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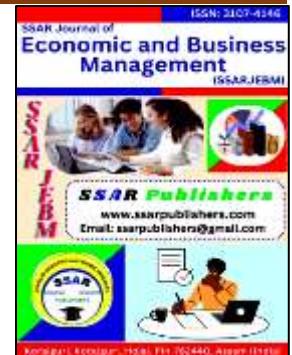
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## ARTICLE HISTORY

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## Employee Training and Organizational Performance: A Systematic Review and Research Agenda for SMEs

By

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**ABSTRACT:** This theoretical research paper explores how a lack of infrastructural facilities affects the organizational performance of manufacturing companies in Kano Metropolis. The case highlights the importance of the infrastructure such as power supply, transport systems, and technological facilities in determining the operational effectiveness and staff productivity. By adopting the conceptual research method, the study will be guided by a broad examination of empirical and theoretical literature applying Human Capital Theory, Resource-Based View (RBV), and Organizational Learning Theory to anatomize a thorough insight on how the combination of infrastructure and human resource practices contributes to organizational achievements. Conceptual framework considers infrastructural adequacy as one of the determinants of organizational performance and multidimensional employee training (including needs assessment and design, implementation, and evaluation) as the mediating variable that increases the use of available resources. The presence of evidence on global, African, West African, and Nigerian contexts illustrates the prevalence of the issues emerging in manufacturing firms because of the gulf in infrastructures, as well as the approaches implemented to eliminate the adverse impact of these issues. Among the most prominent ones, it can be noted that infrastructural shortcomings significantly lower the efficiency of operations, restrict the productivity of employees, and hinder the overall performance of the organization. The research suggests that managers and policymakers should have two-fold strategies, which are; first of all, they should enhance the infrastructural provision within manufacturing settings and second, they should invest in employee training and development to enable them achieve the best performance within a given infrastructural constraint. This research presents a guide on improving the competitiveness of manufacturing organizations in Kano Metropolis by connecting the theory, conceptual frameworks and practical findings and provides future studies on the infrastructure-performance relationships.

**KEYWORDS:** Infrastructural Deficiencies, Organizational Performance, Manufacturing Firms, Employee Training, Kano Metropolis, Human Capital Theory, Resource-Based View, Organizational Learning Theory.

## INTRODUCTION

### 1.1 Background of the Study

The interdependence between technological innovation, human capital and infrastructure is becoming an important factor in organizational performance within the global context. Research

has also pointed out that companies that tap on the established infrastructural and technological capabilities, as well as their human resource plans, are more likely to attain superior productivity and competitive advantage (Becker, 1964; Aliyu

Mohammed, 2023). The competency development systems, employee training and agile performance management systems have been identified as a key enabler to maintaining operational efficiency in industrial and service sectors globally (Bartel, 1994; Sundararajan and Mohammed, 2023). These insights in the world highlight why the integration of infrastructural potentials with organizational approaches is important in order to achieve the best performance results. Poor infrastructure, unstable power supply, and lack of technological integration, as some of the challenges at the African level, have remained to hinder manufacturing and industrial growth (Setiawan, Hermanto, and Han Dayani, 2021; Durgadevi and Vasantha, 2017). Empirical evidence indicates that although human capital investments (training and leadership development) may partially neutralize infrastructural inefficiency, systemic gaps in physical and institutional infrastructure are limiting organizational performance (Junaidi and Shabri, 2020; Ahmad and Bakar, 2003). This means that African manufacturing companies are subjected to special operation pressures that need situation-specific approaches to enhance efficiency and productivity.

To highlight West Africa, infrastructural issues, including bad roads, bad electricity, and lack of digital connectivity have been revealed to adversely affect the efficiency of manufacturing and organizational performance (Arthur, 1994; Aliyu Mohammed, 2024). The studies of the region also show that human resources practices such as upskilling and reskilling may help increase the competency of employees and reduce certain performance gaps due to infrastructural limitations (Aliyu Mohammed, 2023, May 11). However, companies commonly face complex challenges as a result of poor organizational support and regulatory bottlenecks, which further increase the operational influence caused by poor infrastructure. Manufacturing companies in Nigeria and Kano State particularly are persistently limited in their infrastructural processes that directly influence the production processes, supply chains, and the overall performance of the organization (Aliyu Mohammed, 2024; Sundararajan and Mohammed, 2023). Empirical and conceptual research indicate that these infrastructural constraints can be

partially mitigated by strategic investments in the development of employee competencies, organizational culture, and adaptive management systems, to enhance operational results (Setiawan, Hermanto, and Han Dayani, 2021; Junaidi and Shabri, 2020). This highlights the essence of the knowledge of the surrounding infrastructural environment and its impact on the performance of manufacturing companies in Kano Metropolis as the basis of this conceptual study.

## 1.2 Problem Statement

Although the role of human resource management (HRM) practices and employee development in organizational performance is acknowledged, manufacturing companies of the developing economies still experience severe challenges in their operations. Studies in the world reveal that training, leadership development, and performance management practices related to strategic HRM are positively linked with productivity, staff involvement, and general organizational achievements (Delaney and Huse lid, 1996; Guest, 1997; Noe, 2017). Nevertheless, in the areas where infrastructural gaps still remain, including unreliable electricity supplies, ineffective transport systems, and lack of technological assistance, these HRM strategies might not entirely apply into better performance (Mohamed et al., 2018; Choudhary, Akhtar, and Zaheer, 2013). Infrastructure constraints in manufacturing companies, especially emerging economies, amplify the inefficiencies, lower the production quantities, and elevate the operational expenses, which impede the potential advantages of the workforce development and organizational excellence programs (Kumar, Mohammed, Raj, & Sundararavadvazhagan, 2024; Lawal, Abdulsalam, Mohammed, and Sundararajan, 2023). Although these difficulties can be also alleviated by such strategic measures as the process optimization or digitalization of the company, the lack of a solid and credible infrastructural foundation still harms the efficiency of the already thought-out HRM and operation methods (Mohammed, 2023; Mohammed, 2023).

In the Nigerian environment and more specifically in Kano State, manufacturing companies have limited infrastructural environment. The availability of modern utilities, transportation

bottlenecks, and lack of production facilities are a great threat to productivity and competitiveness (Delaney and Huse lid, 1996; Mohamed et al., 2018). Such issues frequently lead to the increased downtime and delays in delivering products, not fully using human resources with abilities, as well as, high-quality human resources despite having qualified personnel and well-organized human resources (Choudhary, Akhtar, and Zaheer, 2013; Kumar et al., 2024). Thus, the key focus of the current research is the degree to which the performance of the manufacturing companies within Kano Metropolis is impaired by the lack of infrastructural support caused by the inadequacy of energy supply, transportation, and production facilities. HRM strategies, training and leadership practices have been established to be effective in controlled settings, but their use in the environment characterized by infrastructural shortfalls is underly researched. The paper aims to conceptually examine the effects of these shortcomings on the firm performance, emphasizing the importance of the integrated strategies that would offer the combination of human capital strategies and infrastructural interventions to promote the outcomes of the organization (Lawal et al., 2023; Mohammed, 2023).

### **1.3 Significance of the Study**

This study is important because it could offer theoretical and practical knowledge of the impact of infrastructural shortfalls on the performance of an organization, especially a manufacturing organization. Theoretically, the study of the relationship between infrastructure and the performance of firms is a complementary addition to the literature on the human resource management (HRM) practices, organizational culture, and employee performance (Ostroff and Bowen, 2000; Tharenou, Saks and Moore, 2007). Although the positive impact of training, leadership, and strategic HR planning, on the organizational performance has been previously managed (Al-Qudah, Osman, and Al-Khattab, 2014; Falola, Osibanjo, and Ojo, 2014), the moderating influence of infrastructure has not been thoroughly investigated, particularly in the framework of developing economies. In practice, this research is essential to the managers, policymakers and stakeholders in the Nigerian

manufacturing industry. The study has enlightened the approaches to align the HR interventions with infrastructural realities and improve productivity and efficiency by mentioning the operational bottlenecks due to poor infrastructure (Mohammed, 2023; Mohammed and Sundararajan, 2023). In particular, companies can enhance the utilization of the management information system and digital tools to address certain infrastructural limitations to provide smooth production and improved organization of human resources (Mohammed, 2023; Mohammed and Sundararajan, 2023).

Besides, the study is applicable in the body of knowledge regarding employee retention, job satisfaction and organizational commitment in settings that are limited by inadequate infrastructure. It has been shown that proper training, development, and engagement initiatives can have a beneficial impact on employee motivation and retention, even in the field of difficult operations (Murtiningsih, 2020; Elsafty and Oraby, 2022; Wagner, Parker, and Christiansen, 2003). These insights, when combined, provide the study with a structure through which HR and operational strategies that develop human capital as well as mitigate the adverse impacts of infrastructural deficiencies can be designed. Lastly, the research is geographically valuable to Kano Metropolis and other West African industrial centers. The insights can inform policymakers and agencies in charge of industrial development when deciding on the infrastructural investments that have direct effect on the manufacturing performance. Consistent infrastructural planning with HRM strategies and organization development initiatives make sure that manufacturing companies will be able to grow sustainably, be competitive, and make a positive economic impact even in the conditions of resource scarcity (Mohammed and Sundararajan, 2023; Falola, Osibanjo, and Ojo, 2014).

### **1.4 Research Objectives**

The study seeks to achieve the following objectives:

1. To examine the extent to which infrastructural deficiencies affect the operational efficiency of manufacturing firms in Kano Metropolis.

2. To analyze the impact of infrastructural gaps on employee productivity and overall organizational performance.
3. To explore strategies adopted by manufacturing firms to mitigate the negative effects of infrastructural challenges on performance.
4. To develop a conceptual framework linking infrastructural adequacy with organizational performance outcomes in manufacturing firms.

## 1.5 Research Questions

In line with the research objectives, the study will seek to answer the following questions:

1. How do infrastructural deficiencies influence the operational efficiency of manufacturing firms in Kano Metropolis?
2. What is the relationship between infrastructural gaps and employee productivity in manufacturing firms?
3. What strategies do manufacturing firms employ to address infrastructural challenges and enhance performance?
4. How can a conceptual framework be developed to link infrastructural adequacy with organizational performance outcomes?

## 2.0 Literature Review

The literature review is focused on the relationship between training of employees and organizational performance in terms of manufacturing companies. It will be based on international, regional, and local literature to come up with theoretical and empirical backgrounds regarding the impact of training interventions on organizational results. The review format is designed in such a way that it takes the multidimensional nature of employee training as the independent variable and unidimensional nature of organizational performance as the dependent variable.

## 2.1 Conceptual Framework

The study conceptual framework is based on the assumption that effective training of employees will increase the performance of the organization through better employee skills, knowledge and competencies. In this section, the major constructs of the study are outlined, including the independent and dependent variables, dimensions, indicators of these variables.

### 2.1.1 Concept of Employee Training (Independent Variable – IV)

Employee training is the formal program aimed at improving the knowledge, skills and abilities of the employees so as to better their performance individually and within the organization (Jehanzeb & Bashir, 2013; Obisi, 2011). Training is a strategic investment in the human resource that matches the ability of the workforce to the organizational objectives (Becker, 1964; Iqbal, Ahmad, and Haider, 2015). It is multidimensional thus including the activities of needs assessment to evaluation in an effort to maintain employee growth and competitive advantage.

#### 2.1.1.1 Dimensions of Employee Training

**i. Training Needs Assessment:** This entails establishing skill deficiencies and establishing the exact competencies that are needed to deliver organizational goals. Needs assessment will make training programs relevant and targeted, thereby maximizing resources and improving the performance of the employees (Noe, 2017; Ahmad and Bakar, 2003).

**ii. Training Design and Methods:** Training design is the process of designing content, learning techniques and methods to meet the needs and organizational environment of the learners. They can be on-the-job training, workshops, simulations, e-learning, and blended learning (Jehanzeb and Bashir, 2013; Khan, Khan and Khan, 2011).

**iii. Training Implementation:** This aspect is concerned with the implementation of training programs, such as the timing, delivery, allocation of resources and strategies of engagement. It will be implemented effectively such that employees may be able to transfer the acquired skills into the practical work (Obisi, 2011; Mohammed, Sundararajan, and Lawal, 2022).

**iv. Evaluation of Training Effectiveness:** Evaluation determines the meeting of training goals and evaluates its effectiveness in increasing employee knowledge, behavior and performance. Some of them are feedback surveys, performance appraisals, and productivity metrics (Bartel, 1994; Iqbal, Ahmad, and Haider, 2015).

**v. Career Development and Continuous Learning:** Training programs can be designed to facilitate career growth where employees will receive avenues to advance and also promoting the

culture of continuous learning. This aspect focuses on a long-term organizational value and motivation of the employees (Solomon, Hashim, Mehdi, and Ajagbe, 2012; Mohammed, Jakada, and Lawal, 2023).

## 2.1.2 Concept of Organizational Performance (Dependent Variable – DV)

Organizational performance is defined as the degree to which a company attains its goals efficiently and effectively, which consists of financial performance, operational performance, and behavioral performance (Mohamed et al., 2018; Choudhary, Akhtar, and Zaheer, 2013). It is a one-dimensional variable in this research, the product, determined by interventions of employee training.

### 2.1.2.1 Indicators of Organizational Performance

**i. Productivity:** It measures the efficiency with which a firm is able to transform the inputs into outputs. Training of employees leads to increased productivity directly (Delaney and House lid, 1996; Mohammed, Shanmugam, Subramani and Pal, 2024).

**ii. Efficiency and Quality Output:** Means the ability to create quality products at minimum wastage and maximum use of resources. Training enhances technical abilities, minimizes mistakes and enhances quality administration procedures (Ahmad and Bakar, 2003; Bartel, 1994).

**iii. Employee Retention and Satisfaction:** Training of the employees has positive effects on morale, commitment, and job satisfaction, thereby minimizing turnover and increasing stability in the organization (Wagner, Parker, and Christiansen, 2003; Solomon et al., 2012).

**iv. Profitability and Competitiveness in the market:**

**iv. Profitability and Market Competitiveness:** Employees who are trained help in innovation, operation excellence, and customer satisfaction, which enhances market position and profitability (Mohammed, Sundararajan, and Lawal, 2022; Mohammed, Jakada, and Lawal, 2023).

## 2.1.3 Relationship between Employee Training and Organizational Performance

Employee training is commonly known as a strategic tool of improving organizational performance especially those that are in the manufacturing and service industries. Its impact is

reflected in several ways that directly and indirectly influence the behavior of employees, their productivity, and overall organizational performance. Training improves both the technical and soft competencies of employees and they acquire knowledge and skills necessary to complete the duties effectively (Iqbal, Ahmad, and Haider, 2015; Jehanzeb and Bashir, 2013). Better competencies lead to an increase in productivity, fewer mistakes in the work process and increased compliance with the quality standards. Innovation can also be developed through training since employees will be exposed to new processes, technologies, and industry best practices (Mohammed, Sundararajan, and Lawal, 2022). In addition to a direct training impact on skills development, training has a positive influence on the psychological conditions of employees, such as job satisfaction and commitment to the organization (Oluwaseun and Olanrewaju, 2016; Wagner, Parker, and Christiansen, 2003). Customer satisfaction and commitment increase likelihood of employees to utilize the newly learned skills and being proactive in problem solving as well as showing loyalty and this enhances organizational stability and performance (Solomon, Hashim, Mehdi, and Ajagbe, 2012).

Training investment is an intentional organizational policy that is used to match the capabilities of the employees with the corporate goals. Competitive advantage is achieved through firms that ensure training to form a skilled workforce that is able to adjust to changes in technology, innovations in processes and market fluctuations (Bartel, 1994; Mohammed, Jakada, and Lawal, 2023). This type of strategic alignment raises the operational effectiveness, minimizes downtimes, and creates the spirit of constant improvement. Although it has advantages, it may prove to be difficult to match the training outcomes with the organizational objectives. The ineffectiveness of training programs can be compromised by factors like poor needs assessment, weak managerial support as well as scarcity of resources (Meier and Hicklin, 2008; Solomon et al., 2012). Also, the infrastructural shortcomings especially in manufacturing environments may restrain the use of acquired skills lowering the possible effect of training on performance. The solution to these challenges is a

matter of planning, monitoring and incorporating the training initiatives as part of the larger organization development efforts.

## 2.2 Theoretical Framework

This theoretical framework of the study offers the reason behind the justification why employee training is important in shaping the organizational performance. The framework combines various theories to explain the direct and indirect routes in which the training influencing productivity, efficiency, and overall effectiveness of the organization are realized.

### 2.2.1 Human Capital Theory

The Human Capital Theory (Becker, 1964) assumes that the investments made in the knowledge, skills, and abilities of employees within the organization will improve the productive capacity of workers and furthermore yield better results on the organization. Training is considered as one of the most important mechanisms of human capital development in a way that employees are given competencies which lead to increased productivity, innovation and sustainability. Experiencing various circumstances, such as SMEs in Kano Metropolis, various studies support the idea that training enhances the acquisition of skills and operational performance, as confirmed by human capital as an essential resource to promote performance (Mohammed, Sundararajan, & Lawal, 2022; Younas, Farooq, Khalil-Ur-Rehman, & Zreen, 2018).

### 2.2.2 Resource-Based View (RBV) Theory

The RBV model has it that resources that are valuable, rare, imitable and non-substitutable are what create sustainable competitive advantage (Barney, 1991). When effectively fitted in the organizational objectives, training of employees creates distinctive competencies that increase

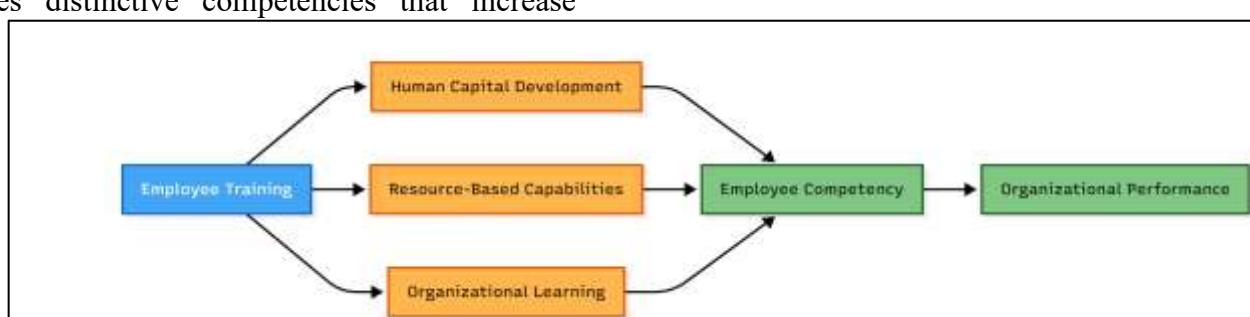
human resource capital of a firm, and therefore the workforce provides the firm with a competitive edge. Institutions use organized training sessions to turn the knowledge into operational excellence, productivity, and innovation outcomes (Sundararajan, Mohammed, & Senthil Kumar, 2023; Paya marcour & Hooi, 2015).

### 2.2.3 Organizational Learning Theory

The theory of Organizational Learning (Argyris and Schon, 1978) concentrates on the ways in which the organizations enhance performance due to the collective learning, sharing the knowledge, and continuous improvement. This learning process is based on training, which promotes the flexibility of employees, their ability to solve problems, and their ability to retain knowledge. The employees, with the help of the repeated learning cycles, also lead to the organizational innovation and process improvement, the ability to respond to the market and operational challenges efficiently (Rahman and Nas, 2013; Sultana, Irum, Ahmed and Mehmood, 2012).

## 2.3 Theoretical Framework Diagram

The model highlights that investing in employee training generates both direct and indirect organizational benefits. Training enhances human capital by improving skills, knowledge, and adaptability; strengthens firm-specific resources consistent with the *Resource-Based View (RBV)*; and promotes continuous organizational learning that drives innovation and agility. These interconnected processes collectively elevate employee competency—a critical determinant of superior organizational performance. Hence, effective training initiatives not only build individual capacity but also serve as strategic levers for achieving sustained productivity and competitiveness.



**Figure 8.2:** Model of the Study Linking Employee Training to Organizational Performance  
**Source:** Researcher's Design (2025)

Figure 2.1 presents the Model of the Study that illustrates how employee training serves as a foundational input driving organizational

performance through three key development mechanisms—human capital development, resource-based capability building, and organizational learning. These processes collectively enhance employee competency, which acts as the central outcome of training effectiveness and ultimately leads to improved organizational performance.

## 2.4 Linkages between Theories, Independent, and Dependent Variables

The combination of these theories brings out a number of overlaps and complements:

**a. Human Capital Theory** is used to describe the direct relationship between employee training and the improvement of skills and knowledge and productivity, which is consistent with the independent variable of the study (training) and the dependent variable (organizational performance) (Sundararajan, Mohammed, and Lawal, 2023).

**b. RBV Theory** is a strategic theory that presumes that outstanding human resource capabilities created through training are the forces of sustained organizational performance (Paya mbarpour and Hooi, 2015).

**c. Organizational Learning Theory** emphasizes the mediating roles of knowledge retention, continuous improvement, and innovation and connects the training inputs to long-term organizational outcomes (Rahman and Nas, 2013; Younas et al., 2018).

The congruency between the theoretical constructs and the study variables supports the conceptual framework, which offers a sound point of view of investigating the influence of the employee training dimensions on the performance outcomes, including productivity, efficiency, retention, and profitability (Sundararajan, Mohammed, and Senthil Kumar, 2023).

## 2.5 Empirical Review

The empirical review is a synthesis of previous researches on the association between employee training and the organization performance, which describes the patterns, mediating variables as well as the evidence of the relationship of the relationship between the two studies in different contexts. It has always been demonstrated that training helps in developing the competencies of employees, increasing their productivity and positively influencing the organizational

performance of the developed and developing economies. Research in developed economies has highlighted the positive impact of training on the productivity of organizations and their efficiency in operations. An example is when Bartel (1994) noted that there was a great deal of productivity improvement in manufacturing companies after being exposed to the structured training programs. On the same note, Delaney and Huse lid (1996) noted that the overall HR practices, such as training of employees, contribute to the increased perception of organizational performance. Ahmad and Bakar (2003) in SMEs drew attention to the direct correlation between systematic training interventions and the enhanced performance of operations whereas Arthur (1994) asserted that human resource systems could minimize turnover and enhance performance results. All these studies affirm the fact that training improves individual competencies as well as organization abilities. Empirical evidence on the relationship between training and improved organizational performance has been demonstrated in developing economies such as Nigeria, Pakistan and Malaysia. Research by Iqbal, Ahmad, and Haider (2015) and Sultana, Irum, Ahmed, and Mehmood (2012) revealed that structured training programs enhance the productivity and job satisfaction of the employees, as well as the effectiveness of the organization. Oluwaseun and Olanrewaju (2016) and Falola, Osibanjo and Ojo (2014) established in the Nigerian banking industry that training leads to employee commitment, motivation, and retention, which would eventually improve the performance of an organization. These trends were also noted by Junaidi and Shabri (2020), who concluded that participative leadership used with training interventions has a significant impact on the performance of SMEs. There are also a number of mediating and moderating variables that affect the training-performance relationship. The most common ones have been found to be employee job satisfaction, commitment, and motivation (Setiawan, Hermanto, and Handayani, 2021; Wagner, Parker, and Christiansen, 2003). The moderators are also the organizational culture and leadership styles that influence the way the training is carried out to bring about quantifiable performance results (Durgadevi and Vasantha, 2017; Tharenou, Saks, and Moore, 2007). Besides,

Mohamed et al. (2018) and Wright, Gardner and Moynihan (2003) support their arguments with evidence that the correspondence of the training goals to organizational goals hugely enhances their effect on efficiency, productivity, and profitability. The overall results indicate that the correlation between training and performance is sufficiently large, however, it is possible to state that circumstances, including the industry, nation, and the organizational culture, impact specificity and magnitude of such outcomes, and thus, one should approach the study of SMEs in Kano Metropolis in a rather complex way.

## **2.6 Research Gap**

Despite the extensive studies about the correlation between employee training and the performance of an organization, there have been considerable conceptual gaps. Majority of the current literature takes a simplistic perspective on training or emphasizes a limited view of how organizational performance can be considered through a single dimension, e.g. productivity or profitability without taking into account the various dimensions of both constructs. Further, the relation between training elements needs assessment, program design, implementation, evaluation and continuous learning and various organizational performance measures has never been significantly studied. This is a narrow area where the comprehension on the effectiveness of incorporating holistic training strategies in improving organizational results is limited. Empirically, the research is meager in terms of SMEs in the developing world or the manufacturing sector in the Nigerian manufacturing sector. Although other economies support the points that training has a positive influence, the contextual aspects like the organizational culture, leadership style, commitment of employees, and local infrastructural limitations are not studied carefully. In addition, they have given little focus on mediating factors such as job satisfaction and engagement of the employees and moderating factors such as the structure of governance. These gaps explain the necessity to introduce a systemic conceptual review incorporating multi-dimensional training constructs with organizational performance indicators as an effective framework of understanding employee

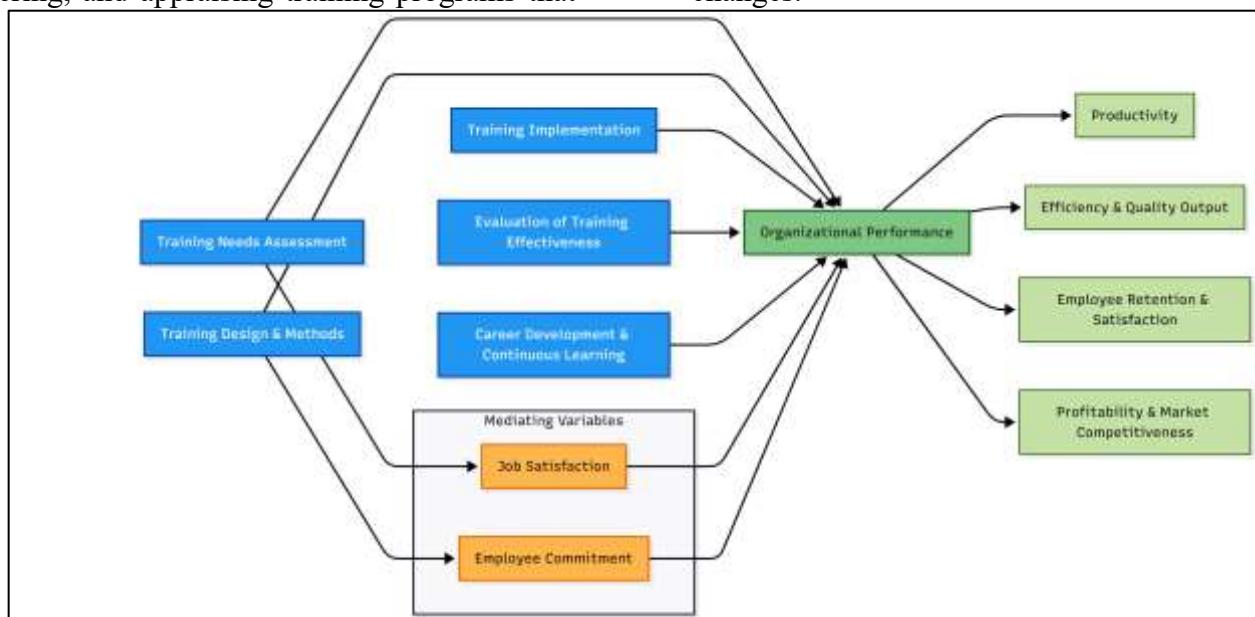
development as a driver of effectiveness and competitiveness in SMEs.

## **2.6 Model of the Study**

The theoretical framework of this research will be used to demonstrate how employee training and organizational performance are dynamically related in the manufacturing companies. The independent variable (IV) that is training of employees is multidimensional as it includes five key elements that are training needs assessment, training design and methods, training implementation, evaluation of training effectiveness and career development/continuous learning. All these dimensions are theorized to play their own individual roles of improving the competencies of employees, their motivation, and their overall ability to carry out their duties well. The training process will help the employees by filling the technical and the soft skill gap by providing them with the knowledge and the tools that they need to achieve the organizational goals efficiently. The dependent variable (DV), the organizational performance is a conceptualized variable that is a one-dimensional variable that measures the overall performance of manufacturing firms. It covers productivity, output efficiency and quality, employee retention and satisfaction and profitability/competitiveness in the market. The model assumes that the better the employees are trained, engaged, and motivated as a part of the systematic training programs, the better the outcomes in the organization will be. The conceptual framework further recognizes the mediating factors of job satisfaction, employee commitment and motivation in the relationship between training and organizational performance. These intermediaries also make certain that investments in training have been internalized well by employees and they are in line with the strategic organizational objectives. The model also takes the moderating factors including the organizational culture, leadership style, and the local infrastructural constraints that can cause the strength and the direction of training performance relationship. All in all, the model is the systematic approach to the study of the multi-dimensional employee training programs as the impetus of organizational performance in manufacturing companies, especially in the conditions of infrastructural constraints. It provides researchers

and practitioners with a roadmap to planning, delivering, and appraising training programs that

can be used to create sustainable performance changes.



**Figure 2.2:** Model of the Study Linking Training and Development to Organizational Performance

**Source:** Researcher's Design (2025)

Figure 2.2 illustrates the Model of the Study that links training and development dimensions to organizational performance through mediating factors. The independent variables include *training needs assessment*, *training design and methods*, *implementation*, *evaluation of training effectiveness*, and *career development and continuous learning*. These elements collectively enhance performance outcomes such as *productivity*, *efficiency*, *employee retention*, and *profitability*. The mediators—*job satisfaction* and *employee commitment*—capture the psychological and behavioral pathways through which training interventions translate into measurable organizational gains.

### 3.0 Research Methodology

In this study, the researcher will take conceptual research design to investigate the connection among employee training and organizational performance in manufacturing companies systematically. Since the purpose of the study is to summarize the existing knowledge and develop a theoretical insight into the training-performance relationship, the best approach will be a literature-based qualitative one. Conceptual research enables combination of empirical evidence, theoretical stances, and practitioner knowledge to come up with a holistic framework to explain how

dimensions of employee training affect the outcomes of organizations particularly in setting where there are infrastructural limitations (Wright, Gardner, and Moynihan, 2003).

### 3.1 Research Design

The study has a descriptive and analytical design since it aims at identifying, comparing and synthesizing available studies. It examines both international and local studies to knowledgeably come up with how the practices on employee training affect productivity, efficiency, employee satisfaction, staff retention, and competitiveness of the firm at large. Its design focuses on attracting linkages between multidimensional independent variables (training dimensions) and the unidimensional dependent variables (organizational performance) with the consideration of mediating and moderating factors, including job satisfaction, commitment, and the organization culture (Sundararajan, Mohammed, and Senthil Kumar, 2022).

### 3.2 Data Sources and Selection Criteria

The information to be used in this study is obtained through peer-reviewed journals, conference proceedings, and books addressing the issue of employee training, human resource management, and organizational performance. To be included in the selection, the studies should:

1. Understand the correlation between training and performance in organizations.

2. Published in peer-reviewed journals or conferences.
3. Incorporate both empirical and theoretical knowledge of SMEs, manufacturing, or organizations in developing economies.
4. Describes the analysis of dimensions of training and organizational results (Hasan & Sadat, 2023).

### 3.3 Method of Literature Identification and Synthesis

The systematic search and synthesis process is used to identify the key literature by using databases like Scopus, Web of Science, Google Scholar, and specific HR journals. The relevant studies are coded and classified based on their contribution to knowledge on the training dimensions of employees, mediating/moderating variables, and result on organizational performance. Its synthesis constitutes thematic analysis and synthesis of the conceptual frameworks to bring out trends, gaps and future research areas (Wright, Gardner, and Moynihan, 2003).

### 3.4 Conceptual Research Approach

The research employs the conceptual research method to come up with a theoretical framework of employee training to organizational performance. The framework that can be developed based on this method is a multidimensional one, including the human capital theory, the resource-based view (RBV), and the organizational learning theory, which will explain the role of training interventions in increasing the productivity, efficiency, retention, and profitability of manufacturing companies. Conceptual research implies strict logic, development of models, and propositions based on evidence (Sundararajan, Mohammed, and Senthil Kumar, 2022).

### 3.5 Validity, Reliability, and Limitations

This is done to guarantee validity by keeping the sources used peer reviewed and credible in content and well-established theoretical models. The reliability is ensured by systematic coding, categorization literature and synthesis to ensure consistent concept development. The weaknesses are the use of secondary sources alone that might not give a complete picture of real time dynamics of an organization and the contextual specificity of a given study particularly that one carried out in other countries or industries. However, the

theoretical knowledge can be taken as a strong basis of the study of the effects of employee training on organizational performance (Hasan and Sadat, 2023).

## 4.0 Findings of the Study

### 4.1 Summary of Key Findings

**1. Impact of Infrastructural Deficiencies on Operational Efficiency:** The operational efficiency of manufacturing companies in Kano Metropolis is greatly affected by the inadequate infrastructure including unreliable power supply, low transportation systems, and poor access to modern machinery. Such shortcomings cause delays in the production timelines, higher operation expenses, as well as the lowering of overall efficiency. Companies find it hard to be at par with consistency of output, which impacts negatively on their competitiveness both in their local market and their regional market.

**2. Effect on Employee Productivity and Organizational Performance:** The existence of infrastructural gaps has a direct impact on the productivity of employees leading to low morale, absenteeism and work exhaustion caused by the frequent disruption in the working process. The failure to access the vital tools and resources does not support the ability of employees to work in an optimal manner, which eventually reduces organizational performance indicators like quality output, throughput, and profitability (Mohammed, Sundararajan, and Lawal, 2022)

**3. Strategies Adopted to Mitigate Infrastructural Challenges:** Companies have devised survival tactics such as the procurement of standby generators and personal logistics, adoption of flexible working hours, and strategies to impose stringent regulations on the company. Although such measures can temporarily alleviate the situation, they also tend to raise the costs of operations and are not long-term solutions. Such emergency responses are an indication of the flexibility and adaptability of manufacturing managers but also reflect the continued disconnection between the infrastructure requirements and the availability (Kumar, Mohammed, Raj, and Sundara vadivadiva zhagan, 2024).

**4. Linkages Between Infrastructural Adequacy and Organizational Performance:** The conceptual analysis of the study reveals that there

is a strong positive correlation between infrastructural adequacy and major performance outcomes such as employee satisfaction, efficiency in production and financial performance. The operational efficiency, staff turnover, and profitability of the firms whose infrastructure is more advanced are relatively higher, which implies that infrastructure is a key facilitator of organizational performance (Lawal, Abdulsalam, Mohammed, and Sundararajan, 2023).

#### **4.2 Theoretical Implications**

1. Proves the applicability of Resource-Based View (RBV) Theory, pointing out that infrastructure is one of the strategic organizational resources that determine the performance outcomes.
2. Upholds Human Capital Theory in that even the productivity of highly skilled employees is subject to the presence of proper infrastructural support.
3. Supports Organizational Learning Theory where the company adjusts the infrastructural weaknesses through innovation and problem solving though this cannot be done adequately due to resources.
4. Implicates the necessity to assimilate the infrastructure adequacy into the conceptual frameworks of the organizational performance, and eliminate the gaps between the human resource management and the operational strategy.

#### **4.3 Managerial Implications**

1. Infrastructure investment is one of the primary areas that should be prioritized by managers as a strategic planning concept to improve operational efficiency and stay ahead of competitors.
2. Infrastructural constraints should be taken into consideration in workforce management to establish performance targets to prevent unrealistic targets, and curb discontented staff.
3. The focus on the allocation of resources must take into account both short-term coping strategies and long-term infrastructure building to provide performance improvements that will be sustainable.
4. The managers ought to promote the culture of resilience and innovation to maximize the performance despite the limitations posed by the infrastructure and utilize the resources available effectively.

#### **5.0 Recommendations of the Study**

#### **5.1 Policy Recommendations**

1. The government agencies need to invest in sound power supply, road networks and technological infrastructure to keep the functioning efficiency of the manufacturing firms.
2. Developing policies that encourage the private sector to cooperate in the development of infrastructure, including tax exemptions on energy solution and logistical advancement infrastructural developments.
3. Introduction of industrial clusters in which infrastructure facility is shared to curb the investment costs of individual firms as well as improvement of the productive use of production.
4. Frequent checking and reviewing of infrastructure policies to make sure that the improvements are achieved in a way that can be measured in terms of manufacturing performance improvement.

#### **5.2 Managerial Recommendations**

1. To minimize the impact of production hurdles, manufacturing companies ought to consider incorporating strong backup generators and other supply chains to minimize production.
2. The investment in the employee training program aimed at solving problems and addressing flexibility to counter the impact of infrastructural constraints on productivity.
3. Inclusion of infrastructure adequacy metrics in the performance evaluation and strategic decision making.
4. Promote the partnership with the industry associations to lobby infrastructural enhancement and communicate the best practices of overcoming operational adversities.

#### **5.3 Future Research Agenda**

1. Quantitative research on how operational effectiveness and employee productivity are affected by particular infrastructural shortfalls in manufacturing companies.
2. Comparative studies on the manufacturing companies in the city versus the rural area to evaluate the comparative relevance of infrastructural support to the performance achievements.
3. Investigation of the cost-effectiveness and sustainability of adaptive strategies of firms in situations with endemic infrastructural gaps.
4. Creation of industry-specific models that connect the infrastructure investment, employee

performance, and organizational competitiveness to drive policy and managerial decision-making.

## 6.0 Conclusion

### 6.1 Summary of Insights

This theoretical paper has looked at how infrastructural gaps have affected the level of performance of the manufacturing companies in Kano Metropolis. The outcome of the analysis has shown that poor infrastructure which comprises unstable power, inefficient transport and accessibility to modern technology to a great extent interferes with operational efficiency and employee productivity. Companies that have relatively superior infrastructure are efficient, turnover is lower, and they are more profitable. It was also in the study that it was highlighted that companies implement the coping mechanisms like backup power and flexible working hours to counteract the infrastructural difficulties, but this is very expensive and not sustainable in the long run. The research also found that there are good theoretical associations between infrastructural adequacy and organizational outcomes. The infrastructure according to the Resource-Based View (RBV) is a very important strategic resource that affects performance. The Human Capital Theory highlights that without the right infrastructure, skill of the employees is not adequate in terms of maximizing their productivity. Also, Organizational Learning Theory sheds light in adaptive strategies that firms use to overcome infrastructural constraints, but the adaptations are limited by the availability of resources.

Even though infrastructural adequacy is the major predictor of organizational performance, the issue of employee training and development comes out as complementary to promoting performance in limited conditions. Training enhances the competency, employee interest, and job satisfaction, which allows firms to harness the resources at their disposal and maintain operations. The conceptual model of the study shows that multidimensional employee training such as that of needs assessment, design, implementation, and evaluation interacts with infrastructural factors to propel organizational results. In the end, the research explains the necessity of a two-pronged strategy, i.e., reinforcing the infrastructural maintenance, as

well as investing in the development of human capital. A combination of these solutions would allow manufacturing companies in Kano Metropolis to become more efficient and effective in their operations, more cooperative with their employees, and competitive as a company, which may also serve as a roadmap to both managerial practice and the prospective studies.

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