

**CURRENT TECHNOLOGICAL SKILLS REQUIRED FOR BUSINESS  
EDUCATION GRADUATE TO BE GAINFULLY EMPLOYED AND  
SELF-EMPLOYED**

**BY**

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**A PROJECT SUBMITTED TO THE DEPARTMENT OF VOCATIONAL AND  
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## **APPROVAL**

I, the undersigned, hereby approve this project as adequate in scope and quality in partial fulfillment for the award of a Bachelor's degree in Education in the Department of Vocational and Technical Education, University of Benin.

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**Mrs. Y.T. Owie**  
(Project Supervisor)

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**Date**

## CERTIFICATION

We, the undersigned, certify that this research work was carried out by OLORUNDARE Tolulope Julianah with the matriculation number EDU1904770 in the Department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin City, Edo state.

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## **DEDICATION**

This research work is dedicated to Almighty God, the giver of strength, wisdom, knowledge and understanding.

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## **ABSTRACT**

The concept of 21st century learning and skill development involves learning motivated by practice of teaching students the most relevant, useful, current and globally applied technological skills. How well Business Education students will fare in the business world of work depend greatly on the appropriate skill they have acquired that will enable them fit into the society and the world of work. Hence, this study was conducted to ascertain the current technological skills required for business education graduates to be gainfully employed and self-employed in the world of work. A self-designed four rating scale questionnaire titled: Current Technological Skills Required for Business Education Graduate to be Gainfully Employed and Self-Employed (CTSRBEGGESE) was used for data collection. The instrument was validated by three experts and was also subjected to internal consistency testing using Cronbach Alpha, and the reliability coefficient obtained was 0.89. The sample of the study comprised one hundred and twenty (120) Business Education Graduates of 2022/2023 academic session: thirty four (34) males and eighty six (86) females in the Department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin City, Edo State. As a result of the manageable size of the population, the population was used as sample. Mean and standard deviation were used to analyze the data and find answers to the research questions, while t-test was used to test the research hypothesis. Findings of the study suggested that e-commerce, digital business analysis and communication skills are required for business education graduates to be gainfully employed and self-employed in the world of work. The result of hypothesis testing revealed that there is significant difference between the influence of technological skill on the employability of male and female business education graduates in the world of work. It was recommended among others that E-commerce, digital business analysis and communication skills should be inculcated in the business education curriculum to enable institutions in the proper training of undergraduates to fit into the world of work as they are the current technological skills relevant to the course of study required for business education graduates to be gainfully employed in the world of work.

## CHAPTER ONE

### INTRODUCTION

#### **Background to the Study**

Graduates unemployment in the country is alarming. Many graduates roam the streets each day looking for jobs but to no avail. Paradoxically, the demand for labor with technological skills exceeds its supply. It is observed that technological advancement has taken over different aspect of work and life at large and this has made technological skills become more relevant especially in this 21<sup>st</sup> Century. The rapidly changing global environment provides both opportunities and threats. It is difficult to find a business today that is not affected in some way by global developments. Business education which is an aspect of the total education programme is not unaffected by the penetrating wind of modern technology. It is very important and timely to consider the need for Business Education to be repositioned and enhanced its comparative advantage to its recipient in this digitalized and global workforce (Olaniyi, 2015).

In this 21<sup>st</sup> century, the Bureau of Labor Statistics in Nakayama and Sutcliffe (2017) estimated that the demand for Information Technology professionals, such as computer engineers, computer support specialists, database administrators, and systems analysts, would grow at rates exceeding 70%. This suggests that industries and nations are having serious IT skills shortage. Affirming this, Nakayama and Sutcliff (2017) noted that firms will always use better talents and skills in critical areas of their business operations so they can become more competitive.

Technological skills are defined as a range of abilities to use digital devices, communication application and networks to access and manage information (UNESCO, 2018). Technological skills goes beyond the ability to just use devices, it extends to production, selection, and evaluation, sharing and using digital devices such as computers and smart phones as well as relevant applications. In this vein, the Cornell University in Burton (2016) defines technological skills as 'the ability to find, evaluate, utilize, share, and create content using information technologies and the Internet. Chaouchi and Bourgeau(2020) noted that some technological skills are required to use and interact with technology in order to fulfill specific tasks, while others are required to design, create and maintain tools and solutions for different industries. The rapid growth of Internet access and connectivity has been attributed to the development of a digital economy across the world.

Business education is one of the occupational areas that are richly provided by vocational and technical education in Nigeria. Business education refers to a programme of instruction that offers various skills in accounting, marketing and Office Technology and Management (OTM). Major topics include: office practice, book keeping, business mathematics, business communication, secretarial duties, word processing, advertising (Ajisafe, Bolarinwa & Edeh 2015).

The aims/objectives of Business Education, as contained in section 6, sub-section 49 of the National Policy on Education (2004) are to:

- i. Provide the business knowledge and vocational skills necessary for industrial, commercial and economic development.
- ii. Provide trained manpower in applied technology and commerce, particularly at sub-professional grades.
- iii. Provide people who can apply scientific knowledge to the improvement and solution of economic and environmental problems for the use and convenience of man.
- iv. Enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

Furthermore, Akinola (2006) identified the objectives of Business Education as to:

1. Prepare students for employment after graduation;
2. Meet the manpower needs of the society;
3. Increase the options available to each student and serving as motivation in order to enhance all types of learning;
4. Present a laboratory in which practice skill, knowledge and attitude are learnt to make the classroom instruction more meaningful and relevant;
5. Provide an opportunity through the use of local business for the student to acquire additional skills and knowledge;

6. Give the students background of training this will contribute to rapid advancement on the job;
7. Make students' development of such personality traits as punctuality, dependability, accuracy, for effective and good sense of responsibility that makes for effective work;
8. Help develop the right attitude towards and the habit of mind conducive to the proper use of technology;
9. Provide the knowledge and skill necessary for industrial, commercial and economic development;
10. Provide people who can apply scientific knowledge to the improvement, solution and convenience of man;
11. Give training, and impart the necessary skills leading to the promotion of craftsmanship, technicians and other skilled personnel who will encourage creativity and to enable young men and women to have an intelligent understanding of the increasing complexity of technology;

Ikpe (2013) noted that generally accepted and defensible long range aims and objectives for Business Education are to:

- i. Equip the business students with the capacity to solve practical problems;
- ii. Give the business students the capacity to communicate effectively both verbally and in writing;

- iii. Provide the business students with a detailed knowledge of the intricate performance of a complex economic system; and
- iv. Afford him/her thorough understanding of the functional areas of business.

Edokpolor and Egbri (2017) had stipulated that the actual goals of business education shall be to: prepare students for specific career in office occupations, equip students with the requisite skills for job creation and entrepreneurship, and expose students with knowledge about business, including a good blend of computer technology, which incorporates Information and Communication Technology (ICT). They further explained that the first two goals involve education ‘for’ business, which is aimed at equipping recipients with the requisite attributes (technological skills, knowledge, competencies, and attitudes) to become gainfully employed in the world of work, whereas the later addresses education ‘about’ business, which is aimed at providing a sound basis for further studies at the graduate and post-graduate levels.

The relevance of technological skills in the 21st digital economy cannot be over emphasized. According to Burton (2016), digital age is expanding into all areas of our lives, and it is not just those who work in IT that will need to be alert of this change. Therefore, having technological skills that are highly valued now and shall continue to be in the future in the modern workplace is very vital. According to UNESCO (2018), such skills enable people to create and share digital content, communicate and collaborate, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities at large. In addition, UNESCO noted that they are linked to higher

earning potential, and experts have predicted a growing number of jobs for people with advanced technological skills. By way of affirmation, Teltscher (2020) revealed that 64 per cent of large enterprises and 56 per cent of small and medium-sized enterprises that recruited ICT specialists in 2018 reported that these vacancies were hard to fill. To this end, the Digital Marketing Institute (2017) had suggested that jobseekers require such specialized skills to help them stand out from the crowd. Because of the importance attached to technological skills, it is very important for all business education graduates to acquire so as to become employable or becoming an employer.

Depending on the type of career, one need additional skills that pertain to specific role. To this end, the technological skills one may need in the workplace include original content creation, e-commerce, network and information security, digital marketing, social media marketing, digital business analysis, and data analytics. Others are communicating, programming and coding, human-robot interaction, voice control command systems, or virtual reality-based interactions with connected processes and artificial intelligence. The list of the type of technological skills is endless. However, as pertains to business education graduates, interest was given to e-commerce, digital business analysis and communicating skills.

The internet has paved way for e-commerce activities to be successful. Many people are increasingly using the internet on a daily basis thereby providing a platform for the buying and selling of goods and services. E-commerce has the potential to overcome market barriers and connect consumers and businesses; especially as

everything from shopping and banking to remote work have moved online. E-commerce skills are the ability to buy and sell goods or services on the internet. E-commerce skills facilitate online transactions such as transfer of money to complete transactions, display of products, and keeping in touch with customers among others. Roggio (2016) suggested some e-commerce skills to include: content marketing, data analysis, design, advertising, email marketing, marketing automation, and search engine optimization.

E-commerce is still much a fertile ground for job creation in Africa and in the world generally. As predicted in the report by Boston Consulting Group (BCG) in Jacobs (2019), e-commerce could create around 3 million new jobs in Africa by 2025. In the assertion of the World Bank (2019), it can create jobs directly as well as through logistics services and other parts of the wider e-commerce ecosystem, improve household consumption and reduce inequality by bringing to people in rural areas the convenience, variety, and low prices enjoyed by urban dwellers, and contribute to economic growth by lowering the asymmetry of information and increasing economic efficiency. In the opinion of Shaw (2020), e-commerce has created employment opportunities in numerous sectors. By way of affirmation, All Africa (2020) noted that e-Commerce contributes more than 5% of total employment in China, as online purchases have become part of daily life for many Chinese households; and it also created job opportunities for many Nigerians within its logistics and supply value chain, who worked as last mile delivery agents, drivers and bike riders. Business education graduates can brace up to take job opportunities created by e-commerce by developing relevant skills.

Digital business analysis is another sellable skills highly needed in recent times. As Digital skills Global (2021) noted, digital business analysis have become the hottest skills to have in the 21st Century. It is the skill that helps organizations to make the right decision by collecting and analyzing online mass business data. Pratt and White (2019) noted that Digital business analyst help guide businesses in improving processes, products, services and software through data analysis; they also bridge the gap between IT and the business to help and improve efficiency. They help organizations develop a digital ecosystem of technologies that will help drive digital transformation and business growth (Digital skills Global, 2021). They are also responsible for overseeing the digital footprint of a company, which includes its website and social media content. Some notable digital business analyst skills include: Knowledge of agile development methodologies; deep understanding of digital technology; In-Depth business knowledge; familiarity with customer-centric business models; design thinking; data capture analysis, and strategy; cloud computing; Infrastructure (intelligent) automation; Vast domain knowledge; Social media strategy and online advertising; and web development (Daily Excelsior,2020).

Communicating skills are those skills which are needed by a person to pass and receive information effectively through speaking and writing. For Digital skills Global (2021), Communication is the number one skill an individual must learn to become an entrepreneur. With the advancement in technology in recent times, communication has move online. In this regards, Doyle (2020) maintained that most organizations today use

a wide range of online channels from their website to mobile chat to blogs to connect with current and prospective customers, employees and other stakeholders. In a similar way, (Pachițanu, 2016) stressed that online media is evolving continuously, occupying a more and more important place in organizations' marketing communication and it is becoming a very strong communication channel. With the existence of digital-based information technology, communication in the digital era and online corporate communications has been strengthened (Rozalena, Sulaeman, Mulyati and Gunawan, 2020). Online communication involves the use of emails, social media, blogs and websites to relate with other persons or businesses; and it therefore requires skills in these areas. Some essential abilities here are content marketing, digital advertising, data-driven marketing, search engine optimization (SEO) and social media skills. It also include the ability to have a clear, concise, objective, consistent, complete, relevant, and understanding of audience knowledge; and share content information online using online platforms. Individuals who have the understanding of how to effectively utilize these technological abilities have advantage. As Doyle (2020) noted, employers across industries are looking for digital communication professionals with a variety of specific skill sets. These individuals are highly needed by business organizations for everything from creating online brand assets to building an engaged social media audience with the hope of promoting sales and increase profits.

### **Statement of the Problem**

Level of unemployment has been on the high side and continues to increase; meanwhile higher institutions produce thousands of graduates on yearly basis which means the level of competition on graduates to get employed is increasing on yearly basis. Twenty-first century employer does not necessarily pay graduates salary for the certificate they possessed but the problems they can solve. The reality of life is that there are more employable graduates than the available jobs and it is only graduates that can actively think beyond their certificate that would find their own place in life. Therefore, those to be employed must show something extra such as the technological skills that are highly needed by the employers than just the knowledge of subject matter.

Considering that the ability of graduates (including Business education graduates) to exploit opportunities and become self-reliant depends to a large extent on their possession of adequate technological skills required in the contemporary business and work force. As it is expected that access to education should be a precondition for access to opportunities, but this does not seem to be the case as some of them remain unemployed. As Teltscher (2020) noted, a large number of activities related to work, education, caring, shopping, socializing and other pastimes have been moved from the physical to the virtual world. Thus, a lack of technological skills opens graduates up to personal, social and financial risks; and limits their ability to operate as fully informed active graduates in a growingly digital society (Pawluczuk, Yates, Carmi, Lockley and Wessels, 2020). It is on this basis that the study was conducted to ascertain the technological skills needed by business education graduates to be gainfully employed or self-employed.

## **Purpose of the Study**

The main purpose of this study was to determine the current technological skills required by business education graduate to be gainfully employed or to be self-employed.

Specifically, the study determined;

1. The e-commerce skills needed by business education graduates to be gainfully employed and to be self-employed.
2. The digital business analysis skills needed by business education graduates for employability.
3. The digital communicating skills needed by business education graduates to be employed and be self-employed.

## **Research Questions**

The following research questions guided the study:

1. What are the e-commerce skills needed by business education graduates to be gainfully employed and to become an employer?
2. What are the digital business analysis skills needed by business education graduates for employability?
3. What are digital communicating skills needed by business education graduates to be employed and be self-employed?

## **Hypothesis**

The hypothesis was formulated and tested at 0.05 level of significance.

1. There is no significant difference between the influence of technological skills on the employability of male and female business education graduates in the world of work.

### **Significance of the Study**

The findings of this study will be beneficial to the following persons: Business Education Teachers, Business Education Students and graduates, Education Administrators, Researchers and Curriculum planners.

The result of the study will enable the Business Education Teachers to see the need for effective and efficient utilization of the Information Communication Technology in the teaching and learning process.

This finding will also help the Business Education students and graduates to acquire the relevant technological skills in the world of work and also to create and share digital content, communicate, collaborate, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities at large.

To Education Administrators as the recommendations will enhance education growth. It will also furnish them with the quantity and quality of computer and other current technology devices available in the school to the extent to which they are utilized for effective and efficient dispersion of lessons. They will also appreciate the need to plan, direct, control, coordinate and supervise institutions of higher learning to actualize national educational objectives.

This study will be of importance to the Curriculum Planners, as it will guide them on what to include in the curriculum so as to improve the employability level of the graduates and also help to form a basis for introducing current technologies in teaching at all levels to promote practical base learning in schools.

Finally, this research will serve as a point of inquiry and reference for researchers who want to know and carry out related study on this area.

The benefit of this research will get to the students, teachers, government and researchers through publication of the research work, online reports and summaries, forums etc.

### **Scope and Delimitation of the Study**

The scope of the study is to look into the relevant technological skills required by business education students to be gainfully employed and to become employers of labour in this present competitive world of work. The study will be limited to Business Education graduating students in the department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin city Edo state.

### **Definition of Terms**

**Technological skills:** These are range of abilities to use digital devices, communication application and networks to access and manage information (UNESCO, 2018).

**Business education:** This refers to a programme of instruction that offers various skills in accounting, marketing and Office Technology and Management (OTM).

**Ecommerce:** This is often known as electronic commerce, it is the online purchase and sales of goods and services.

**Business analysis:** is a strategy for seeking opportunities, Initiating and managing change across digital channels in organisations.

**Communication:** is the imparting or exchanging of information by speaking, writing, or using some other medium.

**Entrepreneur:** is an individual who creates and/or invests in one or more businesses, bearing most of the risks and enjoying most of the rewards.

**E-mail:** messages distributed by electronic means from one computer user to one or more recipients via a network.

**Social media:** is a collective term for websites and applications that focus on communication, community-based input, interaction, content-sharing and collaboration.

**A blog:** is an informational website consisting of discrete, often informal diary-style text entries. Posts are typically displayed in reverse chronological order so that the most recent post appears first, at the top of the web page.

**A website:** is a collection of web pages and related content that is identified by a common domain name and published on at least one web server. Websites are typically dedicated to a particular topic or purpose, such as news, education, commerce, entertainment or social networking.

**Content marketing:** is a marketing strategy used to attract, engage, and retain an audience by creating and sharing relevant articles, videos, podcasts, and other media.

**Digital advertising (also known as online advertising):** is a form of marketing used by companies to promote their brand, product, or service through digital channels.

**Data-driven marketing:** means when marketing teams build their strategies based on the analysis of big data.

**Search Engine Optimization (SEO):** means the process of improving your website to increase its visibility in Google, Microsoft Bing, and other search engines whenever people search for product you sell and services you provide.

**Business education graduate:** is the person who has successfully undertaken the process of obtaining either a degree or N.C.E in Business education.

**Online platform:** is a digital service connecting two or more interrelated sets of customers on different sides of the market; these sets of customers may be businesses and/or individuals and the platform may be creating commercial and/or social networking opportunities.

**Communication channels:** are mediums through which you can send a message to its intended audience. For example, phone calls, text messages, emails, video, radio, and social media are all types of communication channels.

**An organization:** is an entity such as a company, an institution, or an association comprising one or more people and having a particular purpose.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

The review of literature related to this study will be presented under the following sub-headings:

- Theoretical Framework
- Concept of Technological skills in the 21<sup>st</sup> century
- Concept of Business Education
- 21<sup>st</sup> century workforce
- Digital Skill Compliance and Business Education Development for the 21st Century
- Digital Marketing and Business Education
- Social Media and Business Education
- Skill-sets required for Business Education graduates in online business and marketing
- Summary of Reviewed Literature

### **Theoretical Framework**

The theory related to the study is job-matching theory developed by Boyan Jovanovic in 1978. The theory emphasizes the mechanism underlying the process of workers transition to jobs, as well as obstacles to efficient matching of workers with jobs. The theory holds that the foremost goal of education and training is to prepare students (would-be-graduates) for the tasks they would perform on their jobs (Barnard, Veldhuis & Van Rooij, 2001). The theory asserts that a mismatch

between the skills required and those possessed by the graduates has a significant contribution to their productivity. The theory is related to the present study in the sense that, the technological skills imparted to Business Education students in preparation for employability in the world of work after graduation should be compatible with the technological skills demanded for employment in the contemporary business and world of work. This is important as their level of transition into the contemporary business and world of work could reveal the compatibility of their technological skills competencies possessed. This entails that graduates could be gainfully employed and run successful businesses when they possess the required technological skills demanded by the world of work. Obviously, without a good fit between the knowledge, skills and abilities of the person and the demands of the job, there could be human resource problems (Mathis & Jackson, 2003). The challenge therefore is to enable the business educators realize the technological skills required for employment in this 21<sup>st</sup> century world of work so as to align their students' skills to the identified competencies, to improve their employment opportunities. It therefore requires that information about the technological skills required in the contemporary business and world of work should be made available so as to close the gap.

The study is also supported by Human Capital Theory which was propounded by Schultz in 1961, which is the theoretical underpinning of the knowledge economy.

Harvard economist, Claudia Goldin (2016) explains that the human capital definition centers on the idea that investments in people, such as education, increase workers' productivity and skill sets. This theory relates to the knowledge economy because it highlights the common assertion that the more educated a person becomes the more, they will be desired for their specific knowledge and increase their human capital. Korres (2008) argued that, a lack of investment in human capital prevents poor countries from catching up with rich ones.

Human capital theory assumes that investment in education is necessary to acquire skills and training which in turn, will increase individual capital. These knowledge and skills will increase worker's productivity in the workplace. This increased productivity will bring a higher salary to the individual since the wage of a person, in the ideal labour market is determined by the person's productivity. Therefore, people would invest in education up to the point where the private benefits from education are equal to the private cost. This conceptualization of the knowledge economy is being globalized, with organizations indicating that human capital is accumulated by investing in education so that individuals can compete in the new society and poverty can be ended.

### **Concept of Technological skills in the 21<sup>st</sup> century**

Technological skills refer to the ability to carry out diverse duties in Information Technology roles. These skills, areas of knowledge and abilities relate to the creation, usage, application and management of different types of technology. Technological skills

are set of skills that allow a person the strategic use of information through information technology. These are abilities required to use digital technologies. They can also be said to be set of skills, tools, and knowledge necessary to use networks, digital devices and different applications on online mediums that facilitate the management of information according to specific requirements of working environment, learning environment, and problems solving situations. Technological skills refers to an individual's ability to find, evaluate, and clearly communicate information through typing and other media on various digital platforms. It is evaluated by an individual's grammar, composition, typing skills and ability to produce text, images, audio and designs using technology. The American Library Association (ALA) defines technological skills as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills (Digital Literacy, 2017). While digital skill initially focused on computers alone, the advent of the internet and use of social media has resulted in the shift in some of its focus to mobile devices. Technological skills does not replace traditional forms of literacy, but instead builds upon and expands the skills that form the foundation of traditional forms of literacy. Digital literacy therefore, should be considered to be a part of the path to knowledge (Jenkins, 2009).

To realize opportunities presented by digitalization, students need to understand how jobs and the skill sets demanded by these jobs are changing. Technological skills have moved from 'optional' to 'critical' and need to be complemented with transversal 'soft skills'

such as the ability to communicate effectively in both online and offline mediums. In developing countries, technological skills are also in high demand and greatly improve prospects for decent employment. They are linked to higher earning potential, and experts have predicted a growing number of jobs for people with advanced technological skills. Not only are there new jobs available, some of them are actually going unfilled, making the provision of advanced technological skills part of a solution to unemployment.

Information technology is now synonymous with any form of digital communications and technologies. Everything falls under the grasp of Information Technology; from checking emails to running software on laptops to making a zoom call with colleagues. Even analyzing consumer data or live streaming social media plays a vital role in Information Technology. There are tons of scopes that one can avail of via the assistance of Information Technology. It is a staple in our day-to-day activities. One can achieve several potentials with the help of Information Technology to upgrade one's career. Information Technology uses computer systems or devices to access information. It is a combination of both information and technology. This system is responsible for a large portion of any workforce, business operation, and other personal access information comprising an individual's daily activities. It is a common technology used by every enterprise to upscale their business skills.

The role of Information Technology is vast and provides a foundation for the current workforce of any organization. Starting from communication to data management,

Information Technology plays a vital role in driving productivity to its peak. Since nowadays, every single business communication is done via the help of the internet; digital data thereby comprises a large segment of enterprise information. The role of Information Technology and services is to safeguard this data, reduce errors and protect the system from any form of attack. Information Technology plays a vital role in up scaling our professional and personal lives. It is the pinnacle of the foundation of communication, technologies, innovation, seamless sustainability, and other important aspects that helps the company to reach its full potential. Information Technology is thereby used on a personal level to connect and communicate with other people via sharing media content, shopping, and of course, being social. From a career perspective, Information Technology is the epitome of advancement in business and commerce. It is responsible for business operations in every industry.

Information Technology services entail; networking, computing, data storage, security and technical support, while types of Information Technology includes; computing, software, platforms, networks, application programming interface, data, databases, data synchronization, data storage, analytics, content delivery, content management, monitoring, event processing, process automation, transaction processing, artificial intelligence, cloud computing, communications, cyber security, infrastructure, internet of things, machine learning, maintenance and repair, robotics and software/application development. Information Technology consists of a plethora of advantages in the workplace. It helps in establishing communication among the people,

which helps with the expansion of businesses. Informational Technology in workplace helps secure the data and vital information of the business. It also helps in the creation of management databases with CRMs and other tools to overcome any front operational challenges. In any business environment, Information Technology is entrusted with three key areas: IT Hardware and Infrastructure, IT governance and IT Operations. Basic IT skills cover the most common usages of a computer, including a majority or all of the following: understanding the basic notions of computer manipulation; managing computer files, word processing, using spreadsheets and databases; creating presentations; finding information and communicating.

### **Concept of Business Education**

Business education program from primary, secondary and tertiary level were designed to offer knowledge and skill in the subject areas such as Accounting, Management, Secretarial Studies, Office Practice, Information and Communication Technology and Management. According to Koyosaki (2013) Business Education is the type of education needed in the 21st century, which has a built-in mechanism for developing skills in almost all disciplines such as accounting, investment, marketing, law and information communication and technology (ICT) in the learner. Knowledge and skills and its application to problem solving are essential attribute of any good educational model. The world through digitalization has become a global village, making internet a meeting point for everybody and in carrying out most activities. Conducting

businesses via the internet system is trending and this has made internet an important new market place. The internet market offers lots of potential for start, growth and development of businesses because of its global appeal that involves billions of people converging in one place. Many businesses are now keying into the on-line model of business and any organization that are not yet tapping into this new business model does so at a great risk. Developing the capacity to do business utilizing on-line and off-line facilities in the business environment requires appropriate skill-sets demanded of today's entrepreneur who must understand the dynamics of business and the technology that drives the 21st century businesses. The unique nature and potential of internet businesses makes it imperative that nowadays business education students should be well trained to be digital literate or attain ICT skill compliance. This will enable them develop the know-how in registering, managing and optimizing their business potential on-line for local and global impact. Business Education is important because it teaches how the office functions, how to keep accounts and enter transactions into different books; it teaches how to keep documents, how to own and run small business enterprise, and to manipulate the keyboard of a typewriter and the computer for the enhancement of business. It also intends to make the student technologically literate and to acquire skills that expose them to the world of work. Components of business studies include: Office practice, Book-keeping, Commerce, Keyboarding and Computer studies. Business activity affects the daily lives of all Nigerians as they work, spend, save, invest, travel and play. It influences jobs, incomes and opportunities for personal enterprise. Business has significant effect on

the standard of living and quality of life of people, and on the environment in which they live and which future generations will inherit (Ekanem, 2008). Eventually, all students will encounter the world of business, whether they work in urban or rural areas. They must be prepared to engage in business activity with confidence and competence.

### **21<sup>st</sup> Century Workforce**

Technology, globalization, and demographic changes have reshaped the global workforce, yet workforce preparation has stayed the same over the past several decades, which requires reimagining the global workforce development and employment system. The 21<sup>st</sup> –century workplace is a melting pot of different backgrounds, cultures, and perspectives, and technology has opened up new possibilities for collaboration and innovation. But with these changes come new challenges for employers, who must adapt their management strategies to keep up with the times. The factors that influence the 21<sup>st</sup> century workplace entails: the work being done, the effects of technology and globalization, and the implications of workplace change. Required employability skills in the 21<sup>st</sup> century include, but not limited to: critical thinking/ problem solving, creativity, leadership, oral communication, written communication, and collaboration/teamwork.

Scientific excellence and technological innovation have been central to the performance of any economy for more than 50 years. Any economy needs a workforce with generally higher levels of scientific and technological literacy for all students, as well as a sufficient number of highly talented individuals entering scientific and

engineering careers (Bybee, Fuchs and Wiley, 2006). Technical skills are no longer enough for workers to compete in this highly competitive global work environment. Soft skills are of paramount importance. The soft skills training programme may be used to target disadvantaged individuals who are unemployed or living in poverty. Improving the soft skills of disadvantaged individuals may help them gain and retain suitable employment (Dean, 2017).

Three major forces, taken together, have fundamentally changed the nature of work in the 21<sup>st</sup> century. These three forces are technology, the rise of the service economy, and globalization, and they drive organization to seek employees who possess what are called 21<sup>st</sup> century skills (Burrus, Mattern, and Roberts, 2017). The general contours of the employment landscape depicting the many roads to “ Workforce 2020 “ and offers the best ideas about what lies ahead and what workers should do to prepare for the journey. The forces shaping the global economy entails ; rapid technological change; further global integration of the economy, rapid economic growth in certain developing nations; deregulation and liberalization, both nationally and globally; and demographic change ( Judy and D’amico, 1997). Identification of the most important competencies for college graduates to succeed in the 21st century workforce. Five competencies stand out as important for most occupation: problem solving (e.g., complex problem solving), fluid intelligence (e.g., category flexibility), teamwork (e.g., cooperation), achievement/innovation (e.g., persistence), and communication skills (e.g., oral expression. Consistent with this conclusion, a correlation of component scores with

wages found that 4 of these 5 competencies were strongly related to wages, with the exception being teamwork (Burrus, Jackson, Xi and Steinberg, 2013).

Increasing technological innovation has disrupted and continues to disrupt the labour markets making some jobs obsolete and workers redundant. The key to success in the twenty-first century and future labour markets is to combine hard and soft skills into a comprehensive package tailored to specific needs including the ability to think clearly about complex problems, apply creative and innovation solutions to solve problems, and apply new knowledge and skills in new setting ( Short and Keller-Bell, 2019). Advances in technology have created an environment for a learning revolution. In the digital economy, technology enabled learning or e-learning is becoming an integral part of a larger system of practices and policies designed to prepare and support a high skilled workforce. The world is rapidly changing, and the systemic shifts have the potential to affect the nature of work. Preparation of the workforce requires the crucial need to develop the skills that will be necessary for the unpredictable landscape of the future. Before these skills can be developed, however, they have to be identified and quantified through some form of valuation (Vista, 2020).

Information literacy is needed to prepare students for the 21<sup>st</sup> century workforce. Information literacy instruction is a set of skills taught in order to identify and find the information needed to solve a problem-traditionally follows a formalized academic model. It assumes information skills can be applied universally and learned individually. This

approach would better prepare students for the social and collaborative learning required in a 21<sup>st</sup> century workforce environment (Monge and Frisicaro-Pawlowski, 2014). With just over two decades into the 21<sup>st</sup> century, political and business leaders ought to recognize that utilizing the potential of all of our youth by designing education programmes that prepare youth with and without disabilities to become productive members of the 21<sup>st</sup> century workforce is every bit as important as natural resource as land, oil, and capital. It is clear that renewed investments in education are needed to maintain our country's economic leadership in Africa. All students must be engaged in rigorous, relevant academic content that translates into student readiness to succeed in a knowledge-based, high tech, global economy. Administrators and educators must ensure access to academic rigor in the context of critical thinking, real-world applications, and contemporary tools to truly prepare students to gain and maintain employment in this increasingly global, high-tech world (Hanley-Maxwell and Izzo, 2012).

Increasingly, career-technical and workforce education professionals are challenged with determining the best ways to prepare people for work, when many of the jobs those people will perform do not exist yet. Twenty-first century work is evolving rapidly, with some jobs going away, other types of work appearing, and many people working in jobs that do not maximize their potential. To remain relevant in this emerging landscape, a framework is needed that can structure and guide research and curriculum development in workforce preparation in an increasingly volatile and uncertain future. These three key components of –career navigation, work ethic, and innovation-that can

situate career-technical and workforce education curricula to anticipate rapid changes in workplace demands and ensure student outcomes that will be lasting and durable in these 21<sup>st</sup>-century workplace (Rojewski and Hill, 2017).

### **Digital Skill Compliance and Business Education Development for the 21st Century**

Business education involves the learning of different types of business related skills such as improved decision-making skills, identification and utilization of business opportunities, setting up and properly running an enterprise and recently, skills to access information and use different digital tools to create better working space (DeFaoite, Henry, Johnson, & Van derSijde, 2003). Digitalization now the major driver in today's global economy has become one of the most sought after skill-sets of the 21st century. The internet is now the new and obviously the biggest market place worldwide, and technological skills are the key to unlocking the potentials in this new market place. The global market system of today needs new sets of skills for marketing, advertising and business promotional activities necessary for setting-up, growing and effective management of businesses. Students need full range of such technological skills in order to meaningfully participate in the 21st century global economy (Barbara, 2017).

How well Business Education student will fare in the business world depend greatly on the appropriate skill they have acquired that will enable them fit into the society and the world of work. Twenty-first century skills are not entirely a new concept; but ICT component of the skill sets are very crucial in today's global setting. Digital skill

compliant of Business Education offers unique opportunity for participation in the growing digital business world and the changing dynamics of business ecosystems. The usefulness of digital skill or its compliance as important skill-sets for business development lies on the use perception, the productive function and usage frequency. A study by Gregor, &Valerij (2015) shows that e-learning courses, market research data bases and business plan software are among the digital tools that can be used for inculcating digital competencies in the students. The school system must develop the capacity to direct and provide relevant answers to such expectations that will lead to the desired future. The concept of 21st century learning and skill development involves learning motivated by practice of teaching students the most relevant, useful, current and globally applied technological skills.

Twenty first century Business Education students must be taught different skill from those of 20th century. The innovation and advancement in technology has made some of the courses in the business education curriculum to change, for instance typewriting has changed to word/data processing technology. Also, the teaching of shorthand presently is sliding down into oblivion. Its relevance in the contemporary world of work has been questioned. According to Ndinechi (2001), shorthand is one of the trees in the forest of tillers under business education rubric. It has grown steadily over many years and now is dying a slow aimless death caused by rotting pockets of irrelevance. Out-dated courses, skills and techniques should be doing away with. Business education should be poised to prepare students and educators alike for jobs that

do not exist yet, teaching them how to learn, unlearn and relearn. According to Salisu (2021), quoting American writer Alvin Toffler, said ‘the illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn’. The skill to be taught in this century should reflect the specific demands placed on today’s students by the complex, competitive, knowledge-based, information-age, technology-driven economy and society (The Glossary of Education Reform, 2016). Digital compliance is expected to deliver three forms of literacy, namely; information communication literacy, media literacy and technology literacy. Once mastered, these forms of literacy help in the mastery of other skills needed (Trilling and Fadel, 2009). Today these competencies (technological skills) may seem modern; they are not entirely new, but, just newly important (Salas-Pilco, 2013). Acquiring skills has become a lot easier these days because someone has made the processes and uploads it on the internet. This becomes advantageous to digital skill compliant students. According to Mind Tools (2013, 2017) and Kutzhanova (2009) various categories of entrepreneurship skills such as Personal characteristics, Interpersonal skills, Critical and Creative thinking and Practical skill can be acquired using digital tools.

### **Digital Marketing and Business Education**

The skill competencies required for entrepreneurship include technical, human and conceptual. Technical skill competencies involve individual’s knowledge and proficiency in a specialized field. Human skill deals with the ability to interact effectively

with other people at all levels. While conceptual skills deals with formulation of ideas, conceptualization of abstract and complex situations, i.e. understanding relationship among various works. Successful businesses are built around effective marketing.

Marketing is important to any organization to the extent that everything rises and falls on marketing. Nothing happens in an organization until a salesman makes a sale. The marketing concepts may appear the same theoretically, but the off-line or on-line component requires different mechanism or skill-set to run, maintain and manage. Digital marketing are marketing types conducted electronically or via the internet. The internet has completely changed the marketing game, bringing a level of precision and scale unknown in the pre-digital age.

Specialized technological skills are required in order to navigate this new terrain, with expert practitioners often focusing on one specific discipline. These include things like pay-per-click advertising, search engine optimisation, email marketing, as well as the strategy to bring them together. Business Education Students therefore needs exposure on the new skill required for digital or on-line business development and marketing.

The changing business dynamics, globalization and knowledge economy has shifted emphasis and focus on digital marketing.

### **Social Media and Business Education**

Social media technological skills are crucial to the digital marketing mix, but are worth pulling out as social media has come to play such a significant role in our day-to-

day as well as professional lives. Social media management tools, performance measurement, new channel research, brand presence/voice, influencer marketing, and paid vs organic all play a part in connecting with prospective and current users. Social media comprises of activities that involve socializing and networking online through words, pictures and videos. Kaplan and Haenlein (2010) defined social media as a group of internet-based applications that build on the ideological and technological foundations of Web2.0, and that allows the creation and exchange of user-generated content. It depends on mobile and web-based technologies to create highly Interactive platforms through which individuals and communities share, co-create, discuss and modify user-generated content. In line with this, Sherwin (2013) stated that social media introduced substantial and pervasive changes to communication between organizations, communities and individuals. These changes are the focus of the emerging field of techno-self-studies.

Social media's most distinctive aspects are that it has the potential to transform from a way of pushing content outward to a way of inviting conversation, of exchanging information, and of invoking unparalleled individual, industrial, societal, and even global changes. The availability of high speed internet broadband connection with massive use of desktop computer, laptops, e-readers, facebook, youtube, and smartphones enables millions of people to actively engage in social media, text messaging, content sharing, online-learning and much more.

Ezenwafor (2012) observed that since technology is ruling the world in all disciplines and activities, the modern office ranks highest in innovation development and use of the ever changing technologies requiring adequate integration of digital skill in business education. Business Education goal of producing self-reliant graduates who are expected to be self-employed to create jobs for others need proper exposure to some of the under listed skill-sets for success in the 21st global economy and digitally transformed economic system (Anireh&Amadi, (2020):

### **Skill-sets required for Business Education graduates in online business and marketing**

The following are the skill-sets required by Business education graduates in online business and marketing:

- How to register business on-line with Google, Facebook and other social Media
- Capacity to maintain and sustain on-line presence
- Digital Skill and Future of Business Education Students.
- Skill for Social Media Marketing
- Getting to know online customers
- How to use business goals to improve performance
- How to stand out from competition on-line
- Product promotion and merchandizing
- Website marketing

- Understanding of websites basics
- Relate website development with business goals
- Using tools such as Analytics and Web scanners for success
- Effective use of Search Engine Marketing (SEM)
- Search Engine Optimization/Maximization (SEO or SEM)
- How to be noticed during Search Adverts
- How to use Google Analytics for market Segmentation
- Using Data to understand audience
- On-line business security for networks, systems and softwares improvement
- Creating a secured online customer experience
- Building local and international on-line presence
- Choosing the right format for on-line contents
- Writing for on-line customers
- Measuring your success in content marketing
- Connect through e-mails Measuring success in e-mail marketing
- Managing successful e-mail campaigns
- Advertise in other Websites
- Search advertising and display advertising
- Targeting and retargeting advertising
- Receive payments and managing orders on-line
- Creating a smooth e-commerce experience

- Expand your business internationally Advertise across-boarders
- Delivering to customers across the globe
- The support system you will need for global business

Mastering and utilizing the above listed skill-sets will enable Business Education graduates create manage and optimize their engagements in online businesses and marketing. These skill-sets are considered useful and its impact cut across all spectrum of e-Business; (e-Trading, e-Marketing/Merchandizing, Drop shipping and Social Media Marketing such as, the use of Facebook, Instagram, Twiter, Snapchat, Whatsapp, Youtube and Mobile Application usage/Development) for business promotion activities.

## **Summary of Reviewed Literature**

Technological skills required for Business education graduates to be gainfully employed have been globally accepted as a panacea for their employability and empowerment in 21<sup>st</sup> century workforce. Yet, literature revealed that this is rarely the case as Technological skills in business education are hardly obtained in the Universities. The Business education graduates do not have access to full technological skills. For the sake of employability and empowerment of Business education graduates, Business education curriculum must entail information and technology skills required in the 21<sup>st</sup> century workforce this is because modern Business education graduates can only compete in the modern labour market if they are well equipped with information and technology skills also known as technological skills.

### **CHAPTER THREE**

## **METHODOLOGY**

The chapter describes the method to be used in carrying out the research under the following headings;

- Design of the Study
- Population of the Study
- Sample and Sampling Technique
- Instrumentation
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis

### **Design of the Study**

Descriptive survey research design was adopted for the study. The design aims at describing the state of affairs as they exist. According to Calderon (2006), a descriptive survey research is a purposive process of gathering, analyzing, classifying and tabulating data about prevailing conditions, practices, processes, trends and cause effect relationships and then making adequate and accurate interpretation about such data with or without or sometimes minimal aid of statistical methods. Also this method ascertains prevailing conditions of facts in a group under study that gives either qualitative or quantitative, or both descriptions of the general characteristics of the groups as results. A survey was appropriate because it enabled the research to obtain pertinent and precise

information from the respondents about the current technological skills required for business education graduate to be gainfully employed and self-employed.

### **Population of the Study**

The population of the study comprised one hundred and twenty (120) current graduated Business Education students of the 2022/2023 academic session in the department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin City, Edo State.

### **Sample and Sampling Technique**

The sample of the study comprised one hundred and twenty (120) Business Education graduates of 2022/2023 academic session. As a result of the manageable size of the population, the population was used as sample hence, census.

### **Instrumentation**

The instrument used for data collection was a questionnaire. The questionnaire was titled “Current Technological Skills Required for Business Education Graduate to be Gainfully Employed and Self-Employed (CTSRBEGGESE)”. The questionnaire has both section A and section B, section A solicited for personal data while section B had 25 items which were designed to elicit answers to the research questions. The response pattern adopted for the questionnaire was four-point Likert rating scale of: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

### **Validity of the Instrument**

The instrument for data collection was subjected to face validity by the researcher's supervisor and two other experts from the Department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin City. It was recommended that the researcher was to use words the respondents can easily comprehend and also the questionnaire items were to be specific, precise and relevant.

### **Reliability of the Instrument**

To establish the reliability of the instrument, it was administered to the 20 business education graduates who were not part of the study and thereafter Cronbach statistical tool was used to ascertain the internal consistency. It yielded an alpha value of 0.89, hence the instrument was considered reliable.

### **Method of Data Collection**

The data was administered to the respondents directly by the researcher who explained the nature and purpose of the study to the respondents. The administration of the questionnaire was done under conducive environment, free from pressure, intimidation, interference and discomfort. However, respondents were given the opportunity to ask for clarifications where necessary.

### **Method of Data Analysis**

The data collected from the respondents was analyzed using mean ( $\bar{x}$ ), standard deviation (SD), and two sample independent t-tests. The mean and standard deviation were used to answer the data collected for the research questions while a two-sample independent t-test was used to test the hypothesis at a 0.05 level of significance. The

decision rule was based on the mean value of 2.50 such that any calculated mean ( $\bar{x}$ ) equal to or greater than 2.50 was regarded as agreed while any mean ( $\bar{x}$ ) less than 2.50 was regarded as a disagreed. On the basis of the hypothesis, the probability value (p) was used. If p-value rule was less than or equal to 0.05, the null hypothesis was not retained, but if the p-value was greater than 0.05, null hypothesis was retained.

## CHAPTER FOUR

### PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

This chapter deals with presentation of results and discussion of findings. The results of the analysis are presented in the order of the research questions and hypothesis that guided the study. The research questions and hypothesis were answered under the following sub-headings:

- Presentation of Results
- Discussion of Findings

#### Presentation of Results

##### Research Question One

What are the e-commerce skills needed by business education graduates to be gainfully employed and to become an employer?

**Table 1: Mean and standard deviation showing e-commerce skills needed by business education graduates to be gainfully employed and to become an employer**

S/N	Item	N	Mean	SD	Remarks
1	Do extensive market research	120	3.80	.402	Agreed
2	Evaluate product demand and competitiveness	120	3.45	.563	Agreed
3	Create attractive and user-friendly website	120	3.63	.549	Agreed
4	Implement reliable inventory monitoring solutions such as inventory management	120	3.41	.542	Agreed
5	Use social media platforms to engage customers and drive traffic online.	120	3.74	.440	Agreed
6	Implement strong customer support systems with different channels for quick useful responses to client inquiries and issues.	120	3.45	.532	Agreed
7	Collect and analyze ecommerce data in order to acquire important insights into business performance, consumer behavior and market trends.	120	3.67	.473	Agreed
8	Use persuasive copywriting and call to action methods	120	3.43	.604	Agreed

9	Smoothly integrate numerous payment choices such as credit cards and digital wallets	120	3.73	.444	Agreed
10	Secure customers' payment transactions.	120	3.42	.588	Agreed
11	Ensure seamless order processing and timely delivery.	120	3.80	.402	Agreed
<b>Cluster Mean</b>			<b>3.59</b>	<b>0.07</b>	<b>Agreed</b>

**Note: SD (Standard Deviation), N (Sample Size)**

In response to research question one, Table 1 showed that the respondents rated item one to eleven as agreed with a mean rating ranging from 3.41 to 3.80 while the standard deviation also ranges from .402 to .604. The cluster mean showed a mean of 3.59. With these results, the above mean score shows that the e-commerce skills needed by business education graduates to be gainfully employed and to become an employer are market research, evaluation of product demand, creation of attractive and user-friendly website, implementation of reliable inventory monitoring solutions, use of social media platforms to engage customers, implementation of strong customer support systems, collection and analyze ecommerce data, Use persuasive copywriting and call to action methods, Smoothly integrate numerous payment choices, Secure customers' payment transactions and ensure seamless order processing and timely delivery.

### **Research Question Two**

What are the digital business analysis skills needed by business education graduates for employability?

**Table 2: Mean and standard deviation showing digital business analysis skills needed by business education graduates for employability**

S/N	Item	N	Mean	SD	Remarks
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1	Make research, findings and implementing an efficient and innovative solution to business problems.	120	3.73	.546	Agreed
2	Interpret programming languages like R and Python accurately so as to derive meaningful conclusions.	120	3.46	.564	Agreed
3	Understand key financial ratios, conduct break-even analyses and make informed decisions.	120	3.76	.430	Agreed
4	Foresee potential challenges and proposing solutions.	120	3.56	.531	Agreed
5	Effectively integrate Artificial intelligence (AI) and Machine learning (ML) techniques into traditional business analysis processes.	120	3.71	.525	Agreed
<b>Cluster Mean</b>			<b>3.64</b>	<b>0.05</b>	<b>Agreed</b>

**Note: SD (Standard Deviation), N (Sample Size)**

The data analysis presented in Table 2 depicts that the respondents' rated item one to five as agreed with a mean rating ranging from 3.46 to 3.73 while the standard deviation also ranges from .430 to .564. The cluster mean showed a mean of 3.64. The above mean score shows that digital business analysis skills needed by business education graduates for employability are make research, findings and implementing an efficient and innovative solution to business problems, interpret programming languages, understand key financial ratios, conduct break-even analyses and make informed decisions, Foresee potential challenges and proposing solutions and effectively integrate Artificial intelligence (AI) and Machine learning (ML) techniques into traditional business analysis processes.

### **Research Question Three**

What are digital communicating skills needed by business education graduates to be employed and be self-employed?

**Table 3: Mean and standard deviation showing digital communicating skills needed by**

**business education graduates to be employed and be self-employed**

S/N	Item	N	Mean	SD	Remarks
1	Verbal communication	120	3.77	.480	Agreed
2	Non-verbal communication	120	3.52	.745	Agreed
3	Listening effectively	120	3.66	.476	Agreed
4	Use of questions in conversation	120	3.51	.565	Agreed
5	Video calls – zoom, face-time, webinars	120	3.63	.609	Agreed
6	Written communication	120	3.69	.464	Agreed
7	Website	120	3.69	.464	Agreed
8	Social media chat	120	3.63	.484	Agreed
9	Emails	120	3.56	.562	Agreed
<b>Cluster Mean</b>			<b>3.63</b>	<b>0.09</b>	<b>Agreed</b>

**Note: SD (Standard Deviation), N (Sample Size)**

Research question three reveals that the respondents rated item one to nine as agreed with a mean rating ranging from 3.51 to 3.77 while standard deviation also ranges from .480 to .745. The cluster mean indicated a mean of 3.63. With these results, the above mean score shows that digital communicating skills needed by business education graduates to be employed and be self-employed are verbal communication, non-verbal communication, listening effectively, use of questions in conversation, video calls – zoom, face-time, webinars, written communication, website, written communication, website, social media chat, emails.

**Hypothesis**

There is no significant difference between the influence of technological skill on the employability of male and female business education graduates in the world of work.

**Table 7: t-test analysis showing difference between the influence of technological skill on the employability of male and female business education graduates in the world of work.**

<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>df</b>	<b>t-value</b>	<b>p-value</b>	<b>Decision</b>
Male	34	3.53	0.18	118	-3.030	.003	Significant
Female	86	3.65	0.20				

**P-Value Significant at 0.05 level (2-tailed) (Reject Hypothesis) SD: Standard deviation**

**DF: Degree of freedom**

The result in Table 4 reveals the mean responses of the significant difference between the influence of technological skill on the employability of male and female business education graduates in the world of work. Male gender had a mean of 3.53 and female counterpart had a mean of 3.65 while their corresponding standard deviations were 0.18 and 0.20 respectively. The t-value of -3.030, at degree of freedom of 118, which shows that it was significant at p-value of .003. Testing at an alpha value of 0.05, the null hypothesis was rejected since the p-value is less than alpha value. Thus, there is a significant difference between the influence of technological skill on the employability of male and female business education graduates in the world of work.

### **Discussion of Findings**

The findings of research question one indicated that the e-commerce skills needed by business education graduates to be gainfully employed and to become an employer are market research, evaluation of product demand, creation of attractive and user-friendly website, implementation of reliable inventory monitoring solutions, use of social media platforms to engage customers, implementation of strong customer support systems,

collection and analyze ecommerce data, Use persuasive copywriting and call to action methods, Smoothly integrate numerous payment choices, secure customers' payment transactions and ensure seamless order processing and timely delivery. This finding supports that of Roggio (2016).

The finding of research question two showed that digital business analysis skills needed by business education graduates for employability are market research, findings and implementing an efficient and innovative solution to business problems, interpret programming languages, understand key financial ratios, conduct break-even analyses and make informed decisions, Foresee potential challenges and proposing solutions and effectively integrate Artificial intelligence (AI) and Machine learning (ML) techniques into traditional business analysis processes. The finding is in line with that of Digital Skills Global (2021).

The finding of research question three indicated that digital communicating skills needed by business education graduates to be employed and be self-employed are verbal communication, non-verbal communication, listening effectively, use of questions in conversation, video calls – zoom, face-time, webinars, written communication, website, written communication, website, social media chat, emails. The finding is in agreement with that of Digital Skills Global (2021).

The finding in the hypothesis indicated that there is a significant difference between the influence of technological skill on the employability of male and female business education graduates in the world of work.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### Summary

The study determined the current technological skills required by business education graduate to be gainfully employed or to become an employer of labour. Three research questions were raised to guide the study and one hypothesis was formulated and tested at 0.05 level of significance.

The study adopted a descriptive survey design. The population of the study consisted of all the current graduated Business Education students of the 2022/2023 academic session in the Department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin City, Edo State which are one hundred and twenty (120) in total. The sample of the study comprised one hundred and twenty (120) Business Education graduates of 2022/2023 academic session. As a result of the manageable size of the population, the population was used as sample hence, census. The instrument used for data collection was a questionnaire. The questionnaire was titled “Current Technological Skills Required for Business Education Graduate to be Gainfully Employed and Self-Employed (CTSRBEGGESE)”. The questionnaire has both section A and section B, section A solicited for personal data while section B had 25 items which were designed to elicit answers to the research questions. The instrument for data collection was subjected to face validity by the researcher's supervisor and two other

experts from the Department of Vocational and Technical Education, Faculty of Education, University of Benin, Benin City. To establish the reliability of the instrument, it was administered to the 20 business education graduates who were not part of the study and thereafter Cronbach statistical tool was used to ascertain the internal consistency. It yielded an alpha value of 0.89, hence the instrument was considered reliable. The data collected from the respondent were analyzed using mean ( $\bar{x}$ ), Standard deviation (SD) and two sample independent t-test using statistical package for the social science (SPSS). The findings generally showed that technological skills required by business education graduate to be gainfully employed or to become an employer of labour are verbal communication, non-verbal communication, listening effectively, use of questions in conversation, video calls – zoom, face-time, webinars, written communication, website, written communication, website, social media chat, emails. The findings of the study were as follows:

1. The e-commerce skills needed by business education graduates to be gainfully employed and to become an employer are market research, evaluation of product demand, creation of attractive and user-friendly website, implementation of reliable inventory monitoring solutions, use of social media platforms to engage customers, implementation of strong customer support systems, collection and analyze ecommerce data, Use persuasive copywriting and call to action methods, Smoothly integrate numerous payment choices, Secure customers' payment transactions and ensure seamless order processing and timely delivery

2. Digital business analysis skills needed by business education graduates for employability are make research, findings and implementing an efficient and innovative solution to business problems, interpret programming languages, understand key financial ratios, conduct break-even analyses and make informed decisions, Foresee potential challenges and proposing solutions and effectively integrate Artificial intelligence (AI) and Machine learning (ML) techniques into traditional business analysis processes
3. Digital communicating skills needed by business education graduates to be employed and be self-employed are verbal communication, non-verbal communication, listening effectively, use of questions in conversation, video calls – zoom, face-time, webinars, written communication, website, written communication, website, social media chat, emails
4. There is no significant difference between the influence of technological skill on the employability of male and female business education graduates in the world of work.

## **Conclusion**

Based on the findings of the study, it was concluded that technological skills required by business education graduate to be gainfully employed or to become an employer of labour are verbal communication, non-verbal communication, listening effectively, use of questions in conversation, video calls – zoom, face-time, webinars,

written communication, website, written communication, website, social media chat, emails

## **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. E-commerce, Digital business analysis and communication skills should be inculcated in the business education curriculum to enable institutions in the proper training of undergraduates to fit into the digital age.
2. Students should be encouraged to develop the requisite technological skills that will help them in the labour market after graduation from school, bearing in mind the competition that exist in securing an employment.
3. Lecturers are expected to engage their students in certain activities that enable them to make critical decisions and proffer solutions to critical issues. In essence, students should be exposed to the pragmatic and practical aspect of technological skills and not confined to the conventional method of head knowledge.
4. The study found that students should have a proper disposition to embrace not only the cognitive domain of learning but also see the need to acquire technological skills that will properly place them above peers and give them an apparent edge in the world of work when they eventually become graduates.

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## APPENDIX A

Department of Vocational and Technical Education,  
Faculty of Education,  
University of Benin, Benin City,  
Edo State.  
14/04/2023.

Dear Respondent,

### LETTER TO RESPONDENTS

The researcher is a final year student

of the above-named institution and currently carrying out a research titled; "The Current Technological Skills Required by Business Education Graduate to be Gainfully Employed or to Become an Employer of Labour". The attached structured questionnaire is designed to elicit the necessary information for the study. Any information provided will be treated with utmost confidentiality and used only for research purpose.

Thanks for your anticipated co-operation.

**Yours Faithfully,**  
**Tolulope Julianah**  
(Research Student)

## APPENDIX B

### QUESTIONNAIRE ON THE THE CURRENT TECHNOLOGICAL SKILLS REQUIRED BY BUSINESS EDUCATION GRADUATE TO BE GAINFULLY EMPLOYED OR TO BECOME AN EMPLOYER OF LABOUR

#### SECTION A (PERSONAL DATA OF RESPONDENTS)

#### Section A

**Instruction:** Please tick [  ] where applicable.

**Gender:** Male [  ] Female [  ]

**Age:** 16-20 [  ] 21-25 [  ] 26 and above [  ]

#### SECTION B

**Instruction:** Tick [  ] the column that best express your response.

S/N	Ecommerce skills needed by business education graduates to be gainfully employed and self-employed include the ability to:	SA	A	D	SD
1.	Do extensive market research				
2.	Evaluate product demand and competitiveness				
3.	Create attractive and user friendly website				
4.	Implement reliable inventory monitoring solutions such as inventory management				
5.	Use social media platforms to engage customers and drive traffic online.				
6.	Implement strong customer support systems with different channels for quick useful responses to client inquiries and issues.				
7.	Collect and analyze ecommerce data in order to acquire important insights into business performance, consumer behavior and market trends.				
8.	Use persuasive copywriting and call to action methods				
9.	Smoothly integrate numerous payment choices such as credit cards and digital wallets				
10.	Secure customers' payment transactions.				
11.	Ensure seamless order processing and timely delivery.				
S/N	Digital business analysis skills needed by business education	SA	A	D	SD

	<b>graduates to be gainfully employed and self-employed include the ability to:</b>				
12.	Make research, findings and implementing an efficient and innovative solution to business problems.				
13.	Interpret programming languages like R and Python accurately so as to derive meaningful conclusions.				
14.	Understand key financial ratios, conduct break-even analyses and make informed decisions.				
15.	Foresee potential challenges and proposing solutions.				
16.	Effectively integrate Artificial intelligence (AI) and Machine learning (ML) techniques into traditional business analysis processes.				
<b>S/N</b>	<b>Communication skills needed by business education graduates to be gainfully employed and self-employed include:</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
17.	Verbal communication				
18.	Non-verbal communication				
19.	Listening effectively				
20.	Use of questions in conversation				
21.	Video calls – zoom, face-time, webinars				
22.	Written communication				
23.	Website				
24.	Social media chat				
25.	Emails				

## APPENDIX C

### DATA ANALYSIS FOR THE RELIABILITY OF THE STUDY USING CRONBACH'S ALPHA

#### Scale: ALL VARIABLES

**Case Processing Summary**

		N	%
Cases	Valid	20	100.0
	Excluded <sup>a</sup>	0	.0
	Total	20	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.890	25

## APPENDIX D

### DATA OUTPUT OF RESEARCH QUESTIONS

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	120	3	4	3.80	.402
Q2	120	2	4	3.45	.563
Q3	120	2	4	3.63	.549
Q4	120	2	4	3.41	.542
Q5	120	3	4	3.74	.440
Q6	120	2	4	3.45	.532
Q7	120	3	4	3.67	.473
Q8	120	2	4	3.43	.604
Q9	120	3	4	3.73	.444
Q10	120	2	4	3.42	.588
Q11	120	3	4	3.80	.402
Valid N (listwise)	120				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00001	11	3.41	3.80	3.5936	.16256
VAR00002	11	.40	.60	.5035	.07366
Valid N (listwise)	11				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Q12	120	1	4	3.73	.546
Q13	120	2	4	3.46	.564
Q14	120	3	4	3.76	.430
Q15	120	2	4	3.56	.531
Q16	120	2	4	3.71	.525
Valid N (listwise)	120				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00003	5	3.46	3.76	3.6440	.12857
VAR00004	5	.43	.56	.5192	.05209
Valid N (listwise)	5				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Q17	120	2	4	3.77	.480
Q18	120	2	4	3.52	.745
Q19	120	3	4	3.66	.476
Q20	120	2	4	3.51	.565
Q21	120	2	4	3.63	.609
Q22	120	3	4	3.69	.464
Q23	120	3	4	3.69	.464
Q24	120	3	4	3.63	.484
Q25	120	2	4	3.56	.562
Valid N (listwise)	120				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00005	9	3.51	3.77	3.6289	.08594
VAR00006	9	.46	.75	.5388	.09372
Valid N (listwise)	9				

## APPENDIX E

### DATA OUTPUT OF HYPOTHESES

**Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Technological Skills	Male	34	3.53	.180	.031
	Female	86	3.65	.203	.022

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Technological Skills	.501	.480	-3.030	118	.003	-.121	.040	-.200	-.042	
			-3.193	67.862	.002	-.121	.038	-.196	-.045	