Contemporary Journal of Management | ***ISSN 2766-1431***
Published by AIR JOURNALS | *https://airjournal.org/cjm*
12011 WestBrae Pkwy, Houston, TX 77031, United States
airjournals@gmail.com; enquiry@airjournal.org

RESEARCH ARTICLE

Cyberpreneurship and Economic Development of Small and Medium Enterprises (SMES) in Enugu State

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Abstract

The study evaluated the Cyberpreneurship and Economic Development of Small and Medium Enterprises' (SMEs) in Enugu State. The specific objectives consequently were to: evaluate the relationship of audio-video technicians on unemployment rates and ascertain the relationship of IT professionals on the income generation in Enugu State. The area of the study was selected SMEs of ICT centres in Enugu state. The study used the descriptive survey design approach. The primary source of data was the administration of questionnaire. A total population of 114 staff was used. The whole population was used due to small number. Eighty six (86) staff returned the questionnaire and accurately filled. Data was presented and analyzed using Likert Scale and the hypotheses using Pearson correlation coefficient (r). The findings indicated Audio-video technicians had significant positive relationship on employment rates in Enugu State, Z (95, n = 211), 2.911 < 3.936 = p. < 0.05 and IT professionals had significant positive relationship on the income generation in Enugu State, Z (95,n = 86), 2.696 < 4.367 = p. < 0.05. The study concluded that Audio-video technicians and IT professionals had significant positive effect on employment rates and income generation in Enugu State. The study recommended amongst others that the unemployed or youths should avail themselves the opportunity of equipping themselves with Cyberpreneurship skills that enhance the use of the internet in marketing of their business.

Keywords: *Cyberpreneurship and Economic Development; Small and Medium Enterprises (SMEs); Enugu State; Unemployment Rate; ICT Centres*

Introduction

Today, technical improvements have paved the road for cyberpreneurship, which has provided opportunities for many competent individuals with few or no finances to establish their own internet firm. The world we live in is available to anyone who want to break away from typical 9-to-5 corporate work and start their own businesses by taking use of the wide and open digital world (Peterson, 2020). The digital revolution helped to transform the commercial environment, generating opportunities for virtual enterprises that operate entirely online. The major movers behind this new trend are Cyberpreneurs, or entrepreneurs who used the new language to take use of the speed and power of the internet to do business. They use information technology to provide digital access to their goods or services over the internet. They come up with unique ways to deliver items and services to customers via the internet.

There is little question that cyberpreneurship, as part of information technology, is a fundamental and revolutionary revolution that has had a significant impact on human existence throughout the previous century. Indeed, far from being a fleeting phenomena or a transitory fad, information and communication technology has recently been applied to many parts of life. This policy has affected every area, making it easier for both the organisation and the people to be accountable. Cyberpreneurship has experienced significant alteration in a very short period of time, owing to technology advancements. It has evolved into the resources of what is now known as the knowledge economy, which is based on information and its distribution methods in the shortest amount of time and at the lowest feasible cost. Because of the tremendous development witnessed by this sector and the extent to which it has contributed in all sectors, particularly in light of the use of satellite, mobile phones, and the Internet, companies now face a new challenge: the acquisition of information and communication technology (Admin M2 IESC,2018).

Several objectives are aimed at fostering entrepreneurial enterprises or activities in developing nations in order to build a sustainable economy. The technological revolution has had an effect on entrepreneurship and innovation, as well as societal economic progress. The explosion of technology innovation has increased the leverage of entrepreneurial operations (Shabbir, Mohd Shariff, Kiran, Faisal, and Shahzad 2016). According to Nanterme and Daugherty (2017), technology also innovates as a catalyst for change in thinking, community lifestyles, and educating people about the good business environment, possibilities, and difficulties. It encourages higher-education students to learn about a new approach to business that uses technology, known as cyber entrepreneurship. This research focuses on entrepreneurship among Kelantan higher-education students, with a minimal emphasis on technology, community culture, and household level. Students will profit from the aim to become self-employed and the job promotion requirement.

In many developing countries, including Nigeria, small and medium-sized enterprises are known to create jobs, provide jobs for women and youth, spread the returns of economic development, help develop rural areas, mobilise domestic savings for investment, instill new skills and infuse new technology, and contribute to social and political stability (Osalor, 2016). Based on this, the research sought to assess the impact of cyberpreneurship on the economic growth of small and medium enterprises in Enugu State.

Statement of the Problem

Cyberpreneurship has provided opportunities for many professionals with little to no investment to establish their own internet company. It refers to entrepreneurs who utilise digitalization to launch and promote their businesses/services using creative ways in order to establish and maintain growth in a competitive market. Cyberpreneurs, like entrepreneurs, play crucial roles in commercial activity, particularly for start-ups. These include being proactive and inventive, spotting possibilities, projecting business developments, generating employment, and taking calculated risks to benefit their enterprises.

While cyberspace's flexibility and endless applicability have allowed cyberpreneurs to flourish, it is also a constantly developing playground for danger actors. Cybercriminals, like cyberpreneurs, use the internet to carry out illicit operations aimed at disrupting and exploiting weaknesses in an online business environment. All digital systems require binary encoding, which is why we have email, ebooks, and e-commerce. Poor access to e-commerce

merchants and freelancers, including IT specialists, writers, bloggers, programmers, SEO experts, social media consultants, audio-video technicians, web designers, and graphic artists, to mention a few, has hampered the flow of Small and Medium Enterprises (SMEs).

Despite the significance of cyberpreneurship, failure to address these difficulties might result in high unemployment rates and low revenue creation in Enugu State's Small and Medium Enterprises (SMEs). Businesses who are unable to engage clients via chat, social media, email, blogs, and videos will have less options for communicating with them. This has demanded a study of the impact of cyberpreneurship on the economic growth of small and medium-sized enterprises in Enugu State.

Objectives of the Study

The main objective of the study was to evaluate the relationship between of Cyberpreneurship on Economic development of Small and Medium Enterprises' (SMEs) in Enugu State. The specific objectives consequently were to:

i. Evaluate the relationship between audio-video technicians and unemployment rates in Enugu State.
ii. Ascertain the relationship between IT professionals and the income generation in Enugu State.

Research Questions

The following research questions guided the study:

i. What is the relationship between audio-video technicians and employment rates in Enugu State?
ii. What is the relationship between IT professionals and the income generation in Enugu State?

Statement of Hypotheses

The following null hypotheses guided the study:

i. Audio-video technicians has no relationship with employment rates in Enugu State
ii. IT professionals has no relationship with the income generation in Enugu State

Significance of the Study

The research is very beneficial in raising awareness for SME owners by boosting the channels for communication with customers (contests or raffles on social media) and improving the possibilities of winning them over since they must sign up and offer their information. It will help SMEs grow and remain sustainable. The younger generation is full of bright and new ideas, which are critical to any industry's long-term development and viability. Cyberpreneurship is a wonderful approach to motivate young people and enable them to gain a broad range of skills in a variety of settings relevant to their interests and future goals.

Scope of the Study

The research aimed to investigate the impact of cyberpreneurship on the economic growth of Small and Medium Enterprises (SMEs) in Enugu State. The research focuses on the following independent factors: audio-video technicians and IT professionals, as well as the dependent variables of revenue generation and employment rates. The study's geographical scope focuses on SMEs in Enugu State, Nigeria.

Review of Related Literature

Conceptual Review

Cyberpreneurship

"Cyber" refers to the culture of computers, virtual reality, and information technology, while "entrepreneurship" refers to the act of generating creative ideas to consolidate resources. Cyberpreneurship is the digitization of existing economic institutions so that they may operate in cyberspace - think of your favourite mom and pop bakery selling their delectable cookies online. The cyberpreneurship sector has grown rapidly over the last decade, and it now exists in every part of the internet (Peterson, 2020).

Cyberpreneurship refers to any commercial or financial activity conducted in cyberspace using a computer and the internet, and a cyberpreneur is someone who generates money via these methods. It is the new moniker for the internet company operated by webmasters and affiliate marketers. The phrase "cyberpreneur" is a neologism and combination of "cyber" and "entrepreneur". A cyberpreneur is an entrepreneur that runs an online company that sells software, hardware, or advertising space on the internet via his website or blog (Alam, 2020). The definition of cyberpreneur is 'a person who carries out business activities online', hence examples of cyberpreneurs are: Owners of e-commerce stores that sell goods online. Pro-bloggers are blog owners who make a livelihood from their blogs via various techniques. Affiliate marketers make money by promoting other firms' goods and services on a commission. Online stock and FX traders are those who trade stocks, currencies, and commodities online. Freelancers who give services to others are also considered cyberpreneurs. SEO consulting firms and website designers may also be classified as cyberpreneurs or semi-cyberpreneurs. The term semi is used because they may also need some type of offline infrastructure for public transactions. We may include them on the list since they conduct the majority of their commercial activity online. Youtubers who operate a YouTube channel that generates advertising/sponsorship cash are sometimes referred to as online entrepreneurs. Cyberpreneurs include those who offer digital commodities such as software, e-books, and programmes. Companies such as Amazon, Alibaba, Google, and Facebook are excellent instances of cyberpreneurship. (Alam, 2020).

Components of Cyberpreneurship that Formed Parts of the Objectives of the Study

Audio-video Technicians

Audio-video technicians are responsible for the electrical equipment used in radio programmes, television broadcasts, concerts, sound recordings, and movies. Audio and video technicians work with video displays, monitors, microphones, and mixing boards. They document meetings, sporting events, concerts, and conferences. Broadcast, sound, and video technicians' employment is expected to expand 10% between 2021 and 2031, faster than the average for all professions. Over the next decade, there are expected to be around 13,200 opportunities for broadcast, sound, and video technicians every year. Audio experts ensure that all sound production gear is properly installed and that all equipment is set up correctly. They are also responsible for identifying any problems that may develop in the audio signal pipelines. In other words, they ensure that everything happens as planned, resulting in a wonderful sound.

IT Professionals

The abbreviation IT is derived from Information Technology, a wide field with several areas that is continually expanding. However, at its core, information technology is exactly what the name implies: the use of technological resources to process information, with the goal of facilitating processes for employees, optimising productivity, lowering costs, proposing new work methodologies, and occasionally dabbling in the field of information security (Perallis, 2022). Information technology experts are skilled in resolving technical challenges pertaining to IT operations. Information technology (IT) specialists are familiar with the most recent developing technologies. They arrive at the best possible solutions to any technological challenges. Their tasks include user assistance, device maintenance, data management, security testing, and guaranteeing system functionality.IT improves operational

efficiency, reduces time spent developing new business, and offers electronic security, data storage, and efficient communication. I have learned that companies utilise IT to help them build their company, minimise the time needed to obtain new consumers, and minimise the amount of time necessary to complete fundamental activities (Vittala, 2023).

Economic

An economic system is the process by which societies or governments organise and distribute available resources, services, and products throughout a geographical area or nation. Economic systems govern the components of production, which include land, capital, labour, and physical assets. An economic system includes the many organisations, agencies, entities, decision-making processes, and consumption patterns that make up a community's economic structure (CFI, 2022). An economy is a system for producing, distributing, and trading goods and services, as well as consuming them. A given economy is a collection of activities that include its culture, values, education, technical progress, history, social organisation, political structure, legal systems, and natural resources as major components.

Development

Development is the process of achieving development, advancement, good change, or the incorporation of physical, economic, environmental, social, and demographic elements. The goal of development is to raise the population's standard of living and quality of life, as well as to create or expand local regional income and job possibilities, all while preserving environmental resources (SID, 2021). Development is essentially a positive economic notion; it entails the implementation of certain economic and technological measures to use existing resources to stimulate economic development and enhance people's quality of life (Majeed and Shakeel, 2017).

Economic Development

Economic growth means different things to different researchers, depending on their perspective and intended use of the phrase. Dauda (2016), for example, defines economic development as "the way by which society pursues developmental goals of meeting the yearnings and aspirations of the people using its human and material resources". This indicates that in order for economic development to occur, the principles of development must be brought together, which include economic growth, social inclusion, and environmental preservation. These factors are linked and vital to the overall well-being of people and society. According to Ayonotes (2016), economic development entails accelerating economic growth, reducing inequality, and eliminating poverty. It may alternatively be defined as a long-term improvement in main economic indicators such as inflation, unemployment, GDP, GNP, per capita income, and so on, without jeopardising the country's future. It refers to a country's capacity to withstand economic shocks caused by unavoidable conditions, which is characteristic of contemporary civilization.

Components of Economic Development that Formed Parts of the Objectives of the Study

Employment Rates

Employment happens when workers who wish to work can find employment, hence increasing economic production; yet, they still need sustenance. High rates of employment indicate economic success, while exceptionally high rates of employment may indicate a low-heated economy. Government entities gather and publicise employment statistics in various ways (World Bank, 2014). Employment is a phrase used to describe people who are employable and actively looking for work but are unable to find work. This category includes workers who are employed but do not have an adequate employment (CFI, 2022).

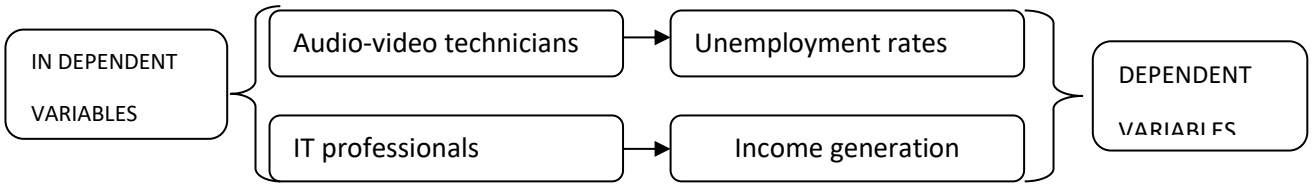
Income Generation

Income creation entails a comprehensive strategy to all income streams, including grants, contracts, contributions, events, sponsorship, trade, and investments. Most companies excel in one or two areas, often to the point of dependency. Having an income-generating occupation is beneficial since it is self-sustaining. It may be useful when alternative solutions are unavailable. Income generation should focus on activities that allow community members to utilise their existing abilities. Revenue creation is the process of developing, promoting, and selling items with the ultimate goal of increasing revenue and profitability. B2B enterprises' primary activity is revenue generation. Income creation refers to a derivative transaction in which covered options, caps, or floors are written with the intent of generating income or increasing returns.

Small and Medium Enterprises (SMEs)

Small and medium-sized companies (SMEs) are firms with sales, assets, or personnel that fall below a particular level. Each nation has its own definition of a small and medium-sized business (Litero, 2022). Certain size requirements must be satisfied, and the industry in which the firm works may also be considered. Small and medium-sized businesses have been completely recognised by the government and development experts as the primary engine of economic growth and a key role in fostering private sector development and collaboration. Today, the definition of small and medium-sized companies (SMEs) differs by nation, area, and agency. Terungwa (2011) said that "small enterprises" or "small and medium enterprises" are illusive terms. They do, in reality, conceal significant variety in the sorts of enterprises. A small-scale industry is defined as an enterprise with a total cost (including working capital but excluding land costs) of N1.5 million but not exceeding N50 million, with a labour force of 11 to 100 workers, whereas a medium-scale industry has a total cost (including working capital but excluding land costs) of N50 million but not exceeding N200 million, with a labour force of 101 to 300 workers.

Conceptual Framework of the Study



Source: Researcher, 2023

Theoretical Framework

The research was based on Opportunity-Based Entrepreneurship Theory (OBET), which holds that entrepreneurs do not drive change, but rather capitalise on the opportunities created by change (in technology, customer tastes, etc.) (Drucker, 1985). Peter Drucker, a prolific business management author, lecturer, and corporate consultant, established the opportunity-based paradigm. He claims that businesses excel at recognising and capitalising on possibilities created by social, technical, and cultural developments, primarily via the use of the Internet to conduct and promote business. They recognise, react to, and seize opportunities presented by change. According to Drucker's opportunity construct, entrepreneurs are more interested in change than in the problems that opportunities create. As a result, entrepreneurs take use of cyberspace chances to tackle social issues, despite constraints such as technological cost, utility, and a lack of expertise about the specific technology (bintiHasbolah& bin Abdullah, 2021).

Empirical Review

Effect of Audio-video Technicians on Unemployment Rates in Enugu State

Rybnicek, Gutschelhofer, Bergner, and Taferner (2015) performed research on fostering entrepreneurship via international university collaborations. The European Union is taking steps to boost entrepreneurship in Europe, including recommending adequate entrepreneurship training in schools and higher education institutions. Because of the globalisation of business, it becomes necessary to create an international perspective on entrepreneurial concerns and international initiatives for young entrepreneurs. In this case study, we looked at international university cooperation between two universities: one in Austria and one in the United States. The program's aims include creating an international network for students and raising students' knowledge of various cultural elements and entrepreneurial attitudes. Our results demonstrate how this curriculum allows students to improve their professional and behavioural abilities, how they work practice-oriented under the supervision of specialists from various entrepreneurial mindsets, and how they become conscious of cultural differences. Aside from other factors, it seems that international entrepreneurship courses benefit from being open and flexible throughout the process, as well as offering a plan that enables students to incorporate participation into their normal academics. Furthermore, it seems useful that students may modify the plan to their unique requirements.

Miloslava (2020) conducted a research on Assessing Cybersecurity Awareness Among Entrepreneurship Students: The Cyberpreneurship Project. This research fills a significant vacuum in both academics and practice by addressing the absence of a common vocabulary and, at times, contradictory agendas between entrepreneurs and cybersecurity professionals. Entrepreneurs are often pressured to develop and launch goods and services as rapidly as possible in order to gain a competitive edge. As a result of a lack of understanding and financing, they often ignore cybersecurity dangers and hazards. This may result in intellectual property theft, project failure, and an erroneous risk assessment. Furthermore, since most organisations' data and assets are sensitive, cybersecurity students studying risk management often fail to analyse real-world client situations. The Cyberpreneurship Project described in this study was created to address this issue by including cybersecurity students in a risk assessment of start-up enterprises created by entrepreneurship graduate students. The project is interdisciplinary exploratory research designed to raise awareness of cybersecurity dangers and provide experience opportunities for both entrepreneurial and cybersecurity students. The project's success is analysed using a mixed-methods methodology. The research also offers the academic community with useful tools and resources for implementing comparable teaching methods at their own institutions.

Ndubuisi, Ezeani, and Ile (2021) investigated the sufficiency of educational resources for improving skill acquisition among business education students for job development in Anambra State's tertiary institutions. The study was directed by two research questions and two null hypotheses. The study used a descriptive survey research approach. The study's population consisted of 98 business educators from four postsecondary schools in Anambra State that provided business education programmes, with no sampling. Data were collected using a 30-item structured questionnaire approved by two specialists in business education, measurement, and assessment. The instrument's reliability was confirmed by trial testing, and data was analysed using Cronbach alpha, yielding correlation indexes of 0.88 and 0.91 for clusters B1 and B2, respectively, with an overall coefficient value of 0.90. The data were analysed using the mean, standard deviation, and t-test. The findings revealed that the human and physical resources supplied to improve skill development among business education students for job creation were inadequate. Gender did not substantially impact business instructors' perceptions of the availability of human and physical resources to improve skill development among students for job creation. The researchers found that the government still has a lot to do in terms of providing enough human and physical resources to business education programmes in Anambra State's postsecondary institutions.

Yuri, et al. (2021) conducted a paper titled Understanding Technological Unemployment: A Review of Causes, Consequences and Solutions. Many studies have attempted to estimate the effect of automation on jobs throughout the globe, with varying conclusions. Despite disagreements over the extent of influence that automation would have, experts believe that new technologies tend to be applied to all economic sectors, affecting employment regardless of whether it is substituted or supplemented. The goal of this research is to go beyond the debate on the scale of

the effect of automation to identifying the primary societal impacts that automation will have and what steps should be made to address them. For this objective, we analysed literature on technological unemployment published in Scopus and Web of Science since 2000, providing an academic perspective on the steps required to address the societal consequences of automation. Our findings summarise the causes, repercussions, and remedies to technological unemployment identified in the literature.

Omoyele, Ojo, and Iriobe (2022) conducted research on the role of cyberpreneurs in the growth of virtual businesses in Nigeria. As the Internet grows, digital organisations are displacing conventional enterprises. This revolution has given birth to virtual enterprises, and entrepreneurs seem to be driving the development. However, a lack of understanding of how technology works and the expensive cost of internet and its accessories seem to be hampering the development of virtual enterprises in Nigeria. However, the scope of these problems and their impact on corporate development remains unknown. As a result, this study investigated the roles of cyberpreneurship in the creation of virtual enterprises in Nigeria, collecting data from 107 respondents using an online survey research methodology. According to the findings, the unfettered flexibility it provides, minimal operating costs, entrepreneurs' access to foreign markets, and stress-free customer service delivery are all drivers of cyberpreneurship in Nigeria. The survey also revealed cyberpreneurs' qualities as risk takers, adaptable and imaginative individuals who understand how to discover and exploit chances. It also discusses the benefits of cyberpreneurship over conventional firms, including lower start-up costs and more flexible and efficient client involvement.

Effect of IT Professionals on the Income Generation in Enugu State

Umazayi (2013) studied the impact of ICT innovations on Nigeria's unemployment rate. This study aims to objectively assess the influence of ICT advancements on Nigeria's unemployment rate from 1985 to 2011. This is significant since the majority of research on the development of ICT breakthroughs focuses on their influence on output, economic growth, and/or employment. An econometric model (Classical Linear Regression Model) was developed utilising the Ordinary Least Squares (OLS) estimate method. Data gathered from both the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS) revealed that ICT had a statistically significant positive impact on Nigeria's unemployment rate during the period under review, whereas recent ICT innovations worsened the unemployment situation, resulting in a structural break in the unemployment rate since its inception.

Hazrina, et al. (2020) did research on the Review of Cyber Entrepreneurship in Malaysia: Past, Present and Future. Cyber entrepreneurship is a relatively new area in the entrepreneurship sector that uses the internet of things to do business, which is a departure from the conventional approach. However, past studies did not include a thorough review of cyber entrepreneurship research. The majority of the research focuses on cyber entrepreneurship as a contemporary profession and job opportunity for human capital sustainability. There have been few rigorous evaluations of the prospective consequences of cyber entrepreneurship among Malaysian cyber entrepreneurs. This work aims to examine the available literature review, highlighting early difficulties, revealing patterns, and identifying research gaps about the future effect of cyber entrepreneurship in Malaysia. A total of 55 papers on cyber entrepreneurship published between 2011 and 2019 were evaluated, with guidance from a systematic review of the Web of Science, Scopus, and Google Scholar databases, as well as the PRISMA declaration. Further examination of these paper articles yielded key concepts such as cyber entrepreneurship, digital entrepreneurship, online entrepreneurship, social entrepreneurship, and e-entrepreneurship.

Boma-Siaminabo (2022) conducted research on Assessing the Effect of Cyberpreneurship on Youth Self-reliance. This study looked at the association between cyber-entrepreneurship and youth self-reliance in Rivers State. The research revealed that cyberpreneurship increases the self-reliance of adolescents at all levels in Rivers State. Devoted participation of youngsters in cyberpreneurship activities such as online application services, internet-mediated marketing, and online registration services results in equivalent increases in self-reliance. It is

consequently recommended that adolescents take seriously, among other things, their involvement in cyberpreneurial activities in order to become financially reliant to a large degree.

Eze, Agbo, and Mbah (2022) performed research on the impact of e-management methods on the operation of shopping malls in Enugu state. The study's specific objectives were to investigate the influence of e-payment on profitability and to assess the impact of online marketing on service quality. The study's population consists of five (5) chosen retail malls in Enugu metropolis with a large number of employees and a minimum capital basis of twenty million naira, totaling four hundred and thirteen (413) employees. The research used a survey design with stratified random sampling. The major source was the administration of a questionnaire. Due to the tiny sample size, the whole population was utilised. Three hundred and twelve (312) copies were returned and correctly completed. The data was presented and analysed using the Sprint Likert Scale's mean score (3.0 and above agreed, while less than 3.0 disagreed) and standard deviation. The hypotheses were tested using the Z-test statistical tool. The study found a substantial beneficial impact of E-payment on profitability $Z(95, n = 312) = 7.813 < 10.077$, $p<.05$. Online marketing significantly improved service quality $Z(95, n = 312) = 5.661 < 7.586$, $p<.05$. The research revealed that e-payments, online information exchange, and digital financial monitoring all had a favourable and substantial influence on performance.

Gap in Empirical Review

The few studies conducted outside of Cyberpreneurship on the Economic Development of Small and Medium Enterprises (SMEs) in Enugu State did not, to the best of my knowledge, concentrate on the unemployment rates of audio-video technicians or the income generation of IT experts in Enugu. The majority of the studies reviewed analysed their data using A purposeful sampling technique, descriptive statistics, and appropriate inferential statistics, Purposive Sampling technique, Ordinary Least Square (OLS) estimation technique, Multiple Regression Analysis (MRA) method, Simple linear regression, and Pearson correlation coefficient (r), whereas the current study used the Z test to test the hypotheses. As a result, the research sought to address the impact of cyberpreneurship on the economic growth of small and medium-sized enterprises (SMEs) in Enugu State.

Methodology

Research Design

A research design is the study's structure or strategy that guides data collection and analysis. The survey research approach was used for this investigation. The study used a survey research design since it included assessing phenomena without attempting to manipulate the study variables and is distinguished by the use of random samples from the public to gather empirical information of modern nature.

Sources of Data

Sources of data collection included primary and secondary sources.

Primary Sources

Primary data refer to original data collected basically for the purpose of the study. Questionnaire was used for collection of primary data. In collecting primary data for these study two devices were adopted the use of questionnaire.

Secondary Sources

Secondary data were obtained from facts already documented by others which are considered valid for the study. The secondary source of data for this study includes textbooks, internet, journals, articles and unpublished works.

Area of the Study

The study was carried out in Enugu state, Nigeria using the selected Enugu State Computers and ICT / Online Marketing and E-Marketing in Enugu State. The area of the study included: Kolkay Technolgies, 1 Ugwuaji Road, Maryland Enugu; Martino global, 2 Egbema Lane Along Enugu Abakaliki Express Road, Incydas Communications, Agbani Road; Danorit Digital Marketing Agency, 27 Nwafor Orizu Avenue, Independence Layout; Host Link Global Services Ltd, Enugu Ezike Street, Federal Housing Estate, Trans-Ekulu; Digital Dreams ICT Academy, 1 Nwodo Street, Enugu; Global Business ICT Services (GBICTS) Limited, 70 Adelabu Street Uwani, Enugu state; Incydas Communications, 1A Chime Ave, Beside Otigba Junction; Classicalb Learning Company, 27 Nwafor Orizu Avenue, Independence Layout, Enugu, Nigeria. These were chosen as a result of their experience and number of trained individuals and firms their customers online and employees in the organizations.

Population of the Study

The population of the study was one hundred and fourteen (114) from various SMEs of understudy as shown in the table 1

Table 1 Population Distribution

	Selected SMEs	No. staff
1	KolkayTechnolgies,	13
2	Martinoglobal	15
3	Incydas Communications	10
4	DanoritDigital Marketing Agency	10
5	Digital Dreams ICT Academy,	11
6	Global Business ICT Services	12
7	Incydas Communications	15
8	Classicalb Learning Company,	15
9	Host Link Global Services Ltd	13
	Total	**114**

Source: Administrative desk office, 2023

Sample Size Determination

The whole sample size 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.

Instrument for Data Collection

The Questionnaire was used for data collection. The secondary data were collected from firms, journals, publication, textbooks and the internet. Ten questions (10) in the questionnaire were ranged.

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

Internal consistency test was used to test the reliability of the instrument. This was done by administering 20 copies of the prepared questionnaire to the sample of the study. Cronbach's Alpha was used in determining the extent of consistency of the reliability. The formula is as follows:

$$= \frac{K\ (Cov/Var)}{}$$

$$= 1-(k-1)\ (Cov/Var)$$

Where: K = number of items on the survey.Cov = Average inter item covariance.Var = Average item variance.I = Constant.

A Cronbach's alpha value (∞) of greater 0.750 indicated very strong reliability.

Table 2: Reliability Statistics

Cronbach's Alpha	No. of Items
.75	10

Scale reliabilities were calculated using Cronbach's Alpha; the result obtained was 0.75. This shows that the internal consistency of the scale is good for the purpose of this study because it is greater than 0.75 which was good.

Method of Data Analyses

Data from the questionnaire were analyzed with the aid of SPSS version 23 using simple, percentages. Data from the questionnaire were analyzed using simple percentages, mean and standard deviation. For the 5-point Likert scale questions, the strongly agreed (SA), agreed (A) Neutral (N) Disagree (D) and Strongly disagree (SD). Z- Test statistics was adopted in the test of hypotheses.

Data Presentation and Analyses

Distribution and returned Questionnaire

The chapter presents and analyzes the data collected for the study. The presentation and interpretation of data were based on the questionnaire administrated to the staff of the selected ICT Centers in Enugu state, Nigeria.

Table 3: Distribution and Return of the Questionnaire

	Firms	No Distributed	No Returned	Percent returned	No. not Returned	Percent not Returned
1	KolkayTechnolgies,	13	9	8	4	4
2	Martinoglobal	15	13	10	2	2
3	Incydas Communications	10	7	6	3	3
4	DanoritDigital Marketing Agency	10	9	8	1	1
5	Digital Dreams ICT Academy,	11	7	6	4	4
6	Global Business ICT Services	12	10	8	2	2
7	Incydas Communications	15	14	11	1	1
8	Classicalb Learning Company,	15	9	8	6	6
9	Host Link Global Services Ltd	13	8	7	5	5
	Total	**114**	**86**	**72%**	**28**	**28%**

Source: From the questionnaire administration, 2023

One hundred and fourteen (114) copies of the questionnaire were distributed to the respondents and eighty six(86) copies were returned representing seventy two (72%) percent, while twenty eight (28) copies of the questionnaire were not returned representing twenty eight percent (28%). This shows a high rate of the respondents.

The relationship between audio-video technicians and unemployment rates in Enugu State

Table 4: Responses on the Relationship between Audio-video Technicians and Unemployment Rates in Enugu State

		5 SA	4 A	3 N	2 DA	1 SD	∑FX	- X	SD	Decision
1	Being audio – video technician has created job for the unemployed youths.	165 33 38.4	80 20 23.3	24 8 9.3	16 8 9.3	17 17 19.8	302 86 100%	3.51	1.555	Agree
2	Rental, and leasing services of audio-video technicians have decreased unemployment	105 21 24.4	80 20 23.3	30 10 11.6	16 8 9.3	27 27 31.4	258 86 100%	3.00	1.609	Agree
3	The audio-video technician's promoter's of performing arts, sports and similar events minimized job seekers	150 30 34.9	88 22 25.6	39 13 15.1	10 5 5.8	16 16 18.6	303 86 100%	3.52	1.485	Agree
4	The setting up and maintaining electronic equipment during meeting, conferences and conventions provides jobs for the youths.	180 36 41.9	88 22 25.6	21 7 8.1	30 15 17.4	6 6 7.0	325 86 100%	3.78	1.341	Agree
5	The youths with the knowledge of audiovisual equipment installers and repairs minimized job seekers.	150 30 34.9	88 22 25.6	39 13 15.1	22 11 12.8	10 10 11.6	309 86 100%	3.59	1.384	Agree
	Total Grand mean and standard deviation							**3.48**	**1.4748**	

Source: Field Survey, 2023

Table 4, 53 respondents out of 86 representing 61.7 percent agreed that being audio – video technician has created job for the unemployed youths of mean score 3.02 and standard deviation of 1.555. Rental, and leasing services of audio-video technicians have decreased unemployment 41 respondents representing 47.7 percent agreed with mean score of 3.00 and standard deviation of 1.609. The audio-video technician's promoter's of performing arts, sports and similar events minimized job seekers 238 respondents representing 60.5 percent agreed with mean score of 3.52 and standard deviation of 1.485. The setting up and maintaining electronic equipment during meeting, conferences and conventions provides jobs for the youths 58 respondents representing 67.5 percent agreed with mean score of 3.78 and 1.341. The youths with the knowledge of audiovisual equipment installers and repairs minimized job seekers 52 respondents representing 60.5 percent agreed with a mean score of 3.59 and standard deviation 1.384.

The relationship between IT professionals and the income generation in Enugu State

Table 5: Responses on the relationship between IT professionals and the income generation in Enugu State

		5 SA	4 A	3 N	2 DA	1 SD	∑FX	- X	SD	Decision
1	The IT professionals conduct entire transactions from delivery of products to generation of revenue.	135 27 31.4	140 35 40.7	21 7 8.1	22 11 12.8	6 6 7.0	324 86 100%	3.77	1.224	Agree
2	ICT is used in our everyday lives, makes life easier and more pleasurable	115 23 26.7	140 35 40.7	3 1 1.2	24 12 14.0	15 15 17.4	297 86 100%	3.45	1.461	Agree
3	IT professionals bring business and organizations close to customers	115 23 26.7	144 36 41.9	18 6 7.0	34 17 19.8	4 4 19.8	315 86 100%	3.66	1.204	Agree
4	The reduction of waste and more efficient stock management are ensured with IT professionals.	85 17 19.8	116 29 33.7	45 15 17.4	38 19 22.1	6 6 7.0	290 86 100%	3.55	1.515	Agree
5	IT professionals have aided in the supports of several-fold growth in production.	175 35 40.7	80 20 23.3	42 14 16.3	26 13 15.1	4 4 4.7	327 86 100%	3.80	1.254	Agree
	Total Grand mean and standard deviation							**3.65**	**1.3316**	

Source: Field Survey, 2023

Table 5, 65 respondents out of 86 representing 72.1 percent agreed that The IT professionals conduct entire transactions from delivery of products to generation of revenue of mean score 3.77 and standard deviation of 1.224. ICT is used in our everyday lives, makes life easier and more pleasurable 58 respondents representing 67.4 percent agreed with mean score of 3.45 and standard deviation of 1.461. IT professionals bring business and organizations close to customers 59 respondents representing 68.6 percent agreed with mean score of 3.66 and standard deviation of 1.204. The reduction of waste and more efficient stock management are ensured with IT professionals 46 respondents representing 53.5 percent agreed with mean score of 3.55 and 1.515. IT professionals have aided in the supports of several-fold growth in production 55 respondents representing 64.0 percent agreed with a mean score of 3.80 and standard deviation 1.254

Test of Hypotheses

Hypothesis One: Audio-video technicians has no relationship with employment rates in Enugu State

Table 6: One-Sample Kolmogorov-Smirnov Test

		Being audio – video technician has created job for the unemployed youths.	Rental, and leasing services of audio-video technicians have decreased unemployment.	The audio-video technician's promoter's of performing arts, sports and similar events minimized job seekers.	The setting up and maintaining electronic equipment during meeting, conferences and conventions provides jobs for the youths.	The youths with the knowledge of audiovisual equipment installers and repairs minimized job seekers.
N		86	86	86	86	86
Uniform Parameters[a,b]	Minimum	1	1	1	1	1
	Maximum	5	5	5	5	5
Most Extreme Differences	Absolute	.384	.314	.355	.424	.355
	Positive	.198	.314	.186	.070	.116
	Negative	-.384	-.244	-.355	-.424	-.355
Kolmogorov-Smirnov Z		3.558	2.911	3.289	3.936	3.289
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

The answers in the table are normally distributed, with a Kolmogorov-Smirnon Z-value range of 2.911 < 3.936 and an Asymptotic significance of 0.000. This supports the majority of respondents' view that audio-video technicians have a favourable and substantial association with employment rates in Enugu State.

Furthermore, comparing the derived Z-value ranges from 2.911 < 3.936 against the crucial Z-value of.000 (2-tailed test at 95% confidence level), the null hypothesis was rejected. Thus the alternative hypothesis was adopted which suggests that the Audio-video technicians had positive significant link with employment rates in Enugu State.

Hypothesis Two: IT professionals has no relationship withthe income generation in Enugu State

Table 7: One-Sample Kolmogorov-Smirnov Test

		The IT professionals conduct entire transactions from delivery of products to generation of revenue.	ICT is used in our everyday lives, makes life easier and more pleasurable.	IT professionals bring business and organizations close to customers.	The reduction of waste and more efficient stock management are ensured with IT professionals.	IT professionals have aided in the supports of several-fold growth in production.
N		86	86	86	86	86
Uniform Parameters[a,b]	Minimum	1	1	1	1	1
	Maximum	5	5	5	5	5
Most Extreme Differences	Absolute	.471	.424	.436	.291	.407
	Positive	.070	.174	.047	.291	.047
	Negative	-.471	-.424	-.436	-.285	-.407
Kolmogorov-Smirnov Z		4.367	3.936	4.044	2.696	3.774
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

The replies in the table are normally distributed, with a Kolmogorov-Smirnon Z-value range of 2.696 < 4.367 and an asymptotic significance of 0.000. This supports the majority of respondents' claim that IT professionals had a substantial positive link with revenue production in Enugu State.

Furthermore, comparing the derived Z-value ranges from 2.696 < 4.367 against the crucial Z-value of.000 (2-tailed test at 95% confidence level), the null hypothesis was rejected. Thus, the alternative hypothesis was adopted, stating that IT professionals had a substantial positive link with revenue production in Enugu State.

Discussion of the Findings

Relationship between Audio-video Technicians and Unemployment Rates in Enugu State

Hypothesis one yields computed Z-values ranging from 2.911 to 3.936, which fall below the essential Z-value of.000. Thus, the alternative hypothesis was adopted, stating that audio-visual technicians had a substantial positive association with employment rates in Enugu State. In support of the literature review, Rybnicek, Gutschelhofer, Bergner, and Taferner (2015) performed a research on Fostering entrepreneurship in international university cooperation. Our results demonstrate how this curriculum allows students to improve their professional and behavioural abilities, how they work practice-oriented under the supervision of specialists from various entrepreneurial mindsets, and how they become conscious of cultural differences. Miloslava (2020) conducted a research on assessing cybersecurity awareness among entrepreneurship students: the cyberpreneurship project. The research offers the academic community with useful tools and resources for implementing comparable teaching methods at their own institutions. Ndubuisi, Ezeani, and Ile (2021) investigated the sufficiency of educational resources for improving skill acquisition among business education students for job development in Anambra State's tertiary institutions. The findings revealed that the human and physical resources supplied to improve skill development among business education students for job creation were inadequate. Gender did not have a significant effect on the mean replies of business instructors. Omoyele, Ojo, and Iriobe (2022) conducted research on the role of cyberpreneurs in the growth of virtual businesses in Nigeria. According to the findings, the unfettered

flexibility it provides, minimal operating costs, entrepreneurs' access to foreign markets, and stress-free customer service delivery are all drivers of cyberpreneurship in Nigeria.

Relationship between IT Professionals and the Income Generation in Enugu State

Hypothesis two yields computed Z-values ranging from 2.696 to 4.367, which fall below the essential Z-value of.000. Thus, the alternative hypothesis was adopted, stating that IT experts had a considerable beneficial impact on revenue production in Enugu State. Umazayi (2013) performed a research on the impact of ICT innovations on Nigeria's unemployment rate to complement the literature review. According to the National Bureau of Statistics (NBS), ICT had a statistically significant beneficial influence on Nigeria's unemployment rate throughout the study period, however newer ICT advances exacerbated the unemployment situation, resulting in a structural break in the unemployment rate since its inception. Hazrina, et al. (2020) did research on the Review of Cyber Entrepreneurship in Malaysia: Past, Present and Future. Further examination of these paper papers yielded major elements such as cyber entrepreneurship, digital entrepreneurship, online entrepreneurship, social entrepreneurship, and e-entrepreneurship. Boma-Siaminabo (2022) conducted research on Assessing the Effect of Cyberpreneurship on Youth Self-reliance. The research revealed that cyberpreneurship increases the self-reliance of adolescents at all levels in Rivers State. Devoted participation of youngsters in cyberpreneurship activities such as online application services, internet-mediated marketing, and online registration services results in equivalent increases in self-reliance.

Summary of the Findings

i. Audio-video technicians had significant positive relationship with employment rates in Enugu State, *Z (95,n = 211),* 2.911 < 3.936 = *p. < 0.05*
ii. IT professionals had significant positive relationship with the income generation in Enugu State, *Z (95,n = 86),* 2.696 <4.367 = *p.< 0.05*

Conclusion

The research found that audio-video technicians and IT professionals had a significantly favourable association with employment rates and revenue creation in Enugu State. Cyberpreneurship has experienced significant alteration in a very short period of time, owing to technology advancements. It has evolved into the resources of what is now known as the knowledge economy, which is based on information and its distribution methods in the shortest amount of time and at the lowest feasible cost. Because of the tremendous development witnessed by this sector and the extent to which it has contributed in all sectors, particularly in light of the use of satellite, mobile phones, and the Internet, companies now face a new challenge: the acquisition of information and communication technology.

Recommendation

Based on the results, the following suggestions were proposed:

i. The research suggests that jobless or young people could learn Cyberpreneurship skills to better sell their businesses via the internet.
ii. ICT is utilised in our daily lives, making it simpler and more enjoyable. It's important to implement plans in ICT training centres to improve quality knowledge and human capital development.

Contribution to Knowledge

The few studies conducted outside of Cyberpreneurship on the Economic Development of Small and Medium Enterprises (SMEs) in Enugu State did not, to the best of my knowledge, concentrate on the unemployment rates of audio-video technicians or the income generation of IT experts in Enugu. The majority of the studies reviewed analysed their data using A purposeful sampling technique, descriptive statistics, and appropriate inferential statistics, Purposive Sampling technique, Ordinary Least Square (OLS) estimation technique, Multiple Regression

Analysis (MRA) method, Simple linear regression, and Pearson correlation coefficient (r), whereas the current study used the Z test to test the hypotheses. As a result, the study addressed the research gap on the impact of cyberpreneurship on the economic growth of small and medium-sized enterprises (SMEs) in Enugu State.

References

Admin M2 IESC. (2018). Impacts of information technology (IT).

Alam, E. (2020). Cyberpreneurship. Retrieved from https://abizman.com/cyberpreneurship/what-is-cyberpreneurship.html

Ayonote, Y. (2016). Padding and consequences for national development. Retrieved from http://caifal.org/budget-padding-and-consequences-fornational-development-by-yusufishiak-ayonote/

Boma-Siaminabo, H. (2022). Assessing the effect of cyberpreneurship on youth self-reliance. *Advanced Journal of Accounting, Management and Marketing, 8*(4), 7881-7563.

Corporate Finance Institute (CFI). (2022). What is unemployment? Retrieved from https://corporatefinanceinstitute.com/resources/knowledge/economics/unemployment/

Dauda, R. S. (2016). Poverty and economic growth in Nigeria: Issues and policies. *Journal of Poverty, 21*(1), 1-19.

ElSaheli-Elhage, C. (2019). The impact of ICT training on income generation opportunities for vulnerable young adults in Lebanon Rasha. *International Journal of Emerging Trends in Social Sciences, 6*(1), 2521-3539.

Eze, F. O., Agbo, M., & Mbah, P. C. (2022). Effect of e-management practices on the performance of shopping mall in Enugu State. *Advance Journal of Business & Entrepreneurship Development, 6*(5), 4405-3914.

Hazrina, H., Salini, A. M., Zailani, A., & Syamsuriana, S. (2020). A review on cyber entrepreneurship in Malaysia: Past, present and future. *Journal of Critical Reviews, 7*(14), 2394-5125.

Liberto, D. (2022). What are small and mid-size enterprises (SMEs)? Retrieved from https://www.investopedia.com/terms/s/smallandmidsizeenterprises.asp

Majeed, A., & Shakeel, S. (2017). Importance of training and development in the workplace. *International Journal of Scientific & Engineering Research, 8*(4), 1-7.

Mbah, P. C., Ifeanyi, E. R., & Irenaus, O. N. (2016). Technology adaptation strategies by SMEs in Nigeria. *Journal of Advances in Management IT & Social Science, 6*(10), 49-61.

Miloslava, P. (2020). Assessing the awareness of cybersecurity within entrepreneurship students: The cyberpreneurship project. *Social Sciences, 4*(2). https://doi.org/10.1177/2515127420913056

Ndubuisi, I. S., Ezeani, C. F., & Ile, C. M. (2021). Adequacy of educational resources for enhancing skill acquisition among business education students for job creation in tertiary institutions in Anambra State. *Nigerian Journal of Business Education (NIGJBED), 8*(1).

Omoyele, O. S., Ojo, A. A., & Iriobe, O. C. (2022). Role of cyberpreneurship in the growth of virtual businesses in Nigeria. *Redeemer's University Journal of Management and Social Sciences, 5*(1).

Osalor, P. (2016). Impact of entrepreneurship on economic growth and development. Retrieved from https://www.vanguardngr.com/2016/10/impact-entrepreneurship-economic-growth-development/

Perallis Security Content Creation Team. (2023). What does the IT professional do and what is the importance of the job. Retrieved from https://www.perallis.com/blog/what-does-the-it-professional-do-and-what-is-the-importance-of-the-job

Peterson, P. (2020). What is cyberpreneurship and why is it important for entrepreneurs? Retrieved from https://www.potential.com/articles/cyberpreneurship-and-its-importance-for-entrepreneurs/

Rybnicek, R. R., Gutschelhofer, A., Bergner, S., & Taferner, R. (2015). Fostering entrepreneurship in an international university collaboration. *Third International Conference on Higher Education Advances*. https://doi.org/10.4995/HEAD17.2017.5492

S€ohoel, H., Jaatun, M. G., & Boyd, C. (2018). OWASP top 10—Do startups care? [Paper presentation]. International Conference on Cyber Security and Protection of Digital Services (Cyber Security), Glasgow, UK.

Shabbir, M. S., Mohd Shariff, M. N., Kiran, R., Faisal, M., & Shahzad, A. (2017). Cyber entrepreneurship: A note on indigenous perspective from a developing country. *Social Sciences (Pakistan), 11*(5), 704-709.

SID. (2021). What is development. Retrieved from https://sid-israel.org/en/what-is-development/

Umazayi, T. D. (2013). The impact of ICT innovations on unemployment rate in Nigeria. Retrieved from https://www.academia.edu/5106446/The_Impact_of_ICT_Innovations_on_Unemployment_Rate_in_Nigeria_An_Econometric_Analysis

Vittala, M. (n.d.). Information technology professionals. Retrieved from https://www.quora.com/profile/Mridinisha-Vittala-3

Yuri, L., Carlos, E. B., Salazar, H. S., & Souza, M. J. (2021). Understanding technological unemployment: A review of causes, consequences, and solutions. *Socio-technical Dimensions of Automation of Work—Future Visions Matter, 11*(2), 21941-901.

APPENDIX 1

CYBERPRENEURSHIP AND ECONOMIC DEVELOPMENT OF SMALL AND MEDIUM ENTERPRISES' (SMES) IN ENUGU STATE

QUESTIONNAIRE

	Questionnaire items	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
OBJECTIVE I: Audio- Video technicians on unemployment rates in Enugu State						
1.	Being audio – video technician has created job for the unemployed youths.					
2.	Rental, and leasing services of audio-video technicians have decreased unemployment.					
3.	The audio-video technician's promoter's of performing arts, sports and similar events minimized job seekers.					
4.	The setting up and maintaining electronic equipment during meeting, conferences and conventions provides jobs for the youths.					
5.	The youths with the knowledge of audiovisual equipment installers and repairs minimized job seekers.					
OBJECTIVE II: The effect of IT professionals on the income generation in Enugu State.						
6.	The IT professionals conduct entire transactions from delivery of products to generation of revenue.					
7.	ICT is used in our everyday lives, makes life easier and more pleasurable.					
8.	IT professionals bring business and organizations close to customers.					
9.	The reduction of waste and more efficient stock management are ensured with IT professionals.					
10.	IT professionals have aided in the supports of several-fold growth in production.					