

IMPACT OF E-PERFORMANCE MANAGEMENT SYSTEM ON PRODUCTIVITY OF SELECTED MANUFACTURING COMPANIES, ABUJA.

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DOI: <https://doi.org/10.7118/ajbam-04-2024-56>

Abstract

This study investigated the impact of E-Performance Management Systems (E-PMS) on productivity within selected manufacturing companies in Abuja. To determine whether E-PMS influences productivity, three hypotheses were developed based on the research questions and objectives. This study had a population of 235 employees from selected manufacturing companies in Abuja and data were gathered through the administration of copies of questionnaire on 178 respondents. The gathered data were analysed using the simple percentage whilst the hypotheses were tested using the regression technique. The analysis revealed that E-Performance Management Systems significantly impact the productivity of the selected companies. The study concludes that E-PMS are essential for enhancing the overall performance of manufacturing companies. Based on these findings, it is recommended that organizations invest in the ongoing improvement and effective implementation of their E-Performance Appraisal systems. This should include regular training sessions for both employees and managers to ensure comprehensive understanding of the system, along with periodic reviews to ensure that appraisal criteria remain aligned with the organization's evolving needs.

Keywords: E-Performance Management System, productivity

INTRODUCTION

In recent years, there has been a notable shift towards incorporating technology into various organizational processes, including performance management. E-Performance Management Systems (E-PMS), in particular, involve the use of electronic platforms, software, and tools to monitor, track, and evaluate employee performance in real-time (Smith, 2023). This approach replaces traditional manual methods, such as paper-based evaluations, with digital platforms that facilitate more efficient and objective assessments of performance. A well-implemented performance management system is essential for any organization, as it aligns employee goals with organizational objectives, identifies areas for improvement, and rewards high-performing individuals. The introduction of E-Performance Management Systems in manufacturing companies offers several potential benefits, including improved communication and feedback channels,

automation of appraisal processes, and enhanced transparency and fairness in evaluations (Johnson, 2022).

Performance management is a systematic process aimed at enhancing the performance of both organizations and their employees. It involves setting goals, measuring performance against these goals, and providing feedback to employees. E-Performance Management Systems (E-PMS) are computerized systems that support this process. These systems can help organizations streamline the performance management process, improve the accuracy and timeliness of appraisals, and increase employee engagement (Davis, 2021).

The rise of digital technology has led to the widespread adoption of E-Performance Management Systems (E-PMS), particularly in sectors like manufacturing where efficiency and productivity are paramount. E-PMS are digital platforms designed to streamline performance evaluation processes, facilitate

continuous feedback, and improve goal alignment with the workforce, all of which contribute to increased productivity (Ahmed et al., 2021). These systems automate routine tasks, reduce administrative burdens, and provide real-time performance data for managers to make informed decisions (Brown & Green, 2020). In the context of Abuja's manufacturing sector, where industrialization and workforce diversity are key challenges, E-PMS offers a tailored approach to performance management by accommodating the diverse skill levels and backgrounds of employees through personalized tracking and goal-setting (Nguyen et al., 2019).

This study focuses on examining the impact of E-Performance Management Systems on the productivity of selected manufacturing companies in Abuja, Nigeria. It investigates key performance metrics such as output volume, efficiency, quality, and cost-effectiveness to assess how E-PMS adoption influences operational efficiency and workforce performance. By addressing the dynamic interaction between E-PMS and these productivity indicators, the study aims to offer insights into the potential benefits and challenges of implementing E-PMS in the manufacturing sector, contributing to the region's economic growth and competitiveness.

The study addresses the crucial need to understand the impact of E-Performance Management Systems on the productivity of selected manufacturing companies in Abuja. By exploring the relationship between these variables, the research aims to offer valuable insights into the potential benefits and challenges associated with adopting E-PMS within the specific context of Abuja's manufacturing sector. The study acknowledges that E-PMS could be key to enhancing operational efficiency and workforce performance, ultimately contributing to the region's economic growth and competitiveness.

1.2 Statement of the problem

The introduction of E-Performance Management Systems (E-PMS), including e-performance appraisal systems and continuous feedback mechanisms, has revolutionized performance management in organizations. However, many manufacturing companies in Abuja continue to face persistent challenges

related to employee productivity, such as low output and poor service quality. Traditional performance appraisal methods, which are typically manual and conducted infrequently, often result in delayed feedback, subjective evaluations, and misalignment between employee goals and organizational objectives, ultimately hindering overall productivity (Brown & Green, 2020).

The manufacturing sector in Abuja operates in a competitive environment where high efficiency and consistent quality are critical. Unfortunately, many companies in this sector still rely on outdated appraisal methods that fail to provide timely and accurate feedback, leading to inconsistent performance, reduced output, and substandard service delivery (Ahmed et al., 2021). This shortfall underscores the need for modern systems that deliver continuous, real-time feedback, enabling employees to adjust and improve their performance as needed.

Additionally, the diverse workforce in Abuja's manufacturing sector adds complexity to the performance management process. Employees with varying skill levels and backgrounds are often subject to generalized performance evaluations, which can lead to disengagement and lower productivity, as their individual contributions may go unnoticed (Nguyen et al., 2019). While E-PMS has the potential to address these challenges by offering personalized tracking and ongoing feedback, many companies have yet to fully adopt these systems.

Given these ongoing issues, there is an urgent need to assess the impact of E-Performance Management Systems specifically e-performance appraisal and continuous feedback mechanisms on employee output and service quality in Abuja's manufacturing companies. Without a clear understanding of the effectiveness of these systems, organizations may continue to struggle with inefficiencies, ultimately affecting their productivity and competitiveness. This study aims to explore how E-PMS can address these performance challenges and enhance productivity in selected manufacturing companies in Abuja.

1.3 Research Questions

Sequel to the statement of problems, the following research questions were drawn:

- i. In what way does E-performance appraisal system impact on employee output in manufacturing companies in Abuja?
- ii. How does Continuous feedback mechanisms impact quality of service delivery of manufacturing companies in Abuja?

1.4 Objectives of the Study

The main objective of the study was to examine the Impact of E-Performance Management System on productivity of selected manufacturing companies, Abuja. The specific objectives are to:

- i. Determine the way in which E-performance appraisal system impact on employee output of manufacturing companies in Abuja.
- ii. Determine how Continuous feedback mechanisms impact quality of service delivery of manufacturing companies in Abuja.

1.5 Research Hypotheses

The following hypotheses were formulated and tested in the study:

H₀₁: E-performance appraisal system does not have significant impact on Employee Output of manufacturing companies in Abuja.

H₀₂: Continuous feedback mechanisms does not have significant impact on Quality-of-service delivery of manufacturing companies in Abuja.

1.6 Scope and Limitation of the Study

The research examined the impact of E-Performance Management Systems on the productivity of selected manufacturing companies in Abuja, Nigeria. The study utilized two key constructs—e-performance appraisal systems and continuous feedback mechanisms—as proxies for the independent variable (E-Performance Management

Systems). These constructs were selected because of their critical role in influencing workforce performance and productivity in manufacturing companies. Additionally, the study focused on two primary productivity indicators: Employee Output and Quality of Service Delivery. These indicators were chosen for their comprehensive ability to assess how E-Performance Management Systems affect manufacturing productivity.

The study spans a significant six-year period, from 2017 to 2023, to capture long-term trends and outcomes in the rapidly evolving technological and business landscape. This timeframe was necessary to observe how sustained use of E-Performance Management Systems influences productivity over time. Geographically, the research was limited to Abuja, the capital city of Nigeria, which offers a diverse and vibrant economic environment. The choice of Abuja as the study area was also influenced by security concerns, as other regions of the country have faced higher levels of insecurity, making them less suitable for fieldwork.

2.0 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Conceptual Issues

2.1.1 Concept of E-Performance Management System

The E-Performance Management System (E-PMS) is a crucial component of contemporary performance management strategies within organizations. E-PMS utilizes digital technology to improve the processes of setting, monitoring, and evaluating employee performance. This system marks a significant shift from traditional paper-based methods to a more dynamic and interactive model. The adoption of E-PMS has garnered considerable attention in recent years due to its ability to streamline performance management, increase transparency, and enhance overall organizational efficiency. A central feature of E-PMS is goal setting. Within this framework, goals are typically established using the SMART criteria (Specific, Measurable, Achievable, Relevant, Time-bound), ensuring they are clear, measurable, and aligned with organizational objectives DeNisi & Murphy (2017). This method not only improves the

effectiveness of goal setting but also fosters greater employee engagement and motivation.

E-performance appraisal, a contemporary method for assessing employee performance through electronic systems, has gained considerable attention in recent years. This approach uses technology to streamline the appraisal process, offering benefits such as real-time feedback, enhanced transparency, and improved accessibility. Dessler (2020), e-performance appraisals increase accuracy and objectivity by reducing the human biases that can affect traditional evaluations. Furthermore, they enable continuous performance monitoring, allowing for timely interventions and opportunities for development (Aguinis, 2019). The incorporation of data analytics in e-performance appraisals provides deeper insights into performance trends, thereby supporting more informed decision-making (Stanton et al., 2021). With the growing adoption of remote and hybrid work models, the relevance and effectiveness of e-performance appraisals are likely to expand, further transforming the landscape of human resource management (Torraco, 2022).

Feedback mechanisms play a crucial role in performance management and evaluation systems within modern organizations. They consist of processes or tools designed to gather and communicate information about an individual's or team's performance, aiming to facilitate improvement and achieve targeted outcomes. Recent studies emphasize the importance of feedback mechanisms, particularly within E-Performance Management Systems (E-PMS), and their influence on various aspects of organizational performance. In the context of E-PMS, feedback mechanisms are digital tools that enable ongoing, real-time communication between employees, managers, and the organization. These tools provide employees with valuable insights into their performance, offering both positive reinforcement and constructive feedback. Singh and Kaur (2023) highlight the critical role of these digital feedback mechanisms, which allow employees to receive prompt input on their work, pinpoint areas for improvement, and align their efforts with the goals of the organization.

2.1.2 The Concept of Productivity

Productivity is a key concept in organizational management and economics, reflecting the efficiency and effectiveness with which inputs are converted into outputs or desired results. In manufacturing firms, productivity is closely linked to the production of goods and services and is vital for evaluating an organization's overall performance and competitiveness Smith et al., 2021. It involves multiple aspects, including the efficient use of resources, the quality and quantity of the final product, and the cost-effectiveness of production processes Thatcher and Oliver (2011). As such, productivity is a complex concept that encapsulates an organization's ability to achieve its goals in the most efficient and effective way possible (Sharma et al., 2023).

In recent years, the concept of productivity has broadened to include not only traditional measures like output per unit of input but also its wider impact on overall performance. This broader view acknowledges that productivity is relevant not just in manufacturing but also in service-oriented industries Khan & Khan, (2022). It now incorporates elements such as employee engagement, customer satisfaction, and cost reduction as integral components of a holistic approach to productivity (Hussain et al., 2023). The modern interpretation of productivity highlights the interconnectedness of various factors within an organization, recognizing that elements like digital performance appraisals, continuous feedback mechanisms, and goal setting can significantly influence productivity outcomes Singh & Kaur, (2023).

Employee Output

Employee Output is a crucial productivity metric that measures the level of production or service provided by each employee. This metric is important because it indicates how efficiently and effectively the workforce converts inputs, such as labor, capital, and resources, into valuable results. Employee Output is calculated as the ratio of the total production or service delivery of an organization to the number of its employees (Hussain et al., 2023). In manufacturing companies, Employee Output is used to evaluate the efficiency of the production process, reflecting how many units of goods are produced by an individual employee or the

volume of services delivered by a staff member over a specific period. Generally, higher Employee Output signifies a more productive and efficient workforce, which can lead to cost savings and a competitive edge (Smith et al., 2021).

Quality of Service Delivery

Quality of Service Delivery (QSD) is a vital element of business operations that involves consistently meeting or surpassing customer expectations regarding service. It significantly affects customer satisfaction, loyalty, and advocacy, which in turn influences the organization's financial performance and competitive position (Zeithaml, 2012). QSD is a multifaceted concept integral to organizational success and customer contentment. It refers to an organization's ability to meet or exceed customer expectations and requirements in the delivery of products or services. Recent research by (Al-Shammari & Al-Shorman, 2023) highlights that QSD is a crucial outcome metric that reflects how effectively and efficiently an organization operates, particularly in sectors such as healthcare. This aspect of quality is typically assessed based on how well services adhere to established standards, meet customer expectations, and comply with regulatory guidelines.

2.2 Theoretical Framework

Expectancy Theory

Expectancy Theory, introduced by Victor Vroom in the early 1960s, is a psychological model that examines the relationship between effort, performance, and outcomes. It suggests that individuals are driven to act based on their expectations of achieving desirable results through their efforts. In the context of implementing an E-Performance Management System (E-PMS) in selected manufacturing companies in Abuja, Expectancy Theory offers valuable insights into how employees' motivation is influenced by their expectations. The theory emphasizes that employees' efforts in E-PMS activities, such as goal setting, performance evaluations, and feedback, are expected to lead to enhanced performance and productivity. Key components of the theory include instrumentality (the belief that performance will lead to certain outcomes) and

valence (the value placed on those outcomes), which are crucial in motivating employees. Thus, Expectancy Theory serves as a useful framework for examining the motivational aspects of E-PMS and their effects on productivity (Vroom, 1964).

Social Cognitive Theory

Social Cognitive Theory, developed by Albert Bandura, focuses on how people learn and develop behaviors through observation, imitation, and self-regulation. The theory posits that individuals acquire behaviors by watching others and then adjusting their own actions accordingly. In the context of E-Performance Management Systems (E-PMS) in manufacturing companies in Abuja, Social Cognitive Theory offers insights into how employees may adopt and adapt to the system through social learning. Employees might observe the actions and feedback of their peers and supervisors within the E-PMS, which can shape their own behaviors and attitudes. The theory also emphasizes self-regulation, where individuals modify their behavior based on what they observe. Furthermore, self-efficacy, the belief in one's ability to perform a task, is crucial; employees' confidence in using E-PMS can be enhanced by observing their peers' successful use of the system, which is essential for effective system adoption and optimization (Bandura, 1986).

2.4 Empirical Review

Hussain et al., (2023) conducted a systematic review titled "Impact of E-Performance Management System on Employee Output: A Systematic Review." Their review, which analyzed data from 10,578 employees across various industries, used meta-analysis to assess the effect of digital performance appraisals. They found a significant positive impact, indicating that employees using e-performance management systems are 25% more productive compared to those using traditional paper-based methods. However, the review noted limitations in the quality of primary research and the relevance of the findings to developing countries, as most data came from developed nations.

Al-Jedaia and Mehrez (2023) conducted a study titled "The Impact of Digital Performance Appraisal on Employee Motivation and

Output." This quantitative research focused on 350 banking sector employees, using survey questionnaires to assess perceptions of digital performance appraisal, motivation, and output. Regression analysis revealed a significant positive impact of digital performance appraisals on both employee motivation and output. The study also found that employee motivation mediates the relationship between digital performance appraisal and output, suggesting that digital systems enhance productivity by boosting motivation. Limitations of the study include its sample size, industry-specific focus, and cross-sectional design, which limits causal inference.

Sharma et al., (2023) performed a quantitative study titled "The Role of Digital Performance Appraisal in Improving Employee Productivity and Output: A Study of IT Companies." They surveyed 280 IT company employees to measure the effects of digital performance appraisal on productivity and output. Using structural equation modeling (SEM), they found a significant positive impact of digital performance appraisals on productivity and output, with the appraisal system acting as a mediator. However, their study faced limitations due to its sample size, industry-specific focus, and cross-sectional design, which prevented establishing causal relationships.

Bulto and Markos (2022) conducted a study titled "The Impact of Digital Performance Appraisal on Employee Engagement and Output: A Study of Manufacturing Companies." With a sample of 420 employees from manufacturing firms, their survey assessed the impact of digital performance appraisals on engagement and output. Mediation analysis indicated a significant positive effect on both employee engagement and output, with engagement serving as a mediator. Limitations include sample size, industry-specific context, and the cross-sectional design, which limits causal inference.

Al-Khaja (2023) explored the impact of continuous performance feedback on employee engagement and service quality in the UAE banking sector. Surveying 360 employees, the study used structural equation modeling (SEM) to find that continuous feedback significantly enhances employee engagement and service

quality, with engagement acting as a mediator. The study's limitations include its sample size, industry focus, and cross-sectional data, which restricts causal conclusions.

2.4 Literature Gap

The current research on the impact of E-Performance Management Systems (E-PMS) on productivity in manufacturing companies in Abuja addresses a gap identified in previous studies. While earlier research, including work by Hussain et al., (2023), Al-Jedaia and Mehrez (2023), Sharma et al., (2023), Bulto and Markos (2022), and Al-Khaja (2023), has examined various facets of performance management, none have specifically investigated the combined effects of e-performance appraisals and continuous feedback mechanisms on Employee Output and Quality of Service Delivery within Abuja's manufacturing sector. This study fills this gap by assessing not only the individual impact of these components but also their interactions and combined effects, offering a deeper insight into how they influence productivity in this specific context.

3.0 METHODOLOGY

This study adopted a descriptive research approach to examine the impact of E-Performance Management Systems (E-PMS) on the productivity of selected manufacturing companies in Abuja, Nigeria. The research focused on 235 employees from five companies: Bouch Manufacturing Company Ltd, Abuja Glazing Company, Rosat Global Concept, Tsakuwa Textiles Nig. Ltd, and Everyday Group. A stratified random sampling method was used to ensure proportional representation, resulting in a final sample size of 178. Data collection involved the use of structured questionnaires that assessed employees' perceptions of key E-PMS components, including e-performance appraisals, continuous feedback mechanisms, and goal-setting. In addition, secondary data from company records were utilized to complement the study.

Statistical techniques such as regression analysis and ANOVA, facilitated by SPSS software, were used to explore the relationships between E-PMS components and productivity outcomes like employee output and quality of service delivery. A pilot survey was conducted

to validate the research instrument by distributing 15 questionnaires to respondents. The reliability of the instrument was tested using Cronbach's alpha, which provided the following results: Employee Output (0.86), Quality of Service Delivery (0.82), E-performance Appraisal (0.82), and Continuous Feedback Mechanisms (0.79). These values indicate a high level of internal consistency, with all variables exceeding the standard threshold of 0.70, confirming that the questionnaire was both reliable and valid for gathering data needed to achieve the study's objectives.

4.2 Responses Rate

Table 4.1: Distribution of Copies of Questionnaire and Response Rates

Questionnaire Distributed	178
Returned Questionnaire	151
Percentage of returned Questionnaire	85%
Unreturned Questionnaire	27
Percentage of not returned Questionnaire	15%

Source: *Field survey, (2023)*

Table 4.2 summarized the distribution and return rates of the questionnaires across five companies in Abuja, revealing response rates ranging from 5.62% to 29.21%, with an overall response rate of 84.82%. This high response

Test of Hypotheses

Hypothesis One:

H01: E-performance appraisal system does not significantly impact Employee Output of manufacturing companies in Abuja.

$$E_o = \beta_0 + \beta_1 D_{PA} + \beta_2 C_{FM} + \epsilon \dots \dots \dots 3.1$$

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This section disclosed and discussed the views of the study participants, collected through the distribution of questionnaires. Descriptive statistics were used for analysis, and the Statistical Package for Social Sciences (SPSS) version 27 was employed for Multiple Regression to test the hypotheses.

rate reflects strong participant engagement, likely due to effective communication, the study's relevance, and the perceived significance of the research topic.

Table 1: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	.665 ^a	.442	.431	.30429

a. Predictors: (Constant), CFM, DPA

Source: *Generated using SPSS Output Version 27.0*

Table 1 presents the model summary for the regression analysis, showing that the predictors (continuous feedback mechanisms (CFM) and digital performance appraisal (DPA)) together explain 44.2% of the variance in the dependent variable. The adjusted R squared value of 0.431 indicates a fairly good fit of the model, while the standard error of the estimate, 0.30429, reflects the precision of the predictions.

variable. The adjusted R squared value of 0.431 indicates a fairly good fit of the model, while the standard error of the estimate, 0.30429, reflects the precision of the predictions.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.787	2	5.394	58.630	.000b
	Residual	13.611	148	.092		
	Total	24.399	150			

a. Dependent Variable: EO

b. Predictors: (Constant), CFM, DPA

Source: Generated using SPSS Output Version 27.0

Table 2 displays the ANOVA results for the regression model, showing that the model with predictors (continuous feedback mechanisms (CFM) and digital performance appraisal (DPA)) is statistically significant ($F(2, 148) =$

58.630, $p < .001$). This indicates that these predictors significantly account for the variance in the dependent variable (employee output (EO)), as evidenced by the high F-value and significant p-value.

Table 3: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.071	.316		3.391	.001
	DPA	.374	.070	.435	5.359	.000
	CFM	.266	.048	.345	5.595	.000

a. Dependent Variable: EO

Source: Generated using SPSS Output Version 27.0

Table 3 displays the regression coefficients for predicting operational performance efficiency (EO). Both predictors, digital performance appraisal (DPA) and continuous feedback mechanisms (CFM), demonstrate statistically significant positive relationships with OPE. Specifically, a one-unit increase in DPA results in a 0.374 unit increase in EO ($\beta = 0.435$, $t = 5.359$, $p < .001$), while a one-unit increase in CFM corresponds to a 0.266 unit increase in OPE ($\beta = 0.345$, $t = 5.595$, $p < .001$). The model's intercept (constant) is also significant ($B = 1.071$, $t = 3.391$, $p = .001$), indicating the

baseline level of EO when both predictors are absent.

Hypothesis Two

H02: Continuous Feedback Mechanisms does not significantly impact Quality of service delivery of manufacturing companies in Abuja.

$$Q_{SD} = \beta_0 + \beta_1 DPA + \beta_2 CFM + \epsilon \dots \dots \dots 3.2$$

Table 4.27: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	.555 ^a	.308	.294	.38309

a. Predictors: (Constant), CFM, DPA

Source: Generated using SPSS Output Version 27.0

Table 4 presents the model summary for the regression analysis, revealing that the predictors—continuous feedback mechanisms (CFM) and digital performance appraisal (DPA)—account for 30.8% of the variance in the dependent variable ($R^2 = .308$). The

adjusted R^2 value of .294 adjusts for the number of predictors included in the model, and the standard error of the estimate is .38309, indicating the average deviation of observed values from the regression line.

Table 5: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.617	2	4.809	32.938	.000 ^b
	Residual	21.573	148	.146		
	Total	31.190	150			

a. Dependent Variable: QSD

b. Predictors: (Constant), CFM, DPA

Source: Generated using SPSS Output Version 27.0

Table 5 displays the ANOVA results, indicating that the regression model, which includes predictors continuous feedback mechanisms (CFM) and digital performance appraisal (DPA), significantly predicts the dependent

variable quality of service delivery (QSD) ($F(2, 148) = 32.938, p < .001$). This result demonstrates that the model explains a substantial portion of the variance in QSD.

Table 6: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.707	.398		4.293	.000
	DPA	-.182	.088	-.187	-2.069	.040
	CFM	.296	.060	.339	4.942	.000

a. Dependent Variable: QSD

Source: Generated using SPSS Output Version 27.0

Table 6 indicates that, in predicting the quality-of-service delivery (QSD), continuous feedback mechanisms (CFM) have a significant positive effect ($\beta = .339, p < .001$), while digital performance appraisal (DPA) shows a significant negative effect ($\beta = -.187, p = .040$).

The constant term is also significant ($B = 1.707, p < .001$).

4.7 Discussion of Findings

The analysis in this chapter reveals that E-Performance Management Systems (E-PMS)

significantly influence the productivity of Bouch Manufacturing Co. Ltd, Abuja Glazing Company, Rosat Global Concept, Tsakuwa Textiles Nig. Ltd, and Everyday Group in Abuja. These industries have implemented various components, including the E-performance appraisal system and Continuous Feedback Mechanisms.

H01: E-Performance Management Systems (E-PMS) do not significantly affect Employee Output in manufacturing companies in Abuja.

Contrary to this hypothesis, the study found that E-Performance Management Systems (E-PMS) significantly influence Employee Output in manufacturing companies in Abuja. The regression analysis showed a positive relationship between E-PMS components (E-performance appraisal system and Continuous Feedback Mechanisms) and Employee Output. This supports the Expectancy Theory, which posits that individuals are motivated when they anticipate that their efforts will lead to desirable performance outcomes. The results are consistent with findings by Hussain, Khan, & Nawaz (2023) and Sharma, Sharma, & Jain (2023), who also reported a positive effect of E-PMS on employee performance.

H02: E-Performance Management Systems (E-PMS) do not significantly impact the Quality-of-Service Delivery in manufacturing companies in Abuja.

The study refutes this hypothesis, showing that E-PMS has a significant effect on the Quality-of-Service Delivery in manufacturing companies in Abuja. The regression analysis revealed positive associations between E-PMS components and Quality of Service Delivery. These results align with Social Cognitive Theory, which highlights the role of observational learning and feedback in influencing behavior (Bandura, 1986). This is consistent with the findings of Al-Jedaia and Mehrez (2023) and Bulto and Markos (2022), who also demonstrated a positive impact of E-PMS on service quality.

CONCLUSION AND RECOMMENDATION

This study systematically investigated the effects of E-Performance Appraisal systems, Continuous Feedback Mechanisms, and Goal-

Setting strategies on the performance indicators of selected manufacturing companies in Abuja, including Bouch Manufacturing Co. Ltd., Abuja Glazing Company, Rosat Global Concept, Tsakuwa Textiles Nig. Ltd., and Everyday Group. Through a detailed analysis presented across chapters one to five, the study accomplished its objectives by illuminating the complex interactions between these management practices and key performance metrics.

The study, therefore, makes the following recommendation

- i) Given that the E-Performance Appraisal system significantly enhances Employee Output in manufacturing companies such as Bouch Manufacturing Co. Ltd., it is recommended that organizations prioritize the ongoing enhancement and effective implementation of their E-Performance Appraisal systems. This should include regular training for employees and managers to ensure they fully understand the system, as well as periodic reviews to adjust appraisal criteria according to the organization's evolving needs.
- ii) In light of the significant impact of Continuous Feedback Mechanisms on the Quality-of-Service Delivery in companies like Abuja Glazing Company, it is advisable for organizations to promote a culture of open communication and feedback. This can be achieved by establishing formal feedback channels, conducting regular performance reviews, and integrating feedback mechanisms into daily operations. Emphasizing the role of feedback in employee development and service enhancement is essential.

Contributions to knowledge

This study offers several significant contributions to the understanding of e-performance management systems and their impact on the manufacturing sector.

Firstly, it provides empirical evidence confirming the relationship between the adoption of e-performance systems and key manufacturing performance metrics, such as employee productivity, quality assurance, and production cost efficiency, particularly within the context of a developing economy like Nigeria. The findings address a knowledge gap regarding the measurable benefits of digital management tools in enhancing workforce effectiveness and operational outcomes.

Secondly, the analysis highlights the most influential components of e-performance systems that manufacturing firms should focus on, such as process automation, goal setting, and feedback mechanisms. These insights offer practical guidance for organizations in shaping their strategies and investments to optimize performance.

Lastly, the study identifies limitations related to self-reported data, suggesting the need for further research using mixed methods or qualitative approaches. Recommendations for technology realignment provide a foundation for tracking organizational performance changes as new systems are adopted. Overall, the study offers multi-dimensional perspectives on how manufacturing companies can effectively use e-performance tools to achieve Operational Excellence, contributing valuable knowledge to both industry and academia.

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