

Digital Transformation Technology as Determinants of Business Performance of Small and Medium Enterprises in Edo and Delta State, Nigeria

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Abstract

This study was designed to examine digital transformation technology as determinants of business performance of small and medium enterprises in Edo and Delta States of Nigeria. Three research questions and hypotheses were derived from the specific objectives of the study. The resource-based theory was used to support the argument in the study. Cross sectional research design was used for the study. A sample of 400 was obtained from the population of the study that comprised small and medium enterprises owners in Edo and Delta States. Purposive sampling method was used to administer the questionnaires on the respondents who are made up of small and medium enterprises owners. Descriptive statistics (mean and percentage) was used to answer the research questions while inferential statistics (multiple regressions) was used to test the hypotheses to determine the effect of the independent variables on the dependent variable. The study found out that digital transformation technology positively affects small and medium enterprises performance in Edo and Delta States. There is a significant effect of digital human resources on business performance; there is a significant effect of information and communication technology platforms on business performance; and there is a significant effect of financial resources for “technology on business performance”. It was therefore recommended, among others, that small and medium enterprise in Edo and Delta States should be encouraged to adopt digital transformation technology to promote company reputation and thereby result in positive business performance.

Keywords: Digital Transformation Technology, Digital Human Resources, Information and Communication Technology Platforms.

Introduction

The adoption of digital transformation technology is crucial for businesses to grow sustainably and is a key driving force behind expanding businesses in the fourth industrial revolution. In order to improve an enterprise’s operational effectiveness, digital transformation technologies are being used in the business process of enterprises in a series of ways, such as digitization and digital transformation (Schallmo & Daniel, 2018); (Philbin, Viswanathan, & Telukdarie, 2022). The implementation of digital transformation creates “sustainable products and services, promoting innovation culture, increasing experience and connects with customers, improving capital efficiency, and market expansion” (Šimberová, Korauš, Schüller, Smolíkova, Straková, & Váchal, 2022); (Chen, Lin, Chen, Chao, & Pandia, 2021); (Bui, 2021). Šimberová et al. (2022) further opined that most of the outstanding performances are tied to the embrace digital technologies and the continuous introduction of innovation to ensure that the business remains relevant, with its brands making waves across market both at the international and domestic levels.

Business performance as a concept is a measure of the output of every business against the set goals. It is the relationship that exists between standard and actual performances. In the cases where the actual results of an organization exceed the standard or expected results, such a business or an organization is said to have performed well and vice versa. Business performance is concerned with the overall productivity in an organization in terms of stock turnover, customer base, profitability, and market share (Prause, 2019); (Idris

& Mohamad, 2016); (Everett, 2021); (Aggarwal, 2021); (Ministry of Economic Affairs and Climate Policy, 2019). Business performance is core to businesses because the major objective of businesses is to make profits. Odia (2022) stated that, “one of the important questions in business has been, why some organizations succeed and why others fail and this has influenced a study on the drivers of business performance”. Performance is “a formula for the assessment of the functioning of a business under certain parameters such as productivity, employee morale, and effectiveness”. Performance management is the heart of strategic management because; a lot of strategic thinking is geared towards defining and measuring performance. Nkemchor and Ezeanolue (2021) argued that “for an organization to be successful, it has to record high returns and identify performance drivers from the top to the bottom of the organization”.

Digitization and innovation have made rebranding become part and parcel of modern-day enterprises as businesses are continuously adding something new to make their products attractive, with some level of aesthetics added to stay competitive. Thus, managers adopt digital transformation technology in all aspects of business operations, to survive and thrive competitive environment (Fachrunnisa, Adhiatma, Lukman, & Ab Majid, 2020). This will make the operation of the business to be dynamic, with a positive impact on the firm’s reputation. Thus, the adoption of digital technologies enables sustainability (Chen et al., 2021). Digital transformation technology can help to boost the reputation of a firm as it promotes the name by adding colour to its operation. This is why organizations ensure their reputation is not only maintained but improved upon, and digital transformation technology is one sure way of getting that done in contemporary time (Bansal, Panchal, Jabeen, Mangla, & Singh, 2023). The benefits of digital transformation include: “good conditions to build an innovative culture, improve corporate governance, and effectively use the support of the government and partnerships” among others (Eller, Alford, Kallmünzer, & Peters, 2020); (AlBar & Hoque, 2019); (Wong, Leong, Hew, Tan, & Ooi, 2020)

The application of digitalization, according to Garzoni, De Turi, Secundo and Del Vecchio, 2020), “reshaping organizational structure, enhancing operational efficiency, improving customer experience, enhancing competitiveness, building innovative business models, and saving operating costs”. Amaral and Peças (2021) posit that, “these benefits help SMEs to successfully adopt digital transformation technology, improve management efficiency, and provide goods and services to customers.” They also submit that, “opposition to the benefit of digitalisation, SMEs have many limitations such as lack of capital, lack of highly skilled human resources, few skilled workers in information and communication technology, lack of digital infrastructure platforms, and lack of digital standards”. Thus, the current study examined the effects of digital human resources, effect of ICT platforms, and effect of financial resources for technology on business performance.

There is no doubt; digital transformation is a determinant of business performance in this contemporary world. It boosts firms’ reputation, reshapes organizational structure, enhances operational efficiency, improves customer experience, enhances competitiveness, builds innovative business models, and saves operational costs (Garzoni, De Turi, Secundo, & Del Vecchio, 2020). Thus, digital transformation is inevitable for modern businesses’ success since it improves management efficiency, provides goods and services to customers. Based on the aforementioned, this study examined digital transformation technology as determinants of business performance of small and medium enterprises in Edo and Delta States.

Arising from the above, the following objectives have been raised:

(i) determine the effect of digital human resources on business performance; (ii) assess the effect of ICT platforms on business performance; and (iii) examine the effect of “financial resources for technology” on business performance.

Research Questions

The following research questions were asked:

(i) what are the effects of digital human resources on business performance? (ii) how do information technology platforms affect business performance? (iii) how “financial resources for technology” affect business performance?

Hypotheses of the Study

The following null hypotheses were formulated to guide the study:

H₀₁: There is no significant effect of digital human resources on business performance in Edo and Delta States.

H₀₂: There is no significant effect of ICT platforms on business performance in Edo and Delta States.

H₀₃: There is no significant effect of “financial resources for technology” on business performance in Edo and Delta States.

Review of Related Literature

Digital Transformation

There is no uniform definition of the term “digital transformation” till date. Vial (2019) reviewed “282 digital transformation related academic publications and found 23 different definitions”. Based on existing definitions, he developed a conceptual definition of digital transformation as “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies”. Wynn (2018) postulated that, “other authors see it as the deployment, redeployment or optimization of existing technologies to improve performance and deliver value to customers and organizations”. Kane, Palmer, Phillips and Kiron (2017) posit that, “digital transformation consist of application of digital technologies to enterprise processes, products and assets to enhance customer value, uncover new monetization opportunities, improve efficiencies and manage risk across the enterprise”. Riedl, Benlian, Hess, Stelzer and Sikora (2017) argue that, “digital transformation is a result of digitalization and refers to how the deployment of digital technologies can lead to new businesses and value creation models”. They further see digitalization as “the process of introducing digital technologies”. Koch, Ahlemann and Urbach (2016) avert that, “these technologies do not have to be new - rather the newness is created in the context of business and value creation models”.

However, digitise services does not transform an organization alone, but a balanced interplay of technology, people, and process is required. Singh and Hess (2017) highlighted that, “digital technologies encompass not only the much-heralded disruptive technologies such as cloud computing, Internet of Things and big data/analytics, but also the more widely deployed technologies such as basic internet access, business information systems, and e-business technologies”. Digital transformation is also seen as the deployment of a wider range of technologies and systems that improve business processes and operations.

Digital Human Resources (HR) and Business Performance

The Human Resources sector is undergoing transformations. Digital HR is not just a trend, but rather an essential approach for companies that want to optimize their internal processes, promote efficiency, and improve the employee experience. According to SYDLE (2024), digital HR is a combination of “Human Resources department and technology”. It involves integrating digital tools to improve business performance. Digital HR is the use of technology to manage HR processes and services. Digital HR improves efficiency and effectiveness by streamlining HR processes, saving time, and enhancing the employee experience (Baskaran & Mehta, 2016). Digital HR uses technologies like “Social, Mobile, Analytics, and Cloud (SMAC) to automate record-keeping and data analysis”. Digital HR can also simplify recruitment process, allowing for more assertive candidate evaluation and hires that, which is better aligned with the organization's culture and objectives. Digital transformation is “the integration of digital technologies into areas of a business; fundamentally changing how organization operates and delivers value”. This means leveraging latest tools and platforms (artificial intelligence (AI), people analytics, and cloud-based systems to revolutionize talent management, performance optimization, and the employee experience) (Bannet, 2017); (Godin, 2018).

Some steps to take for HR digital transformation include: assessing current HR practices, setting clear objectives, getting stakeholder buy-in, selecting the right tools and technologies, developing a strategy and roadmap, training and change management, implementation and integration and monitoring and continuous improvement.

The main advantages of digital HR include (i) more operational efficiency and agility: processes are automated, from recruitment to performance evaluation. This “saves time, reduces human error”, enhance team’s focus on strategic and higher-value tasks, (ii) improved internal communication: effective internal communication is the foundation of a solid organizational culture. With digital HR, information flows instantly and in an organized manner. Announcements, updates, and policies are easily shared with the entire team, keeping everyone aligned and engaged in the company's purpose, (iii) informed decision making: smart decisions are based on solid data. With digital HR, there will be access to detailed metrics on employee performance, turnover rates, and the effectiveness of training programs. This allows making

informed decisions, aligning your HR objectives with the company's overall strategy, (iv) more engaged employees and increases employee engagement. By adopting game-inspired approaches, companies can turn everyday tasks into engaging and rewarding challenges. Gamification not only makes activities more exciting, but also encourages healthy competition and collaboration between team members, (v) performance monitoring: Monitoring and evaluating employee performance is fundamental to achieving the organization's goals and objectives. With digital HR, management can track goals, evaluate competencies, and identify areas for improvement. This allows for continuous development and maximisation of team member potential, (vi) increased team productivity: When time-consuming processes are replaced by intelligent automation, team productivity naturally increases. Digital HR frees up precious time that used to be spent on repetitive tasks, (vii) decrease in turnover: Staff turnover can be a major challenge. However, digital HR offers solutions to reduce this problem. With efficient performance management, constant feedback, and personalized development programs, one can create an environment to valued and encouraged to grow within the company, (viii) strategic recruitment: Hiring the right talent is essential to the success of any company. Digital HR simplifies the recruitment process, gain scale in selection process and evaluation of candidates. This results in hires that are more in line with organization's culture and objectives, (ix) simplified payroll management: The complexity of payroll can be a headache for HR departments. However, digital HR simplifies the process, automating calculations and ensuring compliance with tax regulations. This reduces errors and eliminates unnecessary worries and (x) compliance and conformity: Ensuring that company complies with regulations HR department's responsibilities. With digital HR, all processes and policies are aligned with labour and tax laws. This minimizes legal risks and keeps your company compliant with current regulations (Natasha, 2024).

Digitalization is critical for attracting top talent, who expect seamless mobile access and consumer-grade experiences. It also enables data-driven decision making, boost productivity and employee retention. However, true transformation goes beyond adopting new HR software; it requires management processes, workflows, and operation model, to be nimble amid rapid change. Digitizing HR procedures is necessity in today's dynamic company world. Its benefits include: improved productivity, increased employee engagement, and adaption to rapid changes in modern workplace. It is critical to understand that, digitization is not just replacing human aspects, but using technology to supplement and improve the quality of HR procedures (Eromafuru & Omoye, 2022; Visualogyx, 2024).

ICT Platforms and Business Performance

ICT platforms are backbones of contemporary businesses. It is hard for contemporary businesses to succeed without essential technologies ("emails, video conferencing, and document sharing"). With ICT Platforms, businesses can collect, store, and analyze data more efficiently, which in turn helps them make informed decisions and coordinate with employees and clients worldwide. ICT platforms are digital technologies used to process, store, and exchange information. It includes computers, smartphones, internet, social media, email, and software (Studysmart, 2024). ICT platform is a vital part of contemporary business operations. Businesses use ICT tools to "collect, store, and analyze data which has led to development of sophisticated software and hardware solutions for effective business performance". From inventory management to customer relationship management, ICT is an aspect of a business, without, businesses would face major disruptions, as seen in scenarios where Google or news channels experience downtime (Eromafuru & Omoye, 2022). Furthermore, ICT plays a critical role in e-commerce, location flexibility for employees, and analyzing business performance. ICT Platforms have revolutionized the way businesses operate, enabling them to become more efficient, productive, and competitive in the global market (Wallet & Valdez, 2014).

Types of ICTs use in businesses include: (i) *intranet*: A network used by employees of a business to communicate privately is called an intranet. Intranet is used to share 'inside' information on the company that the company does not want to go public. This "includes training videos, employee information, or plans of the company". (ii) *extranet*: a "private network". Using the extranet, suppliers can communicate with employees about stocks or dealers can order the required quantity of goods. (iii) *website*: Websites are now the 'storefronts' of a business. A commonly repeated factoid is that there are as many websites as the number of people in the world. The website lets the business talk to its customers directly and receive feedback. (iv) *e-commerce website*: Along with using a website for communication, businesses use their websites to sell their products. The act of buying and selling of goods via internet is called e-commerce. (v) *software robots*: Chatbots are the most widely used software robots. Do you remember surfing on a random website when a pop-

up comes up asking you if you need any help finding particular information? (vi) *servers*: Servers are computers or programs that help client's computers with the required information. Servers usually are ultrafast processing computers with a large storage capacity. (vii) *cloud technologies*: Cloud servers let businesses store their data on the server of another company. If a company is using cloud service, then they don't have to invest a huge amount of money in setting up their server. (viii) *digital communication apps*: Many businesses use mobile applications to communicate internally. There are some apps like Slack or Google Workspace that help communication while working remotely feasible. (ix) *technologies to facilitate home working*: Nowadays many businesses have adopted a work-from-home policy (Eromafuru & Omoye, 2022). There are technologies such as the Microsoft Office suite where people can work simultaneously on a single project. Zoom calls have also smoothed communication for larger groups of employees (Haribhau, 2016.).

The role of ICT in business is to provide tools and systems that enable efficient communication, data management, analysis, and decision-making processes, as well as to enhance productivity, customer engagement, and competitive advantage. ICT can support various aspects of businesses like the location of employees, collecting, storing, and analyzing information, e-commerce, and digital communication (Haribhau, 2016).

Financial Resources for Technology Investment

Financial resources are "tangible and intangible assets, available to organization to meet financial needs". These resources include: "cash, savings, investments, lines of credit, and various other instruments that can be converted into funds when required" (Pellegrino & Savona, 2017). Financial resources are not merely cash or liquid assets but "extend to broader spectrum of assets and capabilities that contribute to financial well-being". These could include "savings accounts, stocks, bonds, real estate, retirement funds, and insurance policies. In contrast, for businesses, financial resources often include a combination of working capital, equity, loans, lines of credit, and other investments". Government perception, financial resources are tax revenue, grants, and international aid to bonds and reserves (Pellegrino & Savona, 2017); (Shruti, 2024). Financial resources include: (i) "cash and cash equivalents" - these include "physical currency, checks, and short-term investments" that can be easily converted to cash (money market funds or treasury bills); (ii) investments - stocks, bonds, mutual funds, and other investment vehicles represent long-term financial resources. They offer the potential for growth or income but may fluctuate in value; (iii) credit facilities - lines of credit, loans, and overdraft facilities serve as important financial resources for individuals and businesses, offering access to funds beyond immediate cash in hand; (iv) savings - "personal savings accounts, emergency funds, and retirement accounts serve as vital resources for individuals, providing financial security for the future"; (v) property and real assets - real estate, land, and other tangible assets contribute to one's financial resource base. (vi) revenue streams - "for businesses and governments, revenue from sales, taxes, fees, or services delivered serve as essential ongoing financial resources" (Saunders & Brynjolfsson, 2016).

Businesses financial resources are managed via "financial analysis, prudent budgeting, and strategic investment". Financial management involves "maintenance of optimal capital structure, ensuring a healthy cash flow, and using financial resources to support business operations, expansion, and innovation". Financial resources are the lifeblood of any economy, whether at an individual, business, or national. Understanding and deployment of these resources is essential for "economic stability, growth, and long-term sustainability". The combination of financial management, strategic planning, and adaptability to market changes, business can harness their financial resources to navigate challenges and build a more stable and prosperous future (Kauffman, Liu, & Mas, 2015).

Business Performance

Business performance is a company's achievements. Arek (2022) postulates that, "business performance is a company's ability to profit from its resources and achieve its objectives". It is measured using metrics known as "Key Performance Indicators" (KPIs). Arek (2022) also posit that, "these indicators help us to know whether the business is in the direction of growth or retrogression". Depend on given business operates, KPIs are differ. However, Arek (2022) posit that, "profitability, productivity, sales/profit/employment growth, customer satisfaction ratings, traffic generated from different sources"; and "order delivery, delivery time, number of customer leads generated by the marketing department, improving project statistics, increasing profit margin on an individual project or all projects, and improving market share", as the major KPIs.

Conceptual Framework

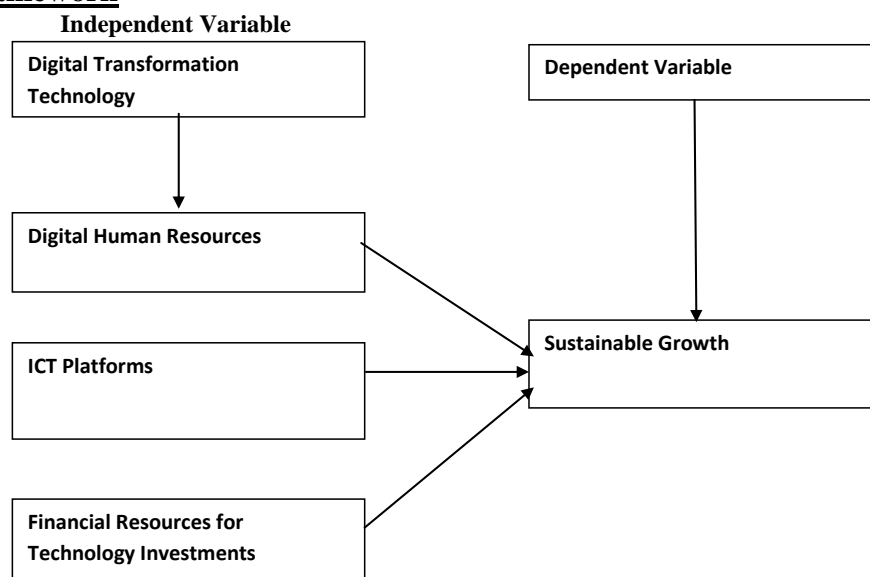


Fig. 1: Conceptualization of digital transformation technology as determinants of business performance of small and medium enterprises (source: Researchers' concept)

Theoretical Framework

This study is anchored on resource-based theory credited to Barney (1991). The theory contends that, “the possession of strategic resources provides an organization with a golden opportunity to develop competitive advantages over its rivals”. The resource-based theory also states that, “the possession of resources is valuable, difficult to imitate, rare, and cannot be substituted; it suggests that organizations should look inside the company to find the sources of competitive advantage through the use of their resources”. Lisbon Council (2022) submit that, “competitive advantage is an edge that a firm has over her competitors that generate sales or margins and/or retains more customers than competitors”. A firm's competitive advantage evolves from organization's resources. This competitive advantage increases organization's profit. Resource-based theory model gives “the major role of assisting companies in achieving higher organizational performance and competitive advantage”. This theory is relevant to the study and reputation is a vital asset used to achieve competitive advantage and improve financial performance and overall performance of the organization (Matt & Rauch, 2020). Corporate reputation is intangible and a valuable resource that improves performance.

Applying the theory to the study, digital transformation technology in the form of intangible resources and tangible resources can help to change the face of any small and medium enterprises. Digitisation replace manual methods of operation, coupled with new methods of production, management style, processing and delivery can boost the competitive advantage of a firm with positive impact of the company reputation. Here, innovation and corporate reputation are intangible resources that when combined with technology (soft and hard), attracts customer loyalty, build strong confidence in shareholders and this, in the ultimate, result in business performance. So, the combination of “tangible and intangible” resources is of importance to the organization according to the basic argument of the theory, which brings competitive advantage to the firm and in the overall, affect business performance positively.

Empirical Studies

Thanh and Hiep (2021) examined “digital transformation of small and medium-sized enterprises in the context of the Covid-19 pandemic, in order to contribute to the acceleration of digital transformation in SMEs in Vietnam”. The authors have proposed solutions that are closely related to three basic strategies. Firstly, the strategy to optimize customer experience on digital platforms, applying technology to increase conversion rates, putting customers at the center to understand and personalize customer experience. Secondly, “digital transformation of business processes” is the creation of exchange and interaction tools on digital platforms, both cost-optimized and quick in decision-making. Thirdly, “digital transformation of business processes based on the corresponding old/new value system with old/new customers, creating flexibility while saving and optimizing available resources”. It can be seen that the application of digital

technology will help customers have a better and more satisfying experience with the products or services that businesses provide.

A study by Sirisukha (2020) on "The Impact of Digital Transformation Strategy in Business" has shown that businesses are investing heavily in digital transformation to adapt to changes in the business environment. The study identified "three aspects of digital transformation that businesses need to focus on: resources, processes, and culture". In today's modern business environment where technology has become a mass market, introducing new technology no longer provides a competitive advantage. The difference between "success and failure depends on the ability to mobilize resources of the organization around vision, mission, goals, and shared values". Therefore, it is necessary to comprehensively evaluate the capabilities of businesses, not only in technology but also in cultural tendencies and organizational structure towards the digital transformation process.

Jiatong Yu and Colleagues (2022) examined "the Impact of Digital Transformation on business performance analyzed the effects of strategic orientation (customer orientation and technology orientation) on the ability of businesses to undergo digital transformation and the impact of digital transformation on business performance". The study showed that customer and technology orientation have a positive impact on the development of digital transformation capabilities through sensing processes, organization, and restructuring. Additionally, it positively impact on organizational performance through indicators such as improving product and service quality, enhancing process improvement, reducing overall costs, attracting more customers, and "easily modifying products according to specific customer needs". The results show that "digital transformations in the era of the digital economy improve business performance s to gain sustainable competitive advantages".

Tsou and Chen (2021) examined "intermediate effects of digital transformation and organizational innovation strategy on the relationship between digital transformation adoption and firm's performance". They demonstrated that "digital adoption has a positive impact on digital transformation and organizational innovation strategy, which in turn, affects firm's performance". It was shown that "digital technology transformation, innovation capability, and business results are closely related and this relationship needs to be further explored". Therefore, the research aims to clarify this relationship and propose solutions to help SMEs in Edo and Delta States withstand the digital transformation trend of the world.

Mubarak, Shaikh, Mubarik, Samo, and Mastoi (2019) examined "effect of digital transformation on businesses performance". They evaluated "the impact of digital transformation on businesses in the 4.0 industry on enhancing business efficiency in SMEs in Pakistan". The study examined "four factors that affect the business efficiency of SMEs, namely big data, internet of things design network, interaction capabilities, physical network and Cyber-Physical Systems (CPS)". Firstly, "the application of big data can help find better ways to store data efficiently". Secondly, "the physical network system will provide businesses with a new generation of systems with integrated computing and physical capabilities that can interact with humans through many new methods". Thirdly, "the connectivity of physical network systems, humans, and intelligent machines through the internet of things design network creates positive interactions that can impact business production activities". Finally, "the internet of things design network can enhance the efficiency of supply chains and logistics by providing a more comprehensive solution". It was recommended that, "the Pakistani government should create conditions and encourage SMEs to widely apply these technologies to their operations". Digitalisation reduces costs and increases productivity but also adds value to products.

Material And Methods

Descriptive survey research design was used for this study because it has the advantage of predicting human behaviour, thus identifying attributes of a population from a small group of an individual. The study' population is small and medium enterprises registered with SMEDAN in Edo and Delta State. The population of SMEs in Edo is 898,084 and Delta is 1,536,158 making a total of 2,434,242 small and medium enterprises (SMEDAN, 2023). The sample size of 400 SMEs owners was obtained for the study using Taro Yamane formula. Non-probability sampling method was used to select the respondents that participated in the survey using features such as category of business, size of business and income. Meanwhile, a well-structured and close-ended questionnaire was used to collect data through the purposive sampling technique. A total of 400 (252 in Delta and 148 in Edo) questionnaires were distributed to the respondents (see table 1 below), while 383 were considered usable upon return. All survey items attributed to digital technology

transformation and business performance were measured via questionnaire. Data analysis involved the use of descriptive statistical tools such as frequency, percentage, and inferential statistical. Therefore, Multiple regression was explored to test the study hypotheses in SPSS 25 at a significant level of 0.05.

Results

This chapter deals mainly with the presentation and analysis of the data, which was presented in frequency tables and interpreted. Out of the 400 copies of the distributed questionnaire, 383 copies were retrieved which showed 96% retrieval rate.

Table 1 – Questionnaire Distributed.

State	Questionnaires Distributed	Number Returned	Percentage Returned
Delta	252	241	95.6%
Edo	148	142	95.9%
Total	400	383	95.7%

Source: Field work.

Answering of Research Questions

The mean value of 3.0 is used as a bench mark. Mean value below 3.0 is considered as rejected while the mean value equal 3.0 and above is considered as “accepted”.

Research Question I

What is the effect of “digital human resources” on business performance in Edo and Delta States?

Table 2: Digital Human Resources and Business Performance

S/N	STATEMENTS	SA	A	U	D	SD	Mean	STDEV	Remark
1.	My firm optimizes their internal processes	166 (43%)	100 (26%)	50 (13%)	42 (11%)	25 (7%)	3.89	57.24	Accepted
2.	My firm promotes efficiency, and improves employee experience	99 (26%)	150 (39%)	65 (17%)	45 (12%)	24 (12%)	3.67	49.47	Accepted
3.	My firm simplifies recruitment process, evaluates and hires employees that better align with the organization's culture and objectives.	185 (48%)	85 (22%)	60 (16%)	50 (13%)	3 (1%)	4.04	67.49	Accepted
4.	My firm improves internal communication, engage employees, increases team productivity and decreases turnover rate.	120 (31%)	108 (28%)	53 (14%)	77 (20%)	25 (7%)	3.58	39.02	Accepted
GRAND TOTAL							3.79	53.31	Accepted

Researchers' compilation 2025

The mean responses to items 1-4 in Table 2 above are: 3.89, 3.67, 4.04 and 3.58 respectively; with a grand mean and standard deviation of 3.79±53.31. Base on this analysis, digital human resources optimizes internal processes; promotes efficiency, and improves employee experience; simplifies recruitment process,

evaluates and hires employees that better align with the organization's culture and objectives; and improves internal communication, engage employees, increases team productivity and decreases turnover rate.

Research Question 2:

How do ICT platforms affect business performance in Edo and Delta States?

Table 3: ICT Platform and Business Performance

S/N	STATEMENTS	SA	A	U	D	SD	Mean	STDEV	Remark
5.	My firm collects, stores, and analyses data more efficiently	96 (25%)	115 (30%)	32 (8%)	80 (21%)	60 (16%)	3.28	0.12	Accepted
6.	My firm makes informed decisions, coordinates with employees and clients.	107 (28%)	116 (30%)	58 (15%)	52 (14%)	50 (13%)	3.46	0.15	Accepted
7.	My firm use ICT platform to analyze data	162 (42%)	108 (28%)	35 (9%)	45 (12%)	33 (9%)	3.84	0.81	Accepted
8.	My firm is efficient, productive, and competitive due to use of ICT platform	150 (39%)	130 (34%)	35 (9%)	50 (13%)	18 (5%)	3.90	0.40	Accepted
GRAND TOTAL							3.62	0.12	Accepted

Researchers' compilation 2025

The means responses to items 5 – 8 in Table 3 are: 3.28, 3.46, 3.84 and 3.90 respectively; with a “grand mean and standard deviation of 3.62±0.12”. Base on this analysis, ICT platform collects, stores, and analyses data more efficiently; makes informed decisions, coordinates with employees and clients; aids “efficiency, productivity, and competitiveness”.

Research Question 3:

How “financial resources for technology” affect business performance in Edo and Delta States?

Table 4: Financial Resources for Technology and Business Performance

S/N	STATEMENTS	SA	A	U	D	SD	Mean	STDEV	Remark
9.	My firm finds routines and methods that work for organisation to achieve her goal and objectives	140 (37%)	138 (36%)	25 (7%)	38 (10%)	42 (11%)	3.77	0.31	Accepted
10	It improves both employees and organisational performance	115 (30%)	146 (38%)	32 (8%)	60 (16%)	30 (8%)	3.67	0.79	Accepted
11	My firm is economically stabled, grows with long-term sustainability.	100 (26%)	156 (41%)	42 (11%)	50 (13%)	35 (9%)	3.62	0.20	Accepted
12	My firm harness her “financial resources to navigate challenges and build a more stable and prosperous future”.	125 (33%)	105 (27%)	55 (14%)	62 (16%)	36 (9%)	3.58	0.00	Accepted
GRAND TOTAL							3.66	0.33	Accepted

Researchers' compilation 2025

The means responses to items 9 – 12 in Table 4 are: 3.77, 3.67, 3.62 and 3.58 respectively; with a grand “mean and standard deviation of 3.66±0.33”. Base on this analysis, “financial resources for technology” finds routines and methods that work for organisation to achieve her goal and objectives; improve both employees and organisational performance; aids economic stability grows with long-term sustainability; and harness “financial resources to navigate challenges and build a more stable and prosperous future”.

Test of Hypotheses

The hypotheses are tested using multiple regressions in SPSS 25 at 0.05 level of significance.

$$BP = \beta_0 + \beta_1DR + \beta_2IT + \beta_3FR$$

BP = Business Performance → Dependent Variable

DR (Digital Human Resources), IT (ICT Platforms), FR (“Financial Resources for Technology”) → Dependent Variables.

Output of regression analysis in SPSS 25

Table 5: Model Summary

	R	r ²	Adjusted r ²	Std. Error	Durbin-Watson
	0.942	0.887	0.886	0.18949	0.079

Source: SPSS output 2025

The r value of 0.942 in Table 5 is the Pearson correlation. This implies that, “there is a strong and positive correlation across the variables” since the value of r (0.942) tends to 1.

The r² value of 0.887 (Table 5), shows the “proportion of the variance” in the business performance that can be “explained by the independent variables” (DR, IT and FR). This implies that 89% of the variation in Business Performance is explained by Digital Human Resources (DR), “Information and Communication Technology Platform” (IT) and “Financial Resources for Technology” (FR).

Table 6: ANOVA

	“Sum of Squares”	Df	“Mean Square”	F	Sig.
Regression	107.182	3	35.727	995.028	0.000
Residual	13.608	379	0.036		
Total	120.791	382			

Source: SPSS output 2025

The value of Sig (0.00) in Table 6 indicates that, the independent variables combined has a statistically significant association with the dependent variable.

Table 7: Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Zero-order	Partial	Part	Tolerance	VIF
(Const)	0.914	0.117		-7.793	0.000					
DR	0.352	0.067	0.319	5.222	0.010	0.925	0.259	0.090	0.080	1.556
IT	0.454	0.066	0.355	6.893	0.002	0.918	0.334	0.119	0.112	4.918
FR	0.433	0.070	0.293	6.170	0.021	0.908	0.302	0.106	0.132	3.600

Source: SPSS output 2025

The individual Sig-value/p-value in Table 10 indicates whether or not each of the independent variables is statistically significant. Therefore,

Hypothesis 1:

There is no significant effect of “digital human resources” on business performance in Edo and Delta States. The Sig-value of DR (0.010) in Table 7 indicates, “there is a significant effect of DR on business performance”, since the Sig-value (0.010) is lesser than 0.05. Therefore, the Ho₁ which stated that there was no significant effect of “digital human resources” on business performance in Edo and Delta States is

rejected. This implies, “there is a significant effect of digital human resources on business performance in Edo and Delta States”. This finding supports the findings of Godin (2018) and Natasha (2024), with similar view that digital human resources improved internal communication, informed decision making: engaged employees, performance monitor and increase productivity.

For every additional effort of improving Digital Human Resources (DR), business performance increases by 0.352 (Table 7) assuming other independent variables remain constant.

Hypothesis 2:

There is no significant effect of ICT platforms on business performance in Edo and Delta States.

The Sig-value of IT (0.002) in Table 7 indicates, “there is a significant effect of ICT platforms on business performance”, since the Sig-value (0.002) is lesser than 0.05. Therefore, the null hypothesis which stated that there was no significant effect of ICT platforms on business performance in Edo and Delta States is rejected. This implies, “there is a significant effect of ICT platforms on business performance in Edo and Delta States”. This finding is in agreement with (Wallet & Valdez, 2014); and Haribhau (2016), who argued that ICT platforms that enable efficient communication, data management, analysis, and decision-making processes, as well as to enhance productivity, customer engagement, and competitive advantage.

For every additional effort of improving ICT Platforms, business performance increases by 0.454 (Table 7) assuming other independent variables remain constant.

Hypothesis 3:

There is no significant effect of financial resources for “technology on business performance” in Edo and Delta States.

The Sig-value of “Financial Resources for Technology” (0.021) in Table 7 indicates, “there is a significant effect of financial resources for technology on business performance”, since the Sig-value (0.021) is lesser than 0.05. Therefore, the null hypothesis which stated that there was no significant effect of financial resources for “technology on business performance” in Edo and Delta States is rejected. This implies, “there is a significant effect of financial resources for “technology on business performance” in Edo and Delta States”. This finding agrees with Kauffman, Liu and Mas (2015) and Shruti (2024) who showed that “financial resources for technology ensure a healthy cash flow, support business operations, expansion, and innovation”.

For every additional effort of Financial Resources for Technology (FR), business performance increases by 0.433 (Table 7) assuming other independent variables remain constant.

The coefficient for the intercept (Table 7) means the expected Business Performance (BP) when Digital Human Resources (DR), ICT Platform (IT) and “Financial Resources for Technology” (FR) are not improved (at 0 states) is 0.914

Therefore, “the estimated regression equation for the model base on the analysis” can be written as:

$$BP = \beta_0 + \beta_1DR + \beta_2IT + \beta_3FR$$

$$BP = 0.914 + 0.352DR + 0.454IT + 0.433FR$$

Discussion

The finding from the analysis of hypothesis 1 revealed that, there is a significant effect of “digital human resources” on business performance in Edo and Delta States. Digital human resources optimize internal processes, promote efficiency, improves employee experience, simplify recruitment process, evaluates and hires employees that better align with the organization's culture and objectives, improves internal communication, engage employees, increases team productivity and decreases turnover rate. This study is in agreement with SYDLE (2024), Baskaran and Mehta (2016), Bannet (2017), Godin (2018) and Visualogyx (2024), who are of similar view that, the goal of digital human resources is “to improve efficiency and effectiveness” by streamlining human resources processes, saving time, and enhancing the employee experience

The finding from the analysis of hypothesis 2 revealed that, there is a significant effect of ICT platforms on business performance in Edo and Delta States. ICT platforms collect, store, analyses data more efficiently; make informed decisions, coordinate employees and clients, aids “efficiency, productivity, and competitiveness”. This finding is in agreement with Visualogyx (2024) and Haribhau (2016), who argued that ICT collect, store and analyses data more efficiently.

The finding from the analysis of hypothesis 3 revealed that, there is a significant effect of “financial resources for technology” on business performance in Edo and Delta States. It enables routines and methods that work for organisation to achieve its objectives; improve both employees and organisational performance, aids economic stability, grows with long-term sustainability; harness “financial resources to navigate challenges, build a more stable and prosperous future”. This finding is in line with the findings of (Pellegrino & Savona, 2017), Shruti (2024), Saunders and Brynjolfsson (2016), who are of similar view that, Financial resources enable organisations to achieve her objectives; improve performance, grows with long-term sustainability and harness “financial resources to navigate challenges”.

Conclusion

The study concludes by stating that digital transformation technology as identified by the research is important to SMEs operating in Edo and Delta State. This is contingent on the fact that the adoption of innovation by managers of small and medium enterprises help to pave way for easy digitalization of the process. This has a positive outlook on the business reputation as it attracts customers’ loyalty and investors to commit their resources in growing the business. On this note, the study establishes that digital technology transformation is intangible resource of business performance especially SMES in Edo and Delta States. According to the basic tenet of the resource-based view theory, digital transformation technology has the capacity to give competitive advantage to small and medium enterprises irrespective of size and location. It is a veritable resource that can “aid growth and expansion of SMEs” in remote locations as it provides easy business processing strategies, good marketing strategies and customers high patronage with good profit margin from product sales.

Recommendations

1. Based on the above findings, the study recommends that small and medium enterprises in Edo and Delta States should adopt digital transformation technology in the operations of the business venture. This way, the business will have good performance indicators of growth, profit margins, productivity, customer satisfaction, employment growth, and improvement in market share amongst others.
2. Managers should be innovative and implement information and communication technology platforms in their businesses to easily adapt to changes in the physical and social environment. This way, the adoption of novel strategies and technology will not become a problem and stakeholders make necessary adjustment when the need arises.
3. SMEs in in Edo and Delta State need to acquire financial resources to promote technology for competitive advantage and for positive business performance.

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