Digital Transformation Systems and Employee Performance in Selected Public Health Facilities in Lagos State, Nigeria

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Abstract

In the current global business world, digital transformation system are crucial for building relationships between organizations and their employees, incorporating knowledge, work techniques and high levels of achievement to provide prompt and adequate services. However, employees encountered several challenges in public health facilities on knowledge intensive and complicated work that affect their operations. This study examined the effects of digital transformation system on employee performance of selected public health facilities in Lagos State, Nigeria. The study adopted descriptive survey research design. Thus, the population of the study comprised of nine hundred and twenty-one (921) employees of the selected public health facilities in the three senatorial districts in Lagos State. The sample size was two hundred and seventy-nine (279) using Taro Yamane formula sample size determination. The study employed stratified random sampling technique. Content validity was adopted, and the instrument gave Cronbach's alpha coefficient value of 0.7227 implying that it was above the recommended value and then appropriate for administration. The data were analyzed using regression analysis with the support of SPSS software. The results of hypotheses tested reveal that there are positive and significant effects of digital transformation system on employees' performance. The study concluded that public health facilities can only realize their goals and objectives through enhancement state-of-the-art technologies in their operation. This study recommends, among others, that public health facilities should ensure that there are acceptable levels of infrastructure and training for the employees.

Keywords: Digital transformation, Digital Patient Engagement, Electronic Health Records, Employee Performance.,

Introduction

In recent years, digitalization has drastically increased by the use of information and communication technology (ICT) in new area of business life. The advent of digital technology implies a major change in way of doing businesses and interactions with one another. The vast amounts of digital information available for organizations can be a source of new value generation with the ultimate goal of improving performance. Employee's performance can be drive along side with modern digitization to create development value for business activities, whereby tasks and responsibilities can be achieved (Abass, Lawal & Elegunde, 2022). Ideas related to improving the performance of hospital staff members on quality of service and adaptability should encourage a change of focus that will facilitates the process of digitization and value creation service operations (Martínez-Caro, Cegarra-Navarro & Alfonso-Ruiz, 2020).

The advent of covid-19 pandemic across the global world has driven the present economic businesses into a serious decline and recession which had affected both manufacturing and service organizations to run into workforce shortage, which the public health facility is not excepted (Lambovska Boguslawa & Jaroslav, 2021). It also affected other business transactions which resulted into travel restrictions, house quarantine, employee reductions and many individuals losing their jobs in all economic sectors (Hevia & Neumeyer, 2020). The demand for several manufactured consumable goods and products has also reduced (Okyere, Forson, & Essel-Gaisey, 2020); nonetheless, the need for medical supplies has flowed dramatically, and the drugs industry has also observed a significant decrease due to fear and attempted on stockpiling (Nicola et al., 2020). The deprived-on performance for these have increased the demand for employee's quality of services and employee's adaptability on assigned task.

Digital transformation system is an approach that constantly used across all organizational levels in the new normal era on business operations. The contributions and the effect of digital transformation system for employee in the public health facilities as become a major concern. This has paves way to the hospitals employee in taking appropriate action for the adoption of this system in their services. However, the public health facilities environment goes beyond the employee adoption of technology and has its greater impact of workplace designing to suit for their operations in terms of adequate service delivery, fostering innovation, adaptability, flexibility and sustainable growth. The change of business operations implies

future of digital transformation with public health facilities employees embracing the modern methods (Saranya & Vasantha, 2023).

Statement of the Problem

Despite the existence of numerous methodologies on digital transformation system for businesses, yet the implementation in public health facilities domain is complex and remains unclear. Digital transformation system encompasses information and communication technology, and other internet facilities (Abass et al, 2022). The process of implementing and facilitating this system is usually challenging for the employee in public health facilities, because of new discovery of diseases, complex health interventions, in-patient's management, and health information technology. Implementation of the latter into the change of business model is one of the key challenges for hospital employees because technologies are increasing the cost and complexity of services. Employees should therefore adapt to the optimal situation of knowledge, work techniques, high level of achievement and anything short of these is dysfunctional to organizational operations and work achievement.

The introduction of digital transformation system such as electronic health records (EHR), artificial intelligent (AI), digital patient engagement (DPE), 3-D printed devices, and robotics require adequate skilled and competent professionals, which are lacking within the domain of the hospitals. The use of modern technology has become increasingly important because of patient safety awareness and improved patient outcomes. However, there have been challenges with the implementation of these systems. There are several evidence to prove that these systems can increase the quality of service, efficiency, safety, and positive patient outcomes. Failure to implement such systems into their work operations can create a disengaged workforce (Reed, 2017). The major operational problem in the public health facilities is employee's disengagement which have a negative impact on their performance.

Abolhassan (2017) pointed out that there are positive effects of digital transformation on employee performance, but it seems that the necessity of critically examining the model and its stages has not been thoroughly examined in the public health facilities. Additionally, automating business models helps preserve a competitive advantage edge over its rivals (Gruia et al., 2022). In effect, health facilities management faced a significant challenge in implementing the theory of digital transformation system on their operations (Jedynak et al., 2021). It is on this note that this study sought to investigate the effect of digital transformation system on employees' performance of selected public health facilities in Lagos State, Nigeria

Objectives of the Study

The primary aim of this research work is to examine the effect of digital transformation system on employee performance in selected public health facilities in Lagos State. The research specific objectives are to:

- i. Examine the effect of electronic health records (EHR) on employee quality of service.
- ii. Investigate the effect of digital patient engagement (DPE) on employee adaptability.
- iii. Determine the joint effect of digital transformation system (DTS) on employee performance

Research Questions

- i. Do electronic health records (EHR) have significant effect on employee quality of service?
- ii. To what extent does digital patient engagement (DPE) significantly affect employee adaptability?
- iii. Is there any joint effect of digital transformation system (DTS) on employee performance?

Research Hypotheses

- i. Electronic health records (EHR) have no significant effect on employee quality of service.
- ii. Digital patient engagement (DPE) does not affect employee adaptability.
- iii. There is no joint effect of digital transformation system (DTS) on employee performance

Scope of the Study

The study sought to investigate the effects of digital transformation systems on the performance of employees in the public health facilities in Lagos State. The digital transformation system metrics are electronic health records and digital patient engagement while the dependent variable was employee performance, and it was measured with employee adaptability and employee quality of service. The study population was drawn from public health institutions in Lagos State which are Epe general hospital, Randle general hospital and Badagry general hospital. Each of these hospitals were selected from the three (3) Senatorial districts in Lagos State.

Literature Review

Conceptual Review

Digital Transformation System

Digital transformation is a complex process that requires the commitment of all organizational resources: human, physical, organizational, and technological to apply digital technologies throughout the organization, especially in operations and also emphasizes that digital transformation is a profound transformation of paradigms (Kutnjak, Pihiri, & Furjan, 2019: Stark, 2020). Business competencies, organizational models, business processes, and practices through digital technologies to meet customer needs and satisfaction.

Digital transformation is the use of new digital technologies, intending to achieve superior performance and continuous competitive advantage, by transforming multiple business dimensions, including the business model and patient experience that includes digitally enabled products, services, and processes, including decision-making, and influence same time on people, including skills, talents, organizational culture and networks (Ismail, Khater, & Zaki, 2017).

The impact of digital transformation is multifaceted, thus reducing information asymmetry and improving the efficiency of the value chain. However, companies also face various risks during the transformation process, such as a new competitive landscape, technical complexity, and faster research and development (R&D) cycles (Li, 2020; Reddy & Reinartz, 2017). The term digital transformation refers to the economic and societal effects of digitization and digitalization, where the business model digitalisation, process digitalisation and artificial intelligent are means of converting analog data and processes into a format that a machine can read. In contrast, the term digital means the use and interrelationship of digital technologies and data to bring about new changes. Developed physical systems, innovated business models and new processes, creating smart products and services (European Commission, 2019).

Dimensions of Digital Transformation System

Electronic Health Records

Electronic Health Records (EHR's) are also widely known as Electronic Medical Records (EMR's) and many people use the term interchangeably (Torrey, 2011). An EHR is an

electronic version of a patient's health record that was historically created, used, and stored in a paper chart. A patient EHR is created, managed, and held by a healthcare organization (Roman, 2009). Only healthcare professionals who are involved in a patient's care can access and use an electronic health record (Roman, 2009). A Personal Health Record (PHR) is a health record that a patient controls and can change (Roman, 2009). EHR's are protected under a federal law called Health Insurance Portability and Accountability Act (HIPAA); PHR's are not covered under HIPAA (Roman, 2011).

In a 2006 National Institute of Health report, the Health Information Management Systems Society (HIMSS) adopted this official definition of an EHR: e or more encounters in any care delivery setting. Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. The EHR automates and streamlines the clinician's workflow. The EHR has the ability to generate a complete record of a clinical patient encounter, as well as supporting other care-related activities directly or indirectly via interface, including evidence-based decision support, quality management, and outcome's reporting. This EHR is created and used by physicians in their clinics and by hospitals and other healthcare facilities (History of the Electronic Medical Record System, 2012).

Digital Patient Engagement

Digital services are now becoming commonplace, especially in hospitals, patient-engaging digital services represent a broader trend in the economy marked by consumer engagement across different economic sectors. While services, in general, have been studied extensively through different perspectives in diverse settings, such as physical environments or surroundings and frontline sales or service employees (Kidwell et al., 2020). A review of relevant literature shows that little previous research focuses on digital services, and even fewer studies explore patient-engaging digital services. Conceptualizing engagement is complex. Brodie et al. (2011) suggest that patient engagement is "a psychological state that occurs by interactive, co-creative patients experiences with a focal agent/object (e.g., product) in focal service relationships. In the healthcare setting, the consumption of care involves extensive service interactions between the hospital and the patient. These interactions pervade administrative and clinical processes. For example, during a medical visit, a variety of exchanges occur, such as the doctor eliciting information from patients, informing and educating them about their medical condition, offering expert advice and guidance, and

recommending a treatment regimen. Patients also participate in various administrative activities, such as scheduling appointments and paying bills.

According to Gruman et al. (2010), interactions serve as a trigger for patient engagement behaviors that include follow-on actions, including gathering additional opinions, asking questions, assessing whether a facility can accommodate unique needs, and discussing treatment with the provider. Today, hospitals are implementing digital services to enable these interactions, i.e., the use of digital resources in the form of data and electronic communications to customize patient interactions (Sridhar & Fang, 2019). Using the interaction perspective, we define patient-engaging digital services as technology implementations involving patients in the creation or delivery of healthcare services.

Employee Performance

According to Aaltonen, (2017), employee performance is a comparison between work results with standards and those set it may also refer to the level of achievement of the tasks that make up an employee's work. Work performance is a measure of how well or poor ones carry out the delegated duties; it's used to gauge the individual employee's result against the desired results. Employee job performance determines whether the goals of an organization are consistently met in an efficient and effective manner. Bello (2013) employee performance as the best effort, ability, and capability on a work, the accomplishment of company task and the relationship between standard and the resources employed. Therefore, employee performance can simply be the excellent effort used by employee on a work-through efficient maximization of resources and also the accomplishment of organizational goals and objectives.

A lot of employees often misunderstand performance to mean higher workload, higher effort and more profit. Rather, the concept of employee-performance is more than that. It integrates the objective of the managers and the employee. It strives to minimize human hazard and human effort with a view to utilizing them to the area where they can contribute maximally to the company's productivity. According to Khan and Jabbar (2013), employee-performance suggests employee quality of service and efficiency. Employee-performance is depending on the capability, openness and the willingness of the employee to do the specified task. Employees' performance is imperative to yield organizational effectiveness in an increasingly competitive market environment (Aryee, Chen & Budhwar, 2014). In today's contemporary business environment, most of the companies facing challenges are obligated to put more concentration on enhancing employees' performance (Gruman & Saks, 2011). It is argued that

to engage in effective performance, management needs to empower employees to design their work and roles. As a result, employers will discover job that re specifically related to each employees' skills, needs and values. (Gruman & Saks, 2011).

Dimensions of Employees Performance

Employees' Quality of Service

Services is increasingly an indispensable portion of service-oriented organizations and it's considered as a powerful tool for revenue streams (Neupane & Manju, 2017). So, the success of service organizations often starkly depends on the high level of relationship with the customers which determines customer loyalty and satisfaction that quality of service influences organization's outcomes such as increasing sales and profit (Lanka, Suar & Mohapatara, 2009). Thus, service quality is the extent to which service exceeds customer's earlier expectation, while it plays a critical role to business success.

According to Nejadjavad and Shahram (2016), service quality is defined as a measure devised to meet customer needs and expectations by the service. Therefore, service quality can be defined as the difference between customers' expectations of service and services received. In addition, service quality has been defined as "an attitude or general judgment of customers in relation to supremacy of a service" (Koozehchian, Khatibzadeh & Honarvar, 2011). Service quality in marketing literature is defined as: overall assessment of customers from company services. The concept of service quality includes service delivery process and the results offered services (Najafizadeh et al, 2013). Many experts have commented about constituent elements of service quality that their common factors include process quality: process quality or operational quality, is the quality of processes and production procedures. It delivers quality service to customers given the nature and coincidence of production and consumption of services.

Employees' Adaptability

Adaptability is a soft learning skill in which an employee can respond rapidly to new skills and behaviours in an environment. Employee Adaptability is a general term that explains the ability of employees to adjust with their behaviours or responses towards the changes in an operating business environment (Orishede & Igbigbisie, 2022). A highly adaptable employee has adequate skills, knowledge and experience to comply with required tasks at work and reach desired performance. It suggests that an employee who is versatile is valued by management

and contributes reasonably to the success of an organization. Accordingly, managers seek employees with high adaptability due to the positive outcomes that follow, such as excellent quality of work, and ability to tackle difficult issues on work operations. Organization culture has a significant effect on employee career development. Organizational development is a motivational factor for effective employee adaptation to environmental changes. (Orishede, 2015) It has been variously argued that employees who display high adaptive performance level in an organization tend to have more advantages in profession opportunities unlike employees who are not adaptable to change (Pulakos, Arad, Donovan & Flamodon 2000 as cited in Orishede & Igbigbisie, 2022).

Therefore, an organization's employees are required to adjust their responsibility and tasks in order to accomplish the set goals by the management. The employee needs are the element of work that requires interpersonal interaction to carry out some specific assignment (Michael; Sony & Mekoth, 2014). The interpersonal element may vary depending on one organization to another and it will base on the tasks assigned to the employees (Chen, 2017), Therefore, employees will need to adjust their interpersonal style of work with other employees in order to bring up transparency, information sharing and absolute decision making so as to meet the organizational goals (Liao et al., 2017; Michael; Sony, 2018). To achieve this goal, the employees need to collaborate with other employees from other units of the same organization to carry out the specific work (Spasojevic Brkic et al., 2020).

Theoretical Review

Resource-Based Theory

It was propounded by Wernerfelt in 1984. It is regarded as one of the theories of strategic management. Resources-based theory suggests that resources that are valuable, rare, and are difficult to imitate by competitors. It suggests that innovations achieve sustainable competitive advantage by using resources to serve consumer interests. These strategic and valuable resources can provide the foundation to develop firm capabilities that can lead to superior performance over time. This theory notes that possessing the resources alone is not sufficient; organizations need to leverage their internal capabilities to respond to the changing economic environment to be agile (Badrinarayanan, Ramachandran & Madhavaram, 2019). According to this theory, firms achieve a competitive advantage by possessing valuable and rare resources and competencies that are not easily imitable and hard to substitute by the competitors.

By possessing these resources and capabilities, firms can deploy them and attain superior performance relative to their competitors. While this theory is applicable to this study as it can inform the acquisition and deployment of strategic resources, it is critiqued for only focusing on firms that want to achieve competitive advantage. Another limitation of this theory is that it places little emphasis on its capabilities to utilize its resources to attain a competitive advantage. The theory provides insufficient information on how managers acquire these resources and orchestrate them by leveraging their capabilities to augment organizational productivity, agility, and competitiveness (Badrinarayanan, Ramachandran & Madhavaram, 2019).

However, to stay competitive in the dynamic business environment, public health facilities need to adjust to the changing business operations by using diverse resources which includes personnel, equipment, technology and other networking facilities that will ensure effectiveness and alignment with management goals and optimal allocation of resources in order to improve patient outcome. Therefore, RBT would enable hospitals to capitalize on the resources and capabilities they have to become agile and perform better to provide adequate services in collaboration with community and the public sectors of the economy.

Empirical Review

Electronic Health Records (EHR) and Employee Quality of Service.

Fanar. Ahmed. and Muntaser (2023) conducted a study on the impact organizational digital transformation and employee performance in the unique context of the United Arab Emirates (UAE). The study examines the relationship between the factors that are affecting employee performance. A descriptive study with engaging a sample of 50 employees across diverse sectors and organizations in the UAE to conduct the research. This research has the potential to reshape workplace practices in the UAE, contributing to the nation's continued growth as a global business hub. The findings show that employee performance can be greatly impacted by organizational digital transformation, which can affect many facets of work and productivity. The findings show that there is a positive relationship between organizational digital transformation and employee performance in the UAE. Conclusion were made based on the findings that employee performance can be greatly affected by organizational digital transformation, which can also have an impact on productivity and other areas of work. Employee performance can be impacted by digital transformation whereby they can

concentrate on higher-value work by streamlining processes through the automation of repetitive jobs and the use of digital tools.

Kenny et al. (2017) conducted a study on healthcare workers' attitude to the use of mHealth in Nigeria. The findings suggest that, while healthcare workers are open to the use of mHealth, more efforts must be placed on educating people on the importance of mHealth in Nigeria. This suggests that awareness of the benefits of mHealth is paramount to the effective adoption of mHealth in developing countries like Nigeria. This is particularly true when the majority of the population receiving these services is uneducated and located in rural areas. Developing technologies that healthcare workers and patients do not understand could hamper its effective use, hence, the benefits of these apps may not be utilized to their full potential.

Digital Patient Engagement (DPE) and Employee Adaptability.

Annie. and Musole. (2023) assessing the impact of digital transformation on employee performance in the public sector: A case study of Zambia's Ministry of Health Headquarters Public sectors worldwide have faced a performance crisis, with public employees being stereotyped as lethargic and bureaucratic and public agencies being seen as large, wasteful and inefficient. This has increased the demand for efficiency, leading to the adoption of Digital Transformation (DT) approaches from outside the public sector. This study assessed the impact of DT on employee performance in Zambia's Ministry of Health Headquarters by establishing whether key technologies in DT have been implemented at the Ministry, their effect on employee performance and subsequent constraints and challenges. The study used a mixed-method approach; quantitative data were collected from 41 employees using questionnaires and qualitative data were collected from two key informants (managers) using interview guides.

Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS) software and qualitative data were analyzed using content analysis. The study found out that the key technologies were implemented in the Ministry though in phases as the process was still underway. The digital tools implemented positively influenced employee performance in terms of tasks, adaptability and contextual but there were challenges and constraints such as connectivity issues, limited access to digital tools in isolated cases, inadequate resources and training. Based on the findings the study concluded that the key technologies in Digital Transformation were put in place in the Ministry though in phases as the process was ongoing. The study further revealed that performance in terms of tasks, adaptive and contextual were positively impacted by the use of digital tools that were in place. The study recommends that

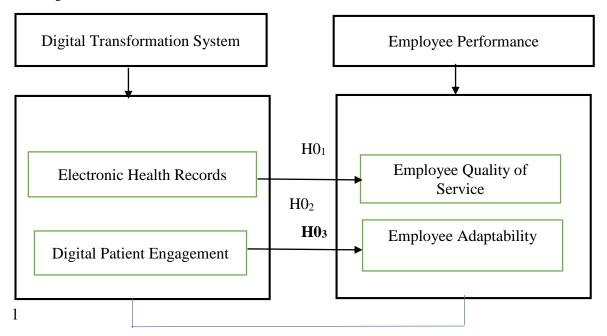
there is need for government to provide the necessary tools, skills, resources, stable connectivity and training of employees in using digital tools.

Rashid. Sohail and Muhammad. (2011) examine the impact of employee adaptability to change towards organizational competitive advantage. Organizations operate in an environment where internal and external forces affect its overall performance. The study adopted survey research design and questionnaires were used for data collection. A sample of 80 employees of different categories in organization has been assessed and evaluate. Correlation analysis was employed for data analysis. The findings of the study show that training & development and empowerment has less correlation among the other variables. While empowerment and the culture has some correlation between them. It means that T & D is good for employee to adapt the change and organization leads its competitive advantage. Also, good culture has influence on the organizational competitive advantage. competitive advantage in maximum time.

So according to the study, it is emphasizing on organization to build up more focus on employee involvement and their skill abilities for discharging their current responsibility and to adapt the future change as well. This study concluded that employee adaptability is more dependent on the parallel activities that preceded along with the other activities in the organization and these activities helps the employee to perform more enthusiastically and impatient to demeanor any challenge or adapt any change whatever it will be. And, new change in skill and modification in the service ought to employee adaptability to the upcoming new challenges and scenario while performing their duties.

Figure 2.1: Conceptual Mode

Conceptual Framework



Source: Researcher's (2024)

Research Methodology

A descriptive survey research design was used in this study. According to Rahaman (2020), descriptive research design deals with the techniques for describing and analyzing data. The study's population covers administrative staff of selected general hospitals from the three Senatorial districts in Lagos State which are Epe General Hospital, Randle General Hospital and Badagry General Hospital, with 221, 409 and 336, respectively. The total population of the study is 921 members of staff (Human Resource Department, 2024). The sample size was determined with the use of Taro Yamane (1964) formula, thus:

$$n = N$$

$$1 + N (e)^2$$

Where: n = sample size sought

e = error margin, N = population size

Applying the above formula, with the population of 921 respondents, level of significance of 95% (i.e. error margin = 0.05). The sample size is computed as:

$$n = 921$$

$$1+921 (0.05)^{2}$$

$$n = 278.9$$

The sample size (n) = 279 and the instrument were proportionately distributed to the selected public hospitals as shown in Table 1 below.

Table 1: Optimum Sample Size Distribution

S/N	Firm	Accessible Population	Sample Size
1	Epe general hospital	221	$\frac{279 \times 221}{921} = 66.9 = 67$
2	Randle general hospital	372	$\frac{279\times372}{921} = 112.6$
			=113
3	Badagry general hospital	328	$\frac{279 \times 328}{921} = 99.4 = 99$
	TOTAL	921	278.9 = 279

Source: Survey Data 2024.

This study adopted stratified random sampling technique, which provided flexibility as the researcher was able to break down the population as often as necessary to select hospital's employees in the three senatorial districts in Lagos State, which are Badagry general hospital representing Lagos west; Epe general hospital representing Lagos east while Randle general hospital representing Lagos central, where these public health facilities are more numerous. Structured questionnaires were used as the instrument for primary data collection.

The questionnaire was divided into five sections. The first section collected information on the bio data of the respondents while the second – fifth sections contained five (5) questions each that measured the variables digital transformation system and employee's performance, using A 5-point Likert – type scales: strongly agree, agree, undecided, disagree and strongly disagree. Out of the 279 questionnaires shared to these general hospitals, 235 were properly filled and returned, these were considered suitable for this study. Content validity was adopted to measure how adequately a research instrument measures the actual meaning of a construct or concept (Creswell 2012). The instruments used are standardized scales that have already tested by other scholars. Cronbach's alpha coefficient was used to examine the reliability of the scales of measurement, and a higher number implies that the scale of measurement is more reliable. The Statistical Package for Social Science (SPSS) was used to evaluate the data collected from the surveys. The regression statistical techniques were utilized to establish the interconnectedness of the measurement scales.

Data Analysis and Interpretation

Testing of Research Hypothesis

Hypothesis One

H01: Electronic health records has no significant effect on employee quality of service.

Table 4.1.1: Model summary of test of hypothesis one

			Adjusted R	Std. Error of
Model	R	R Square	Square	the Estimate
1	.447ª	.200	.196	1.00395

Table 4.1.2: ANOVA^a

		Sum of		Mean		
Mode	1	Squares	Df	Square	F	Sig.
1	Regression	58.653	1	58.653	58.192	.000 ^b
	Residual	234.845	233	1.008		
	Total	293.498	234			

a. Dependent Variable: Employee Quality of Service

Table 4.1.3: Coefficients^a

		Unstandardized		Standardized		
		Coeff	ficients	Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	.279	.560		.498	.619
	Electronic	.792	.104	.447	7.628	.000
	Health					
	Records					

a. Dependent Variable: Employee Quality of Service

Source: Researcher's Computation (2024)

Interpretation: The table above revealed the regression results of the study's hypothesis one that electronic health records has no significant effects on employee quality of service of the selected public health facility in Lagos State. The R-Square which is the coefficient of determination shows that 20.0% of the variations in employee quality of service was explained

b. Predictors: (Constant), Electronic health records (EHR)

by electronic health records while the remaining 80% is caused by factors not captured in the study. It was also demonstrated that electronic health records have positive and significant effect on employee quality of service (β =0.792; p=.000; t test=7.628). The null hypothesis was rejected and the alternative was accepted. The study implies that electronic health records has significant effect on employee quality of service of the selected public health facility in Lagos State.

Hypothesis Two

H0₂: Digital patient engagement do not significantly affect employee adaptability.

Table 4.2.1: Model summary of test of hypothesis two

			Adjusted R	Std. Error of	
Model	R	R Square	Square	the Estimate	Sig. F Change
1	.302ª	.091	.087	1.06997	.000

Table 4.2.2: ANOVA^a

		Sum of		Mean		
Model	l	Squares	Df	Square	F	Sig.
1	Regression	26.752	1	26.752	23.367	.000 ^b
	Residual	266.747	233	1.145		
	Total	293.498	234			

a. Dependent Variable: Employee Adaptability

Table 4.2.3: Coefficients^a

		Unstandardized		Standardized		
		Coeff	ficients	Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	1.683	.592		2.845	.005
	Digital	.535	.111	.302	4.834	.000
	Patient					
	Engagement					

a. Dependent Variable: Employee Adaptability

b. Predictors: (Constant), Digital Patient Engagement (DPE)

Source: Researcher's Computation (2024)

Interpretation: The table above indicates the regression results of the hypothesis two which was formulated that digital patient engagement has no significant effects on employee adaptability of the selected public hospital in Lagos State. The R-Square which revealed the result of coefficient of determination indicated that 9.1% of the variations in employee adaptability was explains by digital patient engagement. Also, the coefficient of digital patient engagement result (β =0.535; p=.000; t test= 4.834) indicates that the null hypothesis was rejected and the alternative hypothesis was accepted. Therefore, this indicates that digital patient engagement has significant effect on employee adaptability.

Hypothesis Three

H0₃: There is no joint significant effect of Digital transformation system on employee performance.

Table 4.3.1: Model summary of test of hypothesis three

Model Summary

			Adjusted R	Std. Error of
Model	R	R Square	Square	the Estimate
1	.658ª	.433	.428	.51723

a. Predictors: (Constant), EHR, DPE

ANOVA^a

		Sum of		Mean		
Model		Squares	Df	Square	F	Sig.
1	Regression	47.440	2	23.720	88.663	.000 ^b
	Residual	62.067	232	.268		
	Total	109.507	234			

a. Dependent Variable: EMP

b. Predictors: (Constant), EHR, DPE

Coefficients^a

	Unstandardized	Standardized		
Model	Coefficients	Coefficients	T	Sig.

		В	Std. Error	Beta		
1	(Constant)	1.325	.313		4.233	.000
	HER	.132	.073	.122	1.808	.002
	DPE	.616	.073	.569	8.423	.000

a. Dependent Variable: EMP

Source: Researcher's Computation (2024)

Interpretation: The table reflected the regression results of the hypothesis three which stated that digital transformation system has no significant joint effects on employee performance of the selected public health facilities in Lagos State. The R-Square which is the coefficient of determination shows that 4.1% of total variations of employee performance was explained by digital transformation system. The result revealed that the $P-Value\ of\ the\ joint\ parameters\ is\ (0.000) > 0.05(\alpha)$ then we accept H_0 and conclude that there is significance of the joint parameter between the parameters at 5% (0.05) significant level.

This ascertains that the joint test of the variables contributes meaningfully to the fitted model. The study revealed that digital transformation system has significant effect on employee performance the selected public hospital in Lagos State.

Discussion of Findings

Hypothesis one which states that electronic health records (EHR) has significant effect on employees' quality of service of the selected public health facility in Lagos State. It was showed that electronic health records (EHR) significantly influences employees' quality of service. The results corroborate with the findings of (Piva and Vivarelli, 2018; Acemoglu and Restrepo, 2019) which stated that the effects of new technologies and especially digital ones on working conditions and job satisfaction depend on the types of new tasks compared to those replaced. For this reason, the researcher can make the hypothesis that digital adoption of EHR is not a homogenous phenomenon among employees. The effects rely on occupations but also organizational settings.

The hypothesis two which stated that there is no significant effect of digital patient engagement (DPE) on employee adaptability of the selected public health facility in Lagos State was rejected. The findings show that digital patient engagement significantly affect employees' adaptability This was in line with the study of Bełz, Górczyński, and Płoszajski, (2018), Annie. and Musole. (2023) which revealed that adoption of digital technology enhances

adaptability, efficiency, and flexibility of employees, leading to improved overall performance. However, the process of digital transformation can also trigger technostress among employees, which negatively affects their performance.

While the hypothesis three, which asserted that there is no joint effect of digital transformation system (DTS) on employee performance of the selected public health facility in Lagos State was also rejected. The results corroborate with the findings of (Fanar, Ahmed, Muntaser, (2023; Fanar. Ahmed. & Muntaser, 2023) which showed that employee performance can be greatly affected by digital transformation, which can also have an impact on adaptability and other areas of work. Employees can concentrate on higher-value work by streamlining processes through the automation of repetitive jobs and the use of digital tools. Increased output results from increased efficiency since workers can complete jobs faster and with fewer mistakes.

Conclusion and Recommendations

Conclusion

This study examined the effect of digital transformation system on employees' performance of selected public health facilities in Lagos State. The primary data analysis revealed that digital transformation system enhances employees' performance. Respondents acknowledged the capability of digital system to automate various performance functions. Digitalisation has improved operations, adaptability and operation of the hospitals. Employees supported digital access to performance- related services. The study identified digital transformation system, such as managerial and operational capabilities, the development of digital skills, knowledge and innovation capabilities. It was discovered that digital transformation system improves employees service quality and adaptability. The. Implementing digital transformation system in the public health sectors have reduced workloads and improved the employee's performance.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made.

- The hospitals management must prioritize programs that will enable employees to confidently navigate the digital system. Therefore, adequate and prompt training should be given to the personnel on data analytics, digital communication, digital services and technical competency.
- ii. Also, management should provide all necessary digital tools to employees on capacity building in ICT by providing acceptable level of infrastructure.

References

- Aaltonen, D. (2017). Human resource management in context. London, CIPD. *Journal of Public Administration*, *3*(1), 1-14.
- Abass, O. A, Lawal, O. R., & Elegunde. F. A. (2022), "Technological Change and Employee s Quality if Service in Quoted Insurance Companies in Nigeria", *LASU Journal of Employment Relations and Human Resource Management*, 3(1), 202-211
- Abolhassan, F. (2017). The drivers of digital transformation. Germany: *Springer International Publishing AG Switzerland*. *3*(2), 10-22
- Acemoglu, D., & Restrepo, P. (2019). Automation and new tasks: How technology displaces and reinstates labor. *Journal of Economic Perspectives*, 33(3), 3-30.
- Acemoglu, D., & Restrepo, P. (2020). Robots and jobs: Evidence from US labor markets. *Journal of Political Economy*, 128(6), 2188-2244.
- Adegoke, Y. (2019, February 14). Does Nigeria have too many doctors to worry about a brain drain? BBC News. Retrieved from https://www.bbc.com/news/world-africa-45473036
- Adeinat, I., & Kassim, N. (2019). Extending the service profit chain: The mediating effect of employee productivity. *International Journal of Quality & Reliability Management.*, 4(2), 45-57
- Akinyele, S. (2007). A critical assessment of environmental impact on worker's productivity in Nigeria. *Research Journal of Business Management*, 1(1), 50-61.
- Akinyele, S. (2010). The influence of work environment on worker's productivity: A case of selected oil and gas industry in Lagos, Nigeria. *African Journal of Business Management*, 4(3), 299-307.
- Annie. M. & Musole. S. (2023). Assessing the impact of digital transformation on employee performance in the public sector: A case study of Zambia's Ministry of Health Headquarters (2017-2022). *International Journal of Humanities Social Sciences and Education (IJHSSE*), 10 (9), 118-126
- Badrinarayanan, V., Ramachandran, I., & Madhavaram, S. (2019). Mirroring the boss: Ethical leadership, emulation intentions, and salesperson performance. *Journal of Business Ethics*, *159*(3), 897-912. https://doi.org/10.1007/s10551-018-3842-1
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274-284.

- Bello, A. U. (2013). Herdsmen and Farmers Conflicts in North-Eastern Nigeria: Causes, Repercussions and Resolutions. *Academic Journal of Interdisciplinary Studies*, 2, 129-139.
- Bełz, G., Górczyński, B., & Płoszajski, P. (2018). Digital excellence model. Retrieved from https://www.digitalexcellence.pl/model
- Brodie, R.J., Hollebeek, L.D., Juric, B. and Ilic, A. (2011) Customer Engagement:

 Conceptual Domain, Fundamental Propositions, and Implications for Research. *Journal of Service Research*, 14, 252-271.
- Covell, J. W. (1979). Early changes in left ventricular regional dimensions and function during chronic volume overloading in the conscious dog. Circulation Research, 45, 420-8. https://doi.org/10.1161/01.RES.45.3.420
- Cunningham, J. B., & Eberle, T. (1990). A guide to job enrichment and redesign. Personnel, 67, 56-61.
- Dahlgaard, S., Anabel, L., & Chi-Kuang, C. (2018). The evolution and convergence of total quality management and management theories. Total Quality Management & Business Excellence, 29(3), 1-21. https://doi.org/10.1080/14783363.2018.1486556
- Dauda, Y. A., & Akingbade, W. A. (2011). Technological change and employee performance in selected manufacturing industry in Lagos state of Nigeria. Australian *Journal of Business and Management Research*, 1(5), 32-43.
- Derks, D., Bakker, A. B., & van Wingerden, S. (2017). Fostering employee well-being via a job crafting intervention. *Journal of Vocational Behavior*, 100(3), 164-174. https://doi.org/10.1016/j.jvb.2017.03.008
- Ekienabor, E. (2019). Impact of job stress on employees' productivity and commitment. International Journal for Research in Business, Management, and Accounting, 2(2), 124-133.
- European Commission. (2019). Digital transformation. Retrieved from https://bit.ly/3w2xAMr European Foundation for the Improvement of Living Conditions. (2002). New work organization, working conditions and quality of work: Towards the flexible firm? Luxembourg: Office for Official Publications of the European Communities. Retrieved from www.eurofound.eu.int
- Fanar, S., Ahmed, A., & Muntaser, M. (2023). The impact of organizational digital transformation on employee performance: A Study in the UAE. Volume: 20, No: S10(2023), pp. 1260-1277.

- Fanar. S., Ahmed. A., & Muntaser. M, (2023). The Impact of organizational digital transformation on employee performance: A study in the United Arab Emirates (UAE). *Migration Letters*, 20(10), 1260-1274
- Fu, Y., Hu, D., & Liu, X. (2022). International doctoral students negotiating support from interpersonal relationships and institutional resources during COVID-19. Current Issues in Comparative Education (CICE), 24(1).
- Gloria, M., Jose, F., Elias, M., & Joaquim, F. S. (2022). Descriptive systematic review of food insecurity and intimate partner violence in Southern Africa. Women, 2, 397-407. https://doi.org/10.3390/women2040036
- Gomes, P. T., Kaiseler, M., Queirós, C., Oliveira, M., Lopes, B., & Coimbra, M. (2012). Vital analysis: Annotating sensed physiological signals with the stress levels of first responders in action. In Proceedings of the 34th Annual International IEEE EMBC (pp. 6695-6698).
- Gruia, L. A., Bibu, N., Nastase, M., Danaiata, D., & Cristache, N. (2022). Digital transformations and the importance of business models for organizations: Digital business models The key for success in today's business world. In Handbook of Research on Digital Transformation Management and Tools (322-343). IGI Global.
- Gruman, J. A., & Saks, A. M. (2011). Performance management and employee engagement. *Human Resource Management Review*, 21(2), 123-136.
- Hevia, C., & Neumeyer, A. (2020). A conceptual framework for analyzing the economic impact of COVID-19 and its policy implications (UNDP LAC C19 PDS No. 1). United Nations Development Programme, New York, NY.
- Hosseini, S. M. (2010). Quality of work life (QWL) and its relationship with performance. Advanced Management Science, 1, 559-562.
- Hughes, J. (2007). Office design is pivotal to employee productivity. San Diego Source The Daily Transcript.
- Ismail, M. H., Khater, M., & Zaki, M. (2017). Digital business transformation and strategy: What do we know so far. Cambridge Service Alliance, 10, 1-35.
- Iyawa, G. E., Hamunyela, S., Akinsola, S., Shaanika, I., Akinmoyeje, B., & Mutelo, S. (2021). Digital transformation and global health in Africa. Faculty of Computing and Informatics, Namibia University of Science and Technology, Windhoek, Namibia.
- Jedynak, M., Czakon, W., Kuzniarska, A., & Mania, K. (2021). Digital transformation of organizations: What do we know and where to go next? *Journal of Organizational Change Management*. 3(2), 26-38

- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal*, *33*(4), 692-724.
- Kenny, U., OMalley-Keighran, M., Molcho, M., & Norena, C. (2016). Peer influences on adolescent body image: Friends or foes? *Journal of Adolescent Research*, 32(6). https://doi.org/10.1177/0743558416665478
- Kidwell, K.M. James, T.D., Brock, R. L., Yaroch, A. L., Hill, J. L., Nelson, J. M., Mason, W. A., Espy, K. A., & Nelson, T. D. (2023). Preschool Executive Control, Temperament, and Adolescent Dietary Behaviors. Faculty Publications, Department of Psychology . 1136.
- Kinne, J., Krüger, M., Lenz, D., Licht, G., & Winker, P. (2020). Corona pandemic affects companies differently: Daily updated website analysis on the reaction of companies to the corona pandemic in Germany. Retrieved from https://bit.ly/3t0gInM
- Kutnjak, A., Pihiri, I., & Furjan, M. T. (2019). Digital transformation case studies across industries Literature review. In 42nd International Convention on Information and Communication Technology, Electronics, and Microelectronics (MIPRO), Opatija, Croatia.
- Lambovska1. M., Boguslawa. S & Jaroslav B. (2021). Impact of the covid-19 pandemic of youth unemployment. *Ekonomicko-manazerske spectrum*, 15 (1), 55-63
- Law, K., Wang, H., & Hui, C. (2010). Currencies of exchange and global LMX: How they affect employee task performance and extra-role performance. *Asia Pacific Journal of Management*, 27(4), 625-646.
- Li, C., & Lalani, F. (2020, April 29). The COVID-19 pandemic has changed education forever.

 This is how. World Economic Forum. Retrieved from https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning
- Lodahl, T. M., & Kejner, M. M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49(2), 24-33.
- Martínez-Caro, E., Cegarra-Navarro, J. G., & Alfonso-Ruiz, F. J. (2020). Digital technologies and firm performance: The role of digital organizational culture. Technological Forecasting and Social Change, 154, 119962.
- Michael, S.,& Nandakumar, M. (2014). "FLE adaptability in high contact and high customisable services: theoretical underpinnings and conceptual model," *International Journal of Services and Operations Management, Inderscience Enterprises Ltd, vol.* 19(1), pages 49-82.

- Mugabe, G. (2013). The effect of working environment on worker's performance: The case of reproductive and child health care providers in Tarime district. Retrieved from https://www.semanticscholar.org/paper/the-effect-of-working-environment-on-workers-the-of-Mugabe/ba41c4fe6988bbbc65d78c7305a1df9a11d09ce4
- Musole, S., & Milukutu, A. (2023). Assessing the impact of digital transformation on employee performance in the public sector: A Case Study of Zambia's Ministry of Health Headquarters (2017-2022). *International Journal of Humanities Social Sciences and Education (IJHSSE)*, Volume 10 (9), PP 118-126.
- Naz, S., Li, C., & Khan, S. U. (2019). Impact of work environment on nurses' productivity and job satisfaction. *Journal of Nursing and Care*, 8(1), 2167-1168.
- Nazar, R., Chaudhary, S., & Ali, S. (2018). The impact of working environment on employee performance: A case of engineering firms in Karachi, Pakistan. *International Journal of Scientific & Engineering Research*, 9(2), 104-116.
- Nejadjavad, S., & Gilaninia., S. (2016). The role of service quality in organizations. Kuwait Chapter of Arabian *Journal of Business and Management Review Vol. 5* (7), 19-27.
- Neupane1, R., & Devkota, M. (2017). Evaluation of the impacts of service quality dimensions on patient/customer satisfaction: A Study of Private Hospitals in Nepal. *International Journal Social Science Management*, Vol. 4 (3) 165-176.
- Noe, R. A. (2017). Employee training and development (8th ed.). New York, NY: McGraw-Hill Education.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2019). Fundamentals of human resource management (9th ed.). New York, NY: McGraw-Hill Education.
- Obei, B.S., & Uboegbulam, G.S. (2022). Brand reputation and hotel competitiveness: an evaluation of selected hotels in Port Harcourt, Rivers State Nigeria. *JournalNX- A Multidisciplinary Peer Reviewed Journal*, Vol 8 (6), 186-199.
- Opatha, H. H. D. N. P. (2009). Human resource management: Personnel. Colombo: Department of Human Resource Management, University of Sri Jayewardenepura.
- Orishede. F & Igbigbisie, E, O. (2022). Flexible work culture and employees' adaptability. *Advance Journal of Management and Social Sciences*, 6 (6),
- Osibanjo, A. O., & Adeniji, A. A. (2012). Human resource management: Theory and practice. Lagos: Pumark Nigeria Limited.
- Oxford English Dictionary. (2021). OED Online. Retrieved from https://www.oed.com/

- Parker, G. G., & Van Alstyne, M. W. (2005). Two-sided network effects: A theory of information product design. *Management Science*, 51(10), 1494-1504. https://doi.org/10.1287/mnsc.1050.0400
- Plamondon, K. E., Donovan, M. A., Pulakos, E. D., & Arad, S. (2000). Adaptability in the Workplace: Development of a Taxonomy of Adaptive Performance. *Journal of Applied Psychology*, 85, 612-624.
- Rahimić, Z., & Muminović, S. (2019). The impact of digital transformation on business models. In Book of Proceedings, 10th Annual International Conference of the EuroMed Academy of Business (2154-2166). EuroMed Press.
- Rashid. T. M., Sohail., & Muhammad. A. (2011). Impact of employee adaptability to change towards organizational competitive advantage. Global Journal of Management and Business Research, 11 (7), 11-24.
- Rasmussen, M. (2020). The impact of digital transformation on business models. *Journal of Business Models*, 8(2), 1-9.
- Rodríguez-Abitia, G., & Bribiesca-Correa, G. (2021). Assessing digital transformation in universities. Future Internet, 13(2), 52.
- Saeed, R. (2021). The impact of COVID-19 on the future of work: Some reflections. *Journal of Business Research*, 137(6), , 155-161.
- Saranya, P. C, & Vasanth, S. (2023). Adoption of digital transformation on employee performance Systematic Review. https://www.atlantis-press.com/proceedings/series/aebmr
- Shahbaz, M., Ferraris, M., & Danish, M. S. (2020). The impact of digital transformation on business performance: Evidence from the developing economies. *Journal of Business Research*, 116(3), 379-389.
- Shaw, J. D., Dineen, B. R., Fang, R., & Vellella, R. F. (2009). Employee–organization exchange relationships, HRM practices, and quit rates of good and poor performers. *Academy of Management Journal*, 52(5), 1016-1033.
- Shrihari Sridhar & Eric Fang, 2019. "New vistas for marketing strategy: digital, data-rich, and developing market (D3) environments," *Journal of the Academy of Marketing Science, Springer, vol.* 47(6), pages 977-985, November.
- Smith, R., & Buchanan, D. (2019). The theory and practice of change management (6th ed.). London: Sage.

- Tariq, Q. S. (2021). Digital transformation and its impact on employment. Open Journal of Social Sciences, 9, 312-327.
- Tursunbayeva, A., Bunduchi, R., Franco, M., & Pagliari, C. (2017). Human resource information systems in health care: A systematic evidence review. *Journal of the American Medical Informatics Association*, 24(3), 633-654.
- Vass, S. (2020). Exploring the impact of digital transformation on corporate strategy and structure: Evidence from the UK manufacturing sector. *Journal of Manufacturing Technology Management*, 31(8), 1529-1549.
- Vogels, E. A. (2020). From virtual happy hours to paying rent: How Americans are using the Internet during COVID-19. Retrieved from https://pewrsr.ch/2KjpoUJ
- Waller, A. D., Huber, R., & Glick, B. (2021). The impact of COVID-19 on e-commerce in sub-Saharan Africa. Africa Journal of Management, 6(1), 25-36.
- Weick, K. E. (1995). Sensemaking in organizations. Thousand Oaks, CA: Sage.
- World Health Organization. (2020). COVID-19: Operational guidance for maintaining essential health services during an outbreak. Retrieved from https://www.who.int/publications/i/item/covid-19-operational-guidance-for-maintaining-essential-health-services-during-an-outbreak
- Zhang, Y., Fang, Y., Wei, K.-K., & Chen, H. (2010). Exploring the role of psychological safety in promoting the intention to continue sharing knowledge in virtual communities. *International Journal of Information Management*, 30(5), 425-436. https://doi.org/10.1016/j.ijinfomgt.2010.02.003
- Zuboff, S. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power. Public Affairs.