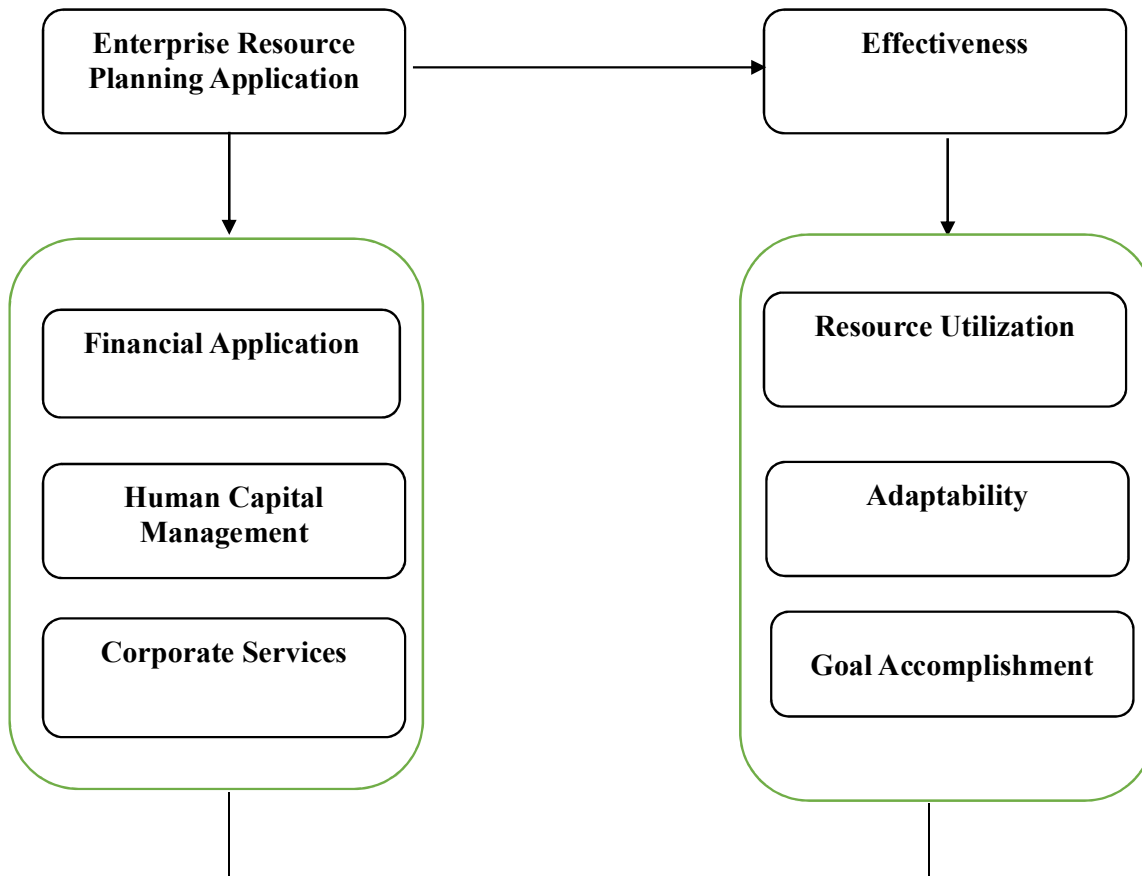


Figure 1: Conceptual framework on Enterprise Resource Planning Application and Effectiveness of selected manufacturing firms in Port Harcourt

Source: Adopted from O'Brien, James A., et al (2013), & Kotler et al., (2013).

Figure 1: Conceptual framework on Enterprise Resource Planning Application and Effectiveness of selected manufacturing firms in Port Harcourt

Source: Adopted from O'Brien, James A., et al (2013), & Kotler et al., (2013).

Aims & Objectives

The aim of this study is to examine the relationship between enterprise resource planning application and effectiveness in selected manufacturing firms in Port Harcourt. The study seeks to:

- 1) Determine the relationship between financial application and resource utilization of selected manufacturing firms in Port Harcourt.
- 2) Determine the relationship between human capital management and adaptability of selected manufacturing firms in Port Harcourt.
- 3) Determine the relationship between corporate services and goal accomplishment of selected manufacturing firms in Port Harcourt.

Research Questions

The following research questions were raised to guide the study.

- 1) What is the relationship between financial application and resource utilization of selected manufacturing firms in Port Harcourt?
- 2) What is the relationship between human capital management and adaptability of selected manufacturing firms in Port Harcourt?
- 3) What is the relationship between corporate services and goal accomplishment of selected manufacturing firms in Port Harcourt?

Hypotheses

The following null hypotheses were formulated and tested at a significant level of 0.01.

- HO₁:** There is no significant relationship between financial application and resource utilization of selected manufacturing firms in Port Harcourt.
- HO₂:** There is no significant relationship between human capital management and adaptability of selected manufacturing firms in Port Harcourt.
- HO₃:** There is no significant relationship between corporate services and goal accomplishment of selected manufacturing firms in Port Harcourt.

REVIEW OF RELATED LITERATURE

This section reviews various extant literatures related to the study under investigation under the headings of conceptual review, empirical review and theoretical review.

Conceptual Review

Concept of Enterprise Resource Planning Application

Enterprise Resource Planning (ERP) applications are integrated software solutions designed to manage and streamline a company's core business processes. According to O'Brien and Marakas (2011), ERP systems facilitate the flow of information across various departments within an organization, allowing for improved coordination and efficiency. These applications typically encompass a wide range of functionalities, including finance, human resources, supply chain management, and customer relationship management. By centralizing data into a single database, ERP systems enable real-time reporting and analytics, which can significantly enhance decision-making capabilities (O'Brien & Marakas, 2011). Furthermore, the implementation of ERP systems often leads to standardized business processes that can reduce operational costs and improve overall productivity.

The concept of ERP is not merely about technology; it also involves significant organizational change. As noted by Laudon and Laudon (2018), successful ERP implementation requires careful planning and consideration of the cultural dynamics within an organization. This includes training employees on new systems and processes while ensuring that there is buy-in from all levels of staff. The authors emphasize that the effectiveness of an ERP system is contingent upon its alignment with the organization's strategic goals and objectives (Laudon

& Laudon, 2018). Thus, while ERP applications provide powerful tools for managing resources efficiently, their success ultimately hinges on how well they are integrated into the existing organizational framework.

Dimensions of Enterprise Resource Planning Application

Financial Application

A critical dimension of enterprise resource planning application is the financial application, which manages an organization's financial transactions and reporting. Financial application modules in enterprise resource planning application systems streamline operations such as accounting, budgeting, asset management, and financial forecasting (Zhou et al., 2022). These systems provide real-time insights into financial performance, which enables businesses to make data-driven decisions and improve overall financial transparency (Abood & Asamoah, 2023). The integration of financial data across departments ensures that decision-makers have access to accurate and up-to-date financial information, which can significantly enhance organizational efficiency (Elragal & Haddara, 2019).

Human Capital Management

Human capital management (HCM) is a critical dimension of enterprise resource planning systems, focusing on managing an organization's workforce as a valuable asset. It involves a range of practices aimed at recruiting, developing, and retaining talent while ensuring the alignment of human resources with overall business goals. According to Bhardwaj and Tripathi (2022), enterprise resource planning systems integrate human capital management by automating processes such as payroll, recruitment, performance management, and learning and development. This automation improves efficiency, reduces human errors, and enables real-time data access, which is essential for strategic decision-making. Additionally, enterprise resource planning applications provide detailed insights into employee performance and resource allocation, helping businesses to optimize their workforce effectively (Khan & Tariq, 2021). This integration of human capital management into enterprise resource planning systems enhances organizational agility and adaptability, enabling businesses to respond to market dynamics quickly. The ability to access and manage talent data through a centralized system also contributes to improved collaboration across departments (Nguyen et al., 2020).

Corporate Services

The application of enterprise resource planning in corporate services is particularly beneficial for organizations with complex operations, as it supports scalability and flexibility. For instance, in dynamic industries like manufacturing, enterprise resource planning applications help in automating critical processes, from payroll management to procurement and asset management, thereby reducing administrative burdens (Boonstra, 2023). With enterprise resource planning systems, organizations can track performance metrics across corporate services, making it easier to implement performance improvement measures and gain a competitive edge. These systems also facilitate compliance with both local and international standards, improving audit trails and reducing the risk of financial discrepancies (Rashid, Hossain, & Patrick, 2020). The enterprise resource planning ability to manage corporate services comprehensively further empowers managers to make data-driven decisions, enhancing overall organizational agility (Gyampah & Salam, 2021).

Concept of Effectiveness

According to Drucker (2006), effectiveness is not merely about doing things right but rather about doing the right things. This distinction emphasizes that effectiveness involves aligning actions with strategic goals and ensuring that resources are utilized in a manner that maximizes impact. In organizational contexts, effectiveness can be measured through various metrics, including productivity, quality of output, and stakeholder satisfaction (Robinson & Judge, 2019). The emphasis on goal alignment suggests that an effective entity must have a clear understanding of its mission and vision, which guides decision-making processes and operational strategies.

Moreover, effectiveness is often contrasted with efficiency, where the former focuses on achieving results while the latter pertains to the optimal use of resources (Katz & Kahn, 1978). For instance, an organization may operate efficiently by minimizing costs but may still fall short of being effective if it fails to meet its objectives or satisfy its stakeholders. As noted by Wheelen and Hunger (2018), organizations must strike a balance between these two concepts to ensure long-term success. Therefore, understanding effectiveness requires a holistic view that incorporates both qualitative and quantitative assessments of performance relative to established goals.

Measures of Effectiveness

Resource Utilization

Resource utilization is a key measure of effectiveness in organizations, as it refers to how efficiently and effectively resources such as labor, capital, and materials are allocated and used to achieve desired outcomes. Effective resource utilization ensures that an organization maximizes its output while minimizing waste and costs, a vital aspect of organizational performance (Johnson & Smith, 2020). This measure is critical across various sectors, particularly in production environments, where the efficient use of raw materials, equipment, and labor directly impacts profitability and sustainability (Davis et al., 2019). By optimizing resource allocation, organizations can improve productivity, reduce operational costs, and enhance competitiveness in their respective industries. According to Kaur and Singh (2021), resource utilization is not merely about using resources but also about aligning them with organizational goals to generate the highest possible value. Organizations that effectively manage their resources can adapt more swiftly to market changes, meet customer demands efficiently, and ensure the sustainability of operations in the long term.

Adaptability

According to Burke and Litwin (1992), adaptability is linked to the organization's ability to manage change, innovate, and develop new capabilities. This agility allows organizations to remain competitive by anticipating shifts in market conditions, consumer preferences, and technological advancements. Furthermore, Mott (1972) asserts that adaptability is a multidimensional construct that involves learning, decision-making, and the integration of new information into existing processes. This makes it an essential measure for assessing how well an organization can maintain its effectiveness in the face of internal and external pressures. Adaptability is a critical measure of organizational effectiveness, particularly in dynamic and uncertain environments. It refers to the ability of an organization to adjust its structures, processes, and strategies in response to changes in the external environment.

Effective organizations are not only efficient in achieving their current goals but also flexible in responding to new challenges and opportunities.

Goal Accomplishment

Goal accomplishment is a widely recognized measure of organizational effectiveness that emphasizes the achievement of predetermined objectives. Organizations set specific goals, and their ability to meet or exceed these goals often reflects their overall effectiveness. According to Katz and Kahn (1978), goal accomplishment serves as an evaluative criterion that captures both internal and external dimensions of organizational success. Internally, it assesses how well the organization mobilizes resources, coordinates processes, and motivates employees to achieve desired outcomes. Externally, it evaluates the organization's ability to meet market demands, satisfy customer needs, and maintain competitiveness. The focus on goal accomplishment aligns with the rational systems model, which asserts that organizations are purposeful entities designed to achieve specific ends through strategic planning and structured processes (Scott & Davis, 2007).

Theoretical Review

Resource-Based View Theory

Resource-Based View (RBV) theory was primarily propounded by scholars such as Jay Barney in the early 1990s. This theoretical framework posits that a firm's competitive advantage is derived from its unique resources and capabilities, which are valuable, rare, inimitable, and non-substitutable (Barney, 1991). Resource-based view theory emphasizes the internal factors of an organization rather than external market conditions as the primary determinants of performance.

Furthermore, the relevance of resource-based view theory extends to understanding how manufacturing firms in Rivers State can harness their internal resources to optimize enterprise resource planning effectiveness. According to Grant (1991), organizations must focus on developing core competencies that align with their strategic goals. In this light, the successful adoption and integration of enterprise resource planning systems depend not only on the technology itself but also on how well these systems are aligned with the firm's existing capabilities and resources. For instance, a manufacturing firm with strong human capital such as skilled personnel adept at using enterprise resource planning software can significantly enhance its operational effectiveness and responsiveness to market demands. Thus, applying the resource-based view theory framework allows for a deeper analysis of how internal resources contribute to the successful implementation and effectiveness of enterprise resource planning systems in enhancing competitive advantage among manufacturing firms in Rivers State.

Assumptions of Resource-Based View Theory

1. **Unique Resources and Capabilities:** The theory assumes that an organization's unique resources and capabilities are the primary source of competitive advantage. In the context of ERP, this means that the system should be tailored to leverage these unique aspects.
2. **Resource Heterogeneity:** It assumes that resources are not uniformly distributed across firms, which implies that ERP systems should be customized to fit the specific needs and strengths of a company.

Implication of Resource-Based View Theory

1. Customization for Competitive Advantage: Organizations should customize their ERP systems to align with their unique resources and capabilities, enhancing effectiveness and competitive positioning.
2. Long-term Sustainability: Effective ERP implementation can lead to long-term sustainability by continuously improving internal processes and adapting to market changes based on core competencies.

Empirical Review

Olatunji and Adebayo (2020) worked on the impact of enterprise resource planning implementation on operational efficiency in Nigerian manufacturing firms. This study aims to investigate the relationship between enterprise resource planning implementation and operational efficiency within manufacturing firms in Nigeria. The objectives include assessing how enterprise resource planning systems influence inventory management, production planning, and overall operational performance metrics among these firms. The research design employed was a descriptive survey method, targeting manufacturing firms located in Lagos State, Nigeria. The population consisted of 150 manufacturing firms registered with the Manufacturers Association of Nigeria (MAN). A sample size of 100 firms was selected using stratified random sampling techniques to ensure representation across different sectors within manufacturing. Data were collected through structured questionnaires distributed to key personnel involved in enterprise resource planning operations within these firms. To ensure validity, the instrument was subjected to expert review and pilot testing with a small group outside the main sample. Reliability was assessed using Cronbach's alpha, yielding a coefficient above 0.7, indicating acceptable reliability levels. The administration of the instrument involved direct distribution and follow-up via email for responses. Data analysis utilized both descriptive statistics and inferential statistics such as regression analysis to determine relationships between variables. The findings revealed that there is a significant positive correlation between enterprise resource planning implementation and operational efficiency indicators such as reduced lead times, improved inventory turnover rates, and enhanced production scheduling accuracy. Specifically, firms that fully adopted enterprise resource planning systems reported a 30% increase in operational efficiency compared to those still relying on traditional methods. The study concluded that effective implementation of enterprise resource planning systems significantly enhances operational efficiency in Nigerian manufacturing firms by streamlining processes and improving data accessibility across departments. It was recommended that manufacturing firms invest in comprehensive training programs for employees on enterprise resource planning usage to maximize system benefits and consider phased implementation strategies tailored to their specific operational needs.

Adeyemi and Ogunleye (2021) examined evaluating the effectiveness of enterprise resource planning systems in enhancing decision-making processes in Nigerian manufacturing firms. This study aims to evaluate how enterprise resource planning systems contribute to decision-making processes within Nigerian manufacturing firms by analyzing their impact on data accuracy, reporting capabilities, and responsiveness to market changes. The objectives include identifying specific decision-making areas improved by enterprise resource planning systems and measuring the perceived effectiveness from managerial perspectives across various sectors within manufacturing. A mixed-methods research design was adopted for this study involving both quantitative surveys and qualitative interviews

with managers from selected manufacturing companies across Nigeria's southwestern region. The population comprised approximately 200 managers from various departments including finance, operations, and supply chain management; a sample size of 120 managers was determined using purposive sampling based on their experience with enterprise resource planning systems. Data were gathered through an online questionnaire complemented by semi-structured interviews for deeper insights into decision-making processes influenced by enterprise resource planning applications. Validity was ensured through expert reviews while reliability was confirmed via test-retest methods showing consistent results over time with a reliability coefficient exceeding 0.75 for quantitative measures. Data analysis involved thematic analysis for qualitative data alongside statistical analysis using SPSS software for quantitative results interpretation. Results indicated that organizations utilizing enterprise resource planning systems experienced enhanced decision-making capabilities characterized by improved data integrity leading to more accurate forecasting and strategic planning outcomes; specifically noted was a reduction in decision-making time by up to 40%. Managers reported increased satisfaction with their ability to respond swiftly to market demands due to real-time data access provided by enterprise resource planning. The study concluded that implementing robust ERP systems significantly enhances decision-making processes within Nigerian manufacturing firms by providing timely access to accurate information necessary for strategic decisions. Recommendations included encouraging manufacturers to adopt integrated enterprise resource planning solutions that facilitate cross-departmental collaboration while investing in ongoing training programs aimed at enhancing user proficiency with these systems.

METHODOLOGY

Correlational survey research design was adopted for this study as this study seek to determine the relationship between the two variables. The population of this study is thirty-two (32) manufacturing companies in Rivers State which are registered with the Rivers State branch of Manufacturers Association of Nigeria (MAN). The sample size for this study is the thirty-two (32) manufacturing companies earlier indicated as the population. The study adopted the census techniques. One of the reasons for applying census method is the limited and manageable size of the population. There are only 32 registered firms with MAN in the State. With regard to the respondents of the study given the strategic nature of the study, three key managers (production manager, marketing manager and logistics manager) were chosen as respondents from each using simple random sampling of the thirty-two firms constitute the study subject. This gave us a total of ninety-two (92) for the study. Structured questionnaire instrument title Enterprise resource planning application and Effectiveness in Selected Manufacturing Firms in Port Harcourt. questionnaire was developed on five-point likert scale.

enterprise resource planning application and effectiveness in selected manufacturing firm's questionnaire was independently subjected to content and construct validity by three Lecturers in the Department of Management, Faculty of Management Sciences, Ignatius Ajuru University of Education, Port Harcourt. The corrections and suggestions of the validators were affected on the finale copy of the instrument. The reliability of empirical measurement is indicated by the internal consistency, one of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient. Questionnaire item statements with Cronbach's alpha reliability coefficient below the 0.70 threshold were eliminated. the test-re-test method was used. 20 copies of the questionnaire instrument

were issue and some later same copies were issue through electronic media. the results were used in computation using Cronbach’s alpha test of reliability.

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.810	6

Source: Researcher Computation via SPSS Version 25

The result of the Cronbach's Alpha reliability test indicates .810 which is above .70 which implies that the items are reliable. Pearson product moment correlation was used to test the hypotheses using SPSS (statistical package social sciences).

Data Analysis

HO₁: There is no significant relationship between financial application and resource utilization in selected manufacturing firms in Port Harcourt.

Table 2: Correlation on Financial Application and Resource Utilization

		Financial application	Resource utilization
Financial application	Pearson Correlation	1	.687**
	Sig. (2-tailed)		.000
	N	92	92
Resource utilization	Pearson Correlation	.687**	1
	Sig. (2-tailed)	.000	
	N	92	92

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

Table 2: correlation on financial application and resource utilization revealed that there is a significant relationship between financial application and resource utilization of selected manufacturing firms in Port Harcourt where (P. 687: sig. .000) thus leading to acceptance of alternate hypothesis: There is a significant relationship between financial application and resource utilization in selected manufacturing firms in Port Harcourt.

HO₂: There is no significant relationship between human capital management and adaptability in selected manufacturing firms in Port Harcourt.

Table 3: Correlation on Human Capital Management and Adaptability

		Human capital management	Adaptability
Human capital management	Pearson Correlation	1	.710**
	Sig. (2-tailed)		.000
	N	92	92
Adaptability	Pearson Correlation	.710**	1
	Sig. (2-tailed)	.000	
	N	92	92

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

Table 3: correlation on human capital management and adaptability revealed that there is a significant relationship between human capital management and adaptability in selected

manufacturing firms in Port Harcourt where (P. 710: sig. .000) thus leading to acceptance of alternate hypothesis: There is a significant relationship between human capital management and adaptability in selected manufacturing firms in Port Harcourt.

HO₃: There is no significant relationship between corporate services and goal accomplishment in selected manufacturing firms in Port Harcourt.

Table 4: Correlation on Corporate Services and Goal Accomplishment

		Corporate service	Goal accomplishment
Corporate services	Pearson Correlation	1	.767**
	Sig. (2-tailed)		.000
	N	92	92
Goal accomplishment	Pearson Correlation	.767**	1
	Sig. (2-tailed)	.000	
	N	92	92

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

Table 4: correlation on corporate services and goal accomplishment revealed that there is a significant relationship between corporate services and goal accomplishment in selected manufacturing firms in Port Harcourt where (P. .767: sig. .000) thus leading to acceptance of alternate hypothesis: There is a significant relationship between corporate services and goal accomplishment in selected manufacturing firms in Port Harcourt.

Discussion of Findings

Table 2: correlation on financial application and resource utilization revealed that there is a significant relationship between financial application and resource utilization in selected manufacturing firms in Port Harcourt where (P. 687: sig. .000) thus leading to acceptance of alternate hypothesis: There is a significant relationship between financial application and resource utilization in selected manufacturing firms in Port Harcourt. Table 3: correlation on human capital management and adaptability revealed that there is a significant relationship between human capital management and adaptability in selected manufacturing firms in Port Harcourt where (P. 710: sig. .000) thus leading to acceptance of alternate hypothesis: There is a significant relationship between human capital management and adaptability in selected manufacturing firms in Port Harcourt. Table 4: correlation on corporate services and adaptability revealed that there is a significant relationship between corporate services and adaptability in selected manufacturing firms in Port Harcourt where (P. .767: sig. .000) thus leading to acceptance of alternate hypothesis: There is a significant relationship between corporate services and adaptability in selected manufacturing firms in Port Harcourt.

Similarly, Olatunji and Adebayo (2020) worked on the impact of enterprise resource planning implementation on operational efficiency in Nigerian manufacturing firms. The findings revealed that there is a significant positive correlation between enterprise resource planning implementation and operational efficiency indicators such as reduced lead times, improved inventory turnover rates, and enhanced production scheduling accuracy. Specifically, firms that fully adopted enterprise resource planning systems reported a 30% increase in operational efficiency compared to those still relying on traditional methods. The study concluded that effective implementation of enterprise resource planning systems

significantly enhances operational efficiency in Nigerian manufacturing firms by streamlining processes and improving data accessibility across departments. It was recommended that manufacturing firms invest in comprehensive training programs for employees on enterprise resource planning usage to maximize system benefits and consider phased implementation strategies tailored to their specific operational needs.

CONCLUSION

The study on enterprise resource planning application and effectiveness in selected manufacturing firms in Port Harcourt has provided valuable insights into the importance of efficient workforce planning and utilization in the manufacturing sector. The application of Effectiveness models has proven to be a useful tool for predicting workforce transitions and optimizing manpower requirements within these firms. By analyzing historical data on employee movements and job transitions, managers can make informed decisions on recruitment, training, and retention strategies to ensure a skilled and motivated workforce.

RECOMMENDATIONS

Based on the findings of this study, several recommendations can be made to enhance enterprise resource planning application and effectiveness in manufacturing firms in Port Harcourt:

1. Manufacturing firms should prioritize upgrading their financial management systems. This can involve investing in advanced financial software that integrates various aspects of resource management, such as inventory control, procurement, and budgeting.
2. Manufacturing firms should focus on developing their workforce's skills and capabilities.
3. Manufacturing firms should streamline their corporate services functions such as HR, IT support, legal compliance, and customer service.

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