



## Effect of Digital Skills Strategies on the Sustainability of Pharmaceutical Firms in Enugu State

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*The study evaluated the effect of digital skills strategies on the sustainability of pharmaceutical firms in Enugu State. The specific objectives were to: examine the effect of creativity strategy on the regulatory compliance among investors and evaluate the effect of communication strategy on the growing concerns of pharmaceutical firms in Enugu State. The descriptive survey design was used. The population of study was 315 staff of pharmaceutical firms. The whole population was used due to small number. A total of 263 staff returned the questionnaire accurately filled. Data were presented and analyzed using mean score and standard deviation using Sprint Likert Scale. The hypotheses was analyzed using Z - test. The findings indicated that Creativity strategy had significant positive effect on regulatory compliance among investors (95. n = 263),  $5.673 < 9.681$ ,  $P < .05$ ) and Communication strategy had significant positive effect on the growing concerns of pharmaceutical firms in Enugu State,  $Z$  (95. n = 263),  $6.798 < 9.573$ ,  $P < .05$ ). The study concluded that Creativity strategy and Communication strategy had significant positive effect on regulatory compliance among investors and growing concerns of pharmaceutical firms in Enugu State. The study recommended among others that the management of the pharmaceutical firms should have strategies that align with long-term vision. It will help understand how to appeal to the target audience and directs the efforts of the organisation.*



ABSTRACT

**Keywords:** Digital Skills Strategy; Sustainability; Pharmaceutical Firms; Enugu State

## **Background**

In today's environment, technology is increasingly crucial to the economy and society as a whole. Businesses must keep ahead of the evolving digital world in order to remain competitive, thus there is a high need for talents that did not exist a few years ago (Adams, 2022). Digital skills are broadly defined as any abilities required for utilising the internet and other technological devices. Digital abilities are required in the digital age to interact with people and generate new content. These digital talents may range from basic to intermediate or complicated (Rogers and Hendricks, 2023). To stay employable, employees must constantly improve their skills. The need for digital abilities in the workplace has never been higher, and in an increasingly digital environment, learning these talents may have a significant beneficial influence on your life. Digital talents may be difficult to define, especially when input from organisations indicates that the term incorporates a wide range of skills and capacities. In a nutshell, it refers to any talents required to function efficiently in an increasingly digital society. Digital skills are widely defined as the capacity to access and handle information using digital devices, communication apps, and networks (Adams, 2022). The global environment is changing, and digital skills have the transformational capacity to drive this change (Rohit, 2023). Today's firms must achieve sustainability via digital transformation. By embracing sustainability, manufacturing companies may gain a competitive edge, attracting consumers and investors who share their values. Furthermore, integrating sustainable practices enables them to stimulate innovation, cut expenses, and improve their performance.

Advances in information technology (IT) are fast changing the way most things are done. The use of digital technology has become more important for business development and sustainability. At this point, it is critical that Nigerian firms adapt to digital technology. Digital technologies refer to electronic instruments, systems, devices, and resources that produce, store, or process data. Digital technologies offer enormous promise for organisations' environmental, administrative, economic, and social sustainability, and they may be used to a wide range of businesses (Oduntan and Isere, 2022). Having a staff with a wide range of digital abilities provides various advantages for your firm. Being able to adopt new technology in the workplace helps to simplify working procedures, which means less time is spent on repetitive chores and workers are freed up to concentrate their efforts on higher value work that helps both organisations and your employees reach goals (Adams, 2022). Technology is about innovation, and business innovation is about doing things differently in order to give consumers with better goods, solutions, and services. Technology is helpful not just for day-to-day operations; when utilised correctly, it can also help organisations grow and prosper. Successful firms employ technology not only to automate procedures, but also to open up new ways of conducting business (Grant, 2017). However, the digital transformation journey for sustainability, viewed through the lens of transformation skills and competencies required for future work, provides a summary of the digital transformation while taking into account digital technologies, connecting digital transformation to future work, and reflecting on the new digital age to sustainability issues. This chapter provides a thorough assessment of digital technology transformation capabilities, including digital skills and integrated skills for the digital economy. Creating a digital economy necessitates integrated sustainable development capabilities (Onyango, 2023).

## **Statement of the Problem**

Because of technology's capacity to favourably assist company development and increase sales, some business owners are actively integrating it into their operations and using digital capabilities more than ever before. Given that possessing certain skills, knowledge, and mindsets is just one piece of digital competence, one must also be able to put such abilities, expertise, and mindsets into practice and mobilise them in certain marketing circumstances.

Without the proper people, skills, and agility, organisations are unable to make a meaningful digital impact. Digital skills are more than just a collection of technical talents; they represent the ability to create, problem solve, and adapt. The digital world is always changing, and technology is finding its way into every part of our life. However, acquiring and sustaining these digital skills in manufacturing organisations presents obstacles due to a lack of supporting access to digital tools, as well as a dearth of digital literacy skill specialists who can impart their knowledge

to others who are unaware. The difficulty with the current research was a lack of originality and communication strategy among the presumed personnel who are intended to push the force of digital competence in the organisation.

Unlike other industrial businesses, pharmaceutical companies are battling with all three pillars of sustainability: environmental, social, and governance. Climate change, biodiversity loss, pollution, ill health, and poverty are all consequences of excessive and inefficient resource usage. Digital skills include more than simply understanding how to utilize certain technologies or tools; they also include learning how to use them to improve performance and productivity. To flourish, organisations must innovate and accelerate in the digital arena. It is critical to address the rising skills and capabilities gap, which may lead to bad pending employment and developing firms.

### **Objectives of the Study**

The main objective of the study was to evaluate the effect of digital skills strategies on the sustainability of pharmaceutical firms in Enugu State. The specific objectives were to;

- i. Examine the effect of creativity strategy on the regulatory compliance among investors of pharmaceutical firms in Enugu State.
- ii. Evaluate the effect of communication strategy on the growing concerns of pharmaceutical firms in Enugu State.

### **Research Questions**

The following questions guided the study;

- i. What is the effect of creativity strategy on the regulatory compliance of pharmaceutical firms in Enugu State?
- ii. What is the effect of communication strategy on the growing concerns of pharmaceutical firms in Enugu State?

### **Statement of the Hypotheses**

The following hypotheses guided the study;

- i. Creativity strategy has no positive effect on the regulatory compliance of pharmaceutical firms in Enugu State.
- ii. Communication strategy has no positive effect on the growing concerns of pharmaceutical firms in Enugu State.

### **Review of Related Literature**

#### **Conceptual Review**

##### **Digital Skills**

A broad awareness of fundamental technology to execute job duties, as well as talents particular to a sector, such as software development, are examples of digital skills. Learning about digital skills may help you perform numerous activities and increase your productivity in the job, regardless of your industry (Robert, 2023; Edeh, Nnamani, & Mbah, 2023). The digital world has already permeated many elements of our everyday life. They provide confidence in using technology for business, school, and everyday life. Most employment increasingly need digital abilities, and

particular digital talents are influencing conventional professions to varied degrees (Luis, 2023). The fast expansion of Internet access and connection has cleared the path for the creation of a global digital economy. However, both affluent and developing nations face significant inequities as a result of a lack of digital skills.

### **Components of Digital Skills**

The eight components are: creativity, critical thinking and assessment, cultural and social awareness, cooperation, finding and selecting information, effective communication, e-safety, and functional skills (Shively, 2021). The research employed two components: creative strategy and communication strategy, which are discussed below.

### **Creativity Strategy**

A creative strategy is a blueprint that defines how your firm intends to achieve certain goals and objectives, such as brand identification, marketing, and long-term business success. A creative strategy is a blueprint outlining how you intend to achieve specified goals and objectives. An successful creative strategy combines strategic objectives with innovative means to achieving those goals (Asana, 2022; Okechukwu, Ugwu, and Oluka, 2023). A carefully defined strategy serves as a road map, directing the production of communications that are both relevant and powerful across several platforms. It allows organisations to consistently tell their brand narrative, hence increasing customer trust and loyalty (Donato, 2023). Developing a good plan is critical if organisations want their teams to be focused and efficient. However, a strong creative strategy is outwitting the opposition by cautious, deliberate manoeuvres. A creative strategy is a planned course of action that specifies how a company will employ creative campaigns and methods to accomplish its marketing goals (Guthrie, 2023).

### **Communication Strategy**

Communication strategy refers to the programmes that a company implements to meet its communication objectives. They serve as a guide for communication with coworkers, customers, and superiors. Communication strategies have an impact on a corporation by connecting corporate goals to fundamental values, resulting in increased employee engagement and motivation to accomplish their jobs better. They also assist businesses by offering clear operational rules (Jacob, Sean, and Ashley, 2023). A communication strategy is a plan for conveying a message to a specific target audience. Every successful communication plan should explicitly define three key elements that have a direct influence on the strategy's success. These include the target audience, the message, and the means via which it should be conveyed. There are several forms of communication strategies (Koptelova, 2023).

### **Sustainability**

Sustainability is the capacity to continue or support a process across time. Sustainability in business and policy is to avoid the depletion of natural or physical resources, ensuring their long-term availability (Daniel, Brown, & Timothy, 2023). Sustainability is a long-term objective for our society that aims to satisfy the requirements of present economic development while minimising environmental harm. Sustainability is the act of living within the boundaries of existing physical, ecological, and social resources in such a manner that the living systems in which people are integrated may survive indefinitely (Mayday Pizza, 2019; Ugwu, 2021). Sustainability refers to a company's plan and activities for reducing the negative environmental and social repercussions of its operations. Sustainability is a business requirement that should be included into every company's strategy and operations. Sustainability is a business necessity that should be integrated into every company's strategy and operations (IBM Institute for Business Value, 2021).

## Components of Sustainability that form part of the Objectives of the Study

### Regulatory Compliance

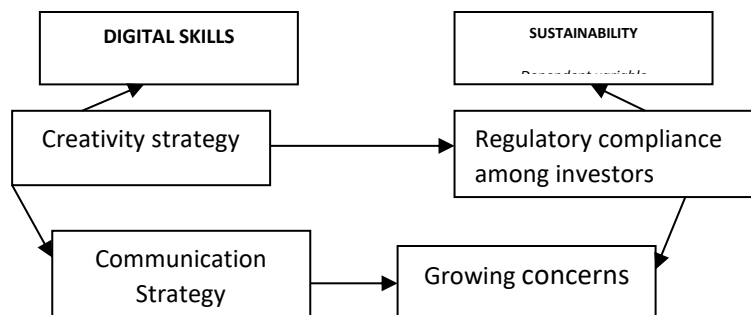
Regulatory compliance refers to the regulations that organisations must follow in order to safeguard sensitive information and human safety. Compliance refers to adhering to a rule, such as a specification, policy, standard, or regulation. Regulatory compliance is the objective that organisations strive for in order to guarantee that they are aware of and follow applicable laws, rules, and regulations (Silveira, Rodriguez, Birukou, Casati, Daniel, D'Andrea, Worledge, & Zouhair, 2012). Because of the growing number of rules and the requirement for operational transparency, organisations are increasingly using consolidated and harmonised sets of compliance controls. This method ensures that all relevant governance needs are addressed without duplicating effort and resource activities (Gillis, 2023).

### Growing Concerns

Growing concern is an accounting phrase used to describe a corporation that has the resources to continue operations forever until shown otherwise. This phrase also refers to a company's capacity to generate enough revenue to continue in business or avoid bankruptcy (Kenton, James & Kvilhaug, 2021). Rising interest rates might limit a company's capacity to repay debt by increasing expenditures without equivalent increases in income. Businesses may find themselves in a perilous position if they spend too much of their money paying off high-interest loans. Accessing money and financing options is frequently critical for organisations looking to develop and thrive, and if interest rates increase, the cost may become prohibitively expensive (Glaze, 2023).

### Conceptual Framework

A conceptual framework is a representation of the connection you anticipate to observe between variables, or of the qualities or attributes that an organisation want to investigate. Conceptual frameworks may be textual or visual, and are often produced after doing a literature analysis of previous research on your subject (Swaen & Tegan, 2022).



Source: Researcher's Field Survey, 2024

### Theoretical Review

#### The following theories guided the study

- i. Fred Davis's Technology Acceptance Model (TAM), developed in 1986
- ii. Dynamic Capabilities Theory, introduced by David Teece in 1997

The study was anchored on Technology Acceptance Model (TAM), developed in 1986 by Fred Davis's, it focused on digital skill practices within pharmaceutical manufacturing firms, TAM serves as a valuable lens through which to explore the dynamics of technology adoption.

### **Dynamic Capabilities Theory**

David Teece established Dynamic capabilities Theory in 1997, which emphasises the importance of organisations' adaptive and inventive capacities in navigating dynamic and unpredictable contexts (Teece, 2007). At its foundation, this theory asserts that organisations must be able to detect new opportunities, capture competitive advantages, and rearrange resources and procedures to efficiently adapt to changing market circumstances. Teece contends that in today's quickly changing business scene, organisations' long-term success depends not just on their current resources and skills, but also on their ability to dynamically adapt and innovate in the face of uncertainty.

Dynamic Capabilities Theory believes that organisations operate in contexts characterised by volatility, uncertainty, complexity, and ambiguity (VUCA), where adaptability and innovation are critical for survival and success. These environments necessitate a proactive and agile approach to strategic management, in which firms constantly scan their external environment for signs of change, identify opportunities for value creation, and quickly realign their internal resources and processes to capitalise on these opportunities (Teece, 2007).

Dynamic Capabilities Theory provides useful insights into how pharmaceutical manufacturing enterprises might use digital talents to improve their sustainability.

### **Technology Acceptance Model**

Fred Davis's Technology Acceptance Model (TAM), published in 1986, is a foundational paradigm for understanding the underlying elements that impact people's intentions to embrace new technology. At its foundation, TAM says that an individual's willingness to embrace new technology is determined by two fundamental constructs: perceived utility and perceived ease of use (Davis, 1989). Perceived usefulness relates to an individual's belief that employing technology would improve their work performance or productivity, while perceived ease of use refers to the individual's opinion of the ease with which the technology may be used.

TAM is based on the idea that attitudes and views about technology adoption are influenced not just by internal perceptions and experiences, but also by external factors such as social norms and organisational support. Individuals often view the expected advantages and probable problems of adopting a new technology via a prism shaped by their interactions with peers, supervisors, and the larger organisational culture (Davis, 1989). Furthermore, TAM proposes a logical decision-making process in which consumers assess the perceived benefits against the perceived complications of incorporating technology into their current processes.

### **Empirical Review**

#### **Creativity Strategy on the Regulatory Compliance among Investors**

Mushtaq, Muhammad, and Zain (2014) investigated the influence of organisational structure on employee creativity: sector-based research. The research aims to investigate the primary components of organisational structure that impact workers' creativity in Pakistan's telecommunications industry. The research used a survey design. The findings revealed that centralization and formalisation have a considerable and negative affect on workplace creativity management, however job specialisation has a less significant negative impact on employee creativity when compared to the other two characteristics of organisational structure.

Gabriel (2021) did research on forecasting employee creativity via transformational leadership: Empirical data from the Aluminium Manufacturing Sector in Rivers State, Nigeria. The research aims to investigate the link between idealised influence, inspiring motivation, and individualised attention and employee innovation at aluminium manufacturing enterprises in Rivers State. The research used a correlational design. A sample size of 2 hundred and eleven (211) was employed. The Spearman's Rank Order Correlation Coefficient was employed in the study. The study indicated that the working environment mediated the relationship between transformative leadership and employee creativity.

Onyegbula, Nwoye, and Daniel (2023) examined the influence of strategy implementation on the performance of regulatory and supervisory authorities in Nigeria's financial services industry. The research intended to determine how technological adaptability, strategic leadership, strategic communication, resource availability, and organisational structure influence agency performance. The study used a descriptive research approach. A sample size of three hundred forty two (342) was employed. The data was examined using ordinary least squares (OLS) regression. The study found that technological adaptability, strategic leadership, strategic communication, resource availability, and organisational structure all had a positive and statistically significant association with organisational success.

### **Communication Strategy on the Growing Concerns**

Masecko and Kungu (2020) investigated the impact of communication on the development of small and medium-sized enterprises in Wakulima Market, Nairobi County, Kenya. The research aimed to assess the impact of communication on the development of SMEs in Wakulima Market, Nairobi City County, Kenya. The study used a descriptive survey research approach. The population was 576. The sample size was 236. The findings revealed that communication has a favourable impact on the development of SMEs.

Stavros and Stamatis (2021) investigated the influence of business communication factors on corporate profitability using empirical data from Citibank in Greece. The study used a literature review and a contextualised research instrument to investigate the relationship between corporate communication and profitability. The research used a descriptive survey. The findings demonstrate that good communication in business has a clear and undeniable impact on corporate profitability and performance.

Yan (2022) investigated the importance of communication techniques on organisational commitment, as well as the mediating role of faculty involvement, using evidence from English language teachers. The research was conducted in China. The research attempted to look into how faculty involvement affects communication techniques and organisational commitment. A sample size of two hundred and seventy six (276) was employed. The data was analysed using SmartPLS and the Structured Equation Modelling approach. The study found that faculty involvement acted as a mediator between information flow and organisational commitment, as well as between information feedback and organisational commitment.

Tabitha and Olgha (2022) investigated the impact of communication methods on the effective execution of projects at the International Livestock Research Institute in Kenya. The research aimed to investigate the impact of communication techniques on the effective execution of projects at ILRI, Kenya. Descriptive and inferential analyses were performed. A sample size of one hundred ninety-four (194) was utilised. The findings revealed that participative communication strategy, results-driven communication strategy, and multi-channeled communication strategy all had a positive and substantial impact on the effective implementation of initiatives at ILRI, Kenya.

### **Summary of Empirical Review Literature**

The empirical review was conducted using the research variables. The research found a lack of variables on innovative approach, regulatory compliance among investors (independent variable), and developing worries (dependent variable). The majority of empirical evaluations focused on organisations other than manufacturing businesses. Furthermore, the majority of them were completed outside of Nigeria. None have been conducted on the linked issue of the current research "effect of digital skills strategies on the sustainability of pharmaceutical firms in Enugu State". As a result, the research was driven by the need to close a gap in the literature.



## **Methodology**

### **Research Design**

The study employed descriptive survey design. This method was used because the study employed both quantitative and qualitative data. Moreover, Eze and okechukwu (2022) opine that this method is used to collect data that aids in accurately describing a research problem.

### **Source of Data**

Data are classified as either primary or secondary data. The classification was based on the two possible sources: primary source and secondary source. The study made use of primary and secondary data.

### **Primary Data**

A primary data source is the one which the data is collected directly (usually first-hand) by the researcher. For the primary data, the questionnaire was used to collect the data. The primary source was questionnaire.

### **Sources of Secondary Data**

Secondary data is sourced from published materials, internet websites, reports, dailies, text books and so on from the library of the institutions understudy. Sources of secondary can be split into two; parts internal and external sources.

### **Area of Study**

The area of the study was Enugu State, Nigeria. The state has many pharmaceutical manufacturing firms, out of this firms three were selected for the study. The selected firms were A.C. Drugs Ltd, 4, Alor Road, Edward Nnaji Layout, Abakpa Nike, Enugu; Braunx Pharm Ltd, Plot B260, New Abakaliki Road Layout, Emene; Bulger Pharm Ltd, No.1NorthFirst Avenue, Trans- Ekulu Pharmaceutical firms. These organizations were selected due to the number of staff and high ethical standard.

### **Population of the Study**

The populations of the study were from three (3) Pharmaceutical firms, with three hundred and fifteen (315) selected staff. A.C. Drugs Ltd (101), Braunx Pharm Ltd (111) and Bulger Pharm Ltd (103).

**Table 1**

	<b>Pharmaceutical firms</b>	<b>Staff</b>
1.	A.C. Drugs Ltd	101
2.	Braunx Pharm Ltd	111
3.	Bulger Pharm Ltd	103
	<b>Total</b>	<b>315</b>

**Source: Researcher, 2024**

### **Sample Size Determination**

The whole population was used due to small number.



### Sampling Technique

The stratified random sampling with a random start was adopted so as to give every unit of the population under study equal opportunity of being selected into sample. The secondary data were collected from firms, journals, publication, textbooks and the internet. Fifteen questions (15) in the questionnaire were ranged.

### Instrument for Data Collection

The main instrument for data collection was a structured questionnaire. Copies of the questionnaire were administered to the employees of the organisation under study. Fifteen (15) designed questionnaire was used. The responses generated were used thereafter for data analyses.

### Validity of the Instrument

The instrument was given to two experts from the industry and academia to measure face and content validity. To make sure that the research instruments applied in the work are valid, the research ensured that the instrument measure the concept they are supposed to measure.

### Reliability of the Research Instrument

This was done by administering 20 copies of the prepared questionnaire to the sample of the study. Cronbah's Alpha was used in determining the extent of consistency of the reliability. A Cronbach's alpha value ( $\infty$ ) of greater 0.860 indicated very strong reliability.

**Table 2: Reliability Statistics**

Cronbach's Alpha	No. of Items
.86	10

Scale reliabilities were calculated using Cronbach's Alpha; the result obtained was 0.860. This shows that the internal consistency of the scale is good for the purpose of this study because it is greater than 0.86 which was good.

### Method of Data Analyses

Data from the questionnaire were analyzed with the aid of SPSS version 23 using simple, simple percentages, mean and standard deviation. For the 5-point likert scale questions, the scale and decision rule stated below were used in analysing the findings.

**Scale:** Strongly Agree (SA) -5, Agree (A) - 4, Neutral (N) -3, Disagree (D) -2, Strongly Disagree (SD)-1

**Decision Rule:** If Mean  $\geq 3.0$ , the respondents agree and If mean  $\leq 3.0$ , the respondents disagree. The decision rule is to accept the null hypothesis if the computed r is less than the tabulated r otherwise rejects the null hypothesis and Z - test was used to test the hypotheses and analyzed with the aid of SPSS.

Data Presentation and Analyses

Effect of creativity strategy on the regulatory compliance among investors of pharmaceutical firms in Enugu State.

Table 3: Responses on the effect of creativity strategy on the regulatory compliance among investors of pharmaceutical firms in Enugu State

		5	4	3	2	1	ΣFX	-	SD	Decision
		SA	A	N	DA	SD		X		
1	The organization brand identity promoted the overestimate of more workers.	460 92 35.0	80 20 7.6	264 88 33.5	74 37 14.1	26 26 9.9	904 263 100%	3.43	1.352	Agree
2	The pharmaceutical market development attract more employees to the firms.	710 142 54.0	80 20 7.6	117 39 14.8	78 35 13.3	27 27 10.3	1012 263 100%	3.84	1.456	Agree
3	Long-term business growth was as a result of meeting specific goals and objectives.	550 110 41.8	80 20 7.6	219 73 27.8	50 25 9.5	35 35 13.3	934 263 100%	3.55	1.442	Agree
4	There is innovative approaches which increased the number workers.	615 123 46.8	220 55 20.9	99 33 12.5	46 23 8.7	29 29 11.0	1009 263 100%	3.83	1.384	Agree
5	Reaching the target market increased the outcomes and workers.	785 157 59.7	148 37 14.1	66 22 8.4	52 26 9.9	21 21 8.0	1072 263 100%	4.07	1.340	Agree
<b>Total Grand mean and standard deviation</b>								<b>3.724</b>	<b>1.3466</b>	

Source: Field Survey, 2024

Table 3, 112 respondents out of 263 representing 42.6 percent agreed that The organization brand identity promoted the overestimate of more workers with mean score 3.43 and standard deviation of 1.352. The pharmaceutical market development attract more employees to the firms 162 respondents representing 61.6 percent agreed with mean score of 3.84 and standard deviation of 1.456. Long-term business growth was as a result of meeting specific goals and objectives 130 respondents representing 49.4 percent agreed with mean score of 3.55 and standard deviation of 1.442. There is innovative approaches which increased the number workers 178 respondents representing 67.7 percent agreed with mean score of 3.83 and 1.384. Reaching the target market increased the outcomes and workers.194 respondents representing 73.8 percent agreed with a mean score of 4.07 and standard deviation 1.340.

The Effect of Communication Strategy on the Growing Concerns of Pharmaceutical Firms in Enugu State

Table 4: Responses on the effect of communication strategy on the growing concerns of pharmaceutical firms in Enugu State

		5	4	3	2	1	ΣFX	-	SD	Decision
		SA	A	N	DA	SD		X		
1	Communication strategy helps the firm establish and maintain strong relationships.	550 110 41.8	264 66 25.1	54 18 6.8	90 45 17.1	24 24 9.1	982 263 100%	3.73	1.389	Agree
2	Effective communication builds trust and increase outcomes.	590 118 44.9	304 76 28.9	57 19 7.2	30 15 5.7	35 35 13.3	1016 263 100%	3.86	1.391	Agree
3	Transparency is ensured with proper communication which promotes business expansion.	750 150 57.0	284 71 27.0	54 18 6.8	12 6 2.3	18 18 6.8	1118 263 100%	4.25	1.135	Agree
4	Accountability is easier and advantageously within the organisation with the help of communication.	650 130 49.4	352 88 33.5	39 13 4.9	36 18 6.8	14 14 5.3	1091 263 100%	4.14	1.131	Agree
5	Practicing of more efficient problem-solving is promoted with communication.	440 88 33.5	384 96 36.5	39 13 4.9	88 44 16.7	22 22 8.4	973 263 100%	3.69	1.312	Agree
<b>Total Grand mean and standard deviation</b>								<b>3.724</b>	<b>1.3466</b>	

Source: Field Survey, 2024

Table 4, 176 respondents out of 263 representing 66.9 percent agreed that Communication strategy helps the firm establish and maintain strong relationships with mean score 3.73 and standard deviation of 1.389. Effective communication builds trust and increase outcomes 194 respondents representing 73.8 percent agreed with mean score of 3.86 and standard deviation of 1.391. Transparency is ensured with proper communication which promotes business expansion 221 respondents representing 84 percent agreed with mean score of 4.25 and standard deviation of 1.135. Accountability is easier and advantageously within the organisation with the help of communication 218 respondents representing 82.9 percent agreed with mean score of 4.14 and 1.131. Practicing of more efficient problem-solving is promoted with communication 184 respondents representing 70.0 percent agreed with a mean score of 3.69 and standard deviation 1.312.

## Test of Hypotheses

**Hypothesis One: Creativity strategy has significant effect on the regulatory compliance among investors of pharmaceutical firms in Enugu State**

		The organization brand identity promoted the overestimate of more workers.	The pharmaceutical market development attracts more employees to the firms.	Long-term business growth was as a result of meeting specific goals and objectives.	There is innovative approaches which increased the number workers.	Reaching the target market increased the outcomes and workers.
N		263	263	263	263	263
Uniform Parameters <sup>a,b</sup>	Minimum	1	1	1	1	1
	Maximum	5	5	5	5	5
Most Extreme Differences	Absolute	.350	.540	.418	.468	.597
	Positive	.099	.103	.133	.110	.080
	Negative	-.350	-.540	-.418	-.468	-.597
Kolmogorov-Smirnov Z		5.673	8.756	6.783	7.585	9.681
Asymp. Sig. (2-tailed)		.000	.000	.000	.000	.000
a. Test distribution is Uniform.						
b. Calculated from data.						

### Decision Rule

If the calculated Z-value is greater than the critical Z-value (i.e.  $Z_{cal} > Z_{critical}$ ), reject the null hypothesis and accept the alternative hypothesis accordingly.

### Result

With Kolmogorov-Smirnov Z – value ranges from  $5.673 < 9.681$  and on Asymp. Significance of 0.000, the responses from the respondents as display in the table is normally distributed. This affirms the assertion of the most of the respondents that creativity strategy had significant positive effect on the regulatory compliance among investors of pharmaceutical firms in Enugu State.

### Decision

Furthermore, comparing the calculated Z- value ranges from  $5.673 < 9.681$  against the critical Z- value of 0.000 (2-tailed test at 95 percent level of confidence) the null hypothesis were rejected. Thus the alternative hypothesis was accepted which states that Creativity strategy had significant positive effect on the regulatory compliance among investors of pharmaceutical firms in Enugu State.

**Hypothesis Two: Communication Strategy has positive significant effect on the growing concerns of pharmaceutical firms in Enugu State**

		Communication strategy helps the firm establish and maintain strong relationships.	Effective communication builds trust and increase outcomes	Transparency is ensured with proper communication which promotes business expansion.	Accountability is easier and advantageously within the organisation with the help of communication.	Practicing of more efficient problem-solving is promoted with communication.
N		263	263	263	263	263
Uniform Parameter <sub>s<sup>a,b</sup></sub>	Minimum	1	1	1	1	1
	Maximum	5	5	5	5	5
Most Extreme Differences	Absolute	.419	.488	.590	.579	.450
	Positive	.091	.133	.068	.053	.084
	Negative	-.419	-.488	-.590	-.579	-.450
Kolmogorov-Smirnov Z		6.798	7.908	9.573	9.388	7.292
Asymp. Sig. (2-tailed)		.000	.000	.000	.000	.000
a. Test distribution is Uniform.						
b. Calculated from data.						

**Decision Rule**

If the calculated Z-value is greater than the critical Z-value (i.e.  $Z_{cal} > Z_{critical}$ ), reject the null hypothesis and accept the alternative hypothesis accordingly.

**Result**

With Kolmogorov-Smirnon Z – value ranges from  $6.798 < 9.573$  and on Asymp. Significance of 0.000, the responses from the respondents as display in the table is normally distributed. This affirms the assertion of the most of the respondents that communication strategy had significant positive effect on the growing concerns of pharmaceutical firms in Enugu State

**Decision**

Furthermore, comparing the calculated Z- value ranges from  $6.798 < 9.573$  against the critical Z- value of 0.000 (2-tailed test at 95 percent level of confidence) the null hypothesis were rejected. Thus, the alternative hypothesis was accepted which states that communication strategy had significant positive effect on the growing concerns of pharmaceutical firms in Enugu State.

## **Discussion of Hypotheses**

### **Effect of Creativity Strategy on the Regulatory Compliance among Investors of Pharmaceutical Firms**

In hypothesis one, the estimated Z-value ranges from  $5.673 < 9.681$  versus the essential Z-value of 0.000, indicating that a creative approach had a substantial beneficial influence on regulatory compliance among pharmaceutical investors in Enugu State. In support of the findings in the literature, Gabriel (2021) performed a research on forecasting employee creativity via transformational leadership: Empirical data from the Aluminium Manufacturing Sector in Rivers State, Nigeria. The study indicated that the working environment mediated the relationship between transformative leadership and employee creativity. Onyegbula, Nwoye, and Daniel (2023) examined the influence of strategy implementation on the performance of regulatory and supervisory authorities in Nigeria's financial services industry. The study found that technological adaptability, strategic leadership, strategic communication, resource availability, and organisational structure all had a positive and statistically significant association with organisational success.

### **Effect of Communication Strategy on the Growing Concerns of Pharmaceutical Firms**

In hypothesis two, the estimated Z-value ranges from  $6.798 < 9.573$  versus the essential Z-value of 0.000, indicating that communication strategy had a considerable beneficial impact on the developing worries of pharmaceutical enterprises in Enugu State. Masecko and Kungu (2020) did research on the impacts of communication on the development of SMEs in Wakulima Market, Nairobi County, Kenya, to support the findings in the literature. The findings revealed that communication has a favourable impact on the development of SMEs. The research revealed that clear, open, and effective communication in an organisation fosters a feeling of openness and trust among employees at all levels. Stavros and Stamatis (2021) investigated the influence of business communication factors on firm profitability. An empirical study of Citibank in Greece. The findings demonstrate that good communication in business has a clear and undeniable impact on corporate profitability and performance.

## **Summary of Findings**

- i. Creativity strategy had significant positive effect on the regulatory compliance among investors of pharmaceutical firms in Enugu State,  $Z(95. n = 263), 5.673 < 9.681, P. < .05$
- ii. Communication strategy had significant positive effect on the growing concerns of pharmaceutical firms in Enugu State,  $Z(95. n = 263), 6.798 < 9.573, P. < .05$

## **Conclusion**

The study concluded that Creativity strategy and Communication strategy had significant positive effect on the regulatory compliance among investors and growing concerns of pharmaceutical firms in Enugu State. Having a workforce with a variety of digital skills has numerous benefits for business. Being able to embrace new technology in the workplace helps to streamline working processes, meaning less time is spent on repetitive tasks and staff are freed up to focus their efforts on higher value work that helps both organizations and your employees to meet objectives.

## Recommendations

Based on the findings the following recommendations were proffered:

- i. The management of the pharmaceutical firms should have organizational strategies that align with long-term vision with. It will help understand how to appeal to the target audience and directs the efforts of the organisation.
- ii. Communication strategies can help you for exchanging of meaningful information with co-workers the organisation should try and have Effective communication by sharing information efficiently, team members can contribute to an organization's success and reach their goals.

## Contribution to Knowledge

- a. **Theoretically:** In the context of the study focusing on digital skill practices within pharmaceutical manufacturing firms, TAM serves as a valuable lens through which to explore the dynamics of technology adoption.
- b. **Methodologically:** The study took a general view of digital skills strategies which is consistent with literature.

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