



**DIGITAL INNOVATION AND JOB PERFORMANCE OF ADMINISTRATIVE STAFF IN DANGOTE  
CEMENT PLC, IBESHE, OGUN STATE, NIGERIA**

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**Abstract**

*Today, technologies are being applied in all aspects of organizations to promote productivity and efficiency. As a result, the need for office administration staff to be digitally innovative in order to handle day-to-day activities of an office is paramount. This study examined the impact of digital innovation on administrative staff job performance. The study employed survey approach and the population comprised the entire administrative staff of Dangote Cement Plc, Ibeshe, Ogun State, Nigeria. For the purpose of this study, thirty-five (35) administrative staff of the organization formed the sample size using snowball sampling technique. Two research questions and two hypotheses were formulated to develop a questionnaire used to collect information from the respondents. Mean method was used to analysis data gathered in relation to research questions while regression statistics was used to analysis data relating to the hypotheses at 0.05 level of significant. The findings revealed that digital innovation has a significant positive impact on job performance of administrative staff as it increases their proficiency and effectiveness. Thus, it was concluded that digital innovation is one of the key driver of business activities that improve efficiency and effectiveness of administrative staff in any organization. Therefore, it was recommended among others that management should ensure that there is a continuous training and development programme for administrative staff in order to keep them up to date on emerging office technologies.*

**Key words: Digital Innovation, digital skills, digital facilities, administrative staff, job performance**

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**Introduction**

Advancement in technologies has changed how activities in the office environment are been conducted in today's business world. Offices are more focus on digital innovation to improve productivity and efficiency. As a result, the need for office administration staff with specialized digital innovation skills to handle day-to-day activities of an office is expanding rapidly. As people who possess core office skills but who also understand technology can succeed in today's digital office and can help others work more effectively.

Job performance is of great importance to managers of business organizations. In any organization, success or failure depends on the individuals' job performance in that organization. Job performance could be described as the record of an individual's accomplishment on the job (Alabi & Adeniran, 2022). Job performance is the employees' yield towards realizing the aim and objective of setting up an organization through work schedules and deeds for productivity (Revenio, 2016). It reveals employees' job evaluations and remains an important assessment of job outcomes and organizational success over a period of time (Bullock, 2013). Thus, employee performance refers to the outcomes of employees' actions in terms of expertise poses in comparison to expectations. Employee performance in an organization and business setting reflects the total outcome of individual employees' abilities, expertise, fitness, and viability toward effective service delivery, greater efficiency, effectiveness, and accomplishment of organisational goals (Ellinger et al, 2003; Dahkoul, 2018). On the other hand, administrators are appraised by their ability to coordinate, control and leverage the day-to-day office activities toward achieving their organizations' objective and goals.



Davis & Bottorff (2022) defined administrative staff as a person employed by an organization to coordinate the entire office activities such as controlling conversations between coworkers and clients, assigning tasks, arranging meetings, inputting data, keeping records of administration, maintaining office equipment and so on. Consequently, administrative staff are sometimes referred to as administrative assistants. Administrative staff according to Zippia (2023), are human capital who work in an organization's offices with the responsibility of conducting administrative and clerical tasks in order to support organization's day-to-day affairs. The administrative staff is tasked with performing multi-tasking duties such as coordinating direct mails, schedule complex activities, meetings and day to day management activities in an organization. Administrative staff play pivotal roles in ensuring that administrative activities within an organization function smoothly by providing structure to other employees (career guide). To achieve organisational goal, organizations depend on the effectiveness and efficiency of administrative staff who handle the information of the organization.

However, technological advancements have helped to reduce the complexity in the management of day-to-day activities with a challenge to administrative staff innovative skills. Today, mechanization of office operations necessitate that administrative staff should possess a larger set of skill than those required in the early office routine. According to Agomuo (2012), a modern business office includes the usage of word processing, data processing, reprographics, micrographics, and communication technology that are all connected to help achieve improved office services. That is, technological innovation has improved the effectiveness and efficiency of different office operations. He went on to say that new machinery and advanced technology now produce faster, neater, more accurate and dependable results. Nevertheless, these new developments brought by technological challenges in the operation of office activities require even more knowledge and skills beyond being administrative staff. In order to improve on the challenges and problems brought to bear in offices by the emerging technologies, every administrative staff need to be more digitally innovative.

Digital innovation, according to Erden (2021), is defined as the adoption of digital facilities, skills and applications to improve business procedures, employees' productivity, consumer satisfaction, and the creation of new brand or business strategy. Thus it encompasses a broad spectrum of hardware equipment such as personal computers, scanners, digital cameras etc., applications, software, database systems and multimedia programmes. It also includes telecommunications resources such as phones, fax machines, videoconferencing equipment, and the internet, which are used to access, retrieve, store, organize, control, analysis and transmit information as well as communicate locally and worldwide via digital media. Urbinati et al. (2018), opined that digital innovation is a change involving the use and control of large amounts of records, the web, cloud technology, simulated reality, intelligent machines, and computerized networks. Digital innovation in the area of administrative operations embraces structures that enhance technological transmission such as analytics, database, cloud computing, social media platforms and communication devices (Joseph & Yaman, 2016). These activities are characteristics of innovation that involve the adoption of new technologies to aid administrative and work procedures (Khin & Ho, 2018). Furthermore, digital innovation is tied to digital transformation, which Wikipedia defines as the process of adopting and implementing digital skill to develop new or modify existing products or services via innovation, creativity, consumers' satisfaction, and efficiency.

Agomuo (2012), claimed that digital gadgets are now used to provide solutions to a wide range of office challenges. Recently, digital innovation has had an impact on professions, particularly administrative officers. Its role has been turning around administrative staff functions through modern technologies which provide mechanism to ensure critical information needed for organizational strategic decisions are adequate and accurate. Sharma (2017) opines that access to information for multifaceted purposes is both the import and driver of digital revolution. The efficient and effective supervision and the coordination of day-to-day activities in any office depend on a pillar of knowledge as well as its recognition. Consequently, the office automation system (OAS) gathers, analyzes, stores, and transmits information in the form of digital office communication. Thus, digital technologies help to improve office communications and productivity (Agomuo, 2012). However, Khin & Ho (2018) asserted that the rapid change in organizational processes towards the adoption of digital technology implies that there is a necessity for human expertise and capacities to take the benefits of digital innovations by making optimal use of these devices and their potential. As stated by Dauda &



Akingbade (2011), the success of any technological innovation depends on people. As human capital, abilities, and skills are used to initiate, create, utilize and manage ideas that serve as the roots of innovation and digital diffusion in data and information processing (Mahmoud, 2011). As a result, there is a requirement for digital efficiency and abilities of individuals that perform these series of tasks (Ferrari, 2013; Khin & Ho, 2018)

Therefore, the important use of digital technology and related innovations are making organizations to leverage technology for a whole lot of purposes in order to achieve competitive advantage over competitors who are lacking behind. In view of the foregoing, this paper investigates the impact of digital innovation on the performance of administration staff in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria.

### **Statement of the Problem**

Nowadays, technologies are being applied in all aspects of organizations to promote productivity and efficiency. Offices across many industries are increasing their use of technology to coordinate day-to-day activities. Such technologies like computer to process information, videoconference in organizing meetings, big data to manage employees' records etc. The administrative staff who are responsible for day-to-day management activities of an office need to be conversant with these technologies in performing their duties. However, despite the numerous benefits of technology and digital innovation, some administrative staff are still adamant. Though, there are many literatures or studies on ICT use and administrative staff job performance in an organisation. But only view study had been conducted in the field of study. The researchers therefore concurred to contribute to the existing knowledge by investigates the impact of digital innovation on administrative staff job performance in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria.

### **Objectives of the study**

The primary objective of the research was to explore the impact of digital innovation on administrative staff job performance at Dangote Cement Plc in Ibeshe, Ogun State, Nigeria. Specifically, the objectives are as follows:

- to identify various digital facilities available for use by administrative staff in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria;
- to determine the level of digital innovation skill of administrative staff in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria;
- to determine the extent to which digital innovation skills of administrative staff enhance their job performance in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria;
- to assess the effect of digital innovation on administrative staff job performance in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria.

### **Research Questions**

In line with the objectives of this study, the following research questions were raised:

- What are the various digital facilities available for use by administrative staff in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria?
- What is the level of digital innovation skill of administrative staff in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria?

### **Hypotheses**



**H0<sub>1</sub>:** Digital innovation skills have no significant influence on job performance of administrative staff in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria.

**H0<sub>2</sub>:** Digital innovation has no significant effect on administrative staff job performance in Dangote Cement Plc, Ibeshe, Ogun State, Nigeria.

**Methodology**

The study employed survey approach and the population comprised the entire administrative staff of Dangote Cement Plc, Ibeshe, Ogun State, Nigeria. For the purpose of this study, thirty-five (35) administrative staff of the organization formed the sample size using snowball sampling technique. A questionnaire tagged “**Questionnaire on Digital Innovation and Job Performance**” (QDIJP) was developed from the research questions earlier formulated to gather information from the respondents. The questionnaire contained 38 questions with the use of a four rating likert scale. The validity of the questionnaire was conducted by submitting it to an expert in the field, whose advice was taken into consideration. The reliability test was carried out among administrative staff in Federal Polytechnic, Ilaro which yielded 0.87. Mean method was used to analysis data gathered in relation to research questions while regression statistics was used to analysis data relating to the hypotheses at 0.05 level of significant.

**Results**

Table 1: Available digital facilities for the use of administrative staff in the organisation

S/ N	items	HA	A	MA	NA	Mean	Remarks
1	Computers	31	4	0	0	3.9	Accepted
2	Printers and scanner	32	2	1	0	3.9	Accepted
3	Database management software	18	11	4	2	3.3	Accepted
4	Office software e.g Microsoft Word, Microsoft Excel, Power Point	28	7	0	0	3.8	Accepted
5	Multimedia projector	14	13	5	3	3.1	Accepted
6	Internet	30	5	0	0	3.9	Accepted
7	E-mail service	29	6	0	0	3.8	Accepted
8	Social media e.g Whatsapp	32	3	0	0	3.9	Accepted
9	Video conference e.g Zoom	19	13	0	3	3.4	Accepted
10	Website	27	4	3	1	3.6	Accepted
11	Risograph	18	9	8	0	3.3	Accepted
<b>Grand Total</b>						<b>3.6</b>	Accepted

Source: survey field

Key: HA = Highly Available; A = Available; MA = Moderately Available; NA = Not Available

Table 1 above shows the mean rating for the responses on the level of digital facilities available for the use of administrative staff in the organization. The mean scores of all the items listed were above the minimum acceptable score with a grand mean score of 3.6 indicating that the identified digital facilities are considered useful for the performance of day-to-day activities of administrative staff. The research question one what upheld.

Table 2: Level of Digital Innovation Skills

S/N	Items	VH	H	L	VL	Mean	Remarks
12	Computers	22	9	3	1	3.5	Accepted



13	Printers and scanner	28	5	2	0	3.7	Accepted
14	Database management software	16	9	6	4	3.1	Accepted
15	Office software e.g Microsoft Word, Microsoft Excel, Power Point	24	9	1	1	3.6	Accepted
16	Multimedia projector	12	9	6	8	2.7	Accepted
17	Internet	32	3	0	0	3.9	Accepted
18	E-mail service	30	4	1	0	3.8	Accepted
19	Social media e.g Whatsapp	26	9	0	0	3.7	Accepted
20	Video conference e.g Zoom	24	10	1	0	3.7	Accepted
21	Website	27	8	0	0	3.8	Accepted
22	Risograph	9	11	10	5	2.7	Accepted
	<b>Grand Total</b>					<b>3.5</b>	Accepted

Source: survey field

Key: *VH* = Very High; *H* = High; *L* = Low; *VL* = Very Low.

Table 2 above, shows the result of the analysis of the respondents' responses to research question two which access the level of digital innovation skills of administrative staff in the organization. The result shows a grand mean score of 3.5 indicating that the administrative staff in the organization possesses high level of digital innovation skills needed in the operation of their day-to-day activities.

### Hypotheses Test

Digital Innovation Skills and Job Performance

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.962 <sup>a</sup>	.926	.924	.115	.926	414.380	1	33	.000

a. Predictors: (Constant), Digital Skills

Table 3 above shows the model summary of the statistical relationship between digital innovation skills and administrative staff job performance. The result indicated that there is a relatively very strong positive correlation between the variables with r value of 0.962. The result also indicates that about 93% of the total variation in job performance of administrative staff in the organization could be attributed to the level of digital innovation skills possess by administrative staff.

**Table 4: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.438	1	5.438	414.380	.000 <sup>b</sup>
	Residual	.433	33	.013		
	Total	5.872	34			

a. Dependent Variable: Job Performance

b. Predictors: (Constant), Digital Skills



Table 4 gives the analysis of the variance in the model and test of significance. As shown in the table, p-value of 0.000 is significantly less than 0.05 threshold of significance. This indicates that the model used to relate the variables is adequate and sufficient for the statistical test.

**Table 5: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.479	.113		13.035	.000
	Digital Skills	.655	.032	.962	20.356	.000

a. Dependent Variable: Job Performance

Table 5 shows the co-efficient of the effect of digital innovation skills on the dependent variable. The result shows a p-value of  $0.000 < 0.05$  indicating that digital innovation skills have significant effect on job performance of the respondents. As depicted in the result, a unit change in digital innovation skills will yield about 66% units change ( $B = 0.655$ ) in job performance of the respondents. With t-value of 20.356 and significant value of 0.000 we reject the null hypothesis and accept the alternate hypothesis. Thus we upheld that digital innovation skills have significant effect on job performance of administrative staff in the organization.

#### Impact of Digital Innovation on Job Performance

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.931 <sup>a</sup>	.868	.864	.153	.868	216.360	1	33	.000

a. Predictors: (Constant), Digital Innovation

Table 6 above shows the model summary of the impact of digital innovation on administrative staff job performance. The outcome illustrates a strong significant correlation between the two variables. Furthermore, 93% of the respondents' job performance is instigated by the influence of the independent variable with a standard error of the estimate is 0.153

**Table 7: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.095	1	5.095	216.360	.000 <sup>b</sup>
	Residual	.777	33	.024		
	Total	5.872	34			

a. Dependent Variable: Job Performance

b. Predictors: (Constant), Digital Innovation

Table 7 shows the model's adequacy. The p-value is 0.000, indicating that the model is appropriate for the statistical test and adequately relates the variables. The F-value is 216.360

**Table 8: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.015	.256		.058	.954
	Digital Innovation	.983	.067	.931	14.709	.000

a. Dependent Variable: Job Performance



From table 8 above, the model shows that the independent variables contribute positively to administrative staff performance with a regression coefficient of 0.983. This indicates that a unit change in digital innovation will yield about 98% units change in job performance of the respondents. With t-value of 14.709 and significant value of 0.000 which is less than 0.05 threshold of significance, we reject the null hypothesis and accept the alternate hypothesis. Thus we upheld that digital innovation has a significant strong positive influence on job performance of administrative staff in the organization.

### **Discussion of Results**

The results of the findings on the various digital facilities available for the use of administrative staff in the organization revealed that the identified digital facilities are adequately available in the organization for utilization of office administrative staff, such facilities includes computer, printers and scanner, database management software, office software, internet, E-mail service, risograph etc. which the administrative staff make use in their day-to-day activities in the organization. The result indicated that the availability of the aforementioned digital facilities gives the respondents the opportunity to utilize the facilities in delivering their services. The findings are in line with Sharma (2017) and Agomuo, (2012) assertions. Sharma (2017) claimed that the efficient and effective supervision and the coordination of day-to-day activities in any office depend on a pillar of knowledge, as well as its recognition as the present day office automation system (OAS) gathers, analyzes, stores, and transmits information in the form of digital office communication Agomuo, (2012). The findings on the level of digital innovation skills of the respondents also revealed that all the respondents possesses high level of digital innovation skills needed in the operation of their day-to-day activities.

The result of the hypothesis one revealed that digital innovation skills have a significant strong positive contribution to job performance of administrative staff in the organization. The result revealed that the respondents were of the belief that their ability to use social media, office software, surf internet etc. help them to easily pass information relating to day-to-day activities to co-workers, ensure that jobs within areas of specific responsibilities are completed in a timely manner, makes them to be more creative in thinking and enable them to have access to valuable information which help to make technical and strategic decisions. The outcome of the findings tandem with the view of Ferrari, (2013) that there is a requirement for digital efficiency of individuals that is responsible for coordinating office activities.

Analysis of hypothesis two revealed that digital innovation has a significant strong positive impact on job performance of administrative staff in the organization. This implies that the organization recognize the importance and benefits of digital innovation in the management of information and day-to-day activities. The outcome corroborates the opinion of Agomuo (2012), that digital innovation has had an impact on professions, particularly administrative officers. Its role has been turning around administrative staff functions through modern technologies which provide mechanism to ensure critical information needed for organizational strategic decisions are adequate and accurate.

### **Conclusion**

The benefits of digital innovation to daily routines of any business organization cannot be underestimated. Digital innovation is one of the key driver of business activities that improve efficiency and effectiveness of administrative staff in any organization. The roles of administrative staff in the management of information and day-to-day activities is crucial, therefore, their effective and efficient performance especially in the 21st century digital era depend on their ability to use digital innovations gadgets to collect, processes , store and transmit information which are used in making technical and informed decision at all level of the organization.

### **Recommendation**

Based on the results of the findings, the researchers made the following recommendations:



- Management should ensure that there is a continuous training and development programme for administrative staff in order to keep them up to date on emerging office technologies.
- Management should ensure regular maintenance of available digital facilities to save the cost of frequent replacement
- Management should motivate administrative staff to strive for self and career advancement in modern-day technology in order to be able to function effectively in a digital environment.

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