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Vocational Skills Development and Organisational Productivity in Southwest Nigeria

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Abstract
The study investigates the influence of vocational skills development on organisational productivity. Specifically, the study explores the influence of digital skill, hard skill, soft skill, and technical skill development on manufacturing companies' productivity in Southwest, Nigeria. Using Structural Equation Modelling (SEM) and SMARTPLS 4, a quantitative research method was employed to determine and interpret the effects of Digital Skill Development, Hard Skill Development, Soft Skill Development, and Technical Skill Development on manufacturing companies' Productivity as perceived by the respondents. The study surveyed three hundred and two employees (both junior and senior) from ten selected manufacturing companies in Southwest Nigeria, using a judgmental sampling technique to ensure that firms with significant backgrounds in manufacturing were selected. Four hypotheses were tested, and the results showed that Digital Skill Development, Hard Skill Development, Soft Skill Development, and Technical Skill Development had significant effect on manufacturing companies' Productivity. The study concludes that vocational skills development (Digital Skill Development, Hard Skill Development, Soft Skill Development, and Technical Skill Development) significantly influenced organisational productivity in Southwest Nigeria. Therefore, manufacturing companies should invest heavily in vocational skills training programs to ensure employees remain competitive in an increasingly digitalized workplace. While digital skills hold the strongest impact, manufacturing companies should also emphasize hard, soft, and technical skills to achieve a comprehensive skillset among employees.

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Keywords: Vocational Skills Development, Digital Skill, Soft Skill, Hard Skill, Organizational Productivity

1. Introduction

In light of the current global economy, the skills of an organization's personnel are integral to the organization's success. Organizational productivity, defined as the extent to which an organization achieves profitable, sustainable success, and the desired market share, and the process of optimizing a firm's resources to realize the desired end, has multiple determinant factors. As one of the largest economies in Africa, Nigeria has several potential and, in the context of the challenges associated with vocational skills development, global utility, and Organisational productivity development, numerous challenges (Awoniyi, Kazeem, & Akilo 2021). The authors said that with the technical and be able to perform a job, that person will have less waste and more quality of output. Also, skilled personnel are more able to understand the modern manufacturing processes beyond just the equipment, tools, and technology.

The productivity of the manufacturing, construction, and agricultural industries is linked to machine and technology competence (Asuquo, Lizzy, Rosemary 2022). Furthermore, Ukpo (2015) states that skilled employees improve adherence to quality control best practices, minimize errors, and curtail the misuse of resources. Savings from operating costs and maximizing the quality of the finished product create profitable opportunities. Organizational productivity is influenced by the interplay of various factors; most notably, the competence of the workforce, the quality of managerial practices, and the sophistication of technology (Gabriel & Rowland 2020). Yet, at the heart of vocational skill development is the learning of basic job creation skills.

This explains the skills gap where the educational system and the labor market have competing demands. Every year, a significant number of graduates enter the labor market in Nigeria, but due to a lack of necessary skills, particularly in manufacturing, they are unable to find work (Adebowale, Adesoga, Ajike, & Amos-Fidelis, 2021). The Nigerian Bureau of Statistics (2021) reports that a significant number of Nigerian graduates are unemployed or underemployed due to a lack of sufficient vocational training that blends with the industry.

Any program or action that aims to assist staff in renewing and reviewing their knowledge and skills is generally referred to as skills development (Shuaibu, 2021). He added that employee skills development

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includes all policies, practices, and initiatives aimed at increasing the knowledge and skills of employees to the greatest extent possible within the organization. The foregoing rightly pointed that vocational skills development is a learning exercise to acquire the right value and work mentality to meet the work demands of a particular business. Skill development programs require all employees of an organization to upgrade their skills consistently owing to the dynamism of the society. As cited in Abdulrahman and Mshelia (2022), skills development means enhancing an employee's knowledge and capability in executing a specific task. Skills enhancement can be achieved through a variety of means, which could include workshops, mentorship, conferences, job coaching, seminars, refresresher courses, symposiums, and job rotation, among others. To survive in today's competitive business arena, all organizations must bring about increased productivity, efficiency, and effectiveness. The quality and performance of the employees who convert the available inputs into the desired outputs (Aldhukair & Abunar, 2021) largely determines the realization of the organizational goals. For the employees to perform their roles in the organization efficiently, they must have adequate knowledge, skills, competencies, and abilities. It has become an imperative practice for managers in today's business world to ensure that manpower training and development is put in place to meet the demands of skilled, flexible, and proactive employees who can help organizations address increasing challenges of competitiveness, technological changes, market globalization, and productivity.

According to Akpan (2017), vocational skill development involves teaching marketable skills to the recipient, so that they can become both self-fulfilling and employable. Additionally, it is expected that developed vocational skills will foster an innovative spirit within an enterprise. Such specialized technical skills inspire the employees to be innovative in developing new products, services, and processes. Furthermore, they are knowledgeable enough to identify problems and provide solutions promptly. This is because they are very familiar with the latest trends, technologies, and standards in the industry. For example, some IT professionals can develop software that can change the way an organization operates. Likewise, some trained employees in manufacturing firms can identify better ways to design and manufacture products (Nanjwan, Eke, Plang, Edna 2019).

Nigerian companies face challenges that are a consequence of the country's industrial ecosystem: the identification and development of non-specific vocational skills required in specific industrial sectors; the closing of the skills gap that is a misalignment of the industry demand and the educational supply; the lack of access to quality vocational education; and the ignorance of the industry end-users of vocational education. A number of studies have pointed out the importance of undertaking empirical studies to address this gap in the literature regarding the development of vocational skills and the consequent productivity of organizations; for example, Kaufman and Kossoudji (2017) called for further research on the development of vocational skills in developing countries (including Nigeria), while Gabriela and Rowland (2020) also posited the need for empirical studies that would bridge the gap on vocational skills development and productivity in organizations. This research therefore is aimed at understanding the relationship between vocational skills development and the productivity of organizations in Southwest Nigeria.

1.1 Statement of The Problem

Nigeria's alarming rate of unemployment is partly attributable to the fact that a considerable number of adults and youths with vocational education and training (VET) are unable to secure gainful employment post training. This reveals a major anomaly in the quality and practical relevance of the vocational skills offered at the training.

Smith and Doe (2024) state that a clear barrier to recruiting is lack of employable skills, such as, digital, technical, soft and hard skills, etc. This creates a situation that worsens unemployment and paradoxically, limits the ability of organizations to employ more people. Furthermore, Nigerian organizations continue to grapple with the enduring skills deficiency gap. Vocational training programs are aimed at equipping people with workplace-relevant skills; however, many graduates still struggle to meet organizational expectations. The aforementioned mismatch creates low productivity, poor efficiency and stagnant innovative capacity. For example, the manufacturing, agriculture and technology sectors of the region often complain of a scarcity of skilled people.

As a result, untrained employees are costly for firms, reduce net profit, and push up operational costs because firms have to spend additional money to train employees. Poor facilities, and inadequate partnership and collaboration between industries and training institutions, are responsible for the disconnect between training and industry needs. This creates challenges for a large number of enterprises, hindering their ability to compete effectively at both the local and international levels. To enable the growth of enterprises and to stimulate the economy of the region, it is essential to close this gap. To address this, the focus of this research is to examine the effect of the different facets of occupational skills including technical skills, soft skills, hard skills, and digital skills on the productivity of organizations in the South West region of Nigeria.

1.2 Objectives of the Study

The objectives of this study were to:

1. Investigate the influence of technical skill development on organisational productivity in Southwest Nigeria

2. Assess the influence of soft skill development on organisational productivity in Southwest Nigeria
3. Examine the influence of hard skill development on organisational productivity in Southwest Nigeria
4. Explore the influence of digital skill development on organisational productivity in Southwest Nigeria**.**

1.3 Hypotheses

The following hypotheses were formulated in this study:

Ho_1: There is a significant influence of technical skill development on organizational productivity in Southwest Nigeria

Ho_2: There is a significant influence soft skill development on organizational productivity in Southwest Nigeria

Ho_3: There is a significant influence of hard skill development on organizational productivity in Southwest Nigeria

Ho_4: There is a significant influence of digital skill development on organizational productivity in Southwest Nigeria

2. Literature Review

2.1 Empirical Studies

Studies on Vocational Skills Development and Organisational Productivity

Effiong, Lizzy, and Rosemary (2022) investigated how the improvement of vocational skills could mitigate the worsening insecurity situation in Nigeria. To achieve this, the authors formulated two null hypotheses to streamline their study and posed two research questions. Their study participants included 102 holders of postgraduate vocational education degrees from South-South Nigeria. In this instance, the authors utilized Pearson Product Moment Correlation (PPMC) to answer research questions and test the hypotheses, given the study was correlational. The findings of their study indicated that skill development positively correlated with reduced insecurity in the Niger Delta region of Nigeria.

Bennett and Henson (2023) studied the impact of digital skills development of employees in the financial sector on the performance of organizations. The authors digital skills of employees in 250 firms increased employees' information processing capacity. This resulted in quicker decisions, better customer support, and greater productivity. The authors also stated that digital skills development improves the performance of organizations. They quantified that organizations that invest in developing employees' digital skills create a competitive edge. This study focused only on the financial sector, whereas this the manufacturing sector. Additionally, Pham and Nguyen (2022) analyzed digital literacy and organizational productivity in the context of higher education in Vietnam across various disciplines. The authors stated that the ability to understand and use information, computers and technology, e-learning communication, and image communication are very important in the digital skills of students. Activities in higher education embody all these skills.

The results shed some light on the differences in digital literacy among the student groups differing in the command of English language and academic achievement. Students' GPA increases in correspondence with their reading level. The study concludes that digital literacy improves organizational productivity as a result of the enhanced performance of the students. However, this study differs from the aforementioned study in terms of the area of study, the research methodology adopted and the study population. While their study examined digital literacy and the organizational productivity of the higher education students of various disciplines in Vietnam, the current study examined digital literacy in the context of vocational skills development and organizational productivity.

Another study by Smith and Wang (2020) analyzed the impact of digital skill development in various sectors such as manufacturing, healthcare and retail. They adopted a cross-industry approach. They stated that most of the employees in an organization who deal with digital tools are those who have digital skills. The study further claims that such employees possess the ability to analyze data which can improve the workflow and (organizational) productivity. The study asserts that /vocational skill development particularly, digital skill development has a positive impact on the performance of manufacturing firms.

Smith and Doe (2024) studied the impact of soft skills on the organizational effectiveness, more so in the manufacturing firms that were producing food. The study captured organizational effectiveness based on how far the firm has gone in achieving the set objectives (goals) or targets. The study sought to establish the relationship between vocational skill (soft skill) and. To substantiate the claims, a composite soft skills framework was constructed in the organization. This framework was adopted and upon its implementation, it was found that the soft skills possessed by the employees greatly impacted the organization on revenue increase, market share, timely completion of projects and meeting service delivery targets. The study states that there are signs of advancement and of positive changes in organizational effectiveness. This study differs in that it looks at the potential of vocational skills development and organizational productivity in the southwest of Nigeria. Four components of vocational skills development are being studied in the present case, while Smith and Doe have examined the limitations of vocational skills development and other gaps. This is the current study.
The same goes for Lee and Kim (2023), where the effect of training effectiveness and organisational performance were coupled with soft skills and employee's effectiveness as mediating variables. In their study, organisational performance was evaluated based on how profitable the organization was and to

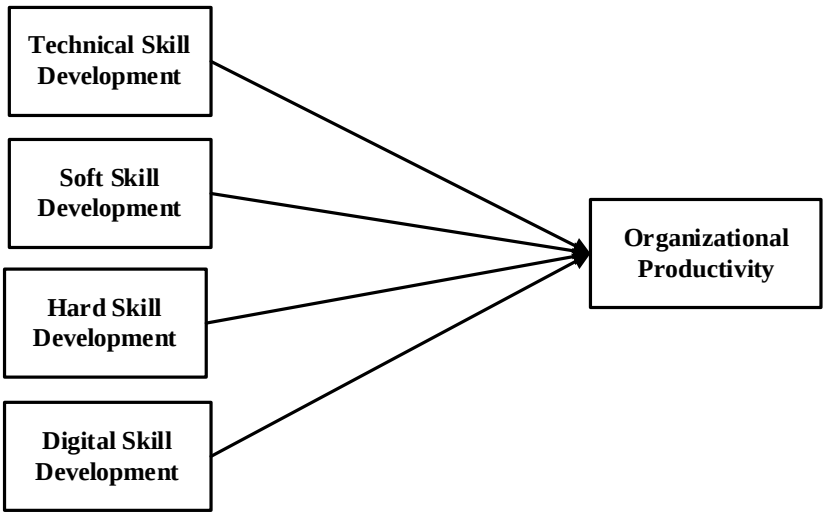

Figure 1: Research Model

what extent it had reached the goals or targets it had set prior to the study. Hence, their study stresses soft skills as a mediating variable to organizational performance, and also employee's capacity as a mediating variable to the relationship between training effectiveness and organizational performance. They found that soft skills and employee capacity were positive mediators in the relationship between training effectiveness and organizational performance. This study posits that there is a positive impact of soft skills and employee capacity as mediators to the training and organizational performance relationship.

A study conducted by AL-Rawahi (2022) examined the impact of skill development and training on worker performance during the COVID-19 pandemic. Four research questions guided the study. A mixed research design was utilized. The study's population was 100 Oman Air employees. The study sample consisted of 35 employees. The study's findings, among other things, revealed that skill development and training enhance employees' job performance. He also found that training and skill development positively correlated with employee performance.

In relation to job engagement, Erskine-Sackey (2021) studied the impact of staff training and skill development on employee performance and the moderating role of job engagement. The study employed a cross-sectional survey research design. The sample of the study comprised 45 academic and administrative staff of Ghanaian technical universities. Data was collected through a questionnaire. The authors distributed the questionnaire to the participants, collected the completed questionnaires, and analyzed the data using the t-test. The findings indicated that staff training and skill development positively influence employee performance.

Consistent with their research, Patel and Shah (2015) examined the impact of vocational training on employee performance and organizational productivity. They utilized large businesses for their research. The study revealed that vocational skills training improves employee performance and by extension, organizational development. The authors noted that with adequate training, employees develop competencies that propel their performance beyond their untrained counterparts. Therefore, they posited that vocational skill training is strongly correlated with employee performance and organizational productivity.

Kumar and Singh (2017) examined how vocational training impacts the performance of small and medium-sized enterprises (SMEs). They selected 250 SMEs owners/managers for the study. A survey was the primary data collection tool. They study showed that vocational training has a positive impact on SMEs performance. They measured performance using the profitability metric. The study found that the vocational training program had a positive impact on profitability. This implies that well-trained employees enhance organizational growth and performance. While the reviewed study focused on vocational training, the current study focuses on the impact of vocational skill development (both technical and digital, as well as soft and hard skills) on organizational productivity in southwest, Nigeria.

The proposed research model is shown in Figure 1. Based on the literature reviewed, a conceptual research model was developed to guide the study. Technical skill development, soft skill development, hard skill development, and digital skill development constitute the independent variables, while organizational productivity is the dependent variable. The model suggests that each dimension of skill development has a direct influence on organizational productivity.

Table 1: Cronbach's Alpha Values for the Pilot Study

Variables	No of Items	Cronbach's Alpha	Sources
Digital Skill Development	4	0.765	Bennett and Henson (2023), Nguyen and Pham (2022), **Smith and Wang (2020)**
Hard Skill Development	4	0.870	Siswanto, A., Fadillah, R., & Harman, S. (2020), Aglaonema, R., Hassan, M., & Kumar, S. (2023).
Soft Skill Development	4	0.745	Smith, J. A., & Doe, R. L. (2024), Lee, S. M., & Kim, H. J. (2023)
Technical Skill Development	4	0.798	Johnson, L., Brown, K., & Davis, M. (2023), Smith and Doe (2024)
Organizational Productivity	4	0.793	Hafizh, M. H. R., & Aswar, K. (2020), Wang et al. (2021)

Table 2: Demographic Information of the Respondents

			Percentage (%)
Gender	Male	199	66
	Female	103	34
Staff status	Permanent Staff	258	85
	Casual staff	44	15
Staff level	Senior cadre	102	34
	Junior cadre	140	46
	Others	60	20
Years of experience	< 5 years	201	67
	6 - 10 years	51	17
	11 - 15 years	19	6
	16 - 20 years	21	7
	20 years and above	10	3
Company status	Public liability	220	73
	Limited liability	82	27
	Total	302	100.0

3. Methodology

A quantitative methodology was employed in this study in order to define and analyze the impact of Digital Skill Development, Hard Skill Development, Soft Skill Development, and Technical Skill Development on Organizational Productivity from the perspective of the respondents. The study used a descriptive research design of survey type. The study used judgement sampling to select a representative sample of 302 employees, both junior and senior, from 10 different manufacturing companies in Southwest, Nigeria. Prior to the data collection, the researcher sent letters to the company heads to inform them of the participants' questionnaire administration and their availability to participate in the study. The questionnaire was sent to 320 participants, and 302 of them responded. Again, judgment sampling was used. The purpose of this sampling technique is to allow the researcher to choose only manufacturing companies that have been in business for more than ten years. The questionnaire was distributed and administered online via email addresses of the participants. Their responses were generated and analyzed using a statistic model called Structural Equation Modeling or SEM. In SEM, the researcher analyses the direct effect of the independent extraneous variables (technical skill, digital skill, soft skill and hard skill) on the dependent variable (organizational productivity). The Structural Equation Modeling (SEM) had two theses study analyses. In the first analysis, SEM two theses comprised the Measurement Model Assessment and the Structural Model Assessment. The Measurement Model Assessment determined the validity and reliability and the measuring scales. The four hypotheses were examined and tested in the structural model assessment. The researcher used Smart PLS 4 in the study analysis.

3.1 Development, Validation and Reliability of the Instrument

The items of the survey were constructed to operationalize the variables of the study. The vocational skills researched in this study (technical, soft, hard, and digital skills) were on the derivation of a few relevant literature sources. The participants were requested to respond to two sections of the questionnaire. In the first section (against the backdrop

of camouflaging the second section that measuring the variables), the participants were requested to provide their demographic attributes. The instrument comprised of twenty items, embodying four items each on technical skills, soft skills, hard skills, digital skills, and organizational productivity.

Three specialists in business education reviewed the questionnaire for possible enhancements, then a pilot study for the instrument's validity and reliability was conducted. The questionnaire was based on a 5-point Likert Scale (5= Strongly Agree, 4= Agree 3= Neutral 2= Disagree and 1= Strongly Disagree). A pilot study involved seventy-two respondents. Reliability of the instrument was assessed using Cronbach's alpha, and the results showed that all items obtained Cronbach's alpha values greater than 0.7, which indicates high internal consistency (Hair et al., 2012). This indicates that the research survey is useful and credible. Table 1 shows the variables, quantities of items, Cronbach's alpha values, and references for the pilot test.

4. Analysis of Data Collected

According to Table 2, the participant cohort is primarily male, with 199 males (66%) to 103 female (34%) participants. 85% indicative of the majority of participants in the study, and 85% of the study participants are permanent employees, suggesting long-term commitment toward the organization, and 140 (15%) of the employees are casual. Respondents are well spread across the rank and file, with 140 (46%) junior and 102 (34%) senior cadre respondents. Regarding seniority and years of service, the cohort is young and, on the average, has limited service and 201 (67%) service is fewer than five years. Staff in the 6 - 10 years bracket are 51 (17%); 11 - 15 years are 19 (6 %); 16 - 20 years, 21 (7 %); and over 20 years, the count is 10 (3 %). Finally, with regard to company classification the majority of respondents, 220 (73%), are from public liability companies, whereas limited liability companies constitute 82 (27%).

4. 1 Assessment of the Measurement Model

Table 3 shows the result of the indicator reliability tests. All the items in the instrument have outer loading of above 0.5 which meets the cut-off values suggested by Byrne (2013). Internal consistency reliability (CR) was tested by Composite Reliability Test. For composite reliability to demonstrate sufficient internal consistency it must be greater than 0.7 (Hair et al., 2011). As seen in Table 3, the measurement model had sufficient reliability since each of the data sets recorded composite reliability greater than the cut-off of 0.70. In order to assess Convergence Validity, the Average Extracted Variance (AVE) was calculated. For AVE > 0.50, it is expected that > 50% of the variance of the assigned indicators is explained (Hair et al., 2017). The measuring model exhibited adequate convergent validity as shown in Table 3 where all constructs had AVE > 0.50.

4.2 Discriminant Validity of Measures

As stated in Bagozzi et al (1998), discriminant validity analysis measures the extent to which one construct and its indicators are different from another construct and its indicators. To establish the discriminant validity, we used the Heterotrait Monotrait Ratio (HTMT). The cut-off value of the HTMT used for this study is 0.90 (Henseler et al, 2015). The measurement model assessment results show strong discriminant validity, as exemplified in Table 4, where technical skills, soft skills, hard skills, digital skills, and organizational productivity show an HTMT value that is less than 0.90.

4.3 Structural Model Assessment

The suggested connections between the constructs were examined using Structural Model Assessment. Smart-PLS 4.0 was used to analyze the structural model.

As indicated in Table 5, Digital Skill Development has a positive and significant effect on Organizational Productivity ($\beta = 0.449$; $t = 7.383$, $p < 0.05$). Hard Skill Development has a significant effect on Organizational Productivity ($\beta = 0.301$, $t = 4.138$; $p<0.05$). Also, Soft Skill Development has a significant effect on Organizational Productivity ($\beta = 0.184$; $t = 2.814$, $p < 0.05$), and Technical Skill Development has a significant effect on Organizational Productivity ($\beta = 0.146$, $t = 2.160$; $p<0.05$). Therefore, hypotheses H_1, H_2, H_3, and H_4 were accepted, indicating that adequate Digital Skill, Hard Skill, Soft Skill, and Technical Skill Developments have a significant effect on Organizational Productivity.

4.4 Coefficient of Determination (R^2)

The model's predictive ability was assessed using the coefficient of determination (R2). There are various guidelines concerning acceptable R2 values. This study utilizes Cohen's (1988) benchmark values 0.02, 0.13, and 0.26 for weak, moderate, and strong coefficients of determination, respectively. According to Table 6, the R2 (55.7%) for Organizational Productivity is strong. Cohen (1988) posit that Digital Skill Development, Hard Skill Development, Soft Skill Development, and Technical Skill Development, collectively account for 55.7% of the changes of the target construct, Organizational Productivity.

4.5 Predictive Relevance (Q^2)

Using the blindfolding method proposed by Hair et al. (2017), the predictive significance of the model was evaluated; the value should be greater than 0. According to Table 7, the study's Q2 value of 0.435 is greater than 0, suggesting that the model has adequate predictive significance.

4.6 Model Fit

Fit indices are used to determine both reliability and validity of a PLS-SEM model and are helpful to researchers to confidently defend conclusions (Shi et al., 2019). For this research model, I applied Standardized Root Mean Square Residual (SRMR). An

Table 3: Measurement Model Assessment

Constructs	Items	Indicator Reliability	Internal Consistency Reliability	Convergent Validity
		Outer Loadings >0.50	CR >0.70	AVE >0.50
Technical Skill Development	TSD1	0.792	0.855	0.691
	TSD2	0.827		
	TSD3	0.872		
	TSD4	0.831		
Soft Skill Development	SSD1	0.763	0.762	0.580
	SSD2	0.743		
	SSD3	0.760		
	SSD4	0.781		
Hard Skill Development	HSD1	0.883	0.916	0.767
	HSD2	0.894		
	HSD3	0.929		
	HSD4	0.793		
Digital Skill Development	DSD1`	0.767	0.760	0.580
	DSD2	0.720		
	DSD3	0.771		
	DSD4	0.786		
Organizational Productivity	OPD1	0.837	0.844	0.656
	OPD2	0.728		
	OPD3	0.820		
	OPD4	0.848		

Table 4: HTMT Values

	DSD	HSD	OPD	SSD	TSD
Digital Skill Development					
Hard Skill Development	0.707				
Organizational Productivity	0.877	0.557			
Soft Skill Development	0.835	0.575	0.775		
Technical Skill Development	0.748	0.519	0.667	0.779	

Table 5: Result of Test of Hypotheses

Relationships	Path Coefficient	T Value	P Value	Results
H_1=Digital Skill Development -> Organizational Productivity	0.449	7.383	0.000	Accepted
H_2 =Hard Skill Development -> Organizational Productivity	0.075	1.485	0.000	Accepted
H_3 =Soft Skill Development -> Organizational Productivity	0.184	2.814	0.000	Accepted
H_4=Technical Skill Development -> Organizational Productivity	0.146	2.160	0.000	Accepted

Table 6: Analysis of Coefficient of Determination (R^2)

Endogenous Latent Construct	R^2 Value
Organizational Productivity	0.557

Table 7: Assessment of the Predictive Relevance (Q^2)

Endogenous Latent Construct	Q^2 Value
Organizational Productivity	0.435

Table 8: Model Fit

	Saturated Model	Estimated Model
SRMR	0.051	0.051

SRMR score of 0.08 is deemed acceptable; conversely, a value significantly greater than 0.08 means a model is a poor fit (Dijkstra & Henselar, 2015). For this model, the SRMR score is 0.051 (Table 8). Because this value is under the 0.08 threshold, this demonstrates the model is a good fit.

4.7 Results and Discussion

The results of the current research revealed that Digital Skill Development positively and significantly contributes to Organizational Productivity ($\beta = 0.449$; $t = 7.383$, $p < 0.05$). Hard Skill Development is positively and significantly associated with Organizational Productivity ($\beta = 0.301$, $t = 4.138$; $p<0.05$). In addition, \Soft Skill Development is positively and significantly associated with Organizational Productivity ($\beta = 0.184$; $t = 2.814$, $p < 0.05$). Furthermore, Technical Skill Development is positively and significantly associated with Organizational Productivity ($\beta = 0.146$, $t = 2.160$; $p<0.05$). Thus, hypotheses H1, H2, H3, and H4 are confirmed which posit that the Digital, Hard, Soft, and Technical Skill Developments positively and significantly affect Organizational Productivity. The predictive capability of the model was evaluated using the coefficient of determination (R2). There are a few guidelines concerning acceptable R2 values. This research employs Cohen's (1988) threshold values to categorize R2 values of 0.02, 0.13, and 0.26 as weak, moderate, and strong, respectively. According to Table 6, R2 = 55.7% is considered to be strong for Organizational Productivity, which is in accordance with Cohen (1988). This means that the four constructs, Digital Skill Development, Hard Skill Development, Soft Skill Development, and Technical Skill Development, collectively elucidated 55.7\% of the variance in Organizational Productivity.

Technical skill has a considerable impact on the productivity of organizations. The findings of this research showed that: The effect of Spur Digital Skills on Organizational Productivity is positive and significant ($\beta = 0.449$; $t = 7.383$, $p < 0.05$). This result indicates the impact of digital skills on the productivity of an organization. Given that an organization is a player in the digital market, its customer clientele expectations in terms of digital compliance, and the organization must employ digital technologies to development of productive employees in the organization to achieve business goals. This finding is in agreement with Effiong, Lizzy and Rosemary (2022) who noted that skill development significantly reduced insecurity in the Niger Delta region of Nigeria. Besides, authors like Also, Pham and Nguyen (2022), Bennett and Henson (2023) and Smith and Wang (2020) showed that, digital skills increase the productivity of workers in manufacturing, retail and IT sectors.

The development of soft skills has a positive impact on the productivity of organizations in Southwest Nigeria. The analysis of data shows that the impact of soft skills development on organizational productivity is positive ($\beta = 0.301$, $t = 4.138$; $p<0.05$). This shows that when there is provision of soft skills, employees are able to perform their duties effectively. The findings of this research are in agreement with Smith and Doe (2024) who analyzed the impact of soft skills on the effectiveness of an organization. They designed an integrated framework of soft skills within the organization. Their framework was able to reveal that soft skills development positively and significantly affects the productivity of an organization. Furthermore, productive soft skill development has been examined by emerging authors such as Lee and Kim (2023), who researched soft skill competency and employees' capacity as a precursor to the moderation of training and organizational performance. This research analyses the effect of training on organizational performance and the role of soft skill competency and employees' capacity as mediators.

There is a positive impact of hard skill development on organisational Productivity ($\beta = 0.184$; $t = 2.814$, $p < 0.05$). This aligns to AL-Rawahi (2022) who noted a positive relationship in empirical study of employee performance, training, and skill development while Erskine-Sackey (2021) studied employee performance in relation to staff training and skill development and moderated job engagement. The conclusions of study indicated that employee performance is positively affected by professional skill development particularly hard skills. This entails that in order for employees to positively impact the organization, they need to possess critical hard skills. Additionally, Patel and Shah (2015) examined the impact of vocational training on employee performance and organisational effectiveness in large scale enterprises. The study determined that vocational skills training improves employee performance and consequently organisational growth. The authors noted that trained employees possess skills that are distinct, and as a result, they perform better

than untrained employees.

Technical Skill Development positively influences organizational productivity ($\beta = 0.146$, $t = 2.160$; $p<0.05$). Also, Kumar and Singh (2017), examined the impact of vocational training on the performance of small and medium-sized enterprises (SMEs). They discovered that there is an impact of vocational training program on the performance of small and medium enterprises. In their study, performance was assessed with profitability indicator. The research found that the vocational training program implemented in the SMEs resulted in increased profitability. This suggests that well trained employees are able to facilitate considerable growth and enhance the overall performance of the entity they work for. Moreover, Patel and Shah (2015) examined the impact of vocational training on employee performance and organizational efficiency in the context of large multinational corporations. The study concluded that vocational skills training improves employees' performance and by extension improves organizations.

6. Implications for Practice

The results of this study will most benefit organizations focusing on skills development since a vocational skill development allows an individual to be self-satisfied and employable. In addition, an individual's vocational skills development is expected to create a business's entrepreneurial spirit. The improved specialized technical skills of employees are likely to contribute to the development of new products, services, and processes. Employees can identify and provide immediate solutions to problems because they are familiar with and current on the latest trends, technologies, and standards in the industry. This is why the results suggest that organizations implement customized training programs that are tailored to the needs of the employees and the industry.

7. Conclusion

This study concludes that there is significant influence of digital skill development on organisational productivity. Also, hard skill development significantly influences organisational productivity. Soft skill development significantly influences organisational productivity. While technical skill development had significant influence on organisational productivity in Southwest Nigeria. Compositely, these four dimensions of vocational skills accounted for 55.7 % variation in the organisational productivity. This study highlights the collective importance of these vocational skills.

8. Recommendations

In line with the outcomes of this study, following recommendations were made:

1. A vocational development program on project management should be organized to equip the employees with the tools to plan, execute, and oversee projects more efficiently, so as to improve timelines and quality of output.
2. Manufacturing companies should provide vocational training in automation technologies, enabling its workforce to operate new machinery effectively and remain competitive.
3. Employees should be encouraged to engage in innovation-focused vocational program in product design, this will assist them to adapt to changes within their roles or organization
4. The organization should design their policies in such a way as to encourage employees to explore creative approaches to developing new products or improving existing ones

References

Adebowale, S., Adesoga, A., Ajike, E., & Amos-Fidelis, B, (2021). Skills shift and organizational sustainability: Perspectives for the future of work. *Journal of Research in Business, Economics and Management*, 16(1), 41-51.

Aglaonema, R., Hassan, M., & Kumar, S. (2023). The influence of soft skills and hard skills on employee performance in the manufacturing industry. *International Journal of entrepreneur and Business Administration* 1(2), 89-99

Aldhukair, H. and Abunar, M. (2021). Employee training and development for improved performance. *Palarch's Journal of Archaeology of Egypt/Egyptology* 18(12), 107-116.

AL-Rawahi, M.H. (2022). A research study on the impact of training and skill development on employee performance during Covid-19 pandemic. *International Journal of Managerial Studies and Research*, 10(7), 1-10.

Bennett, J., & Henson, A. (2023). The impact of digital skill development on organizational performance: Evidence from the financial sector. *Journal of Business and Technology, 42*(2), 125-142.

Clark, G., & Evans, R. (2016). Impact of vocational education on workforce productivity in the hospitality industry. *Journal of Hospitality Management*, 35 (4), 110-123.

Effiong, E. A., Lizzy N. O., & Rosemary, Y. G., (2022). Vocational skill development and the reduction of insecurity in Niger-Delta Region of Nigeria. *European Journal of Education and Pedagogy* 3(2), 178-182

Epebinu, O., Oguntuase, D., & Oruma, A. (2023). Talent Management and Organizational Performance: A Study in South-West Nigeria. *Business Perspective Review* 5(2), 28-36.

Erskine-Sackey, S. (2021). Impact of staff training and skill development on employees' performance: the moderating role of work engagement. *Global Journal of Management and Business Research*,21(9), 1-10.

Hafizh, M. H. R., & Aswar, K. (2020). Empirical study

on organizational performance: The moderating effect of organizational culture. *Journal of Economics, Finance and Accounting*, 7(3), 287-297.

Johnson, L., Brown, K., & Davis, M. (2023). Technical skill development and its effect on innovation and market competitiveness. *International Journal of Productivity and Performance Management*, 72(1), 45-60.

Karim, M., Choudhury, M.M., & Latif, W.B. (2019). The impact of training and development on employees' performance: An analysis of quantitative data. *Noble International Journal of Business and Management Research*, 3(2), 25-33.

Kaufman, B. E., & Kossoudji, S. A. (2017). Vocational education and training: The role of vocational skills in improving productivity and growth. *Journal of Labor Economics*, 35(2), 47-58.

Lee, S. M., & Kim, H. J. (2023). Soft skill competency and employees' capacity as the mediator between training effectiveness and rganizational performance. *Cogent Business & Management*, 10(1), 2199493.

Lawrence I. N., & Obiekwe, O. (2017). Impact of manpower training and development on organisational productivity and performance: A Theoretical Review. *European Journal of Business and Managemen*t, 9(4), 153-156

Mohanad, A. K. (2019). The impact of human resource development on organizational effectiveness: An Empirical Study. *Management Dynamic in the Knowledge Economy* 1(3), 29-50.

Nguyen, P., & Pham, T. (2022). Digital Literacy and Study Performance: The Case of Students in Ho Chi Minh City *International Journal of Business and Management Review*, 10(8), 30-47.

Nigerian Bureau of Statistics. (2019). *Annual Report on Unemployment and Underemployment Rates in Nigeria*. Retrieved from www.nigerianstat.gov.ng

Nwafor, A. E., Chukwueloka, C. S., Nwumeh, U. J., & Umetiti, C., B. (2023). Impact of staff welfare scheme and skill development on employee productivity: A Study of Anambra State Civil Service, *International Journal of Research Publication and Reviews*, 4 (7) 338-348

O'Connor, P., & Matthews, L. (2014). Vocational Training and Organizational Success: A Review of Empirical Evidence. Journal of Organizational Behavior, 56 (7), 532-547.

Okoye, O. R., & Chigozie, D. O. (2014). *Vocational education and training in Nigeria: Challenges and prospects for economic development*. Journal of Educational and Social Research, 4(3), 209-215.

Olufemi Epebinu, Dolapo Oguntuase, and Alhassan Oruma Arubayi, E. O., Modebelu, E. O., & Egbule, E. O. (2018). Impact of Vocational Skills Acquisition Training on Self-Employability Readiness among Unemployed Graduates in Delta State. *DELSU Journal of Educational Research and Development 2(1), 213-223*

Patel, M., & Shah, N. (2015). The Effects of Vocational Training on Employee Performance and Organizational Efficiency. Journal of Applied Management Research, 27 (3), 145-160.

Ringle, C. M., Wende, S., & Becker, J.-M. (2024). SmartPLS 4. Bönningstedt: SmartPLS, https ://www.smartpls.com

Smith, C., & Wang, Z. (2020). *Digital Skill Development and Its Role in Enhancing Organizational Productivity: A Cross-Industry Analysis. International Journal of Digital Education and Business, 18*(4), 215-229.

Smith, J. A., & Doe, R. L. (2024). Making soft skills 'stick': A systematic scoping review and integrated framework. *European Journal of Work and Organizational Psychology*, 33(2), 123-145.

Wang, D., Muller, M., Yang, Q., Wang, Z., Tan, M., & Hobson, S. (2021). Organizational distance also matters: How organizational distance among industrial research teams affects their research productivity https://arxiv.org/abs/2110.01028