

Technological Advancement Strategy and Performance of Listed Construction Company in Nigeria

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ABSTRACT

This study investigated the impact of technological advancement strategy on the performance of Julius Berger Nigeria plc. The objectives of the study were to establish relationship between training, knowledge usage, mobile technology and modern office equipment on employee productivity and organizational effectiveness in the construction industry. The study employed survey research. Primary data was used with questionnaire as the research instrument. The participants were 197 management and senior staff of Julius Berger Nigeria plc. The descriptive tools used were tables, means and standard deviations. Four hypotheses were developed for the study and tested using Pearson's Correlation, with the help of the Statistical Package for Social Sciences (SPSS). The findings of this study revealed that training, knowledge usage, mobile technology and modern office equipment independently and collaboratively contribute to employee productivity and organizational effectiveness. Also, there is a connection between performance variables. Based on the findings, it was recommended that management should stay abreast of modern way of doing business for improved productivity through training, knowledge usage, mobile technology usage and modern office equipment usage.

KEYWORDS: training, knowledge usage, mobile technology, productivity, and effectiveness

INTRODUCTION

Over the years, the concept of improved technological advancement strategy has been embraced globally in all business sectors because of their perceived contribution to organizational success. The computer-assisted design, telecommunications, and other developments are allowing small business players to compete with traditional giants in the construction industry. Somuyiwa (2010) pointed out that business organizations around the world are redefining their operations to absorb an appreciable proportion of the relevant technological application as they seek better ways of sustaining their competitiveness in the midst of competition. Armstrong (2009) argued that human resources played a major role in the economic development in most developed countries. Shouvik and Mohammed (2018) argued that only few employees have the necessary skills, knowledge, abilities required to work effectively. He also added that many employees need extensive training to acquire the required aforementioned requisites competencies in order to contribute towards the growth of their organization. The adoption of e-governance in Nigeria is one of the tools used in effective delivery of services to the public. It can be traced back to the formulation of the Nigerian National Information Technology (NNIT) policy in 2000 (Abasilim&Edet, 2015). The idea behind the policy was to create awareness of the major benefits of information technology when embedded in government and economy systems. Construction companies have embraced the use of advanced technology in carrying out their work. Julius

Berger Nigeria Plc uses state-of-the-art technology to ensure that quality and innovation are prioritized for the benefit of their customers (Annual Report, 2019). Julius Berger Nigeria Plc's company structure allows the organization to effectively manage construction projects, from the initial idea, through to planning, design, engineering, construction, operation and maintenance using state of the art technology.

Statement of the Problem

Organizations go through transition processes where they have to respond to new development, expansion or reorganization processes. Julius Berger construction company overall performance is influenced by the group performance of its employees. That is why organizational management should be very proactive to adopting new technology, while, at the same time, finding new way to retain experienced employees. The adoption of technology by companies may result in an increase in costs to which a company may not be able to recover from due to underutilization of newly acquired technology and inexperienced employees. This is because the relationship between technology and performance is influenced by a number of factors, some are controllable, and some are uncontrollable. Uhumwangho and Omo-Amen (2020) and Dauda and Akingbade (2011) reported in their findings that modern office technology has a negative and insignificant impact on performance of companies in Nigeria, which contradicts some existing findings. It is on this back drop the

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researcher intends to investigate the impact of technological advancement strategy on performance of a selected construction companies in Nigeria.

Objectives of the Study

The main objective of the study is to investigate the impact of technological advancement strategy on performance with focus on Julius Berger construction firm in Nigeria. However, specific objectives of the research are as follows:

1. To determine the relationship between training and employee productivity in Julius Berger Nigeria plc.
2. To examine the relationship between knowledge usage and employee productivity in Julius Berger Nigeria plc.
3. To determine the relationship between mobile technology and organizational effectiveness in Julius Berger Nigeria plc.
4. To examine the relationship between office equipment and organizational effectiveness in Julius Berger Nigeria plc.

Research Questions

This study has the following research questions;

1. What is the relationship between training and employee productivity in Julius Berger Nigeria plc?
2. To what extent does knowledge usage influence employee productivity in Julius Berger Nigeria plc?
3. How does mobile technology influence organizational effectiveness in Julius Berger Nigeria plc?
4. To what extent does office equipment influence organizational effectiveness in Julius Berger Nigeria plc?

Hypotheses

The following hypotheses are stated in the null form to the direction of this study.

1. H₀: There is no significant relationship between training and employee productivity in Julius Berger Nigeria plc.
2. H₀: There is no significant relationship between knowledge usage and employee productivity in Julius Berger Nigeria plc.
3. H₀: There is no significant relationship between mobile technology and organizational effectiveness in Julius Berger Nigeria plc.
4. H₀: There is no significant relationship between office equipment and organizational effectiveness in Julius Berger Nigeria plc.

Review of Related Literature

Concept of Technological Advancement Strategy

The state of technology is changing rapidly. Many technologies that were considered very popular among businesses a few years back are facing extinction today. This is not due to natural disasters but it is rather due to advancement and innovations in cutting-edge parallel technologies (Pathan, 2018). In a sense, one technology kills another. The days of floppy disk has been replaced by USB flash drive. In order to leverage effectively on technological advances, it is important that the interactions between technology and workplace environment is well understood. Technological advancement strategy is therefore decomposed into training, knowledge usage, mobile technology and office equipment.

Training

Training is a necessity in the workplace. Without it, employees do not have a solid understanding of adopted

technology. Employee training refers to programmes that provide employees with new knowledge, new skills, or professional development opportunities of the use of advanced office equipment. Training programmes does not only fulfill firms desires to achieve their goals but also meets the needs of the people in terms of money, motivation and well-being of employees and management (Sultana, Irum, Ahmed, & Mehmood, 2012). Training in Nigeria can be traced back to 1960 when it was discovered that most of the top management positions were held by expatriates (Olalere and Adesoji, 2013). Effective training benefits firms in a variety of ways, such as, building and maintaining capabilities, both on individual and organizational level, and thus participate in organizational transformation programs to make them more efficient (Cross, 2018).

Knowledge Usage

Knowledge usage consists of ensuring that employees acquire the needed know-how to make their job easier and improving their performance. Knowledge usage is a strong tie with organizational goals and strategies, which includes the management of information that is useful in building the value of the organization. In the knowledge-based economy, high-level organizations rely heavily on their knowledge-based resources to survive and adapt to changes in workplace environment (Choi, Poon, & Davis, 2008; Ho, 2008; Kim & Gong, 2009; Yang, Zheng, & Viere, 2009). Acquiring knowledge through the process of learning will be vain if the knowledge is not used. It is important to be able to take information gained in one setting and apply it to another. Since technological advancement strategy is not static, it is dangerous for an organization and nation to rely on the present achievement, hence, the need to innovate and use the latest technology is important (Dauda & Akingbade, 2011). They also argued that organizations and nations should not wait for technology limit before innovation; hence, human resources needs constant and training to enable them recognize the limit and be proactive, rather than to allow changes to overwhelm them.

Mobile Technology

Baltaretu (2014) pointed out that the ability to use mobile phones, tablets, smartphone to upload and share information online within personal internet network is integrated with the organization's workflow to improve performance. Gramigna (2013) opined that mobile technology is changing the world through the following (i) Mobile cloud computing refers to the delivery of software services over the internet, eliminating the need to create business servers. (ii) Mobile text messaging has made organizations replaced slow and ineffective direct mail with emails and group text messages to communicate with their employees. (iii) Mobile processing using 5G network to speed up office work. (iv) Mobile applications that uses data access. It is imperative to have tools that help organizations to do business at any time of the day, because these tools extend working time beyond office hours (Pfano & Beharry, 2016). The number of internet users worldwide has reached 4.1 Billion where 92% of them access the internet from their mobiles (Alghizzawi, 2019). He also stated that the number of active social media users recorded is at 3.56 billion.

Office Equipment

Office equipment's are working tools, machines and furniture needed to do office work (Chidera, 2019). Office

equipment is any office equipment that is operated manually, mechanically, or electronically that helps employees to perform their tasks faster, neater and efficiently. Akpomi and Ordu (2009) opined that new technological devices have altered the procedure and technique for office operations. According to Nwaokwa and Okoli (2012), the introduction of information communication technology has had an impact on employee performance in delivering accuracy and effective information in the work place. Nonye (2013) studied the need for capacity building for secretaries on the use of modern office technology, he concluded that secretaries must be abreast with the use of modern office technology and also recommended the need for periodic training programmes for secretaries to update their knowledge on modern office skills.

Performance

Performance is one of the most controversial concepts in management among various researchers and theorists on what should constitute the components of organizational performance. The potential success of a business depends on the organizational operations, which means the ability to effectively use strategies to achieve institutional goals (Randeree& Al-Youha, 2009). The efficiency and effectiveness of any business organization depends on the availability of office technologies, the skills and competencies of employees (Ordu&Akpomi 2009). Performance was decomposed in this study as employees' productivity and organizational effectiveness.

Employee Productivity

Price (2001) defined employee productivity as an effective measure of work in relation to a task assigned to them. Employee productivity constitutes of an individual's perception and appraisal of the work environment. Islam and Siengthai (2009) claimed that employee productivity is a positive emotional status that develops from an individual's work appraisal and work experiences. High productivity

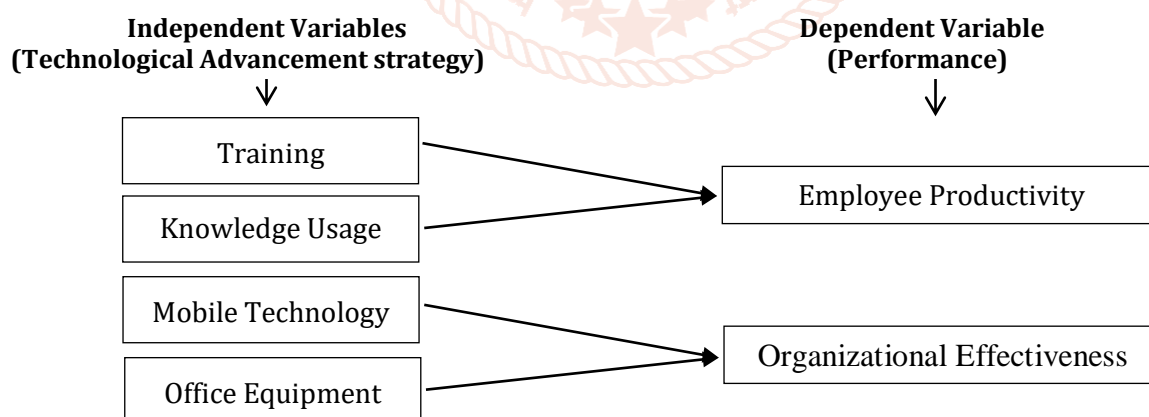
leads to improved business growth, profitability and social progress (Sharma & Sharma, 2014). Employee productivity can be appraised depending on the output of work over a period of time. The above discussion suggests that employee productivity is a key indicator of organizational profit and survival.

Organizational Effectiveness

The concept of organizational effectiveness contributes to the management of every business organization. Organization effectiveness is the efficiency of an organization, group, or company to achieve its goals (Six-Sigma, 2017). The effectiveness of an organization is how well it operates under its current management. Organizations need to be well managed so that employees can be more productive using office tools in executing task that aligns with the organizational goals. Jorge (2014) pointed out that the main measure of organizational effectiveness for a business is generally be expressed in terms of how well its total profit compared to the intended profit. In order for organization to strengthen its operations, it must be effective in service delivery and efficient in utilization of its resources. Organizational effectiveness is difficult to express in a concrete formula, a company may choose to state the results of an assessment task from achieved or desired standard (Jorge, 2014). Self-assessment of organization effectiveness can also help company employees reconnect with their initial goals.

Research Model

The researcher model below, illustrates the link between the independent variables (training, knowledge usage, mobile technology and office equipment) and dependent variable (employee productivity and organizational effectiveness). With the support the formulated hypotheses, the researcher established a nexus amid technological advancement strategy on performance of Julius Berger Nigeria plc. The figure below shows the relationships between variables;



Source: Researcher Model

Theoretical Framework

Task-technology fit (TTF) theory states that information technology (IT) can have a positive impact on individual performance and can be used if the IT capabilities are aligned the user's task (Goodhue and Thompson, 1995). This theory was chosen for this study because for every new technology to have positive impact on performance of Julius Berger Nigeria plc, it must be suitable to the construction company's operations, and the employees must be trained and wanting to use the new technology to increase employee productivity and organizational effectiveness.

Empirical Review

Uhunmwangho and Omo-Amen (2020) investigated the impact of modern office technology on performance of office managers. Data were collected from 100 managers in public and private sector in Ovia North East Local of Edo State, Nigeria. Multiple regression was used to test the hypotheses. The findings suggested that knowledge usage and training exerts an insignificant impact on performance, while mobile technology has a significant impact on performance.

Cross(2018) studied the effects of training on organizational performance of selected microfinance bank in Nigeria. Data were collected from 304 a sample of respondents through structured questionnaire. The data collected were subjected to descriptive and inferential techniques used to test formulated hypotheses. The findings indicate that training contributes to employee commitment and performance of employees in the organization.

Levi-Bliech, Naveh, Pliskin, and Fink (2018) examined how mobile technology enables collaborative capabilities and business performance. The model was tested using survey data collected from managers in six European countries. The results show that mobile technology is well integrated with all external and internal interactions, the performance of the business improves as much as possible when internal skills development precedes external once.

Durowoju (2017) studied the impact of technological change on the performance of small and medium enterprises in Lagos state. Descriptive survey study used was based on a sample of 153 respondents made up of managers and owners of small and medium enterprises. The statistical technique used was linear regression technique. The hypothesis tested found that technological change has effect on organizational performance. The coefficient of determination ($R^2 = 0.566$) indicated that 56.6% success rate in SMEs performance was accounted for by technological change. This indicates that technological change has a positive and significant impact on SMEs.

Imran, Maqbool, and Shafique (2014) examined the impact of technological advancement on employee performance in banking sector. The primary data used was questionnaire. Regression analyzes was used to test the hypotheses. 140 questionnaires was distributed among different banks employees and out of which 100 were completed and returned. The study shows that technological advancement has a significant impact on motivation and training of employees.

Adeyeyetolulope (2014) investigated the impact of technological innovation on organizational performance. The objective of the study was to find a link between strategic planning and marketing planning capabilities on organizational performance in the manufacturing industry. The study adopted a survey research. Primary data was questionnaire. The sample size was 137 employees of Nestle Foods Nigeria Plc. Four hypotheses were tested using regression analysis, as well as Pearson's Correlation. The findings of the study revealed that strategic planning and marketing capability independently and jointly contribute to the performance of an organization.

Aliata and Hawa(2014) examined the effects of modern office technology on the performance of office secretaries in the Upper West Region of Ghana. The non-parametric technique used was correlation analysis. The descriptive tools used were tables, means and standard deviations. Questionnaires and interviews were used to collect data. The findings of the study show that knowledge on the use of office equipment had a positive impact on productivity. It was also established that office gadgets has nothing to do with knowledge usage.

Dauda and Akingbade (2011) examined the impact of technological change on employee performance in selected manufacturing industry in Lagos state of Nigeria. Two hypotheses were developed to determine the relationship between technological change and employee skill; and between technological change and employee performance. 1256 questionnaires were distributed to 30 manufacturing industries of beverages, textiles, steels, cement and chemical industry in Nigeria. The findings suggest that employee relations do not have a significant relationship with technological change.

Research Method

This study is a survey research design. Survey research is design to ask people for their opinions in a structured way so that facts and statistics can be produced to guide a researcher in answering the research questions. To determine whether there was a correlation between technological advancement strategy and performance in Julius Berger Nigeria plc, data were collected using questionnaire on five point Likert Scale and was coded from 1 to 5. Strongly Disagreed (SD), Disagreed (D), Uncertain (U), Strongly Agreed (AD) and Agreed (A), which was distributed to 217 participants using Taro Yamane on a population of 473management and senior staff of Julius Berger Nigeria plc. 197questionnaireswere properly filled and returned, which represents 90.78 percent of the sample size. Descriptive statistics and Spearman Rank Correlation analysis were used to analyze the data collected using Statistical Package for Social Sciences (SPSS) version 20.

Validity Test

Validity is the extent to which an instrument measures what it intends to measure. Content and face validity test were used by the researcher for this study.

Reliability Test

The reliability of the items used in the research instrument was measured using Cronbach's Alpha reliability test. The Cronbach's Alpha reliability test measures the consistency of an instrument used. Fifteen (15) questionnaires were re-administered after two weeks.

Reliability Statistics: From the computed Cronbach/Coefficient Alpha value, the results were .856, .822, .794, .888, .799 and .819 for training, knowledge usage, mobile technology, employee's productivity and office equipment on employee productivity and organizational effectiveness respectively, which means that 85.6%, 82.2%, 79.4%, 88.8%, 79.9% and 81.9% of the variance in the scores were reliable.

Data Presentation and Discussion

In this section, the study sought to present and also analyze the data generated from the administered questionnaires.

Table 1: Descriptive statistics on employee productivity and organizational effectiveness

S/N	Statement on employee productivity (EO)	SD	D	U	A	SA	Mean	Std. Deviation
1	Technological advancement enhances employees' performance.	38 (19.3%)	27 (13.6%)	8 (4.1%)	64 (32.5%)	60 (30.5%)	3.41	1.515
2	Technology makes employees work neater.	41 (20.8%)	26 (13.2%)	22 (11.2%)	49 (24.9%)	59 (29.9%)	3.30	1.528
3	Adoption of new technology motivates employees.	45 (22.8%)	37 (18.8%)	19 (9.7%)	43 (21.8%)	53 (26.9%)	3.11	1.548
4	Technological advancement improves job satisfaction.	40 (20.3%)	40 (20.3%)	20 (10.1%)	46 (23.4%)	51 (25.9%)	3.14	1.509
Average		41 (20.8%)	32.5 (16.48%)	17.25 (8.77%)	50.5 (25.65%)	55.75 (28.3%)	3.24	1.525
S/N	Statement on organizational effectiveness (OE)	SD	D	U	A	SA	Mean	Std. Deviation
5	Organizational responds swiftly to clients' needs.	39 (19.8%)	28 (14.2%)	15 (7.6%)	57 (29%)	58 (29.4%)	3.34	1.516
6	With technological advancement more task are achieve within a short period of time.	42 (21.3%)	30 (15.2%)	23 (11.7%)	41 (20.8%)	61 (31%)	3.25	1.550
7	The organization meets their clients satisfaction.	41 (20.8%)	34 (17.3%)	19 (9.6%)	45 (22.9%)	58 (29.4%)	3.23	1.540
8	Technological advancement reduces wastages in construction process.	31 (15.7%)	36 (18.3%)	21 (10.7%)	61 (30.9%)	48 (24.4%)	3.30	1.420
Average		38.25 (19.4%)	32 (16.25%)	19.5 (9.9%)	51 (25.9%)	56.25 (28.55%)	3.28	1.507

Source: SPSS Analysis of field survey 2020

Table 1 above, measured the rate at which participants agreed that there was viability of performance in Julius Berger Nigeria plc. The average mean score of the variables measuring employee productivity and organizational effectiveness were 3.24 and 3.28 with standard deviation of 1.525 and 1.507 respectively. It shows that an average of 73.5 (37.28%) and 70.25 (35.65%) of participants disagree or strongly disagree that the employee productivity and organizational effectiveness was high, 106.25 (53.98%) and 107.25 (54.45%) of average participants agreed or strongly agreed that the employee productivity and organizational effectiveness was high, while 17.25 (8.77%) and 19.5 (9.9%) participants on average were neutral in their responses. The average mean value of 3.24 and 3.28 were significantly high and the average standard deviation value of 1.525 and 1.507 indicating the level of variation between the participants in their responses.

Table 2: Descriptive statistics on training, knowledge usage, mobile technology and office equipment

S/N	Statement on training (T)	SD	D	U	A	SA	Mean	Std. Deviation
9	There are regular training programmes for employees.	32 (16.2%)	15 (7.6%)	7 (3.6%)	67 (34%)	76 (38.6%)	3.71	1.454
10	Training bridges knowledge gap.	33 (16.7%)	25 (12.7%)	22 (11.2%)	51 (25.9%)	66 (33.5%)	3.47	1.480
11	The organization usually prepares employees for adoption of new technology before implementation.	42 (21.3%)	37 (18.8%)	17 (8.6%)	45 (22.9%)	56 (28.4%)	3.18	1.544
12	There is on the job training.	31 (15.7%)	36 (18.3%)	21 (10.7%)	61 (30.9%)	48 (24.4%)	3.30	1.420
Average		34.5 (17.48%)	28.25 (14.35%)	16.75 (8.53%)	56 (28.42%)	61.5 (31.22%)	3.42	1.475

S/N	Statement knowledge usage (KU)	SD	D	U	A	SA	Mean	Std. Deviation
13	Employees have good knowledge of modern technology.	36 (18.3%)	21 (10.6%)	10 (5.1%)	62 (31.5%)	68 (34.5%)	3.35	1.503
14	Employees know how to service these equipment.	29 (14.7%)	28 (14.2%)	23 (11.7%)	56 (28.4%)	61 (31%)	3.47	1.430
15	Employees know how to use the latest technology.	34 (17.3%)	38 (19.3%)	16 (8.1%)	54 (27.4%)	55 (27.9%)	3.29	1.483
16	The employees can repair faulty technological equipment.	23 (11.7%)	37 (18.8%)	18 (9.1%)	64 (32.5%)	55 (27.9%)	3.46	1.376
Average		30.5 (15.5%)	31 (15.73%)	16.75 (8.53%)	59 (29.92%)	59.75 (30.32%)	3.39	1.448
S/N	Statement on mobile technology (MT)	SD	D	U	A	SA	Mean	Std. Deviation
17	The organization uses internet facilities for their operations.	32 (16.2%)	18 (9.1%)	8 (4.1%)	66 (33.5%)	73 (37.1%)	3.66	1.461
18	Mobile technology is the primary means of communication.	28 (14.2%)	21 (10.7%)	21 (10.7%)	62 (31.4%)	65 (33%)	3.58	1.407
19	Some of the adopted technology operates on mobile technology.	31 (15.7%)	33 (16.8%)	18 (9.1%)	58 (29.5%)	57 (28.9%)	3.39	1.451
20	The organization operates intranet portal facilities.	34 (17.3%)	34 (17.3%)	15 (7.6%)	56 (28.4%)	58 (29.4%)	3.36	1.487
Average		31.25 (15.85%)	26.5 (13.47%)	15.5 (7.88%)	60.5 (30.7%)	63.25 (32.1%)	3.50	1.452
S/N	Statement on modern office equipment (MOE)	SD	D	U	A	SA	Mean	Std. Deviation
21	Office equipment makes administrative duties fast.	34 (17.3%)	34 (17.3%)	15 (7.6%)	56 (28.4%)	58 (29.4%)	3.70	1.446
22	Office equipment aids construction work.	34 (17.3%)	27 (13.7%)	20 (10.1%)	52 (26.4%)	64 (32.5%)	3.43	1.489
23	Office equipment reduces manual labour in the organization.	43 (21.8%)	33 (16.8%)	19 (9.7%)	45 (22.8%)	57 (28.9%)	3.20	1.548
24	Office equipment reduces paper work	28 (14.2%)	39 (19.8%)	21 (10.7%)	62 (31.4%)	47 (23.9%)	3.31	1.396
Average		34.75 (17.65%)	33.25 (16.9%)	18.75 (9.53%)	53.75 (27.25%)	56.5 (28.67%)	3.41	1.470

Source: SPSS Analysis of field survey 2020

Table 2 above measures the extent to which training and knowledge usage influence employee productivity and organizational effectiveness. An average number of 117.5 (59.64%) and 118.75 (60.24%) respondents strongly agreed or agreed that training and knowledge usage influence employee productivity was high, 16.75 (8.5%) and 16.75 (8.5%) of the average participant were neutral, while 62.75 (31.83%) and 61.5 (31.23%) strongly disagreed or disagreed that training and knowledge usage influence employee productivity was low. The average mean was 3.42 and 3.39 with a standard deviation of 1.475 and 1.448. The average mean value was high, and it means that training and knowledge usage contributes to employee productivity of Julius Berger Nigeria plc, which deviates from mean to both sides by 1.475 and 1.448 respectively.

The table measured the extent to which mobile technology and office equipment influence organization's effectiveness. An average number of 123.75 (62.8%) and 110.25 (55.92%) of the respondents strongly agreed or agreed that mobile technology and office equipment influence organizational effectiveness was high, 15.5 (7.88%) and 18.75 (9.53%) of the average participants were neutral, while 57.75 (29.32%) and 68 (34.55%) of the participants strongly disagreed or disagreed that mobile technology and office equipment influence organizational effectiveness was low. The average mean was 3.50 and 3.41 with a standard deviation of 1.452 and 1.470. The average mean value was high, and it means that mobile technology and office equipment influenced organizational effectiveness of Julius Berger Nigeria plc, which deviates from mean to both sides by 1.452 and 1.470 respectively.

Hypotheses Testing

Hypotheses one and two

- H_0 : There is no significant relationship between training and employee productivity in Julius Berger Nigeria plc.
- H_1 : There is a significant relationship between training and employee productivity in Julius Berger Nigeria plc.

- H_0 : There is no significant relationship between knowledge usage and employee productivity in Julius Berger Nigeria plc.
- H_1 : There is a significant relationship between knowledge usage and employee productivity in Julius Berger Nigeria plc.

Table 3: Correlation between training (T) and knowledge usage (KU) on employee productivity (EP)
Correlations

		EP	T	KU
EP	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	197		
T	Pearson Correlation	.701**	1	
	Sig. (2-tailed)	.000		
	N	197	197	
KU	Pearson Correlation	.601**	.740**	1
	Sig. (2-tailed)	.000	.000	
	N	197	197	197

** . Correlation is significant at the 0.01 level (2-tailed).

The above Pearson moment correlation was carried out, to define the relationship between training (T) and knowledge usage (KU) on employee productivity (EP). The result of hypothesis one ($r = .701^{**}$, $P < .01$) revealed that there was a positive correlation between training and employee productivity. The alternate hypothesis (H_1) was accepted, while the null hypothesis (H_0) was rejected. The result is in agreement with Imran, Maqbool, and Shafique (2014), and Cross (2018) who found a positive correlation between training and employee productivity as against the negative impact findings of Uhunmwangho and Omo-Amen (2020).

The result from hypothesis two ($r = .601^{**}$, $P < .01$) revealed that knowledge usage (KU) is positively related to employee productivity (EP). The alternate hypothesis (H_1) was accepted, while the null hypothesis (H_0) was rejected. The result was in agreement with Aliata and Hawa (2014), and Imran, Maqbool, and Shafique (2014) who found out that knowledge usage was significant related to employee productivity as against the negative impact findings of Uhunmwangho and Omo-Amen (2020).

Hypotheses three and four testing

- H_0 : There is no significant relationship between mobile technology and organizational effectiveness in Julius Berger Nigeria plc.
- H_1 : There is a significant relationship between mobile technology and organizational effectiveness in Julius Berger Nigeria plc.
- H_0 : There is no significant relationship between modern office equipment and organizational effectiveness in Julius Berger Nigeria plc.
- H_1 : There is a significant relationship between modern office equipment and organizational effectiveness in Julius Berger Nigeria plc.

Table 4: Correlation between mobile technology (MT) and modern office equipment (MOE) on organizational effectiveness (OE)
Correlations

		OE	MT	MOE
OE	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	197		
MT	Pearson Correlation	.645**	1	
	Sig. (2-tailed)	.000		
	N	197	197	
MOE	Pearson Correlation	.522**	.479**	1
	Sig. (2-tailed)	.000	.000	
	N	197	197	197

** . Correlation is significant at the 0.01 level (2-tailed).

The above Pearson moment correlation was carried out, to explore the relationship between modern office equipment (MOE) and mobile technology (MT) on organizational effectiveness (OE). The result of hypothesis three ($r = .645^{**}$, $P < .01$) revealed that there was a positive correlation between modern office equipment and organizational effectiveness. The alternate hypothesis (H_1) was accepted, while the null hypothesis (H_0) was rejected. The result is consistent with Aliata and Hawa (2014), and Durowoju (2017) who found a positive relationship between modern office garget and performance.

The result from hypothesis four ($r = .522^{**}$, $P < .01$) revealed that mobile technology is closely related to organizational effectiveness. The alternate hypothesis (H_1) was accepted, while the null hypothesis (H_0) was rejected. The result was in agreement with Uhumwangho and Omo-Amen (2020), and Levi-Bliech, Naveh, Pliskin, and Fink (2018) who found out that mobile technology have a positive impact on organizational effectiveness.

Findings of the Study

The following are the findings for the study;

1. Training influences employees productivity
2. The employees have the requisite knowledge of the new technology adopted by their organization.
3. Mobile technology contributed to the organization effectiveness
4. Modern office equipment enhances organizational effectiveness.

Conclusion

Technology advancement can make a huge difference in a workplace. It was found that technology advancement enhance performance, but only if the office is equipped with the relevant and needed technology. There is a strong correlation between the proper use of construction technology and a positive change in performance management. This study recommends that management should have a clear understanding of modern way of doing business by improving productivity through training, knowledge usage, mobile technology usage and modern office equipment usage. This study affirms that technological advancement investment is associated with productivity gains. There is no reason to believe that the current rate of change in technology will slow down. Therefore, the biggest challenge for organizational management is to use new emerging technologies to benefit their organizations.

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