

## **Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective**



**Dr (Mrs) Gift J. Eke**

Department of Office and Information Management Faculty of Management Sciences Niger Delta University Bayelsa State, Nigeria.

---

**ABSTRACT:** The paper examined relationship between information technology and entrepreneurship success in Bayelsa State. Specifically, the study is to examine the relationship between information technology and SMEs success in Bayelsa State, and the challenges of adopting information technology for entrepreneurship success in Bayelsa State. This paper adopted the quantitative research approach and adopting cross-sectional survey design which involve multiple SMEs in Bayelsa State. Population for this study consist of fifty (50) entrepreneurs in Bayelsa state. A self-designed questionnaire was modified and adopted as the instrument of primary data collection, which was previously used by Olusegun (2015), with an overall reliability coefficient of 0.64 for all question items in the Likert-5 response scale instrument. Data collected was analyzed adopting descriptive analysis for the socio-economic data and Pearson Moment Correlational Coefficient as the inferential analysis. The result shows that there is an empirical link between information technology and SMEs success in Bayelsa State, and there are visible challenges in adopting information technology for entrepreneurship success in Bayelsa State. In Conclusion, the use of information technology to small business operations has had a significant positive influence on entrepreneurial practices from the viewpoints of SMEs in Bayelsa State, Nigeria. The paper recommended that the government need to provide entrepreneurs sufficient funding so that they may employ modern technologies in their small businesses, which will help them expand.

**KEYWORDS:** Entrepreneurship, Information technology.

---

### **INTRODUCTION**

Entrepreneurship is a word which is derived from a French verb "entre" and "prenuer", it means begin of act. It was used by French companies to manage projects like roads and bridges (Prokop 2021). He further stated that another aspect of entrepreneurship was on how to establish and operate a firm.

Suleiman and Magagi (2017) also added to support the definition by saying that it is the motivation/capacity of a person to construct something from nothing. Entrepreneurship has an impact on social welfare and job creation. As the name implies, entrepreneurship is said to be an engine of economic development in which changes take place in the current period, in the global environment, from an industry to an information society. Without any doubt, recognition and requirements and suggestions of answers without knowledge are impossible. In other words, education and information are needed for every entrepreneurship because there must be communication.

Today, information and technologies (IT) are used by business and industries of all sizes to make increase of operational efficiency, deliver better services, and reduces cost. An environment that is incorporated promotes trust and security, interoperability and standardization which is necessary for firms to use IT, and also the availability of information technology funds and purchase (UNCAID 2014). Efficiency of computer systems for running their operations are used by majority of large global companies.

Many businesses (multinational) have invested amounts of money in their business to bring about the use of computer systems to assist their operational processes. However, for some reasons, the situation between the SMEs in Nigeria and other countries are usually not the same (Agyapong & Bohene 2020). One key phase in Nigerian government's effort for a diversification of the long-term growth of the economy in the nation is because of the conversion to a digital society.

In Nigeria, due to the abundance of vibrant and dynamic human and natural resources, it has numerous business and investments, and these resources require the ability to identify potentially useful and economically viable fields of business activities. Nigerians

## **Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective**

have their marks in different fields such as science, technology, academics, business, and entertainment. Entrepreneurship activities and innovative creativeness in Nigeria has developed enterprises in the following areas: Agricultural/agro-allied activities where there are foodstuffs, restaurants, fast food vending etc. Some places with solid minerals have quarrying, gemstone cutting/polishing, and crushing. Power generators and towing businesses (cargo and persons) are examples of power and transportation engineering. In the information and telecommunications industries, we produce and repair GSM accessories, as well as print and sell recharge cards. We have hotels, accommodating resort centers, film and home video production in the hospitality and tourism industry; pipeline construction and maintenance, drilling, and refining by products in the oil and gas industry; and disposal/refuse collection, recycling, and drainage/sewage construction jobs in the environmental and waste management industry. Banking, insurance, and stock trading are examples of financial banking services; engineering and fabrication work includes machines and fabrication equipment; and building and construction includes plan and design services as well as material procurement (Agbeze, 2012, James-Unam, Agorzie & Bello 2015)

Information and communication technology (ICT) has a wide range of technological tools and services which are used to create, save, interact with, distribute, and manage information. Economics of a nation's resourcefulness is the creation and allocation of resources as well as the emergence of new entrepreneurs who are transformed by increased knowledge and expertise in these technologies. The ICT driven entrepreneurship has the ability to create and penetrate an ICT.

### **Statement of Problem**

Given that entrepreneurship, and particularly the influence of technology, has a specific function, it varies along with changes in the business and has an impact on the best possible use of all of a community's resources and assets. In contrast, choosing this subject might have a direct or indirect impact on the community's use at most levels and sectors of society where education is engaged.

Some entrepreneurs have failed to embrace the full advantage of information technology due to the difficulty in learning and practicing the usage of modern gadget and software to carry out business activities. For example, video calling is an effective means of communication among clients and fellow partners. This can be achieved through communication applications like WhatsApp, Telegram, Facebook etc., but they find it very difficult to adopt this digital means of communication with a smart phone.

Electronic marketing of products and services are also considered when you are adopting information technology in entrepreneurship business. The ability for SMEs owners to swing into the early practice of electronic marketing will boost their market space and encourage prospective customers and client. But the ability to maintain consistency of ensuring the electronic marketing is question of behaviour of the SMEs owners. Electronic marketing must be comprehensively managed because it attracts and ensure customer management through a 24hrs customer care response via email, chats, and instant message. Unfortunately, a lot of business owners did not make provision for accurate database management systems and communication systems to maintain the cordial relationship between the venture and customers. However, this paper is carried out to explore the relationship between information technology and entrepreneurship practice in Bayelsa State.

### **AIM AND OBJECTIVES**

The main aim of the study is to examine relationship between information technology and entrepreneurship success in Bayelsa State. Specifically, the study is to:

1. Examine the empirical link between information technology and SMEs success in Bayelsa State.
2. Ascertain the challenges of adopting information technology for entrepreneurship success in Bayelsa State.

### **Research Questions**

1. What is the relationship between information technology and SMEs success in Bayelsa State?
2. What are the challenges of adopting information technology for entrepreneurship success in Bayelsa State?

### **Hypotheses**

H<sub>01</sub>: There is no empirical link between information technology and SMEs success in Bayelsa State.

H<sub>02</sub>: There is no visible challenges in adopting information technology for entrepreneurship success in Bayelsa State.

### **Information Technology (I.T)**

Onaolapo and Oladego (2011) described information technology (IT) which is referred to as data processing or digital device as the development of an abundance of technologies from computing, electronics and telecommunications process and deliver data. It is increasingly and frequently employed by both small and large organizations. It is expected that technology has a very

## **Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective**

important role in our modern life. Using information technology is said to have positive effects on business, production, education, politics, governance, and other elements of human life. (Emmanuel & Sife, 2000) also supported the idea by saying that the rate of which information technology is developing is becoming faster and faster.

In the year (2003) Rao, Metts and Mong, noted that in the 1990s, they saw the rapid development of technologies, which are establishing a worldwide and affordable platform for business to connect and conduct trade. The adoption of IT enables a decrease in cost of transaction, which may result in markets that are more effective. However, experiments have been carried out on studies and have discovered that information technology (IT) is linked to enhancements in corporate performance (Akande, 2013; Oladejo & Yinus 2013).

### **Entrepreneurship**

The process of creating a venture and develop wider range of assets or business units with significant room for development is known as entrepreneurship. In the late 20th Century, the theme - entrepreneurship has dominated educational circles around the world (Ngozi, 2012; Tankoli, 2013). It was revealed that the analysis of the literature on entrepreneurship idea was first developed by an economist in the context of economic theory before spreading to educational institutions. Entrepreneur is a person who buys specific product at a given cost and sells goods at a secret price. According to Canutillo, who used the phrase to recognize the entrepreneur as a planner and integrator of output factors and fail to recognize the special characteristics. So therefore, A person who uses the three main production factors - Land, labour, and capital to produce goods, or services is also known as an entrepreneur, and it is what they do for a living (Iwu & Nzeako 2012). The link between ICT entrepreneurship and small business growth has set of study questions in the development of entrepreneurship, and the concept of ICT entrepreneurship has attracted significant academic interest over the years.

Many researchers on business have come up with the conclusion that the expansion of entrepreneurship can result in the success of small business since it fosters the development of ability inside the organization (Suleiman & Zawo, 2020). Some research on the relationship between ICT entrepreneurship growth and small business creation are far from being fully understood. But can be argued that ensuring the performance of the Organization is seen as primary goal of small business growth initiatives in entrepreneurial firms.

### **Small and Medium Enterprise (SMEs)**

A small and medium size businesses have been a tool for economic growth. As a result of the awareness, World Bank Group has committed to the SMEs sector as key component of its plan to promote the economic growth, employment, and poverty reduction.

Significance of small and medium size firms have never been questioned, because of the division into big and medium size is arbitrary and based on differing value judgements. The definition of small and medium-size firms' categorization has been a variety of factors, including sales, employment, and investment. Existing literature states that the definition varies throughout economies, but the ideas remain the same.

Oladejo and Yinus (2013) Claims that small and medium scale firms can be defined differently depending on the circumstance, author, and the country. Small and medium size businesses are not questioned because they are not multinational corporations, transitional corporations, publicly owned businesses, or any other type of huge institution. In other to grow into a significant company unit, may, however be dependent on the ownership and corporate structure. Although it may be argued that owners, friends, and family fund the majority of SMEs, various forms of businesses, such as private ownership, limited partners, contracts and subcontracts, co-operatives, or organization may be employed.

Environment in which small and medium-size business operate is limited. However, in places where it is successfully run, it has a potential to spur both national and economic development. Small and medium-size business has been recognized as a key driver of economic growth and development, whether in an established or emerging economy (Akande 2015).

### **Previous Studies**

Akande (2015) investigates the influence of information technology (IT) on the operational performance of Nigerian enterprises. The study focuses on (IT) perspectives on the business benefits of Information Technology (IT) and provides insight into the barriers to IT adoption. The findings highlight the importance of the interaction between information technology and entrepreneurial activity by proving that IT has a favorable impact on both. The majority of SMEs asked cited improved performance and other benefits from incorporating IT into their operations. The study recommends that government should offer appropriate funding to entrepreneurs to ensure that all SMEs in Nigeria are effectively leveraging current technology, allowing for firm growth.

## Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective

Tavakoli (2013) explored the impact of information technology on entrepreneurial growth. According to the research, information and communication technology is fast advancing, and significant changes in global society have happened. Modern technology has transformed and affected activities, jobs, abilities, cultures, and demands. Without a doubt, entrepreneurship had a key influence in the development of these technologies and in their production. Regardless, these technologies have an influence on entrepreneurship and have helped to define modern entrepreneurship. Information and communication are two key instruments for entrepreneurial action in this scenario. Today, information technology is well entrenched in society and penetrates many facets of daily life. Entrepreneurship is the process of creating something new, putting time and effort into it, and taking financial, psychological, and social risks in order to get access to resources, find satisfying work, and achieve independence.

### METHODOLOGY

This paper adopted the quantitative research approach and adopting cross-sectional survey design which involve multiple SMEs in Bayelsa State. Population for this study consist of fifty (50) entrepreneurs in Bayelsa State. A self-designed questionnaire was modified and adopted as the instrument of primary data collection, which was previously used by Olusegun (2015), with an overall reliability coefficient of 0.64 for all question items in the Likert-5 response scale instrument. Data collected was analyzed adopting descriptive analysis for the socio-economic data and Pearson Moment Correlational Coefficient as the inferential analysis.

### Empirical Analytical Result and Discussion

**Table 1: Socio-Economic Data Analysis**

Variables	FREQUENCY	PERCENTAGE
<b>AGE</b>		
20 – 29 Year	7	14
30 – 39 Year	13	26
40 – 49 Year	16	32
50 – 59 Year	8	11
60 above	6	12
<b>Sex</b>		
Male	41	82
Female	9	18
<b>Marital Status:</b>		
Single	6	12
Married	44	88
<b>Educational level</b>		
Primary school	5	10
Secondary school	10	20
Diploma	13	26
Bachelor Degree	15	30
Post Graduate Degree	17	14
<b>Types of Enterprise:</b>		
Small	35	70
Medium	15	30
<b>Business Categories:</b>		
Agricultural	13	26
Service	9	18
Commerce	16	32
Computer and Internet	5	10
Food and Beverages	4	8
Tourism and accommodation	3	6

**Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective**

**Table 2: Inferential Analysis on Information Technology and SMEs Success in Bayelsa State, Nigeria**

		<b>Correlations</b>	
		Information Technology	SMEs Success
Information Technology	Pearson Correlation	1	.829**
	Sig. (2-tailed)		.000
	N	50	50
SMEs Success	Pearson Correlation	.829**	1
	Sig. (2-tailed)	.000	
	N	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From the empirical analysis, the result which is a coefficient value of (0.829) shows that there is a significant correlation between information technology and SMEs success in Bayelsa state. The adoption of information technology has enabled business owners and employees of SMEs to accomplish a vast task within a short period of time. This was different before the introduction of IT in SMEs operation in Nigeria and other under-developed countries. Inculcating information technology into business practices is beyond easy work practice, it also contributes to the profit margin of the small and medium scale enterprise. The work to invest in manual labour for high cost and possible inefficient work output has been aborted. People can now carry out business transaction from their comfort zones because IT enables buyers and sellers to transact business with less emphasis on physical contact. Information technology has given entrepreneurs a productive advantage to monitor the movement of their goods while on delivery through tracker and CIPs. It also permits business owners to market products and services through online social networking. Information technology has even introduced more conceptual entrepreneurship practice, such as infopreneurial, technopreneur etc.

The embracement of information technology in contemporary practice of entrepreneurs has a lot of sub-sectors in the SMEs business in Nigeria. Electronic monitoring devices such as CCTV cameras can now enable business owners to supervise and monitor other employees' activities on a computer screen. Possible threat to business can even be predicted through visible market trends in every line of business.

**Table 3: Inferential Analysis on Challenges in Adopting Information Technology for Entrepreneurship Success in Bayelsa State, Nigeria**

		<b>Correlations</b>	
		Challenges	Entrepreneurship Success
Challenges	Pearson Correlation	1	.633**
	Sig. (2-tailed)		.000
	N	50	50
Entrepreneurship Success	Pearson Correlation	.633**	1
	Sig. (2-tailed)	.000	
	N	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective

The inferential analysis produces a significant value of 0.533, which indicate that there is a significant correlation between challenges in adopting information technology and entrepreneurship success in Bayelsa state. In the conceptual study of prospect, there are also possible problems that cannot be ignored. The introduction of information technology has brought about lucrative benefits in the practice of entrepreneurship in Nigeria. However, Suleiman & Bakin-Zuwo (2017) observed some possible challenges and constraints that can affect modern entrepreneurship operations in Nigeria. They are.

**Few Available Technicians /Repairers:** Adoption of entrepreneurship would not be completely effective when there are limited qualified technicians in the country. Information technology can breakdown or be faulty at some point, this will require the service of a qualified technician to fix, maintain or repair the machine for continuity purpose. If there is no qualified technician, the machine will be packed off which will eventually slow or possibly stop the business operations till there will be a replacement for the business to continue.

**Power Failure:** Nigeria as a country and south-south region as a place has not fully been developed to the point of uninterrupted power supply. As a country, Nigeria is still finding it difficult to settle the challenges of power failure in almost all parts of the nation. Information technology equipment needs to be powered directly or indirectly to function optimally to achieve business growth. For this reason, entrepreneurs are faced with the challenge of spending excessively on external power sources for productive business operations.

**Cost of new IT - new information technology for entrepreneurship practice is relatively expensive.** Contemporary entrepreneurs find the strategic benefits of adopting information technology in their business practices, but the cost of purchasing the equipment has frustrated the desire of adoption.

**Corruption - in Nigeria, every administration in the last decade has initiated a means of which they can provide capital and financial support to most youths to venture into entrepreneurship practice.** The government has even tried to purchase laptops and other digital devices that are needed for specific entrepreneurship ventures, but some government officials will either siphon the funds or hoard the technologies provided for the youths. Some youths that even benefited from the practice will still re-sell the information technologies given to them to support their business.

### CONCLUSION

Information technology is recognized as the most crucial tool for contemporary entrepreneurial success and has sparked spontaneous innovations in all social activities, including entrepreneurship. The use of information technology to small business operations has had a significant positive influence on entrepreneurial practices in Bayelsa State. From the viewpoints of SMEs in Bayelsa and Nigeria at large, it is evident from the review literature that information technology (IT) is a key instrument for successful entrepreneurship. Furthermore, there has been numerous social and infrastructural constraints that has limited and impedes the success of entrepreneurship in Nigeria. Some are limited of qualified technicians/repairers, insecurities, power failure, lack of modern technology, cost of purchase etc.

### RECOMMENDATIONS

In collaboration with the empirical findings, the paper recommended that.

- The government need to provide entrepreneurs with adequate fundings so that they may employ modern technologies in their small businesses, which will help them expand.
- Educate and enlighten business owners about the value of IT and the ways in which it may boost productivity.
- IT curriculum be emphasized and equip interested youths to establish small businesses.
- Soft loans and grants from the government will provide financial assistance to help and enable youths and people who are into small businesses to expand.

### REFERENCES

- 1) Agboola, A.A. (2001) Impact of Electronic Banking on Customer services in Lagos, Nigeria, *Ife Journal of Economics and Finance*, vol 5, Nos. 1 and 2.
- 2) Agyapong, D., & Boohene, R. (2020). Transformational entrepreneurship and SMEs: An emerging country context. In S. Dobson, P. Jones, D. Agyapong & G. Maas (Eds.), *Enterprising Africa* (pp. 3–11). Routledge.
- 3) Akande, O.O (2015): Effective Financing of Small/Medium Scale Enterprises (SMEs) as an Impetus for Poverty Alleviation in Nigeria: An Analytical Approach. *International Journal of Economic and Development Issues. Development Universal Consortia*. 5(1and 2), 1-13.

## Information Technology and Entrepreneurship Success in Bayelsa State, Nigeria: Small and Medium Enterprises (SMEs) Perspective

- 4) Awobamise, A.O. (2018). Increased Consumerism in a Networked-Nigeria: A Study on the Effect of E-Malls and social media on Youth Spending. *Journal of Digital Media & Interaction*, 1(2): 40-55
- 5) Brynjolfsson, E & Hitt, L.M. (2000) Beyond computation: information technology, organizational transformation and business performance. *Journal of Economic Perspectives*, 14(4): 24-48.
- 6) Clarke, J. (2004) "Information Systems Strategy and Knowledge-based SMEs in the Australian Biotechnology Industry: Does IS need to reorient its Thinking?" 15th Australian Conference on Information Systems, Hobart, Australia, 1-3 December
- 7) Cunningham, P. M., Cunningham, m. & Ekenberg, L. (2016). Factors Impacting on the Current Level of Open Innovation and ICT Entrepreneurship in Africa. *Electronic Journal of Information Systems in Developing Countries* 73(1):1-23.
- 8) Gyaase, P. O. & Audrey, A. (2014). Stimulating ICT Entrepreneurship in Ghana, The Long Way Forward. *Researchjournali's Journal of Information Technology I* (2):1-14.
- 9) Iwu, A. O. & Nzeako, R. C. (2012). ICT as a Viable Tool for Entrepreneurship Education. *Journal of Educational and Social Research* 2(9):125-31.
- 10) Jagodič, G. & Valerij, D. (2015). ICT Tools for the Development of Entrepreneurial Competencies. Pp. 2123-29 in *Joint International Conference*.
- 11) Koellinger, P. (2006) "Impact of ICT on Corporate Performance, Productivity and Employment Dynamics", Special Report No 01/2006, European Commission Enterprise & Industry Directorate General, Berlin. KOM 2008, Knowledge Oasis Muscat [online] <http://www.kom.om/ev.htm>
- 12) Ngozi, E. (2012). ICT Entrepreneurship Development: A Way of Alleviating Poverty in Nigeria. *Journal of Management and Entrepreneurial Development* 2(1):27-32.
- 13) Oladejo, M. O and Adereti, A. S (2010): The impact of Information Technology on the Performance of Micro finance Institutions in Nigeria, *Journal of Economic Development and Managerial Studies*, 1 No.1. [www.icidr.org](http://www.icidr.org)
- 14) Emmanuel, d, & Sife A (2008). Challenges of Managing Information and communication technologies for educational Experiences from Sokoine National Agricultural Library International Journal and education and development using ICT vol 4 No3.
- 15) James-Unam, M., Agorzie, C., Bello, A., & James-Unam, F. (2015). Enhancing sustainable development of small and medium-scale enterprises through total quality management: Evidence from Nigeria. *IFE Journal of Entrepreneurship and Business Management*, 1(1), 25-33.
- 16) Parker, C.M., and Castelman, T. (2007) "New Directions for Research on SME-eBusiness: Insights from an Analysis of Journal Articles from 2003 to 2006", *Journal of Information Systems and Small Business*, Vol. 1, No. 1/2, pp. 21-40,
- 17) Shiels, Rao, SS., and Mong C.A (2003): Electronic Commerce Development in Small and Medium sized enterprises. *Business Project Management Journal*, 9 (1) 11-32.
- 18) Suleiman, M. & Magaji, H.S.B. (2020). Nexus of ICT & Entrepreneurship Education in Nigeria: A Critical Review. *International Journal of Research* 07(06):73-86.
- 19) Suleiman, M.M., Bakin-Zuwo, B. & Salihu, H. (2017). Applying ICT In an Entrepreneurship: A Motivating Tool for Poverty Reduction in Nigeria. Pp. 1-11 in *First National Conference Organized by Research & Academic Development Committee, Sorted Rano, Kano, State Polytechnic*.
- 20) Onalapo AA, Oladejo MO (2011). Effectiveness of Millennium Development Goal programmes on Entrepreneurial Development: An appraisal of the Nigerian experience; *J. Emerg. Trends Econ. Manag. Sci.*2 (3): 215-224. Tavakoli, A. (2013). Impact of Information Technology on the Entrepreneurship Development. *Advances in Environmental Biology*, 7(8):1421-26.
- 21) Umeano, E. (2012). ICT Entrepreneurship Development: A Way of Alleviating Poverty in Nigeria. *Journal of Management and Entrepreneurial Development* 2(1):27-32.
- 22) UNCTAD (2014) "ICT as an Enabler for Growth, Development and Competitiveness", Plenary session, June 17, [online], [http://www.unctadxi.org/templates/Event\\_\\_\\_\\_69.aspx](http://www.unctadxi.org/templates/Event____69.aspx) [13



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0 (<https://creativecommons.org/licenses/by-nc/4.0/>)), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.