

EFFECT OF TRAINING ON PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NORTH CENTRAL, NIGERIA

¹JACOB, Amedu Peter

¹Department of Business Administration Nasarawa State University, Keffi
jacobamedupeter@gmail.com

Abstract

Most SME owners have received mentorship, apprenticeship, and coaching, with some undergoing tertiary education, while SMEDAN offers training in business management and entrepreneurship. Despite these efforts, the sector continues to experience declining performance. This study therefore examined the effect of apprenticeship and job rotation elements of training on performance of SMEs in North Central, Nigeria. The study adopted a survey research design whereby structured 5-point likert scale questionnaire was administered to a sample of four hundred and thirty-nine (439) employees of SMEs in North Central, Nigeria. Partial Least Square (PLS-SEM) statistic was employed to test the hypotheses formulated of which the study found a positive and insignificant effect of apprenticeship on performance of SMEs in North Central, Nigeria, while job rotation has positive and significant effect on performance of SMEs in North Central, Nigeria. The study recommends that SMEs should implement structured apprenticeship programs that incorporate formal training, mentorship, and clear performance metrics. Collaborating with educational institutions and industry experts could improve apprentices' skillsets, aligning them more closely with business needs. SMEs should adopt and institutionalize job rotation practices as part of their human resource management strategies. By systematically rotating employees across different roles, businesses can enhance workforce versatility, broaden employees' skill sets, and foster a deeper understanding of various aspects of the business

Keywords: Training, Performance, Apprenticeship, Job rotation, SMEs

INTRODUCTION

Small and Medium Enterprises (SMEs) play a pivotal role in the global economy, contributing significantly to employment generation, income generation, and overall economic growth. SMEs represent a diverse array of businesses across various sectors, ranging from manufacturing and agriculture to services and technology. Their agility, innovation, and potential for scalability make them essential drivers of economic development and poverty alleviation worldwide (Nabintu, 2018).

In developing nations, SME make up about 90% of businesses, more than 50% of the labour force, and up to 40% of the GDP (World Bank, 2020). According to the National Bureau of Statistics (2020), SMEs make up 84% of all employment and 96% of all enterprises in Nigeria. With a total of roughly 17.4 million, SMEs in Nigeria have generated 48% of the country's GDP over the past five years (National Bureau of Statistics, 2020). They also account for 50% of industrial jobs and nearly 90% of the manufacturing sector's workforce.

In Nigeria, SMEs constitute the backbone of the economy, playing a crucial role in job creation, poverty reduction, and wealth distribution. The Nigerian government recognizes the importance of SMEs and has implemented various policies and initiatives to support their growth and development. However, SMEs in Nigeria face numerous challenges, including limited access to finance, inadequate infrastructure, and a skilled labor shortage (Nkechi, et al., 2022).

One critical factor that significantly influences the performance of SMEs is training. Training programmes aimed at enhancing the skills, knowledge, and capabilities of SME owners and employees can have a profound impact on organizational effectiveness, productivity, and competitiveness. Through training, SMEs can improve their operational efficiency, develop innovative solutions, and adapt to changing market dynamics (Makó, 2019).

Training according to Thaker (2018), is the process of teaching or developing specific skills, knowledge, or competencies in individuals or groups through systematic instruction, practice, and experience. It is often aimed at improving performance, enhancing capabilities, or preparing individuals for specific tasks,

roles, or responsibilities. According to Thaker (2018), training can take various forms, including classroom-based learning, hands-on practice, on-the-job training, workshops, seminars, mentorship, coaching, apprenticeship, e-learning modules, and more

The training dimensions of apprenticeship and job rotation are embraced for this study even if there is no consensus on them currently. The choice of these dimensions of training is informed by: First, majority of the studies on training (Solomon, et al., 2018; Kamuri & Ngugi, 2019; Obisi, 2021; Zhang, et al., 2021; Sakib et al., 2022; Salau, et al., 2024) used these dimensions.

Secondly, these dimensions aligned more with the principles of Experiential learning theory upon which this study is founded and thirdly, these dimensions are consistent with the model created by (Ebiringa & Okorafor, 2010). Apprenticeships provide hands-on training and practical experience to individuals, typically in skilled trades or technical fields. For SMEs, apprenticeships can be a cost-effective means of addressing skill gaps within the workforce while simultaneously developing a pipeline of skilled talent. By investing in apprenticeship programs, SMEs can ensure they have a skilled workforce capable of meeting current and future demands, thereby enhancing performance and competitiveness.

Job rotation involves moving employees through different roles or departments within the organization. This exposes employees to diverse experiences, challenges, and perspectives, fostering skill development, cross-functional collaboration, and innovation. Job rotation can also help SMEs identify and develop future leaders by providing opportunities for employees to gain exposure to different aspects of the business. By implementing job rotation programs, SMEs can cultivate a versatile and adaptable workforce that is better equipped to drive performance and navigate change.

The North Central region of Nigeria is home to a significant number of SMEs operating in diverse sectors, including agriculture, manufacturing, trade, and services. Despite their economic importance, many SMEs in this region struggle to survive due to factors such as limited resources, inadequate skills, and a hostile business environment. Training plays a pivotal role in enhancing the capabilities and competitiveness of SMEs, enabling them to overcome these challenges and achieve sustainable growth. Therefore, it is essential to explore the relationship between training and SME performance in the North Central region.

This study aims to contribute to the existing literature on the effect of training on SME performance by focusing on the North Central region of Nigeria. The findings are expected to inform policymakers, business support organizations, and SME owners/managers about the significance of training interventions and provide actionable recommendations to foster the growth and sustainability of SMEs in the region. By addressing the training needs of SMEs, it is hoped that their overall performance and contribution to the regional economy will be substantially enhanced.

Most SMEs owners have gone through mentorship, apprenticeship and coaching, while some have undergone tertiary education. Also, government through SMEDAN have offered training programs which covers both financial and non-financial areas of business such as business management, entrepreneurship development skills, financial literacy and access to market, aimed at capacity building for SMEs. Despite this support, the sector has continued to witness declining performance. This is seen in the drop of their contribution to the nation's economy from 50% percent contribution to GDP in 2021 to 43.3 % in 2022, and to 39.8% in the year 2023 (Clement, et al., 2024). In addition, a good number of these SMEs have remained stagnant despite the availability of accessible credit which could be used for expansion activities.

Only 20% of SMEs managed to survive, according to a 2017 report from the Investment and Technology Promotion office of the United Nations Industrial Development Organization in Nigeria. SMEs in Nigeria have not yet achieved the expected performance, despite investments made in business support through entrepreneurial education (Olurundare & Kayode, 2022).

Unfortunately, there is a limited but growing body of knowledge on the topic of training upon which the researcher can base their investigation especially in the SMEs domain in North Central Nigeria in particular. Several studies have been done in the area of training and performance of SMEs but mostly in the developing countries. Idua, et al. (2023), examined the effect of On-the-Job Training Techniques on Performance of SMES in Mombasa County, Tan and Lim, (2022) analysed organizational commitment as a moderator of the effect of training on service performance: An empirical study of small to medium-sized enterprises in Malaysia, Kumar, et al. (2022) investigated the impact of training and development programs on employees performance: the case of Lebanese SMEs, Gyasi, et al. (2020) studied the Impact of Entrepreneurial Training and Performance of SMEs In Ghana, Huang (2021) investigated the relation of training practices and organizational performance of small and medium size enterprises in Indonesia.

Locally, studies that have already been carried out by several authors (For instance, Gbolagade & Oyewale, 2021; Ayuba, 2022; Umar, 2024), their focuses were mainly on effect of Training and Development on Employee Performance in Some Selected SMEs in Maiduguri Metropolis. Despite the efforts of others researchers (e.g Yalo, 2019 - in Kogi State; Olorunlambe, et al., 2020 - in Kwara State; Ebitu 2022 - in Akwa Ibom; Amin, 2023-FCT-Abuja) on the relationship between training and the performance of small businesses in Nigeria, their several research results seemed to be mixed. Cases in point are: Yalo (2019) investigation, which found a positive correlation between training and the performance of small businesses, the research failed to tackle the concerns regarding the performance of small and medium-sized enterprises (SMEs) in North Central, Nigeria.

On the contrary Amin (2023) found that training have a negative and insignificant relationship with SMEs' performance. Whereas Ojo (2022) findings showed that the relationship can be either positive or negative depending on the business climate. To the best researcher's knowledge, no study has attempted to integrate training with five variables as explanatory variables in a single study, rather, they are usually studied in bit. This study attempts to close the gap. Against this backdrop, this study seeks to examine the effect of training on performance of SMEs in North Central, Nigeria.

Objectives of the Study

The general objective of the study is to examine the effect of training on performance of SMEs in North Central, Nigeria. The specific objectives were to:

- i. examine the effect of apprenticeship on performance of SMEs in North Central, Nigeria.
- ii. access the effect of job rotation on performance of SMEs in North Central, Nigeria.

LITERATURE REVIEW

Training

According to Semrau et al. (2019), training can be defined as the systematic process of enhancing an individual's knowledge, skills, and competencies for a specific purpose or task. This process typically involves structured learning activities, such as instruction, practice, feedback, and assessment, aimed at improving performance and achieving desired outcomes.

According to Noe (2017), training is a planned effort to facilitate the learning of job-related knowledge, skills, and behavior by employees. This definition emphasizes the intentional and organized nature of training, as well as its focus on job-relevant learning. Goldstein and Ford (2022), describe training as a systematic attempt to facilitate learning of job-related knowledge, skills, and behavior by employees. This definition underscores the systematic approach to training and its goal of enhancing job-related capabilities.

This study adopts the definition by Semrau et al. (2019), who define training as the systematic process of enhancing an individual's knowledge, skills, and competencies for a specific purpose or task. The definition emphasizes enhancing knowledge, skills, and competencies, which are critical for the performance and growth of SMEs. This relevance aligns well with the study's focus on the performance of SMEs in North Central Nigeria.

Apprenticeship

Britannica (2023), define apprenticeship as a system of training a new generation of practitioners of a trade or profession with on-the-job training and often some accompanying study. Apprenticeship is a formal training program that combines on-the-job training and related technical instruction to prepare workers for skilled occupations (OECD, 2022).

This study adopts the definition by U.S. Department of Labor (2023), who assert that apprenticeship is a program of structured on-the-job training and related technical instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. This definition was adopted because the definition emphasizes learning both practical and theoretical aspects of a highly skilled occupation. This relevance is crucial for SMEs in North Central Nigeria, where enhancing skills and technical knowledge is vital for improving performance and competitiveness.

Job Rotation

Javed et al. (2022) defines job rotation as the systematic movement of employees between two or more jobs or tasks within an organization for a specified period of time. According to Jawahar and Soundararajan (2021), job rotation is a human resource management practice where employees periodically change job assignments within the same organization to broaden their skills, knowledge, and experiences.

Job rotation is a strategy that involves systematically moving employees between different jobs or tasks within the same organization to provide them with diverse experiences and enhance their skills (Coetzee & Stoltz, 2021). Job rotation is a human resource management practice that involves the systematic movement of employees between different jobs or tasks within an organization (Kaiser et al., 2022)

Performance of SMEs

Koçoğlu and Kirmaz (2022) define SME performance as the overall effectiveness and efficiency of small and medium-sized enterprises in achieving their strategic objectives, such as profitability, growth, market share, and customer satisfaction. SME performance is a multidimensional construct that encompasses financial measures (e.g., sales, profitability) and non-financial measures (e.g., customer satisfaction, employee morale, and social responsibility) that reflect the overall effectiveness and efficiency of a small or medium-sized enterprise (Gupta et al., 2023).

In this study, SME performance is defined according to the definition provided by Koçoğlu and Kirmaz (2022), who define SME performance as the overall effectiveness and efficiency of small and medium-sized enterprises in achieving their strategic objectives, such as profitability, growth, market share, and customer satisfaction.

Empirical Review

Apprenticeship and Performance of SMEs

Uster et al. (2024) investigated the relationship between apprenticeship and SMEs Performance in Uganda, considering the case of Sewerage Corporation-Rukungiri District. Senior human resource managers and managerial and technical personnel made up the sample of 96 respondents, and the study was conducted using a cross-sectional and descriptive survey approach. Self-administered questionnaires and interviews were used to gather primary data, and document reviews were used to gather secondary data. The research findings indicate a statistically significant positive relationship between apprenticeship and SMEs Performance at NWSC-Rukungiri District. The study was conducted in Uganda, as such its findings may not replicate the current study in Nigeria.

Adeleke and Ojewale (2024) investigated the effect of apprenticeship on SME performance in Oyo State. Purposive sampling technique was used to select a sample of 438 trainees of block moulding industries in all the constituencies of Oyo State. Data were collected with the aid of questionnaire. Frequency distribution table and simple percentages were used to analyze biodata of the respondents. Regression

analysis was employed to model the effect of the variables. The found that apprenticeship has positive and insignificant effect on SME performance in Oyo State. The study relied on questionnaire data analyzed using frequency distribution tables, simple percentages, and regression analysis. While these methods are common, the use of only descriptive statistics and basic regression analysis may overlook more nuanced relationships or interactions among variables that could influence SME performance.

Job Rotation and Performance of SMEs

Okechukwu et al. (2024) examined the effect of job rotation on performance of SMEs. A qualitative Methodology and multiple case study design was used to obtain and interpret the descriptive data needed to answer the research questions that explore core business value strategies and practices required for longterm enterprise performance, growth, and sustainability in SME businesses. In line with the exploratory process data, interviews with six SME owners and managers within information technology, hospitality, and transportation services using open-ended questions. The study found that job rotation has negative but insignificant effect on performance of SMEs. The study uses a multiple case study design with interviews conducted with only six SME owners and managers from the information technology, hospitality, and transportation services sectors. This small sample size and industry focus raise concerns about the generalizability of the findings to a broader range of SMEs in different industries.

Eze et al. (2024) examined the effect of job rotation on performance of SMEs in Nigeria. This study was anchored on the Contingency Theory. This study employed a descriptive survey approach. The Population of the study is 1737 SMEs, A sample size of 327 was drawn from the population by the use of Borg and Gall formula for finite population. Questionnaire was administered to the top managers and owners of the SMEs. The hypotheses of the study were tested by simple and multiple regression analysis, at 0.05 level of significance, through the use of Pearson Product Moment Correlation Coefficient and Simple Linear Regression. The study revealed that there is a strong positive and significant relationship between job rotation and Performance of Small and Medium Scale Enterprise in Nigeria. The study should have provided more details on the sampling technique used and the criteria for selecting the sample to ensure that it accurately represents the larger population of SMEs in Nigeria.

Nma (2024) investigated the effect of job rotation on the business expansion of MSMEs within selected manufacturing firms in Lagos State, Nigeria. The study adopted survey research design. The population of this study comprised 80,072 registered owner-managers of selected manufacturing micro, small and medium-scale enterprises MSMEs in Lagos State, Nigeria. A sample size of 498 was determined using the research advisor's sample size table. A structured and validated questionnaire was used for data collection. The Cronbach's alpha reliability coefficients of constructs ranged from 0.73 to 0.94. A response rate of 98.4% was recorded. Data were analysed using descriptive and inferential (multiple linear regression) statistics. The findings revealed that job rotation significantly affected the Business expansion of selected manufacturing micro, small, and medium enterprises in Lagos state, Nigeria. The study does not mention a specific theoretical framework or conceptual model that guides the investigation of the relationship between job rotation and business expansion.

Experiential Learning Theory

David Kolb's Experiential Learning Theory (1984) asserts that learning is most effective through practical experience, involving a cyclical process of concrete experience, reflective observation, abstract conceptualization, and active experimentation. Unlike cognitive theories, which focus on mental processes, and behavioral theories, which overlook subjective experience, experiential learning emphasizes learning through hands-on involvement. Proponents like Truluck and Courtenay (1999) and Miettinen (2000) highlight its value in helping individuals explore strengths and address weaknesses. Similarly, both experiential and human capital theories advocate for practical, closely monitored training within organizations to ensure immediate, applicable skills development.

Kolb's Experiential Learning Theory (ELT) bridges the gap between theory and practice in education by focusing on practical application over abstract theory, enabling learners to apply knowledge in real-world

contexts. ELT promotes a holistic approach to learning, emphasizing adaptability and innovation, though critics argue it underemphasizes cognitive factors like memory and provides limited guidance on instructional design. Despite these critiques, ELT offers valuable support for Small and Medium Enterprises (SMEs) in North Central Nigeria by fostering entrepreneurial skills, problem-solving, and continuous learning, enhancing both employee empowerment and organizational competitiveness. The experiential learning theory was adopted for this study. This is because the chosen theory appears to be all encompassing as it explains how well training affect performances of SMEs. By integrating these theories into training programs, organizations can effectively leverage the expertise of SMEs to enhance the skills and performance of their employees.

METHODOLOGY

The study adopts a survey research design. The population consists of 130,862 registered SMEs as obtained from NBS-SMEDAN (2021) report. Convenience sampling technique was adopted for this study. The study employed Taro Yamane (1967) formula for determining the minimum sample size. Thus, minimum sample size is 439. The study utilised primary source of data to collect data for the study. The choice of the method was the need to gather reliable information using simple approach that is time saving and efficient. The study employed the use of well-structured five-point likert scale (SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree), close-ended questionnaire was used to obtain data from employees of SMEs in North Central, Nigeria. The data collected was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the aid of SmartPls3.

Model specification

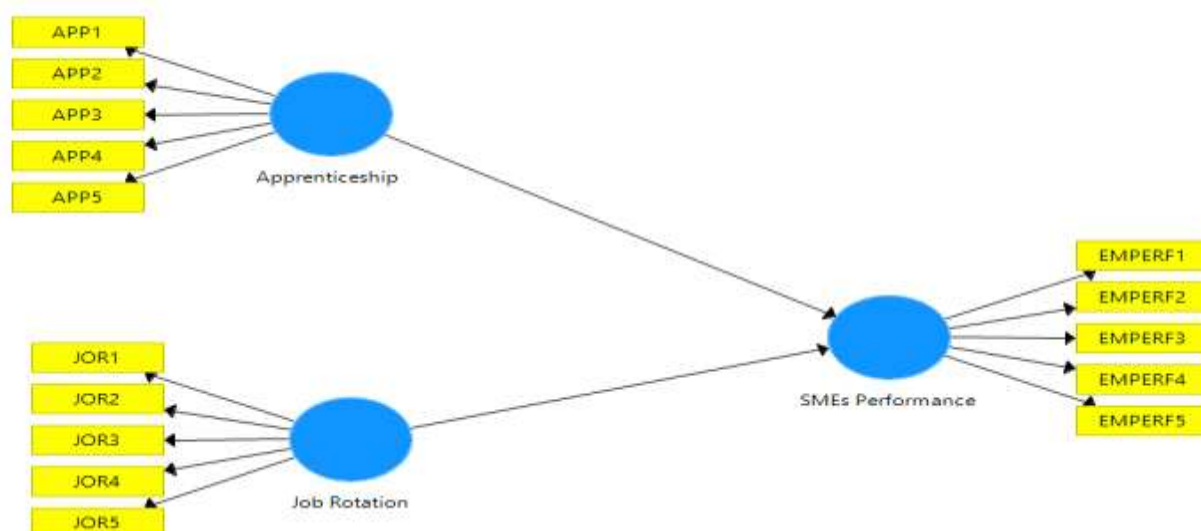


Figure 3.1 Structural model for direct relationship between training and performance of SMEs

RESULT AND DISCUSSIONS

A total of 439 copies of questionnaire distributed (which is a 10% increase in the initial sample size to provide for attrition), only four hundred and sixteen (416) was retrieved giving a response rate of 95%. 23(5%) were not properly filled but returned. All further analyses were carried out using 416 responses.

Indicator Reliability

When evaluating the measurement model, we initiate the process by examining the item outer loadings. Generally, it is recommended to consider loadings above 0.708, as they signify that the construct accounts for more than 50 percent of the variance in the indicator, ensuring acceptable item reliability (Hair et al., 2019). However, Hair et al. (2019) also suggest that low but statistically significant indicator loadings (below 0.50) may be included. Conversely, outer loadings below 0.4 should be eliminated, and in exploratory research, loadings between 0.4 and 0.7 may be retained if the average variance extracted is satisfactory (Hair et al., 2014). This justifies the decision not to exclude indicators with loadings below 0.70 and above 0.40 from the model.

Table 1: Factor Loadings of the Constructs

	Apprenticeship	SMEs Performance	Job Rotation
APP1	0.796		
APP2	0.799		
APP3	0.762		
APP4	0.655		
APP5	0.744		
EMPERF1		0.727	
EMPERF2		0.769	
EMPERF3		0.756	
EMPERF4		0.623	
EMPERF5		0.719	
JOR1			0.634
JOR2			0.764
JOR3			0.719
JOR4			0.743
JOR5			0.762

Source: SMARP-PLS Output, 2024

Convergent Validity

Convergent validity gauges the degree to which a construct converges to elucidate the variance within its items. To evaluate convergent validity, the average variance extracted (AVE) should exceed 0.5. As depicted in Table 2, the AVE values for all constructs surpass 0.5, affirming that our constructs meet the criteria for convergent validity. This observation suggests that the entire construct accounts for 50 percent or more of the variance present in the items comprising the construct.

Table 2: Construct Reliability and Validity of the Indicators

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Apprenticeship	0.737	0.766	0.825	0.510
Job Rotation	0.730	0.870	0.765	0.500
SMEs Performance	0.768	0.771	0.843	0.519

Source: SMART PLS Output, 2024

Table 3: Heterotrait-Monotrait Ratio (HTMT)

Variables	Apprenticeship	Job Rotation	SMEs Performance
Apprenticeship	1.000		
Job Rotation	0.801	1.000	
SMEs Performance	0.727	0.613	1.000

Source: SMART-PLS Output, 2024

Model Goodness of Fit (GoF)

To validate the PLS model, it is essential to evaluate its goodness of fit, as recommended by Hair et al. (2017). In this study, the standardized root mean square residual (SRMR) was employed for this purpose. The selection of this index was based on the fact that SRMR provides an absolute fit measure, where a value of zero signifies a perfect fit. Following Hu and Bentler's (1998) suggestion that a value below 0.08 represents a good fit when using SRMR for model assessment, the study's result revealed an SRMR value of 0.03. This indicates that the model fits well. Besides the chi-square, other measures corroborate the goodness of fit in the study's model.

Table 4: Model of Goodness of fit Summary

	Saturated Model	Estimated Model
SRMR	0.03	0.03
d_ULS	5.778	5.778
d_G	5.451	5.451
Chi-Square	7338.713	7338.713
NFI	0.397	0.397

Source: SMART-PLS Output, 2024

Test of Hypotheses

The table below showed the path coefficients, t-values and p-values used to test the first four null hypotheses of the study:

Table 5: Path Coefficient of the Model

Variables	Beta	T Statistics (O/STDEV)	P Values	Decision	F ² Value
Apprenticeship Performance -> SMEs	0.019	0.275	0.783	Accepted	0.000
Job Rotation Performance -> SMEs	0.703	11.129	0.000	Rejected	0.276

Notes: ***($P < 0.01$), **($P < 0.05$), *($P < 0.1$)

Source: SMART-PLS Output, 2024

Hypothesis One

H₀₁: Apprenticeship has no significant effect on performance of SMEs in North Central, Nigeria.

The result of the test as shown in table 5 revealed that apprenticeship positively and insignificantly affected performance of SMEs in North Central, Nigeria, with $\beta = 0.019$ and $p = 0.783$. Thus, hypothesis one was supported and therefore accepted at 5% level of insignificance. There is adequate evidence to accept the alternative hypothesis and the study therefore conclude that apprenticeship has positive and insignificant effect on performance of SMEs in North Central, Nigeria.

Hypothesis Two

H₀₂: Job rotation has no significant effect on performance of SMEs in North Central, Nigeria.

The result from table 5 shows that job rotation has positive and significant effects on performance of SMEs in North Central, Nigeria, with $\beta = 0.703$ and $p = 0.000$. Thus, hypothesis two was not supported and therefore rejected at 5% level of significance. There is adequate evidence to reject the null hypothesis and the study therefore conclude that job rotation has positive and significant effects on performance of SMEs in North Central, Nigeria.

Table 6: R square Statistics

	R Square	R Square Adjusted
SMEs Performance	0.473	0.470

Source: Researcher's computation in Smart-PLS (2024)

The r-square statistics shows the level of determinism of the dependent variable by the independent variables of the study. Table 6 show that the study has an r-square value of 0.473 which indicates that the variables used for the study account for about 47.3% of the variability in the dependent variable. Other factors not captured in the model may account for the remaining 52.7%.

Discussion of Findings

Apprenticeship positively and insignificantly affected the performance of SMEs in North Central, Nigeria, indicating that while apprenticeship programs may contribute to skill development and knowledge transfer, they may not yet have a substantial impact on overall business performance in the region. The finding is in agreement with that of Adeleke and Ojewale (2024) who found that apprenticeship has positive and insignificant effect on SME performance in Oyo State. However, the finding disagrees with the finding of Uster et al. (2024) who found findings indicate a statistically significant positive relationship between apprenticeship and SMEs Performance at NWSC-Rukungiri District.

On the other hand, job rotation has positive and significant effects on the performance of SMEs in North Central Nigeria implies that the practice of rotating employees across various roles is beneficial for business outcomes. It suggests that job rotation enhances employees' skills, adaptability, and knowledge, leading to improved productivity, innovation, and operational efficiency. This practice

fosters a more flexible and well-rounded workforce, contributing to better problem-solving and decision-making, ultimately driving the overall performance and growth of SMEs in the region. This finding agrees with the findings of Eze et al. (2024) whose finding revealed that there is a strong positive and significant relationship between job rotation and Performance of Small and Medium Scale Enterprise in Nigeria, but the finding however, disagreed with that of Okechukwu et al. (2024) who found that job rotation has negative but insignificant effect on performance of SMEs.

CONCLUSIONS AND RECOMMENDATIONS

Based on the finding that apprenticeship positively and insignificantly affected the performance of SMEs in North Central Nigeria, it can be concluded that while apprenticeship programs may provide some benefits for skill acquisition and workforce development, they alone may not be sufficient to drive significant improvements in SME performance. This suggests that additional support mechanisms or complementary training initiatives may be needed to enhance the impact of apprenticeship on business outcomes in this region.

The conclusion from the finding that job rotation has a positive and significant effect on the performance of SMEs in North Central Nigeria is that job rotation contributes meaningfully to enhancing SME performance in this region. The positive and significant impact suggests that rotating employees across different roles helps to improve their skills, knowledge, and overall productivity, thereby boosting business outcomes. This practice likely fosters a more versatile workforce, leading to greater innovation and operational efficiency within SMEs.

- i. Based on the finding that apprenticeship negatively and insignificantly affected the performance of SMEs in North Central Nigeria, it is recommended that SMEs should implement structured apprenticeship programs that incorporate formal training, mentorship, and clear performance metrics. Collaborating with educational institutions and industry experts could improve apprentices' skillsets, aligning them more closely with business needs.
- ii. SMEs should adopt and institutionalize job rotation practices as part of their human resource management strategies. By systematically rotating employees across different roles, businesses can enhance workforce versatility, broaden employees' skill sets, and foster a deeper understanding of various aspects of the business.

References

- Adeleke, A. B., & Ojewale, J. A. (2024). Effects Of Entrepreneurial Training On Career Development Among Youths In Oyo State, Nigeria. *International Journal of Education, Library and Information Communication Technology*, 2(1).
- Amin, H. (2023). Making Training Effective. *Journal of the Chartered Institute of Personnel Management of Nigeria*, 5(2), 20 – 24.
- Ayuba, F. (2022). Employees Training and Organizational Performance: Meditation by Employees Performance. *Interdisciplinary Journal of Contemporary Research in Business*, 5(4), 490 – 503.
- Britannica. (2023). Apprenticeship. Retrieved from <https://www.britannica.com/topic/apprenticeship>
- Clement, G., Ajibade, A. A., & Awe, S. S. (2024). Strategic Planning And Cost Effectiveness As Correlates Of Small And Medium Scale Enterprises Performance In Ogun State, Nigeria. *AAU Journal Of Business Educators*, 4(1), 270-278.
- Coetzee, M., & Stoltz, E. (2021). Perceptions of job rotation practices, career adaptability, and job crafting. *SA Journal of Industrial Psychology*, 47, a1828. <https://doi.org/10.4102/sajip.v47i0.1828>
- Eze, S. U., Wisdom, O., John, O. N., & Chika, A. R. (2024). Economic Environment and Performance of Small and Medium Scale Enterprise in Nigeria.
- Floren, H., Rundquist, J., & Pyysiainen, J. (2019). Antecedents of SMEs' growth ambitions—A cross-country study. *Journal of Small Business and Enterprise Development*, 26(3), 365-382.
- Gbolagade, G., & Oyewale, O. (2021). Evaluation of effectiveness of Training and Development: The Kirkpatrick Model. *Asian Journal of Business and Management Science*, 2(11), 14 – 24.
- Goldstein, I. L., & Ford, J. K. (2022). *Training in organizations: Needs assessment, development, and evaluation (4th ed.)*. Wadsworth Publishing.

- Gupta, V. K., Niranjan, S., Goktan, A. B., & Mahto, R. V. (2023). Does gender matter in SME performance? Exploring the role of gender diversity in top management teams. *Journal of Small Business Management*, 61(1), 228-255.
- Gyasi, R. S., Li, C., Akolgo, I. G., & Owusu-Ampomah, Y. (2020). The Impact of Entrepreneurial Training and Performance of SMEs In Ghana. *International Journal of Scientific Research in Science and Technology*, 7(2), 126-134.
- Huang, T. C. (2021). The relation of training practices and organizational performance of small and medium size enterprises in Indonesia. *Education+ Training*, 43(8/9), 437-444.
- Ibua, M., Kariuki, A., & Kamau, C. G. (2023). Effect of On-the-Job Training Techniques on Performance of SMES in Mombasa County. *South Sahara Multidisciplinary Journal*, 1(1), 17-27.
- Javed, B., Bouckennooghe, D., Mahmood, A., & Syed, F. (2022). Linking job rotation to employee performance: Examining the mediating role of creative process engagement and job satisfaction. *Frontiers in Psychology*, 13, 850907.
- Jawahar, I. M., & Soundararajan, R. (2021). Job rotation, career planning, and career satisfaction: Moderated mediation model. *The Journal of General Psychology*, 148(4), 416-440.
- Kamuri, F., & Ngugi, I. (2019). The Impact of Employee Training and Development on Employee Productivity. *Global Journal of Commerce and Management*, 2(6), 91 – 93.
- Koçoğlu, D., & Kirmaz, Y. (2022). The impact of entrepreneurial orientation on SME performance: The mediating role of market orientation. *Journal of Small Business and Enterprise Development*, 29(1), 22-42.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice-Hall.
- Kumar, V. R., Selvaraj, M., Venkateswaran, P. S., Sabarirajan, A., Shatila, K., & Agarwal, V. (2022). The impact of training and development programs on employees performance: the case of Lebanese SMEs. *International Journal of Intellectual Property Management*, 12(3), 368-381.
- Machmud, S., & Sidharta, I. (2016). Entrepreneurial motivation and business performance of SMEs in the SUCI culinary business group in Bandung, Indonesia. *DLSU Business & Economics Review*, 25(2), 63-78.
- Makó, C. (2019). Training and competence development in the SME Sector: The Hungarian Case. *Journal of East European Management Studies*, 156-185.
- Nabintu, N. (2018). Factors affecting the performance of small and micro enterprises (SMEs) traders at city park hawkers market in Nairobi County, Kenya (Doctoral dissertation).
- National Bureau of Statistics (2020). Annual Bulletin.
- Nkechi, A., Emeh, I. E. J., & Okechukwu, U. F. (2022). Entrepreneurship development and employment generation in Nigeria: problems and prospects. *Journal of Education and General Studies*, 1(4), 088-102.
- Nma, K. M. (2024). Capacity Building Dimensions and Business Expansion of Selected Micro, Small and Medium Enterprises (MSMEs) Manufacturing Firms in Nigeria.
- Noe, R. A. (2017). *Employee training and development (7th ed.)*. McGraw-Hill Education.
- Obisi, C. (2021). Employee Training and Development in Nigeria Organizations: Some Observations and Agenda for Research. *Australian Journal of Business and Management Research*, 1(9), 54-66.
- OECD. (2022). Apprenticeship. Retrieved from <https://www.oecd.org/employment/emp/apprenticeship.htm>
- Ojo, O. (2022). Training and Development Program and its benefits to employees and organization: a conceptual study. *European Journal of Business and Management*. 5(2) 243– 252
- Okechukwu, N., Agbai, E. P., & PCE, H. (2024). Exploring The Role Of Value Orientation In Small And Medium-Sized Enterprise (SME) And Entrepreneurial Development In Nigeria. *Disseminating Scholarly Research Across The Globe*, 5.
- Olurundare, P., & Kayode, U. (2022). Impact of Training and Development on Organization Performance. *Global Journal of Management and Business Research*, 1(7) 63 – 68.
- Qaiser, S., Abid, G., Bashir, S., & Saud, M. (2022). Investigating the impact of job rotation on employee creativity: The role of knowledge sharing and job autonomy. *Frontiers in Psychology*, 13, 863125. <https://doi.org/10.3389/fpsyg.2022.863125>

- Salau, A. N., Opele, A. O., & Ogundeinde, A. M. (2024). Moderating Effect of Training and Development on Entrepreneurial Competence as Remedy for SMEs Performance; *International Journal of Innovative Research in Accounting and Sustainability*, 4(4), 44-54
- Semrau, T., Ambos, T., & Kraus, S. (2019). Entrepreneurial orientation and SME performance across societal cultures: An international study. *Journal of Business Research*, 69 (5), 1928- 1932.
- Solomon, A. K., Olufemi, A. K., & Olalekan. O. S. (2018). Moderating influence of training and development on entrepreneurial performance. *Applied Studies in Agribusiness and Commerce Center, (APSTRACT)*, 12(3-4), 47-54.
- Tan, T. H., & Lim, Y. K. (2022). Organizational commitment as a moderator of the effect of training on service performance: An empirical study of small to medium-sized enterprises in Malaysia. *International Journal of Management*, 29(1), 65-76.
- U.S. Department of Labor. (2023). Apprenticeship. Retrieved from <https://www.dol.gov/apprenticeship>
- Umar, H. (2024). Training and Its Multiplier Effect on Productivity at the Olabisi Onabanjo University Library. *Pacific Northwest Library Association Quarterly*, 75(3), 12-31.
- Uster, T., Moses, A., & Siraj, K. (2024). Training and Employee Performance in Uganda: A Case of National Water and Sewerage Corporation. *International Research Journal of Economics and Management Studies IRJEMS*, 3(3).
- World Bank. (2023). Small and Medium Enterprises (SMEs) Finance. Retrieved from <https://www.worldbank.org/en/topic/sme/finance>
- Yalo, L. (2019). Implications of Training and Development Programs on Accountant Productivity in Selected Business Organization in Onitsha Anambra State Nigeria. *International Journal of Asian Social Science*, 3(1), 266 – 281.
- Zhang, H., Liu, Y., & Xue, J. (2021). Profitability and corporate social responsibility: Evidence from Chinese manufacturing firms. *Journal of Business Research*, 124, 174-183.

Research questionnaire

Key: SA= Strongly Agree, A= Agree, U= Undecided, D= Disagree, SD= Strongly Disagree

S/N	Statement	SA 5	A 4	U 3	D 2	SD 1
	Apprenticeship					
APP1	The apprenticeship program has resulted in a noticeable increase in the quality of products/services delivered					
APP2	1. The skills acquired through the apprenticeship programme are directly applicable to my tasks and responsibilities					
APP3	The apprenticeship program improves my morale and satisfaction					
APP4	Apprenticeships have improved the quality of work produced by me overtime					
APP5	Apprenticeships have improved my ability to adapt to changing business needs and technological advancements.					
	Job Rotation					
JOR1	Job rotation aids in a more efficient identification of my strengths and areas where I can improve.					
JOR2	The skills and knowledge gained through job rotation improve my overall job performance					
JOR3	Job rotation contributes to my personal and professional development within the SME					
JOR4	Participating in job rotation enhances my understanding of various aspects of our SME's operations					
JOR5	Job rotation opportunities at our SME provide valuable exposure to different roles and responsibilities.					
	Performance of SMEs					
PSM1	The quality of products/services provided is excellent.					
PSM2	The profitability has been increasing over time					
PSM3	Service enhancement has progressed over time.					
PSM4	Enhanced customer satisfaction					
PSM5	Over time, there has been an improvement in customer's repurchase.					