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RESEARCH ARTICLE

TECHNOLOGICAL SKILLS AND ITS INFLUENCE ON EMPLOYEES' PERFORMANCE IN MANUFACTURING FIRMS IN SOUTH-EAST NIGERIA

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Abstract

The current study aimed to ascertain employees' technological skills in the manufacturing firms in South-East Nigeria and their influence on performance outcomes. Eighty-six participants drawn from different departments in the manufacturing firms responded to the research instruments designed to measure ICT skills and job performance. A simple linear regression was conducted on the data. The result indicated a statistically significant association between ICT skills and employee job performance. The finding, implications, and conclusions are discussed.

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Introduction: -

Technology has become a ubiquitous part of organizational success, and the manufacturing sector is not left out of this trend. The advances in IT have significantly influenced the radical changes of the twentieth century (Shaukat & Zafarullah, 2009). The growing technological innovations have triggered a paradigm shift within the manufacturing industry. General trends by manufacturing firms are to employ increasingly advanced, computerized technologies (Heinea, Groverb, & Malhotra, 2003). Although, advances in the technological model are still an emerging opportunity in developing countries. It has been noted that changes in technology triggered by constant innovations affect everyone's business (Asikhia, Magaji, & Muritala, 2019). No organization can assume to grab more significant market shares without updating their systems and procedures and going hand in hand with the changing technology trends (Malik & Sattar, 2017). Technology innovation can help the company build a competitive advantage by making more competitive products and services and more effective processes or creating an entirely new business (Shengbin, 2011). Manufacturing industries in Nigeria are currently embracing the technological model associated with business sustainability.

Technological innovations have been indicated as an essential casual variable in some theoretical formulations of organizational structure and behavior. Charles (2014) stated that technology is the knowledge, process, tools, methods, and systems employed to create goods and improve services. Additionally, Khalil (2000) noted that technology results from man's learned and acquired knowledge or technical skills regarding how to do things well. Information Technology is a powerful force in today's global society (Shaukat & Zafarullah, 2009). The use of technology in the manufacturing setting has profoundly altered the way the industry operates. The impact of technology on the manufacturing industry's measurable performance and its role on service quality and customer satisfaction has called for more inquiry on the efficiency of technology in developing countries. The emergence of technology is considered critical in the business world. Maintaining efficiency and improving market penetration or promoting organizational performance is a panacea for industrial development. Business performance denotes

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efficient utilization of limited available resources and its capacity to meet future opportunities and challenges to satisfy the stakeholder needs and innovation of quality products (Ezuma et al., 2019).

Technology and the Manufacturing Industry

The advent of technology in developing nations such as Nigeria is implicated in the competitive advantage relating to the exploration of technological possibilities, minimizing production costs through innovative tools, and integration of seamless market opportunities. Accordingly, Poutziouris et al. (2002) noted that the usage of technology in manufacturing helps assure that goods are delivered speedily and cheaply, thus accelerating business performance across social and manufacturing boundaries. However, technologies' advantage, especially in enhancing productivity, depends on how these technologies are integrated into an organization (Gagnon & Dragon, 2002). Technologies can only increase productivity or improve performance when combined effectively with other resources like human resources (Dauda & Akingbade, 2011).

Nigerian manufacturing firms still lag in using ICT in the production process (Ikemefuna & Abe, 2015). There is a growing concern that investing in technological innovation alone is not enough to improve the industry's performance. Employee's technological compliance is a key to efficient utilization of specialized tools. Technological advancement can be managed effectively through employees' ICT skills (Nwosu, Awurum, & Okoli, 2015). Thus, effective utilization of technology is key to achieving the associated advantages of manufacturing technology. The manufacturing industry that will like to be competitive and profitable should ensure that employees are trained and involved in managing technological change for organizational survival and profitability. However, most organizations tend to undermine employees' contribution in managing technological change, the outcome of which is low profitability and performance.

The current study aimed to ascertain the contribution of employees with ICT skills in manufacturing industries' performance in South-East Nigeria. Thus, it is hypothesized that manufacturing firms with many ICT skilled employees will have better performance outcomes than their counterparts with a low number of ICT skilled employees.

Method: -

The research design was a survey. Eighty-six participants, including males and females from different departments, were randomly drawn from manufacturing firms in South-East Nigeria. Mostly, the participants were sampled from the machine handling and information designations.

Measures: -

ICT skill was measured with a self-developed questionnaire designed to ascertain the ICT potentials of the respondents. The instrument was developed following a review of related literature. The instrument is scored on a 4-point scale ranging from "not always" to 'always.' Job performance was assessed with a questionnaire.

Result: -

Table 1: - Table showing regression analysis conducted to determine the predictive effect of ICT skills on employee's job performance.

	B	Std. Error	β	t	Sig.
(Constant)	1.801	.088		20.513	.000
ICT Skill	-.869	.058	-.866	-14.894	.000
R ²	.750				
F	221.829				

a. Dependent Variable: Employee Job Performance.

From the above table, the result of the simple linear regression analysis performed to predict employee's job performance based on ICT skill showed a significant regression equation ($F(1, 74) = 221.829, P < .05$), with an R^2 of .750. The result indicates that ICT skill significantly predicted employee's job performance in the manufacturing industries. Thus, confirming the hypothesis that manufacturing firms with a high number of ICT skilled employees will have better performance outcomes than their counterparts with a low number of ICT skilled employees.

Discussion: -

The study was conducted to assess the impact of technological skills on employee performance in South-East Nigeria firms. The study results revealed that technological skills significantly predicted employee's job performance, meaning that employees who are skilled in technology such as ICT compliance perform high and contribute to organizational growth than their counterparts with no or less ICT skill. The result supports (Imran, Maqbool, & Shafique, 2014), who found a significant relationship between technological advancement and employee performance. Improved profitability (Olanrewaju, 2016). For instance, ICT experienced machine operators, mechanics with digital skills, and sales employees with e-distribution capacity can advance a firm's market position. The use of ICT enables the employee to complete more work tasks independently and handle the customers' relations. Perhaps, firms with fewer ICT compliance employees could find it difficult to perform optimally amid the e-competitive world of work.

The implication of the study

The study implies that ICT permeation in the world of work has blurred the boundaries between the ICT skilled and unskilled employees. Similarly, the use of information technology in the manufacturing industries may lead to integration and increasing the interface of various entities relating to efficiency and increased output.

Limitation of the study

While the present study further revealed the relevance of ICT skills on employees and organizations' overall performance in general. It is pertinent to note that the study's current finding cannot be generalized based on the fact that the participants of the study included employees from manufacturing firms in the South-East of Nigeria.

Conclusion: -

The present study was conducted to determine the predictive role of ICT skills on employee performance. The findings indicated a statistically significant relationship between ICT skills and employee's job performance. The speed of adoption of information communication technologies in the manufacturing sector is influenced by the employees' requisite skills relating to ICT. A lack of ICT skills may be attributed to the challenge of investing in digital technologies in manufacturing firms. Thus, justifying the present study. It is concluded that robust ICT training and digital technicalities be inculcated in every manufacturing firm employee.

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