



## BUSINESS EDUCATORS' PERCEPTION OF DIGITAL SKILLS REQUIRED BY BUSINESS EDUCATION STUDENTS FOR JOB IN A CHANGING WORLD

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### Abstract

*This study examined business educators' perception of digital skills required by business education students for job in a changing world. Descriptive survey research design was adopted for the study. One research question was raised in line with the purpose of the study and one hypothesis was formulated and tested at 0.05 level of significance. The population of the study comprises 43 business education lecturers from colleges of education and polytechnics in Oyo State. Twenty-three business educators from colleges of education and 20 business educators from polytechnics in Oyo State. Internal consistency of the research instrument was tested by administering it on 15 business educators in Osun State using Cronbach alpha and a reliability coefficient of 0.84 was obtained. Mean and standard deviation was used to answer the research question while t-test statistic was used to test the null hypothesis at 0.05 level of significance. Findings from the study revealed that business educators agreed that digital skills are highly required by business education students for job in a changing world. The testing of the hypothesis shows that there was no significant difference between the two groups in term of their mean ratings on digital skills required by business education students for job in a changing world. Based on the findings, the study concluded that digital skills are vital for gaining employment opportunities by business education students in a world driven by technology. The researcher recommends among others that regular training and workshops should be designed for business educators by governments and institutions to update their digital skills for seamless transfer of knowledge to students.*

**Key Words:** Business Educators, Digital Skills, Business Education Students, Changing World



## **Introduction**

Economic, social, and organizational environment have undergone significant changes over the past two decades due to technological advancement. As a result, organizational operations are being redefined and the way people live in the today's information society is also changing. Work is given universal approach, personal communication is instantaneous, and information is available at all hours of the day and night. Understanding and coping with these changes as a person progresses through life requires digital skills. The European Union (EU) (2013) stated that information and communication technologies has deeply affected pattern of working, knowledge acquisition, socialising, communicating, collaborating - and succeeding – in all profession and individual life. Availability and use of digital technologies in daily life is basically changing the way individuals access and expand their knowledge. Individuals need to process complex information, think and logically take decisions based on facts. Updating of skills is essential for coping with rapid technological changes in work places. In order to seize the new opportunities that digital technologies are opening in many areas, individuals have to develop the right set of skills to make a meaningful use of these technologies (OECD, 2016).

International Telecommunication Union (ITU) (2020) define digital skills as a set of technological abilities that may be fully or partially acquired before entering the workforce. Some digital skills are required to use and interact with technology in order to fulfil specific tasks, while others are required to design, create and maintain tools and solutions for different industries. Different skills create different categories of digital users and job profiles. The (ITU, 2018) proposed three levels of digital skills – basic, intermediate, and advanced – as defined in various studies. Digitization in various industries transforms the workplace to ensure effective tasking, business and field resources optimization, high competitiveness, greater interaction and inclusion between workers. This process leads to fast and efficient responses to customers, innovative services and economic growth. The World Economic Forum (2018) in its future job report 2018 identified a set of digital technologies that might be adopted by different surveyed companies in different industries. Those technologies are, either related to software applications running locally on computers and/or smart tablets, or running remotely over cloud services. New technologies play a critical role in all sectors of the economy and have an impact on interactions within society and the labour market (Leahy & Wilson, 2014). As a result, the changing digital landscape forces workers to continually update their skills to remain competitive in the labour market.

Grand-Clement (2017) categorized digital skills for the new world of work into; digital skills and digital navigation skills. Digital skills are technical skills required to use digital technologies, while digital navigation skills are a wider set of skills needed to succeed in the digital world. These include finding information, prioritising information and assessing the quality and reliability of information.



These digital navigation skills are not fundamentally different from the non-digital skills that were necessary for jobs in the past and that are still needed today. However, they must conform to usage in digital context. Digital navigation skills were also referred to as 'eternal skills' Actually, digital skills are essential asset, not only to employees but also to an unemployed population seeking to participate in the labour market. Digital skills have proven to be necessary for almost all occupations, from primary occupations to managerial positions (Curtarelli, Gualtieri., Jannati., and Donlevy, 2016). As the workplace grows increasingly connected, digital skills have become of greater interest to employers; thus, the level and type of digital skills determine inclusion in the labour market (Andrews et al., 2018). According to Digital Agenda for Europe European Commission (2010) the need for digital skills for innovation and growth in Europe and the skill requirements are constantly changing. CEDEFOP (2012) submitted that workforces need to be capable of continuously adapting to shifting job requirements and organisation procedures related to new skill-intensive technologies in a competitive and dynamic world. Leahy and Dolan (2013) hinted that as technology touches all levels of society and business, e-leaders with digital skills (e-skills) are needed at every level in an organisation. In the same vein, Accenture Technology Vision (2013) opined that every business is a digital business which shows that every employee needs digital skills.

Furthermore, universal application of digital technologies at work is raising the demand for new skills along three lines: ICT specialist skills to programme, develop applications and manage networks; ICT generic skills to use such technologies for professional purposes; and ICT complementary skills to perform new tasks associated to the use of ICTs at work, e.g.: information-processing, self-direction, problem-solving and communication. Foundation skills, digital literacies as well as social and emotional skills are crucial to enable effective use of digital technologies by all individuals in their daily lives. Innosight (2013) reported that employment and organisations are being threatened; many jobs have become contractual, part-time or flexible and the average lifespan of a company has fallen since 1960 from 76 years to 15 years. The idea of job for life is no longer true. It is the acquisition of digital skills that can give people entering, or re-entering the workplace greater choice and job security. In fact, the decreasing cost of technologies and their application opens up new opportunities for self-employment and entrepreneurship that had previously been denied (e.g. Arduino, Raspberry Pi, 3D printers).

Moreover, jobs for today and tomorrow will be characterised by a two-way focus on skills. Firstly, a growing demand for solid knowledge and technical-scientific expertise and secondly, application of soft skills and aptitudes (flexibility, sharing, an ability to cope with change). Indeed, the demand for these skills has grown as a result of digital transformation. Jobs will be less and less tied into specific tasks. They will require interconnected skills. Hence the emerging need to support development of skills suitable for the workforce of the



future. Artificial intelligence, cloud, robotics, 3-D printing, augmented reality, virtual reality, blockchain and other emerging technologies are transforming our lifestyles and approaches to life, thought and work (PWC, 2020). Digitalization and the new technologies impose a profound transformation on all organisational levels (corporate, social and family), reflected not only in a freshly 'revamped' set of skills to be acquired but also in an 'overhauling' of our traditional approaches to study and the labour market. (PWC, 2020).

Digital skills are not only critical to finding or keeping jobs. They are also critical to closing the digital divide. According to ITU (2019), 46 per cent of the population worldwide was still not using the Internet, with slowing growth rates compared to earlier years because some parts of the world are reaching saturation. 11 in developing countries, 53 per cent of the population is offline, and in least developed countries almost 80 per cent of the population is not using the Internet. ITU (2019) affirmed that the lack of capacity and skills of people to use the Internet and optimize its advantages is a major constraint to adoption of digital skills in many organisations and societies. Even in more advanced countries, 60 per cent of the population lack standard digital skills. Prior to the covid-19 pandemic outbreak, the digital skills gap existed and demand for digitally skilled workers was high across all levels of skills (basic, intermediate and advanced skills). The pandemic has, however, heightened the digital skills gap. According to a business survey carried out by Capgemini (2017), 55 per cent of organizations worldwide acknowledge that the digital skills gap is widening. Also, International Finance Corporation (2019) predicted that by 2030, over 200 million jobs in Africa will require digital skills, which will result in almost 600 million training opportunities. In view of this, individuals who wish to benefit from technology and the changing world needs to demonstrate a large variety of "complex cognitive, motor, sociological, and emotional skills" (Eshet, 2002).

Dumont and Istance (2010) submitted that workers in the digital economy should be able to generate and process complex information; think systematically and critically; take decisions based on different forms of evidence; be adaptable and flexible to new information; be creative; and be able to identify and solve real-world problems. These skills are within the purview of business education. Okoro (2013) define business education as that part of the total educational process that provides the knowledge, skills, understanding and attitudes needed to perform in the business world as a producer and/or consumer. In other words, Anao in Oliver (2011) described business education as the sum total of the knowledge, skills and attitude that are required for successfully promoting and administering business enterprises. The need for business education as a form of education is crucial especially in this era of globalization and information and communication technology (ICT) in which work processes and organizations are getting increasingly flexible, multi-tasking and performance-based. Business Education as a programme must work in tandem with the needs of the learners and the society (Utoware and Kren-Ikidi, 2013).



Business education provide learners with marketable skills for relevance in the world of work. In a changing world that is driven by technology, Business education programmes must adapt to evolving technologies for it to perform its primary function of producing competent, skillful and dynamic business teachers, office administrators and businessmen and women that will effectively compete in the world of work. Considering the level of unemployment in Nigeria, it is obvious that there is skill gap which the educational system must fill to guarantee graduate employability in the changing world. Indeed, business education graduates must be adequately equipped with digital skill to fit into labour market in the changing world (Utoware and Kren-Ikidi, 2013). Therefore, it is pertinent to determine the perception of teachers on digital skills required by business education students for employment in the new world.

### **Research Question**

This research question guided the study:

1. What are the digital skills required by business education students for job in a changing world?

### **Research Hypothesis**

One hypothesis was formulated and tested at 0.05 level of significance:

**Ho<sub>1</sub>:** There is no significant difference in the mean ratings of colleges of education and polytechnics business educators on the digital skills required by business education *students* for job in a changing world.

### **Method**

Descriptive survey research design was adopted for this study. According to Nworgu (2015), a survey research design is one which a group of people or items is studied by collecting and analyzing data from only a few people considered to be representative of the entire group. The population of this study comprised 23 business education lecturers from colleges of education and 20 business education lecturers from polytechnics in Oyo State. Data were collected through a structured questionnaire on a four point Likert scale of; Very Highly Required (4), Highly Required (3), Not Required (2), and Highly Not Required (1). The instrument was validated by two experts in business education and achieved a reliability coefficient of 0.84 based on Cronbach Alpha procedure. A total number of 43 questionnaires were administered on the respondents with 100% rate of return. Data collected were analyzed using mean and standard deviation for the research questions, while t-test was used to test the hypotheses at 0.05 level of significance. Decision on research questions were made based on the real limit of scale values 1 to 4 on a 4-point scale as follows: Very Highly Required - 3.50 – 4.00, Highly Required - 2.50 – 3.49, Not Required - 1.50 – 2.49, Highly Not Required - 0.50 – 1.49. The null hypothesis was accepted



where the calculated p-value was greater than 0.05 level of significance at the appropriate degree of freedom, otherwise, the null hypothesis was rejected.

## Results

### Research Question 1:

1. What are the digital skills required by business education *students* for job in a changing world?

**Table 1: Mean Responses and Standard Deviation of business educators on the digital skills required by business education *students* for job in a changing world?**

| S/N | Item Statement   | X <sub>1</sub> | SD <sub>1</sub> | X <sub>2</sub> | SD <sub>2</sub> | XG   | SDG  | Decision |
|-----|--|----------------|-----------------|----------------|-----------------|------|------|----------|
|     | <b>Digital skills required by business education students for working in a changing world:</b> |                |                 |                |                 |      |      |          |
| 1   | Ability to impute information on a range of devices and software packages                      | 3.61           | 0.65            | 3.20           | 0.73            | 3.41 | 0.73 | HR       |
| 2   | Ability to process information and present it to others in a meaningful way                    | 3.30           | 0.48            | 2.50           | 0.59            | 2.87 | 0.52 | HR       |
| 3   | Ability to use social media platforms Instagram, twitter, Facebook etc.                        | 3.56           | 0.77            | 3.45           | 0.52            | 3.50 | 0.65 | VHR      |
| 4   | Understanding of websites basics   | 3.09           | 0.55            | 3.15           | 0.67            | 3.12 | 0.60 | HR       |
| 5   | Ability to differentiate high-quality sources of information from low- quality sources         | 3.12           | 0.69            | 2.85           | 0.57            | 2.99 | 0.62 | HR       |
| 6   | Ability to use of spreadsheets and databases efficiently.                                      | 3.25           | 0.53            | 3.12           | 0.72            | 3.19 | 0.63 | HR       |
| 7   | On-line marketing skill  | 3.41           | 0.84            | 3.26           | 0.58            | 3.27 | 0.71 | HR       |
| 8   | Ability to install on digital devices apps   | 3.55           | 0.75            | 3.12           | 0.55            | 3.34 | 0.67 | HR       |
| 9   | Effective interpersonal communication skills   | 3.58           | 1.02            | 3.48           | 0.84            | 3.53 | 0.93 | VHR      |
| 10  | Ability to use cloud computing for storage and sharing files                                   | 3.10           | 0.57            | 3.08           | 0.54            | 3.09 | 0.55 | HR       |
| 11  | Ability to personalise devices to suit your human and work needs                               | 3.20           | 0.73            | 2.95           | 0.67            | 3.08 | 0.69 | HR       |
| 12  | Ability to participate in social channels  | 3.34           | 0.51            | 3.30           | 0.69            | 3.32 | 0.60 | HR       |



|                                      |  |             |             |             |             |             |             |           |
|--------------------------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-----------|
| 13                                   | Ability to manage virtual interpersonal relationships                                | 3.35        | 0.66        | 3.10        | 0.71        | 3.23        | 0.68        | HR        |
| 14                                   | Ability to create new products, services, and customer experiences                   | 3.15        | 0.59        | 2.73        | 0.86        | 2.94        | 0.71        | HR        |
| 15                                   | Ability to handle massive amounts of structured and unstructured data                | 3.60        | 0.66        | 3.00        | 0.71        | 3.30        | 0.63        | HR        |
| 16                                   | Ability to transform data into actionable insights for data driven decisions         | 3.23        | 0.65        | 3.56        | 0.83        | 3.40        | 0.74        | HR        |
| 17                                   | Search Engine Optimization   | 3.02        | 0.59        | 3.50        | 0.76        | 3.26        | 0.67        | HR        |
| 18                                   | Ability to use tools such as Analytics and Web scanners                              | 3.23        | 0.64        | 3.06        | 0.83        | 3.15        | 0.76        | HR        |
| 19                                   | Ability to execute on-line financial transactions.                                   | 3.36        | 0.71        | 3.67        | 0.54        | 3.52        | 0.64        | VHR       |
| 20                                   | Ability for on-line business security for networks, systems and software improvement | 3.45        | 0.56        | 2.86        | 0.76        | 3.16        | 0.60        | HR        |
| <b>Grand Mean/Standard Deviation</b> |  | <b>3.33</b> | <b>0.66</b> | <b>3.15</b> | <b>0.68</b> | <b>3.23</b> | <b>0.67</b> | <b>HR</b> |

**Key:**  $x_1$  = Mean responses of college of education business educators,  $SD_1$  = Standard Deviation of college of education business educators,  $X_2$  = Mean responses of polytechnic business educators,  $SD_2$  = Standard Deviation of polytechnic business educators,  $XG$  = Pull or aggregate mean,  $SDG$  = Pull or aggregate standard deviation.

Results from the Table 1 shows that items 3, 9 and 19 which has a mean of 3.50, 3.53 and 3.52 are very highly required. this implies that digital skills such as; ability to execute on-line financial transactions, effective interpersonal communication skills, ability to use social media platforms Instagram, twitter, Facebook etc. are very highly required of business education *students* for employment in the changing world. other items; 1, 2, 4-8, 9-18, 20 with means ranging from 2.94 to 3.41 are highly required of business education *students* for employment in a changing world. The grand mean of 3.23 attested to the fact that all the digital skills listed in the questionnaire are highly required of business education *students* for employment in a changing world. The pull standard deviation ranges from 0.52 to 0.93 revealed that the opinions of the respondents are not heterogeneous.

### Test of Hypothesis

**Ho<sub>1</sub>:** There is no significant difference in the mean ratings of the perception of business educators in colleges of education and polytechnics on digital skills required of business education *students* in Oyo State for job in a changing world.



**Table 2: Summary of t-test analysis of the perception of business educators in colleges of education and polytechnics on digital skills required of business education students in Oyo State for job in a changing world.**

| Group                           | N  | X    | SD   | Df | t-Cal | P Value | Decision        |
|---------------------------------|----|------|------|----|-------|---------|-----------------|
| Colleges of Education Lecturers | 23 | 3.25 | 0.57 | 41 | 0.67  | 0.235   | Not significant |
| Polytechnic Lecturers           | 20 | 3.33 | 0.68 |    |       |         |                 |

The result in Table 2 shows a t-calculated value of 0.67 with a degree of freedom of 41 and p-value of 0.235 which is greater than 0.05 level of significance. This reveals that there is no significant difference in the mean ratings of colleges of education and polytechnic business educators on the digital skills required of business education graduates for job in the changing world. The hypothesis is therefore accepted.

### **Discussion of Findings**

The research question for this study sought to find out the perception of business educators on the digital skills required by business education students for job in a changing world. The findings of this study revealed that digital skills are highly required by business education students for employment in the changing world as perceived by business educators. This in agreement with CEDEFOP (2012) which submitted that workforces need to be capable of continuously adapting to shifting job requirements and organisation procedures related to new skill-intensive technologies in a competitive and dynamic world. The findings are further supported by International Finance Corporation (2019) submission that digital skills are essential to the future workforce in Africa, with basic skills most critical. The IFC added that the share of employees needing more advanced digital skills will likely increase as sectors become more digitally enabled.

The findings are also in consonance with the Organisation for Economic and Co-operation Development (OECD) report (2016) that there is a worldwide demand for competent and skilled ICT practitioners and a demand for digitally literate people in all organisations and walks of life. OECD (2016) noted that the portfolio of basic skills needed to navigate ICT-rich environments and function effectively in modern connected societies has expanded. The study further revealed that there was no significant difference between the responses of business educators from both colleges of education and polytechnics on the digital skills required by business education students for working in the changing world.



### **Conclusion**

Based on the findings of the study, it was concluded that students of business education in colleges of education and polytechnics highly require standard digital skills for job in the global market. The perception of business educators on the digital skill need of business education students is indeed paramount because they are the implementers of business education programmes who will impart these skills into the learners. If business educators perceived digital skills as less required, they would not be able to muster necessary zeal for equipping the students with these digital skills. This clearly indicates that business education programmes needs to be appropriately modelled towards inculcation of digital skills in the beneficiaries of the programmes for them to be suitable for the technology driven society and a changing world.

### **Recommendation**

Based on the findings and conclusion of this study, it was recommended that:

1. Business educators from colleges of education and polytechnics should develop needed interest in acquiring and teaching digital skills. Educators' personal interest in digital skill acquisition would go a long way in motivating their teaching. Also, regular training and workshops should be designed for business educators by governments and institutions to update their digital skills for seamless transfer of knowledge to students.

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