



TECHNOLOGY INNOVATION AND ORGANISATIONAL STRATEGIC PLANNING CAPABILITY OF SELECTED ICT COMPANIES IN LAGOS STATE, NIGERIA

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ABSTRACT

This study focused on the effect of Technology Innovation on Strategic Planning Capability using selected ICT firms (Spectranet Nigeria Limited and Zinox Technologies Limited) in Lagos State, Nigeria. The objectives of the study were to test how significantly IT Infrastructure and investment in emerging technology affects strategic planning process and the success of strategic goals and objectives respectively. The study adopted a descriptive research design. The targeted population consisted of 242 staff of both Zinox Technologies Limited and Spectranet Nigeria Limited in Lagos State distributed across various categories. Using the Taro Yamane sample size formula, a sample size of 151 was drawn from the population. The researcher adopted the convenience sampling technique to select the choice of firm by selecting them based on their closeness to the researcher. The sample was stratified to ensure that all the members of the population were adequately represented. A purposive sampling technique was used in each stratum. Data was collected through a self-developed questionnaire. Content validity and Cronbach's alpha were used to test the validity and reliability of the research instrument. The collected data was analysed using inferential statistics using SPSS (Statistical Package for the social sciences). The findings revealed that IT infrastructure explains 30.9% of the increase in the efficiency of the strategic planning process and investment in emerging technologies increases the chances of actualizing the strategic plans and objectives of Spectranet Nigeria Limited and Zinox Technologies Limited in Lagos State, Nigeria by 59.1%. It was therefore concluded that just as Information Technology Innovation is a key indicator in the strategic planning capability of the selected ICT firms in Lagos state, Nigeria so it is with many other ICT and non-ICT firms in Lagos state and other parts of Nigeria. It is therefore expedient for relevant policy makers in organisations to embrace IT innovations and inculcate them into their organisations periodic and overall strategic plans.

KEYWORDS; Information Technology Innovation, Investment in Emerging Technologies, IT Infrastructure, Strategic Planning Capability, Technology Innovation

INTRODUCTION

The ability to innovate helps organisations succeed by giving them a competitive edge, increasing production and efficiency, and opening up new business prospects. Innovation is greatly facilitated by technology (Camisón-Haba, Clemente-Almendros, & Gonzalez-Cruz, 2019), and information technology (IT) in particular has emerged as a critical tool for businesses looking to innovate (Mgunda, 2019). IT innovation has completely changed how businesses now function, interact, and compete in the current fast-paced corporate climate. Organisations who are able to keep up with the most recent technological advancements are more likely to be inventive and competitive since IT is always evolving. IT has evolved into a "digital engine of innovation," according to McAfee and Brynjolfsson (2012), giving firms new opportunities to add value, cut costs, and enhance their goods and services.

In enterprises, IT frequently serves as a catalyst for innovation. IT may encourage creativity and encourage experimentation by giving staff access to new resources. IT may help innovation by giving staff members access to information, enhancing their ability to communicate, and encouraging experimentation and learning (Boons & Lüdeke-Freund, 2013). IT can also be used to assess how committed an organisation is to innovation. Innovation commitment and a supportive culture are more likely to exist in organisations that invest in IT and use it successfully. "Digitally mature" firms are more likely to be innovative and to have a culture that supports experimentation, risk-taking, and learning (McKinsey, 2018).



Organisations can also establish their mission, vision, and goals through strategic planning, which also helps them create plans on how to get there. Organisations can enhance their performance, adjust to changing conditions, and find long-term success with the aid of a well-designed strategic plan. For a number of reasons, having a strong strategic planning competence is essential to organisational effectiveness. First off, firms with a well-designed and implemented strategic plan are more likely to be focused on and aligned with their objectives. Strategic planning, as mentioned by Alston and Bryson (2013), offers a framework for decision-making and ensures that all areas of the business are working toward the same goals.

Strategic planning also enables firms to adjust to shifting conditions and spot fresh growth prospects. According to Tidd and Bessant (2014), strategic planning can assist firms in spotting new trends and technology and helping them to devise plans for capitalising on them. Organisations may make sure they are sensitive to changes in their external environment and are prepared to seize new possibilities as they present themselves by routinely examining and revising their strategic plans.

Organisational performance is closely correlated with strategic planning skill. Long-term success and performance are more likely for organisations with a well-designed and implemented strategic plan. Strategic planning, as observed by Wheelen and Hunger (2011), enables firms to deploy resources efficiently, identify and address operational shortcomings, and foster a culture of continuous improvement.

In a competitive and dynamic world, an organisation's reliance on technological innovation is increasing. As an intangible asset, technology is becoming more crucial for business survival and competition. Technical innovation may have an impact on an industry's structure or competitive advantage in addition to giving a corporation ready to take on an experienced opponent a major edge (Zahra & Bogner, 2000). As a result, the extensive use of technology can greatly influence how a business is organised. Furthermore, technological advancement can give companies a competitive advantage or even increase their total profitability. Any business that wants to succeed must be able to compete in its industry and make an effort to compete internationally (Akinde & Bako, 2020).

The value of innovation must be entrenched throughout the company, according to various studies (Danneels, 2002; Gelende and Fuente, 2003). Unfortunately, Nigerian manufacturers find it difficult to compete with those from other countries. Local businesses cannot compete with their global counterparts in terms of product quality and other marketing capabilities. Foreign companies have a toolkit for success that domestic manufacturers do not: they use strategic plans. In the end, multinationals perform better while local industries suffer (Akinde & Bako, 2020).

It is widely known that integrating IT as a technological innovation into strategic planning can enhance an organisation's performance. In accordance with Chi & Sun (2015), IT gives businesses the tools and capabilities they need to more thoroughly study their environments, spot possible risks and opportunities, and create winning plans to take advantage of these opportunities. Similar to this, Lee & Chung (2009), contend that IT can be utilised to enhance strategic planning by facilitating speedier decision-making, delivering real-time access to information, and enhancing communication and collaboration among various organisational units.

However, there are a number of variables that can affect how well IT innovation can improve an organisation's capacity for strategic planning. The organisation's capacity to integrate its IT strategy into its overarching business plan is a crucial consideration. IT can only be useful if it is in line with the organisation's strategic goals and used to support rather than drive them (Wang et al., 2008). Additionally, rather than being viewed as a distinct function or department, IT must be integrated into the organisation's larger planning and decision-making processes.

Recent studies have also emphasised the significance of company culture in determining how IT will affect strategic planning. The culture of a business can either help or hinder the efficient use of IT in strategic planning, according to Seyedyousefi et al. (2016). An organisation is more likely to adopt new technologies and use them successfully to assist strategic planning in a culture that emphasises experimentation, collaboration, and innovation, for instance.

STATEMENT OF THE PROBLEM

As identified earlier in this study, the strategic planning process in firms can be considerably impacted by the use of information technology (IT) infrastructure. Hardware, software, networks, and other technologies that support an organisation's IT activities are included in IT infrastructure. The significance of IT infrastructure in the process



of strategic planning has increased as businesses rely more and more on IT to power their operations (Mgunda, 2019). This was also noted by researchers such as Camisón-Haba, Clemente-Almendros, & Gonzalez-Cruz (2019) that the capacity to gather and analyse data more effectively and efficiently is one important way that IT infrastructure impacts the strategic planning process. This is because large volumes of data can be collected, processed and stored by firms using IT infrastructure, and sophisticated software can analyse this data to reveal insights into consumer behaviour, market trends, and other aspects that can guide strategic planning decisions (Laudon & Laudon, 2016). However, most of the studies on IT infrastructure are done by researchers in developing countries. The focus of most study on IT in developing countries like Nigeria have focused more on the software as new technology to improve performance. Hence this study will examine the extent to which IT infrastructure impacts the strategic planning process of selected ICT firms in Lagos state Nigeria.

Second, in order to accomplish their strategic goals and objectives, ICT (Information and Communication Technology) organisations have been investing in these innovations due to the quick improvements in emerging technologies (Pantagakis, Terzakis, & Arvanitis, 2012; Daghour, Mansouri, & Qbadou, 2019). Despite the increased interest in such expenditures, there is a dearth of research on the precise impact of such investments on the achievement of the strategic goals and objectives of ICT organisations. Although previous research has examined how technology investments affect overall firm performance, there is a dearth of thorough literature that examines how investments in emerging technologies specifically affect the achievement of strategic goals and objectives in the context of ICT firms. A lack of case studies specifically examining the impact of investment in emerging technologies on the strategic goals and objectives of ICT firms is another issue. While some case studies have examined technology investments and their impact on overall firm performance (Wilson, Wnuk, Silvander, & Gorschek, 2018; Martinho et al., 2015), others have not. By carefully examining the impact of investments in new technologies on the accomplishment of the strategic goals and objectives of selected IT firms in Lagos state, this study intends to fill these gaps.

RESEARCH OBJECTIVES

The main objective of this paper is to examine how technology innovation affects strategic planning capability of selected ICT organisations in Lagos state. The specific objectives are to:

- i. Examine how IT infrastructure influences the strategic planning process in selected ICT firms in Lagos State and
- ii. Examine the degree to which Investment in Emerging Technologies affects the success of strategic goals and objectives of selected ICT firms in Lagos State.

RESEARCH QUESTIONS

- i. How does IT infrastructure influence the strategic planning process in selected ICT firms in Lagos State?
- ii. What is the degree to which Investment in Emerging Technologies affects the success of strategic goals and objectives of selected IT firms in Lagos State?

RESEARCH HYPOTHESES

- i. IT infrastructure does not influence the strategic planning process in the selected ICT firms in Lagos State.
The degree to which Investment in Emerging Technologies affects the success of strategic goals and objectives of the selected IT firms in Lagos State is not significant

RELEVANCE OF THE STUDY

Given the growing significance of information technology innovation and strategic planning skills in the contemporary business scene, the study is quite pertinent. Organisations must constantly innovate and create new strategies to stay competitive and relevant in the market given the rapid speed of technological innovation. This study will offer insightful information about how the chosen ICT enterprises in Lagos State, Nigeria, may use strategic planning and information technology innovation to boost their competitiveness and promote long-term growth. The results of this study can aid in the development of policies and strategies that can support the expansion and development of this industry in Nigeria and can aid policymakers, business professionals, and academics in better understanding the importance of information technology innovation and strategic planning capability in the performance and ultimate success of ICT firms.



SCOPE AND LIMITATION OF THE STUDY

The study generally examined how technological innovation affects the organisational performance of ICT firms. But the scope of this study will be limited to exploring how information technology innovation as a domain of technological innovation affects the performance of ICT firms using their strategic planning capability as an indicator. This study is, for convenience, cost and time constraints, limited to an ICT environment within Lagos State.

LITERATURE REVIEW

This section captures the relevant conceptual and theoretical research reviewed. This is to provide a general understanding of the relevance of IT innovation and strategic planning to the performance of firms especially ICT firms which is the focus of this study.

CONCEPT OF STUDY VARIABLE

Concept of Information Technology Innovation

To have a better understanding of the concept of IT innovation, this study briefly examined the concept of these two words in the construct; information-technology and innovation. This is because there is a differing view of the construct by various individuals.

Information Technology

Information technology (IT) is a comprehensive word that describes the management, processing, and communication of information via the use of digital and electronic technologies. IT includes a broad spectrum of communication, software, and hardware tools that let businesses gather, store, process, and disseminate data and information (Lu & Ramamurthy, 2011). IT examples include computer hardware like servers, workstations, and mobile devices, as well as software programs like business intelligence tools, CRM systems, and enterprise resource planning (ERP) tools (Aremu, Shahzad, & Hassan, 2020).

Because it makes it easier to communicate, collaborate, and process data, IT is used more and more in contemporary enterprises. IT can help businesses simplify operations, cut expenses, and increase production and efficiency (Lu & Ramamurthy, 2011). According to Aremu, Shahzad, and Hassan (2020), ERP systems, for instance, may automate and integrate key company activities like finance, procurement, and production, while CRM systems can help businesses better manage their relationships with customers and boost client satisfaction. Additionally, IT can give businesses fresh chances for development and innovation. For instance, the use of business intelligence and data analytics tools can help organisations understand how customers behave, market trends, and operational performance, which can help them make strategic decisions and create new products and services (Lu & Ramamurthy, 2011).

However, organisations face risks and obstacles as a result of the adoption and usage of IT. IT systems can be difficult to set up, expensive to maintain, and necessitate specialised knowledge. The vulnerability of IT systems to cyberattacks and data breaches can cause serious financial and reputational harm to enterprises (Aremu, Shahzad, & Hassan, 2020).

Innovation

Innovation is the development and use of fresh concepts, procedures, goods, or services that benefit people, businesses, and society as a whole (Schilling, 2013). According to Birnbaum, Christensen, and Raynor (2005), innovation can take many different forms, from subtle tweaks to already successful products or procedures to seismic innovations that create totally new markets or sectors.

The fact that innovation combines creativity and application is one of its essential characteristics. Implementation is the process of transforming fresh ideas into realisable results, whereas creativity is the invention of new ideas. To bring new ideas to life, innovation needs both imaginative thinking and successful implementation (Schilling, 2013).

The fact that innovation frequently entails taking risks is another crucial component. Uncertainty is a common component of innovation pursuits since new concepts may not always be fruitful. However, businesses who are prepared to take chances and invest in innovation stand to benefit greatly in terms of improved growth and competitiveness (Birnbaum, Christensen, & Raynor, 2005).

Technology improvements, shifting customer preferences, and changes in market dynamics can all be sources of innovation (Schilling, 2013). Therefore, firms that can keep aware of these outside forces and modify their innovation strategies as necessary are more likely to be successful in creating and putting forth creative ideas.



Information Technology Innovation

Information technology (IT) innovation is the development and use of fresh concepts, procedures, goods, or services in the context of IT that benefit people, businesses, and society as a whole (Skafi et al., 2020). According to Westerman, Bonnet, and McAfee (2014), IT innovation can take many different forms, such as the creation of new software, hardware, or systems, as well as the introduction of new business models that make use of technology.

The fact that technological advances are what propel IT innovation is one of its key characteristics. Organisations that can keep up with the most recent technological trends and use them in creative ways are more likely to prosper as technology continues to advance at a rapid rate (Westerman et al., 2014).

Collaboration between various functional areas within an organisation as well as with external partners like vendors and customers is another crucial feature of IT innovation (Skafi et al., 2020). Organisations must be able to dismantle silos and promote cross-functional cooperation in order to create and execute innovative IT solutions. IT innovation may also be influenced by a variety of external variables, such as shifting consumer preferences and wants, changes in market dynamics, and new legal requirements (Westerman et al., 2014). As a result, businesses who can keep an eye on these outside forces and modify their IT innovation strategy as necessary are more likely to thrive.

Concept of strategic Planning

The process of identifying an organisation's mission, vision, and objectives as well as creating a detailed strategy to carry out those objectives is known as strategic planning (David & David, 2017). Analysis of the organisation's internal and external environments, identification of strengths, weaknesses, opportunities, and threats, and development of strategies to seize opportunities and counteract threats are all part of this process.

The creation of a compelling vision that directs the organisation's efforts is a crucial component of strategic planning (Kaplan & Norton, 2008). The organisation's strategic operations should have a clear direction that is both inspiring and motivating, according to the vision.

The creation of a set of SMART (specific, measurable, achievable, relevant, and time-bound) objectives is another crucial component of strategic planning (David & David, 2017). A path for accomplishing the organisation's strategic goals should be provided by the objectives, which should be in line with the mission and vision of the business.

Creating strategies to accomplish the organisation's goals is a component of strategic planning. These tactics could include developing new products, expanding the market, cutting costs, or taking other actions (Kaplan & Norton, 2008). Strategies must be feasible, realistic, and sensitive to the organisation's strengths and weaknesses.

Last but not least, strategic planning entails the creation of an implementation plan that includes resource allocation, deadlines, and metrics for tracking advancement and assessing results (David & David, 2017). Clear communication, powerful leadership, and the capacity for flexibility are necessary for effective implementation.

Strategic Planning Capability

According to Mintzberg, Ahlstrand & Lampel, (2009), a company's strategic planning capability is measured by its capacity to create and implement plans that are in line with its mission, vision, and goals. It requires the capacity to assess internal and external surroundings, spot strategic dangers and opportunities, and then create and carry out plans to take advantage of those opportunities while averting those threats.

The capacity to think strategically and generate strategies proactively is a crucial component of strategic planning ability (Mintzberg et al., 2009). This calls for a thorough examination of an organisation's fundamental skills as well as a careful examination of the external environment, new trends, and business prospects.

Aligning strategy with execution and monitoring and modifying plans as appropriate are two other crucial aspects of strategic planning capabilities (Sull & Eisenhardt, 2015). This entails defining measurements for tracking progress and assessing results, as well as setting clear objectives and effectively allocating resources.

According to Mintzberg, Ahlstrand & Lampel, (2009), an organisation's culture and leadership are also intimately related to its capacity for strategic planning. An environment that fosters strategic planning competence can be



fostered by a culture that encourages strategic thinking, innovation, and risk-taking. By establishing a clear strategic direction, effectively communicating that direction, and enabling employees to participate in the formulation and implementation of the strategy, good leadership can also play a significant role in the development of strategic planning capabilities.

Strategic Planning Capability and Organisational performance

The capacity for strategic planning is crucial for improving an organisation's performance, but it may also serve as a benchmark for that performance. Strategic planning capability, according to Aldehayyat and Al Khattab (2012), is a crucial indicator of an organisation's performance because it sheds light on its capacity to create and put into practice strategies that will help it accomplish its goals.

Examining a company's capacity to create and implement successful strategic plans is one way to gauge its strategic planning capacity. This entails assessing the effectiveness of the planning process, the plan's fit with the company's mission and goals, and the capacity of the organisation to carry it out successfully. The organisation's capacity for environmental adaptation, opportunity identification and exploitation, and risk management efficiency are further indicators of strategic planning competency (Aldehayyat & Al Khattab, 2012).

Additionally, studies have shown that businesses with superior strategic planning capabilities typically outperform their rivals. For instance, a study by Hunjra et al. (2014) discovered that a firm's financial performance was significantly improved by its capacity for strategic planning. The study also discovered that companies with stronger strategic planning capabilities had a higher likelihood of achieving their goals and objectives.

THEORETICAL REVIEW

Certainly! The problem of information technology innovation and strategic planning capacity is pertinent to a number of theories. Here are a few examples the researcher felt were appropriate for the study.

Resource-based theory: According to this idea, a company's resources, particularly information technology, can help it gain a competitive edge and improve its capacity for strategic planning (Barney & Clark, 2007). This thesis contends that organisations that can efficiently manage and use their IT resources may be better equipped to create and put into practice creative strategies in the context of information technology.

Technology Acceptance Model: According to this model, perceived usefulness and perceived ease of use have an impact on whether new technology, especially information technology advancements, are adopted (Venkatesh & Davis, 2000). This model implies that the use of new information technology tools may assist organisations in more effectively gathering and analysing data, which can guide strategic decision-making, in the context of strategic planning capabilities.

Dynamic capability theory: According to this idea (Teece, 2009), an organisation's capacity to adapt to shifting contexts and create new capabilities is essential to long-term success. This theory proposes that organisations that are able to continuously develop and improve their IT capabilities may be better equipped to adapt to changing business environments and develop more effective strategic plans. It is relevant to information technology innovation and strategic planning capability.

The absorptive capacity theory: contends that innovation and competitive advantage are significantly influenced by an organisation's capability to collect and apply external knowledge (Cohen & Levinthal, 2018). According to this theory, organisations that can successfully incorporate outside knowledge such as fresh IT innovations or market trends into their strategic planning processes may be in a better position to create innovative strategies. This theory is relevant to the relationship between information technology innovation and strategic planning capability.

Relevance of these Theories to the study

Resource-Based Theory (RBT) focuses on the firm's internal resources and capabilities that can support its strategic planning capability, making it extremely relevant to the study (Barney, 2001). RBT assists in identifying and analysing the distinctive IT resources and competencies that enable organisations to establish successful strategies in the context of information technology innovation and the strategic planning capacity of ICT firms (Liang et al., 2010). It offers insights into how the strategic planning capacity of ICT organisations is influenced by the allocation and utilisation of IT resources, including technological infrastructure, a competent workforce, and knowledge assets.



Understanding the variables affecting the acceptability and implementation of IT advances inside ICT organisations requires an understanding of the technology acceptance model (TAM) (Venkatesh & Davis, 2000). Researchers can investigate how employees' attitudes, beliefs, and intentions towards IT innovation affect the capacity for strategic planning of ICT organisations by using TAM to the study. TAM sheds light on the individual-level elements that promote or obstruct the effective incorporation of IT innovation into the processes of strategic planning. Understanding how employees use and accept IT advances helps ICT companies maximise their capacity for strategic planning.

Dynamic Capability Theory, which focuses on an organisation's capacity for adaptation, learning, and change in response to dynamic surroundings, is extremely pertinent to the subject (Teece, 2014). Dynamic Capability Theory aids in the analysis of how firms develop the capacity to sense emerging technologies, seize opportunities, and reconfigure their resources and processes to align with strategic goals (Eisenhardt & Martin, 2000). This is particularly useful in the context of information technology innovation and the strategic planning capability of ICT firms. In order to successfully incorporate IT innovation into their strategic planning processes, it offers insights into how ICT organisations may improve their agility, learning, and change management capabilities. According to Cohen and Levinthal (2018), this theory is crucial to understanding how organisations acquire, absorb, and utilise outside knowledge and technologies to improve their capacity for strategic planning. Absorptive Capacity Theory aids in the analysis of how ICT firms incorporate external information into their strategic planning processes, such as market trends, consumer insights, and technological breakthroughs, in the context of information technology innovation (Zahra & George, 2002). It offers insights into how ICT companies build the capacity to recognise and take advantage of pertinent outside knowledge, boosting their capacity for innovation and adjusting their strategic goals accordingly.

RESEARCH METHODS

The steps and procedures that will be used in this study are highlighted in this section, along with significant information (data) on the particular fields where the survey will be conducted. These steps and procedures include the research design, study population, study sample, and sampling techniques. The descriptive research design will be used in this study. The population of the study will be made up of 242 employees of both Zinox Technologies Limited and Spectranet Nigeria Limited in Lagos State distributed across various categories in the format shown in table 3.1 below;

Table 3.1: Distribution of Population

Name of ICT Firm	Respondents category				Total Population	Percentage %
	Directors	Managers	Line Managers	Employees		
Zinox Technologies Limited	11	25	42	50	128	53%
Spectranet Nigeria Limited	11	30	32	41	114	47%
Overall Population size					242	100%

Source: Zinox Technologies Ltd and Spectranet Nigeria Ltd (Field Survey, 2023).

Using the Taro Yamane sample size formula, a sample size of 151 was drawn from the population. The sample will be stratified as shown in table 3.2 to ensure that all the members of the population are adequately represented. A purposive sampling technique will be used in each stratum because, experience from research field has shown that not all managers, directors or employees are willing to fill questionnaires, and return it within an acceptable time. And as identified earlier in the study, scope and limitation, convenience sampling technique was used to choose Zinox Technologies Limited and Spectranet Nigeria Limited in Lagos State based on the firms' proximity and accessibility for the researcher and the field officers.

Data will be collected through a self-developed questionnaire. A five-point Likert Scaled questionnaire will be designed to assess how the performance indicators adopted in this study for respondents of Zinox and Spectranet are affected by the selected indicators of IT innovation. Copies of the questionnaire were taken to the offices and distributed to the staff with minimal persuasion within 3 (three) weeks.

To establish the validity of the research instrument, the study will seek opinions of experts in the field of study (content validity). Also, to establish the validity of the research instrument, the study will use Cronbach's Alpha Reliability Statistics, showing the internal consistency with the initial data collected. The collected data will be analysed using inferential statistics (correlation, regression, coefficients of determination) with the aid of a statistical software called IBM SPSS (Statistical package for the social science).

Yamane Formula

$$n = N / (1 + N(e)^2)$$

Where;

n is the sample size,

N is the population size which is **242**, and

The level of precision. Taken to be **5%** in this study

Applying this formula, we get $n = 242 / (1 + 242 (.05)^2) =$

$$n = 150.7 \approx 151$$

The sample size for each stratum was represented by n^l . This was determined by getting the fractional contribution of each stratum to the entire population, and multiplying it by the sample size. This formula is thus; $n^l = (N_f / N_t) * n$ where n^l is the sample size in each stratum

N_f is the population in each stratum

N_t is the population of the study

n is the sample size from the Yamane formula

The result is approximated to the nearest whole number. For example, Zinox Technologies sample size will be $(128/242) * 151 \approx 80$;

Spectranet Nigeria Limited sample size will be $(114/242) * 151 \approx 71$ as shown in table 3.2.

Table 3.2: Distribution of Samples

S/N	Category	Population		Sample
		N_f	Source	n^l
1	Zinox Technologies	128	(Field Survey, 2023)	80
2	Spectranet Nigeria Limited	114	(Field Survey, 2023)	71
	TOTAL (N)	242		151

Source: Researcher's computation (2023)

After the sample has been drawn, the questionnaire was shared as indicated in table 3.3.

Table 3.3: Distribution of Samples in Strata

Name of ICT Firm	Respondents category				Total sample	Percentage %
	Directors	Managers	Line Managers	Employees		
Zinox Technologies Limited	10	15	20	35	80	53%
Spectranet Nigeria Limited	6	14	20	31	71	47%
Overall Sample size					151	100%

Source: Researcher's computation (2023)

4.RESULTS AND INTERPRETATIONS

To guarantee consistent assessment across different questionnaire items, the instrument's reliability was put to the test. The reliability of the scale was examined using Cronbach's alpha formula. The reliability data table displays an overall Cronbach alpha of 0.735, which is higher than the advised threshold of 0.70 (Barbera et al., 2020) and suggests that the research instrument is very dependable.

Table 4.1: Reliability Statistics

Cronbach's Alpha	N of Items
.735	30

Source: Researcher's Computation (2023)

Table 4.2: Descriptive Statistics for IT infrastructure

	Level of Agreement					Average	
	SA	A	U	D	SD	Mean	Std. Dev
Our organization's IT infrastructure is highly reliable and stable	18.0 %	52.0 %	22.0 %	4.0 %	4.0 %	3.76	.933
Our organization's IT infrastructure is able to meet the current and future needs of the business	42.0 %	46.0 %	8.0%	0.0 %	4.0 %	4.22	.905
Our organization have a disaster recovery plan in place to mitigate the risk of data loss and ensure business continuity	32.0 %	52.0 %	8.0%	0.0 %	8.0 %	4.00	.964
IT infrastructure are regularly updated and upgraded to keep pace with technological advancements in our industry	46.0 %	28.0 %	22.0 %	0.0 %	4.0 %	4.12	.818
Employees are constantly provided with regular training and support to effectively use the organization's IT infrastructure and tools	56.0 %	28.0 %	6.0%	2.0 %	8.0 %	4.22	1.001
Grand Average						4.06	0.924

Source: Field Survey (2023)

The grand mean for IT infrastructure is 4.06 which indicate that respondents agreed with most of the statements on the high scale as it relates to IT infrastructure with the overall standard deviation of 0.924 which implies that the responses are clustered around the mean

Table 4.3: Descriptive Statistics of Investment in Emerging Technologies

	Level of Agreement					Average	
	SA	A	U	D	SD	Mean	Std. Dev
Your firm believes in investing in emerging technologies in order to stay competitive in the ICT industry	34.0%	56.0 %	10.0 %	0.0 %	0.0%	4.24	0.822
Your firm allocates a portion of the company's budget to invest in emerging technologies every year	22.0%	60.0 %	18.0 %	0.0 %	0.0%	4.04	0.734
Exploring potential partnerships with emerging technology startups is practised in your organisation	40.0%	50.0 %	10.0 %	0.0 %	0.0%	4.30	0.744
There is a culture of investing in research and employee training in areas of emerging technologies in your organisation	42.0%	28.0 %	30.0 %	0.0 %	0.0%	4.12	0.844
Your ICT firm has a roadmap and strategy for integrating emerging technologies into already existing business operations	76.0%	18.0 %	6.0%	0.0 %	0.0%	4.70	0.877
Grand Average						4.28	0.804

Source: Field Survey (2023)

The grand mean for investment in emerging technologies is 4.28 which indicates that respondents agreed with most of the statements on the high scale as it relates to investment in emerging technologies with the overall standard deviation of 0.804 which implies that the responses are clustered around the mean.

Table 4.4: Descriptive Statistics for strategic planning process

	Level of Agreement					Average	
	SA	A	U	D	SD	Mean	Std. Dev
Your organization's general strategic goals and objectives are clear and effective	6.0%	68.0%	12.0%	10.0%	4.0%	3.62	.896
Your strategic goals are clearly communicated to all employees	42.0%	28.0%	20.0%	6.0%	4.0%	3.98	.917
Prior to creating strategic strategies, our company thoroughly assesses its internal strengths and weaknesses and also examines the external market circumstances and trends	42.0%	38.0%	16.0%	0.0%	4.0%	4.14	.964
Your strategic plans align with emerging industry trends and customer demands	50.0%	26.0%	20.0%	0.0%	4.0%	4.18	.992
To monitor progress towards strategic goals, performance metrics and key performance indicators (KPIs) have been devised	76.0%	14.0%	6.0%	0.0%	4.0%	4.58	.923
Grand Average						4.10	0.938

Source: Field Survey (2023)

The grand mean for the strategic planning process is 4.10 which indicates that respondents agreed with most of the statements on the high scale as it relates to the strategic planning process with the overall standard deviation of 0.938 which implies that the responses are clustered around the mean.

Table 4.5: Descriptive Statistics for success of strategic goals and objectives

	Level of Agreement					Average	
	SA	A	U	D	SD	Mean	Std. Dev
Your organization's strategic goals and objectives are clearly laid out for every employee to understand	13.0%	53.0%	33.0%	0.0%	0.0%	3.80	0.764
There is a regular communication and update about the organization's progress on the set strategic goals and objectives to employees	43.0%	37.0%	20.0%	0.0%	0.0%	4.23	0.874
Your organization's strategic goals and objectives are regularly reviewed and adjusted based on changes in the business environment	23.0%	30.0%	47.0%	0.0%	0.0%	3.77	0.817
Your organization prioritize considering how technological innovation can aid the development of strategic goals and objectives such that they align with current market trends and customer needs	20.0%	37.0%	43.0%	0.0%	0.0%	3.77	0.884
Necessary resources and support to help employees contribute to the achievement of strategic goals and objectives are adequately and promptly provided in our organization	23.0%	43.0%	33.0%	0.0%	0.0%	3.90	0.759
Grand Average						3.89	0.820

Source: Field Survey (2023)

The grand mean for success of strategic goals and objectives is 3.89 which indicates that respondents agreed with most of the statements on the high scale as it relates to success of strategic goals and objectives with the overall standard deviation of 0.820 which implies that the responses are clustered around the mean.

Analysis Of Research Hypothesis One

H₁: IT infrastructure does not influence the strategic planning process in the selected ICT firms in Lagos State.

The first hypothesis, the dependent variable is the strategic planning process (Y₁) on the independent variable which is IT infrastructure (X₁).

$$Y_1 = C_1 + A_1 X_1$$

Where C₁ is constant, A₁ is the regression coefficient. Thus, the regression coefficients were executed.

Table 4.6: Model summary- IT infrastructure and strategic planning process

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556 ^a	.309	.304	.3568

a. Predictors: (Constant), IT Infrastructure

From the above Table provides inference that the ability of prediction for model was articulated by R value 0.556 and R squared value 0.309 which shows 30.9% of variance exists in the dependent variable from the independent variables.

Table 4.7: Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.081	.581		7.030	.000
	IT Infrastructure	.296	.072	.556	.325	.747

a. Dependent Variable: Strategic Planning Process

From the above table it is inferred that the beta value is 0.296 for IT infrastructure which indicates there is a significant impact of IT infrastructure on strategic planning process (P value = .000). Thereby the final regression equation is derived by the incorporating the coefficient as follows

$$Y_1 = 4.081 + 0.296X_1$$

Analysis of Research Hypothesis Two

H1: The degree to which Investment in Emerging Technologies affects the success of strategic goals and objectives of the selected IT firms in Lagos State is not significant.

For the second hypothesis, the dependent variable is success of strategic goals and objectives (Y₂) on the independent variable which is Investment in emerging technologies (X₂).

$$Y_2 = C_2 + A_2X_2$$

Where C₂ is constant, A₂ is the regression coefficient. Thus, the regression coefficients were executed.

Table 4.8: Model summary- Investment in emerging technologies and Success of Strategic Goal and Objectives

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501 ^a	.591	.582	.3833

a. Predictors: (Constant), Investment in emerging technologies

From the above Table provides inference that the ability of prediction for model was articulated by R value 0.501 and R squared value 0.591 which shows 59.1% of variance exists in the dependent variable from the independent variables.

Table 4.9: Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.458	.207		9.007	.000
	Investment in emerging technologies	.315	.035	.478	.425	.637

a. Dependent Variable: Success of Strategic goals and Objectives

From the above table it is inferred that the beta value is 0.315 for investment in emerging technologies which indicates There is a significant relationship between investment in emerging technologies and success of strategic goals and objectives (P value = .000). Thereby the final regression equation is derived by incorporating the coefficient as follows

$$Y_2 = 2.458 + 0.315X_2$$



DISCUSSION OF FINDINGS

The result of hypothesis one reveals that there is a positive relationship between IT infrastructure and strategic planning process. The R squared value of 0.309 further shows that IT infrastructure contributes 30.9% to the strategic planning process positively. This implies that access to different forms of IT infrastructure, such as the creation of new software, hardware, or systems, as well as the introduction of new business models that make use of technology aids the strategic planning process of Spectranet Nigeria limited and Zinox Technologies limited by 30.9%. This finding answers the first research question as it shows that IT infrastructure contributes to the strategic planning process of the selected IT firms in Lagos to a significant extent and also agree with the assertion that organisations that can keep up with the most recent technological trends and use them in creative ways are more likely to prosper as technology continues to advance at a rapid rate (Westerman et al., 2014).

The second research objective shows that there is a relatively strong positive relationship between investment in emerging technologies and the success of strategic goals and objectives. The R squared value of 0.591 further shows that investment in emerging technologies contributes 59.1% to the success of strategic goals and objectives positively. This implies that investment in emerging technologies at Spectranet and Zinox increases the success of their strategic goals and objectives by 59.1%. This outcome buttresses the submission that strategic planning entails the creation of an implementation plan that includes resource allocation, deadlines, and metrics for tracking advancement and assessing results in order to scale up an organisation's performance (David & David, 2017)

CONCLUSIONS

It was evident from the research work analysis that Information Technology Innovation is vital to the strategic planning capability of ICT firms in order to boost their overall Performance. As a result the research work came to the conclusion that adequate exposure and application of Information Technology in an innovative manner should be employed by ICT Companies so as to enhance their strategic planning capability and as a result improve their overall Performance.

The research findings helped the study to conclude that IT infrastructure will help ICT firms communicate and work together more efficiently when undertaking strategic planning. It can be further buttressed that spending money on IT will help businesses accomplish their strategic objectives by boosting their operational effectiveness, competitiveness, and innovation potential of ICT firms.

5.1 RECOMMENDATIONS

Based on the research findings, it was recommended that;

- Proper implementation of Information Technology innovations should be adopted by ICT firms and firms in other industries in order to ensure maximum performance as the world is actually moving towards automation.
- Beyond IT infrastructure, adequate attention should be paid to investment in emerging technologies to ensure that it doesn't become a financial burden. This can be done by simply applying efficient procurement practices and budget control.

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