

Technology Skills Improvement to Unlock the Potentials for Strengthening Medium Enterprises Employees Entrepreneurial Activities in Digital Economy

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Abstract: Medium enterprises employees in Kwara State, Nigeria lack essential technology skills to carry out business transactions in digital economy for profit. They could not manipulate e-gadgets meant for selling, receipt and payment digitally. This makes them encounter losses of cash in business through armed robbery leading to losses of cash, life and closure of businesses. This study identified technology skills improvement needs of medium enterprises employee that could help them unlock their potentials in digital economy for success in their various enterprises. Three research questions were answered by the study while three hypothesis were formulated and tested at 0.05 level of significance. The study adopted action group design supported by the function of the industry approach. The population for the study was 655 comprising 620 medium enterprises employees, 21 electronic bank officials and 14 lecturers of business education. The sample of the study was 185 made up of 150 employees selected through stratified random sampling technique (balloting) and the 21 electronic bank officials and the 14 lecturers of business education. Structured questionnaire was used to collect data from the respondents. Three experts in the area of study validated the instrument while Cronbach alpha reliability method was used to ascertain the internal consistency of the items and a reliability coefficient of 0.83 was obtained. 100 and 85 copies of the questionnaire were administered to the respondents in their various locations based on skill importance and the performance level, however, 100 and 73 copies or 93.61% of the level of were returned. Need gaps analysis techniques was involved in the identification of skills where employees required improvement. The study found out that the employees need skill improvement in: 21 computing skills, 30 online business skills and 16 point-of-sale machine skills for the profitability of their enterprises. It was therefore, recommended that since, the employees required skill improvement, they should be retained in all the technology skills where they required improvement for the purposes of unlocking their potentials for effective performance in digital economy.

Key words: Technology skills, potentials, medium enterprise's employees, entrepreneurial activities, digital economy

INTRODUCTION

The transformation from manual transaction to the digital economy is laudable to development of mediumsized enterprises. Medium businesses as referred to by Lucky and Olusegun (2012) are businesses that are bigger than both micro and small businesses in terms of operations, manpower capacity or the number of employees, structure, capital investment and size. Mehembe seen medium enterprises as ventures whose maximum number of employees are between 100 or 200 for the mining, electricity, manufacturing, distribution and construction sectors and often characterized by the decentralization of power to an additional management

layer. Medium enterprises are defined by Kushnir *et al.* (2010) as an organization which an average number of employees does not exceed 100 people and the turnover does not exceed 1,500,000 GEL per annum. Medium enterprises in Nigeria, according to Onugu (2005) are companies with total cost including working capital but excluding cost of land of not more than one hundred million naira (N100,000,000) but <300 million naira (N300,000,000) and or a staff strength of between 71 and 200 full-time workers and or with an annual turnover of not more than twenty million naira (N20,000,000). The medium enterprises according to Gawali and Gadekar (2017) and Onugu (2005) act as an engine of growth for national economic development through the generation of

employment and income for the development of the economies, particularly in the developing countries. In the context of this study, a medium sized enterprise is any commercial concern in the production and distribution of goods and services with the financial base of N600, 000 to N3, 000,000 excluding land asset and with the labor forces ranging from 10-180 employees.

Medium enterprises are owned by entrepreneurs and managed by their owners or employed managers. Ahmad and Seymour (2018) stated that entrepreneurs buy at certain prices in the present and sell at uncertain prices in the future. These entrepreneurs as said by Jubril are the owners, innovators of ventures and bearers of uncertainty. Most of their business activities are executed by the employees or managers. In the context of this study, an entrepreneur is an individual who owns a business or hired to manage a business, buy, sell and hire other employee to enhance his business activities to satisfy customers for profit. Heatheild (2018) referred to an employee as an individual who was hired by an employer to do a specific job. Pearson (2009) defined an employee as someone who is paid to work for someone that is an employer. Employees facilitate the transfer of goods or services to customers, maintain customer relationship and accept cash as a return for exchange, hence, employees are the heart of every venture. An employee, according to Elnaga and Imran (2013) is the bloodstream of any enterprise. The findings and reports of the following scholars such as Batarliene *et al.* (2017), Pasban and Nojodeh (2016), Fulmer and Polyhart (2013, 2014), Elnaga and Imran (2013), Gupta (2013), Kanchana (2013), Gabcanova (2011), Turner (2011), Bobinsk (2009) and Stambor (2006) indicated that employees are the greatest assets that make a business profitable. In the context of this study, an employee is an individual with some training in business or marketing hired to handle the major entrepreneurial (electronic or manual) aspect of electronic production or distribution of goods and services in a business but needed essential technology skills improvement for success in digital economy. The employees are usually associated with the success or failure of business either in terms of the management of the resources, time and public relationship. If the business succeeds the employee is also praised for the success. An employee, therefore, holds a vantage position in the growth and development of any business enterprise either for the production or distribution of the products.

Enterprises in the opinion of Zupan (2016) need to improve their technology, adapt to change and for this, academia like universities, researchers or knowledge transfer agents should strive to support in order to add values to their transactions. ILO. (2011), suggested that

people working in a business organization like medium enterprises should have access to skills improvement. Hence, they need to acquire relevant skills through training in business operation and management in order to make the business effectively competitive in the digital economy.

The digital economy, in the view of Barefoot *et al.* (2018) is primarily in terms of the internet and related Information and Communications Technologies (ICT). The conceptual definition of the digital economy includes all digital production of goods and services, communication and payment with relevant technology skills. Doyle highlighted that many ventures need employees with some relevant technical and digital skills. Ragasa sees technology as a practice or technique and skill involved in doing things manually or in a digitally enabled environment. Technology, according to Pearson (2009) is a new machine, equipment and way of doing things that are based on modern knowledge about science, computer and internet for online information processing. Barefoot *et al.* (2018) stated digital-enabling infrastructure such as Hi-phone, computer networks and internet are the foundation of the digital economy that needed essential skills for operation in a business outfit. Skill, according to Osinem and Nwoji (2010) is the habit of doing something efficiently without maximum error and they involve practical ways of manipulating technologies. Abdulkarim (2012) said skill is the ability to do something and as such can be acquired through training and practice. In this study, skill is the ability of employees to carry out business transactions with the help of electronic technologies. Doyle seen technology skills as the abilities and knowledge needed to perform specific tasks in practical and often relate to mechanical, information technology, mathematical or scientific tasks. IGI-Global.com referred to technology skills as the abilities learners developed as a result of using the computer and technologies for searching for information related to business activities IGI-Global. Rule (2017) opinionated that technology skills are now the most skills employers of medium sized businesses are looking for because the proper maintenance and accessibility of devices and the communication related activities made on different technological platforms are pertinent, the majority of today's transactions rely heavily on technologies for effective global transactions.

In any business now a days, employees are expected to be competent and effective in digital transactions for the promotion of economy. In the area of this study, the experience of researchers' reveal that the employees lack sufficient basic skills in transacting businesses using electronic platforms, hence, embracing digital transactions become difficult. They have not embraced the full benefit

of the digital economy as they have not fully integrated it into their businesses due to insufficient skills of manipulating the electronic gadgets and technology meant for receipt and payment of the products they sell in the new economy. Additionally, there has not been any functional skill programme developed to equip medium enterprise employees in the area of study. The findings and the submissions by Vimala noted that the lack of basic skills in technology limits the number of individuals to navigate around the web. Chekol *et al.* applauded that insufficient and shortage of IT skilled workers is a threat across the globe. Obayi *et al.* (2013) and Andam (2003) pointed out that the shortage of IT-literate employees affects e-Marketers negatively. Tiemo (2012) revealed that medium enterprises are finding it difficult to participate in ever-changing technologies because the new economy require dynamic skills. Ayo *et al.* (2008) and Ayo (2006) revealed that Nigerian business organization's participation in vast internet economy potential has not been fully encouraging due to the shortage of competent workers.

The consequences of non-adequate and effective technological preparation of businesses in Nigeria are as follow: great loss of cash in business through armed robbery or kidnapping, cash carrying leading to loss of cash and life closure of many business outfits due to inability of entrepreneurs to generate money to pay employees and make profit, inability of many business companies or agencies in the area of study to compete effectively in a business environment where digital transactions are in vogue and poorly developed entrepreneurial activities among business enterprises in the area of the study among others. In order to reduce the above consequences and make entrepreneurial or economic activities blossom and profitable the potentials of employees in a digital transaction must be unlocked and made available for profitable business through retraining in relevant technology skills like computing, online business and the point-of-sale machine skills. The retraining of the employees in technological skills to unlock their potentials will become more plausible if the skill areas where the employees need improvement are known.

Unlock as operationally defined by Pearson (2009), mean to open the secrets in order to discover some important facts about something. Merriam-Webster noted that to unlock is to find out about something that was secret or unknown in order to make it available for use. In this study, unlocking is to make medium employees upgrade their essential hi-tech skills needed for the digital economy. Potential, according to Pearson (2009) is the possibility that someone will develop in a particular way or have a particular effect. Collins online dictionary highlighted potential as someone or something that is

capable been developed into the particular kind of person or something. To unlock the potentials of employees will require certain techniques that will be utilized to make employees acquire necessary technical skills in digital economy for enhancing business operations of the employers. This technique involves the identification of these skills where the employees require technical improvement for approved practices in in the following areas in business and industry: computing, online and point-of-sale skills.

On computing skills, Onu *et al.* (2018) stated that farmers in business required the following essential skills in online business such as: locate power switch on the computer or cell phone, power on the computer or cell phone, scroll to locate phone book on the computer or cell phone, scroll down or up to select the numbers or name to be dialed in computer or cell phone, key in first alphabets of the name of the person to be called and others. The skills required to register and apply for services, buy and sell goods and services and administer and manage transactions online. GOV.UK. (2018) carried out a study on essential digital skills framework intended to train everyone in the UK involved in supporting adults to improve their essential digital skills in digital economy in the following areas: turn on the computer and enter any account information as required use the available controls on my computer use a mouse and keyboard on a computer use a touch screen on a computer, smartphone or tablet make use of accessibility tools on my device to make it easier to use, interact with the home screen on my device; use settings menus to change device display to make content easier to read; find applications by choosing the correct icons on the home screen and set up and use online and telephone banking through websites or apps, keeping access information secure for security purpose.

Furthermore, on online business, in a study by GOV.UK. (2018) on the essential skills in digital transaction improvement found out as follows: connect a computer to the internet using the Wi-Fi or modem settings and insert the password when required, connect to the internet and open a browser to find and use websites, identify passwords and personal information need to be kept safely as they have value to others update and change password when prompted to do so for security purposes and set up an account online among others. Also, World Bank Trade Organization carried out survey to improve the e-Trade environment in order to assist developing country traders on digital economy and found out that the traders need improvement skills on modern education programmes from the basic literacy to numeracy and entrepreneurship for digital markets in order to be able to go online and perform online/mobile transactions in offering online products, services and tasks

to customers in digital business environment. Similarly, a study was carried out by Illanes *et al.* (2018) on retraining and reskilling companies executives and workers in the age of automation or digitization in United States and Europe where the authors found out that 62-82% of workers and executives need retraining and reskilling in order to address potential skills gaps due to advance in automation and digitization in devices like point-of-sale machines, cash counting machine, computer, internet among others. GOV.UK. 2018 found the essential technology skills to use in different payment systems such as credit/debit card in point-of-sale terminal for direct bank transfer among the rest and phone accounts, to make payments for goods or services online which would improve digital transactions of UK adult traders.

This study is anchored on technology acceptance model and other user acceptance theories. This model was propounded by Joseph Bradley in 2009. Technology acceptance model is an information systems theory that is modelled on how users accept and use a technology that will encourage economic growth particularly in digital economy. Bradley emphasizes that as global business market becomes increasingly competitive, firms look to information technology to manage and improve their performance to maximize the benefit of globalization. The model stipulates that there is nothing more difficult to plan and more dangerous to manage than the creation of a new order of things, e.g., the adoption of technology to facilitate business transaction around the globe. The model views the diffusion of innovation theory by Roger as a social process in which subjectively perceived information about a new idea is communicated from person to person including medium sized enterprises employees. Communication channels distribute knowledge of the innovation, contribute to the prospective user forming attitudes about the innovation leading to a decision to accept or reject the innovation. Knowledge occurs when a potential systems user is exposed to the existence and functionality of the technology. The attitude can be either favorable or unfavorable. The decision starts when the employees decides to accept or reject the internet service for digital economy. The confirmation step of this model occurs after the technology is in use by the employees. The user seeks confirmation and reinforcement of the decision he or she has made. The model of technology acceptance is relevant to this study as the digital economy is an innovation which requires full acceptance by medium sized enterprises employees with the required essential technological skills improvement. The medium sized enterprises employee's acquisition of the relevant technology skills for business transactions in electronic environment will ultimately help them to be effective and efficiency in all the tenets of the digital economy. In the area of this study, based on the

media reports and findings by the researchers, medium sized enterprises employees could not efficiently carry out business transactions in digital environment in relation with needs of the present global economy and their employers. It is the duty of Nigeria government to equip the informal sectors of the economy with the required skills relevant for business operation through the small and medium enterprises development agency by carrying out the researches in the areas of needs and solutions to discovered issues. However, this center could not execute such a task. With the significance of employees to businesses organizations, throughout the literature reviewed in Nigeria, there is no any study on the retraining of medium sized business enterprises employees rather than the identification of the problems without collaboration with the concerned industry and business to eliminate the problems. The present study aimed at technology skills improvement of medium enterprises employees for them to be relevant and effective indigital economy transactions. The above literature serves as a research framework or guide to this study and contributed to the achievement of identification of technology skills improvement for the digital economy. The major purpose of this study is to determine technology skills improvement needed to unlock the potentials of medium enterprises employees to strengthen their entrepreneurial activities in the digital economy in Kwara State, Nigeria. Specifically, the study sought to determine the computing skills, online business skills and point-of-sale machine operation skills improvement needs of medium sized enterprises employees.

MATERIALS AND METHODS

Three research questions guided the study while three hypothesis were tested at 0.05 level of significance. The study adopted an action group design supported by the approach or function of the industry model. Action group design, according to Cohen *et al.* (2011) is a process in which practitioners or stakeholders critically study the existing problems affecting a phenomenal together in order to evaluate, improve and steer decision-making based on their practices in the industries. This design is suitable for this study because it involves the effort of professionals or practitioners in the field such as hi-tech bank officials who have been using machines and technologies to convey financial information and lecturers of business education who had studied e-commerce to carefully identify the technology skills improvement needed through the questionnaire developed by the researchers for data collection. The functions of the industry model in the opinion of Olaitan (2003) is an approach that can be utilized to train relevant individuals based on the practices of the industry where none of such

programme existed before such as zero programmes. The author further stated that the function of the industry is relevant because it contributed to the identification of skills used in the industries that could be utilized to assist medium enterprises employees on relevant skills in computing, online business and point-of-sale machine operation.

The study was carried out in the Kwara State, in the Middle Belt of Nigeria involving medium enterprises in the area of marketing. The population for the study was 655 comprising 620 employees from 62 registered medium businesses in Kwara State (SMEDA Latest Survey Report, 2013), 21 e-bank officials and 14 lecturers of business education. The sample of the study is 185 made up of 150 employees from the registered medium sized enterprises, 21 hi-tech bank officials from the commercial banks (Marketing Units) in the area of study and 14 lecturers of business education from the University of Nigeria outside the area of study because of efficiency. Stratified random (balloting) technique was used to ascertain the sample from the medium entrepreneur's employees while the entire population of e-bankers and lecturers was studied without sampling because the population was manageable.

The instrument for data collection was structured questionnaire consisting 64 items developed from the relevant literature reviewed and the practices or functions of the industry. The questionnaire had two categories of importance and performance levels of high, average, slight and not. The importance level section was answered by the hi-tech (e-bank officials) and lecturers of business education and employees while the performance level section was answered by the employees in order to determine their level of need for retraining in technology skills for improvement in the digital economy. The strategy of involving professionals (e-bank officials and lecturers) and employees in importance level is supported by the findings of the Management Sciences for Health (2012) which submitted that professionals and employees can determine where performance gaps might exist and what essential skills needed to be improved, that training needs analysis can be conducted using professionals and employees to identify essential skills needed for improvement. The questionnaire was in 3 sections of computing skills online business skills and point-of-sale machine operational skills. The questionnaire items were face validated by three experts: one individual with e-marketing skills in the Department of Business Education, University of Nigeria, Nsukka, one hi-tech banker from e-marketing section of the Union Bank Plc, Ilorin, Kwara State and e-medium entrepreneur from e-marketing section (Shoprite) Enugu, Nigeria. Their

suggestions were used to improve the quality of the questionnaire items. To ascertain the internal consistency of the questionnaire items, 20 copies of the questionnaire were administered to hi-tech bank officials (Marketing Units) Commercial Banks at Minna, Niger State, Nigeria, medium enterprises employees at minna and lecturers of the Departments of Business Education in Colleges of Education affiliated to Amadu Bello University, Zaria, Kaduna State, Nigeria based on 7:7:6 ratios. Cronbach alpha method was used to determine the internal coefficient. An alpha coefficient of 0.86 was obtained which is highly reliable. This is congruent with Hinton *et al.* (2004); Sekaran (2003) who listed acceptable coefficient include such as excellent reliability (0.90 and above), high reliability (0.70-0.90), moderate reliability (0.50-0.70) and low reliability (0.50 and below). The 5 digitally competent research assistants were hired to administer copies of the questionnaire to the respondents. The 100 and 55 copies of the performance category questionnaires were administered to the employees while 185 copies of the importance level were administered to the professionals (e-bankers and lecturers of business education) and employees for their responses. 173 copies of the questionnaire were retrieved and analyzed using standard deviation to determine the need gaps while Analysis of Variance (ANOVA) was used to test the hypothesis at $p = 0.05$ level of significance. Statistical Package for Social Sciences (SPSS) 20 Version was utilized to increase the accuracy of the data analysis. The need gap analysis ($\bar{X}_i - \bar{X}_p$) will be utilized for decision making in the identification of essential technology skills improvement needs for upgrading the performance skills of employees for success in the digital economy as follows:

- Where $\bar{X}_i - \bar{X}_p$ is positive it indicates that improvement is needed in the essential technology skills
- Where it is $\bar{X}_i - \bar{X}_p$ is negative it indicates that essential improvement skills is not needed implying that the employees are probably competent in that skill
- Where the difference between \bar{X}_i and \bar{X}_p is 0 the employees require no upgrading in that essential technology skill

RESULTS AND DISCUSSION

Technical skills needs of medium enterprises employees in computing for unlocking their potentials to strengthen entrepreneurial activities in the digital economy?

H₀: There is no significant difference in the mean ratings of e-bankers, lecturers of business education and employees on computing skills for unlocking potentials to strengthen entrepreneurial activities in the digital economy.

Need gap analysis and ANOVA of the responses of e-bankers, lecturers of business education and employees on 18 items technology skills improvement needs of medium enterprises employees on computing skills ranged from 0.06-2.48 indicating that the medium enterprises employees needed technology skills improvement on all computing skills. The p-values of the seventeen out of eighteen items ranged from 0.13-0.37 and each is >0.05 level of significance. This indicates that there is no significant difference in the mean ratings of the three groups of respondents on technology skills improvement needs of medium enterprises employees on computing skills for digital economy. The p-value of item 2 0.03 is <0.05 indicating that there is a significant difference in the mean ratings of the three groups of respondents on the item 2. The E² (correlation ratio) ranged from 0.88-0.99 indicating that the relationships among the respondents rating is high that is the respondents are very close in their judgments on each item.

Research question 2: What are the technology skills improvement needs of medium enterprises employees in online business for unlocking their potentials to strengthen entrepreneurial activities in digital economy?

H₀: There is no significant difference in the mean ratings of e-bankers, lecturers of business education and employees in online business skills for unlocking their potentials to strengthen entrepreneurial activities in digital economy.

Need gap analysis and ANOVA of the responses of the three groups of the respondents on 30 items on technology skills improvement needs of medium enterprises employees for online business ranged from 0.09-3.11 indicates that the medium enterprises employees needed technology skills improvement on online business. The p-values of the twenty-seven out of thirty items ranged from 0.13-0.37 and each is greater than 0.05 level of significance. This indicates that there is no significant difference in the mean ratings of the three groups of respondents on technology skills improvement needs of medium enterprises employees on online business for digital economy. The p-values of item (4, 8 and 12) which are 0.03, 0.04 and 0.04 are <0.05 indicating that there is a significant difference in the mean ratings of the three groups of respondents on the items.

The E² (correlation Ratio) from 0.85-0.99 indicates that the relationships among the respondents is high that is the respondents are very close in their judgments on each item.

Research question 3: What are the technology skills improvement needs of medium enterprises employees in point-of-sale machine operations for unlocking their potentials to strengthen entrepreneurial activities in digital economy?

H₀: There is no significance difference in the mean ratings of e-bankers, lecturers of business education and employees in point-of-sale machine as essential for unlock their potentials to strengthen entrepreneurial activities in digital economy.

Need gap analysis and ANOVA of the responses of the three groups on 16 items technology skills improvement needs of medium enterprises employees on point-of-sale machine ranged from 0.33-2.25 indicating that the medium entrepreneur's employees needed technology skills improvement on point-of-sale machine operations for digital economy. The p-values of the fifteen out sixteen items ranged from 0.09-0.31 and each is >0.05 level of significance. This indicates that there is no significant difference in the mean ratings of the three groups of respondents on technology skills improvement needs of medium entrepreneur's employees on point-of-sale machine for digital economy. The p-value of item 1 0.04 is <0.05 indicating that there is a significant difference in the mean ratings of the three groups of respondents on the item. The E² (correlation Ratio) ranged from 0.85-0.99 indicating that the relationships among the respondents is high that is the respondents are very close in their judgments on each item.

Discussion of findings: The findings of this study reveal that 21 items on technology skills improvement on computing in Table 1; 30 items on technology skills improvement on online business in Table 2 and 16 items on technology skills improvement on point-of-sale machine in Table 3 are needed by medium enterprises employee to strengthen entrepreneurial activities in digital economy. The findings of the study is in agreement with Onu *et al.* (2018) on a study on essential knowledge and skills required by rural farmers in making cell phones effective for boosting agricultural production in Enugu State, Nigeria where it was found out that farmers in business required the following essential skills in online business such as: locate power switch on the computer or cell phone, power on the computer or cell phone, scroll to locate phone book on the computer or cell phone, scroll down or up to select the numbers or name to be dialed in computer or cell phone, key in first alphabets of the name

Table 1: Need gap analysis and ANOVA of the responses of the three groups of respondents on the technology skills improvement needs of medium enterprises employees in computing for unlocking their potentials to strengthen their entrepreneurial activities in the digital economy

Technology skills improvement in computing	\bar{X}_i	\bar{X}_p	$(\bar{X}_i - \bar{X}_p)$	TSS	MSS	p-values	E ²	Rmk	e ²	H ₀
Set functioning computer on desk	3.62	3.49	0.13	20.68	0.52	0.37	0.97	IN	HC	NS
Connect means (stabilizer) to source of power through the cable	3.71	3.60	0.11	23.32	2.79	0.03	0.88	IN	HC	S*
Fix the mouse, scanning machine and other hardware to the computer where applicable	3.84	3.40	0.44	29.64	0.77	0.25	0.97	IN	HC	NS
Sit comfortable behind the computer	3.68	3.62	0.06	32.47	0.69	0.17	0.98	IN	HC	NS
Recognize the position and function of each parts of computer, e.g., keyboard, mouse, etc.	3.57	3.12	0.45	27.87	0.86	0.29	0.97	IN	HC	NS
Boot the computer	3.91	2.04	1.87	22.92	0.59	0.33	0.97	IN	HC	NS
Check the computer for functionality	3.59	3.02	0.57	26.96	0.79	0.30	0.97	IN	HC	NS
Key in username and password	3.81	2.94	0.87	27.94	0.69	0.13	0.98	IN	HC	NS
Move cursor to the start menu	3.28	3.11	0.17	34.61	0.78	0.15	0.98	IN	HC	NS
Click to open window programmed	3.51	3.30	0.21	26.06	0.92	0.31	0.96	IN	HC	NS
Click all programme	3.13	2.94	0.19	41.08	0.27	0.09	0.99	IN	HC	NS
Click MS word and type words or figures	3.89	2.97	0.92	25.36	0.67	0.26	0.97	IN	HC	NS
Create file name to be recognized	3.96	1.48	2.48	21.85	0.78	0.32	0.96	IN	HC	NS
Create folder for records	3.88	2.89	0.99	22.07	0.72	0.34	0.97	IN	HC	NS
Save typed document in a recognized file name	3.89	1.53	2.36	24.67	0.58	0.27	0.98	IN	HC	NS
Retrieve saved document as the need arises	3.60	2.14	1.46	20.75	0.48	0.35	0.98	IN	HC	NS
Close the programme after using	3.57	3.09	0.48	21.84	0.81	0.29	0.96	IN	HC	NS
Shut down the computer	3.63	2.99	0.64	26.50	0.21	0.27	0.99	IN	HC	NS

\bar{X}_i = Mean improvement; \bar{X}_p = Mean performance; $(\bar{X}_i - \bar{X}_p)$ = Need gap; TSS = Total Sum of Square; MSS = Mean Sum of Square, p-values = probability value at 0.05 level of significance; E² = Correlation ratio/coefficient of determination; IN = Improvement Needed; HC = High Coefficient and NS = No. Significance difference

Table 2: Need gap analysis and ANOVA of the responses of the three groups of respondents on the technology skills improvement needs of medium enterprises employees in online business for unlocking their potentials to strengthen entrepreneurial activities in digital economy

Technology skills improvement in online business skills	\bar{X}_i	\bar{X}_p	$(\bar{X}_i - \bar{X}_p)$	TSS	MSS	p-values	E ²	Rmk	e ²	H ₀
Acquire functional computer with relevant accessories like modem for online business	3.21	3.12	0.09	39.28	0.63	0.14	0.98	IN	HC	NS
Subscribe the Modem to preferred network provider, e.g., MTN, Glo, Airtel, Etisalat, etc.	3.85	3.12	1.18	37.58	0.63	0.16	0.98	IN	HC	NS
Connect means (stabilizer) to the source of power through the cable	3.81	3.04	0.77	35.84	0.68	0.14	0.98	IN	HC	NS
Boot the computer	3.80	3.29	0.51	20.14	2.99	0.03	0.85	IN	HC	S*
Check the computer system for functionality	3.54	3.00	0.54	33.52	0.95	0.17	0.97	IN	HC	NS
Click the installed browser, e.g., Mozilla, Opera, etc.	2.94	1.96	0.98	34.87	0.87	0.14	0.98	IN	HC	NS
Key in preferred search engine/ go to browser, e.g., google or yahoo and etc.	3.26	2.21	1.05	36.35	0.49	0.12	0.99	IN	HC	NS
Key in URL/ the market information to be achieved	3.34	3.22	0.12	22.10	2.34	0.04	0.89	IN	HC	S*
Recognize the company's website	3.60	2.70	0.9	32.33	1.67	0.06	0.95	IN	HC	NS
Key in company username and password	3.68	2.90	0.78	32.84	0.99	0.14	0.97	IN	HC	NS
Carry out sales to online business partners and individual customers	3.14	1.30	1.84	37.89	0.89	0.14	0.98	IN	HC	NS
Process orders from online stores and individual customers	3.33	2.20	1.13	26.74	2.96	0.4	0.89	IN	HC	S*
Establish a policy for payment	3.82	1.78	2.04	34.36	0.68	0.15	0.98	IN	HC	NS
Access online and offline payments	3.82	1.69	1.81	33.63	0.92	0.18	0.97	IN	HC	NS
Manage online stores by stock taking and pricing of goods	2.59	1.15	1.44	29.34	0.80	0.25	0.97	IN	HC	NS
Update business partners and customers with price list and stock available using the online platform	3.91	0.80	3.11	34.39	0.75	0.16	0.98	IN	HC	NS
Carry out business interactions with online partners and individual customers	3.96	1.99	1.97	20.84	0.47	0.26	0.98	IN	HC	NS
Compile payment advice for funds receiving from online payments	3.66	1.58	2.08	31.77	0.92	0.16	0.97	IN	HC	NS
Submit to the account department the detail of funds from the sales	3.96	2.29	1.67	27.70	0.64	0.14	0.98	IN	HC	NS
Act as a middleman between online partners, customers and management	3.72	2.31	1.41	20.78	0.80	0.35	0.96	IN	HC	NS
Acquire goods of high quality from the suppliers	2.64	1.29	1.35	31.23	0.73	0.14	0.98	IN	HC	NS

Table 2:Continue

Technology skills improvement in online business skills	\bar{X}_i	\bar{X}_p	$(\bar{X}_i - \bar{X}_p)$	TSS	MSS	p-values	E ²	Rmk	e ²	H ₀
Sell goods of high quality to maintain a referral buying	3.07	2.04	1.03	36.33	0.89	0.13	0.98	IN	HC	NS
Carry out home retrieval of goods from unsuccessful and rejected orders	3.58	1.91	1.67	29.09	0.92	0.24	0.97	IN	HC	NS
Handle business partners and individual customer's information for security purposes	3.33	1.60	1.73	30.27	0.73	0.16	0.98	IN	HC	NS
Carry out online customer's relationship using social media, SMS among the rest	3.51	1.99	1.52	30.66	0.84	0.17	0.97	IN	HC	NS
Monitoring sale representative's activities through the social media and e-mail to protect the image of the organization	3.41	3.09	0.32	23.06	0.77	0.30	0.97	IN	HC	NS
Log out after every transaction	3.34	3.29	0.05	24.25	0.96	0.26	0.96	IN	HC	NS
Shut down the computer	3.62	3.53	0.09	32.71	0.59	0.13	0.98	IN	HC	NS
Establish efficient and effective policy for shipping/delivering company's products through, e.g., DHL, Fedex where applicable	3.80	2.30	1.50	30.26	0.80	0.15	0.97	IN	HC	NS
Establish local routes and distribution point for delivery company's products	3.78	2.60	1.18	42.09	0.65	0.08	0.98	IN	HC	NS

Xi = Mean improvement; Xp = Mean performance; $(\bar{X}_i - \bar{X}_p)$ = Gap; TSS = Total Sum of Square; MSS = Mean Sum of Square, p-values = Probability value at 0.05 level of significance; E² = Coefficient of determination; IN = Improvement needed; HC = High coefficient and NS = No. Significance difference

Table 3: Need gap analysis and ANOVA of responses of the three groups of respondents on the technology skills improvement needs of medium enterprises employees in point-of-sale machine

Point-of-sale machine operations	\bar{X}_i	\bar{X}_p	$(\bar{X}_i - \bar{X}_p)$	TSS	MSS	p-values	E ²	Rmk	e ²	H ₀
Connect means (stabilizer) to the source of power through the cable when necessary	3.53	3.20	0.33	20.21	2.99	0.04	0.85	IN	HC	S*
Operate point-of-sale machine according operations for unlocking their potentials to streng then entrepreneurial activities in digital economy to its manual	3.76	1.79	1.97	34.87	1.34	0.09	0.96	IN	HC	NS
Check POS functionality	3.61	1.60	2.01	27.36	0.96	0.29	0.96	IN	HC	NS
Use attractive business language to request for customer's debit/credit card when shopping at store	3.69	2.94	0.75	30.84	0.74	0.19	0.98	IN	HC	NS
Insert credit or debit card into POS machine for running purpose	3.98	2.33	1.65	30.56	0.67	0.17	0.98	IN	HC	NS
Persuade business customer to enter PIN by him/herself for privacy	3.84	3.50	0.34	28.38	0.92	0.27	0.97	IN	HC	NS
Allow customer to key in the amount of purchase or assist him	3.57	2.80	0.77	36.95	0.49	0.15	0.99	IN	HC	NS
Select type of transaction at POS terminal	3.53	1.99	1.54	40.51	0.65	0.12	0.98	IN	HC	NS
Enter the amount to be transferred to merchant account	3.77	2.84	0.93	32.52	0.91	0.16	0.97	IN	HC	NS
Press enter on POS machine	3.26	1.80	1.46	23.88	0.81	0.31	0.97	IN	HC	NS
Access cash received from customer through the POS machine	3.41	1.20	2.21	31.46	0.47	0.16	0.99	IN	HC	NS
Print transaction receipts from the POS machine for signing by the customer	3.64	1.40	2.24	29.46	0.66	0.27	0.98	IN	HC	NS
Keep the signed receipt and hands a copy to the customer for record purpose s	3.33	2.92	0.41	25.78	0.51	0.24	0.98	IN	HC	NS
Plead with customer to access SMS on his registered mobile phone after debiting	2.71	1.34	1.37	37.83	0.34	0.15	0.99	IN	HC	NS
Carry out electronic funds transfer to suppliers using POS machine	3.22	0.97	2.25	20.91	0.89	0.36	0.96	IN	HC	NS
Compile payment advice for funds receiving from online payments	3.69	0.89	2.8	35.87	0.74	0.14	0.98	IN	HC	NS

Xi = Mean improvement; Xp = Mean performance; $(\bar{X}_i - \bar{X}_p)$ = Gap; TSS = Total Sum of Square; MSS = Mean Sum of Square, p-values = Probability value at 0.05 level of significance; E² = Coefficient of determination; IN = Improvement Needed; HC = High Coefficient and NS = No. Significance difference

of the person to be called and others. The findings also agreed with GOV.UK. (2018) on a study on essential digital skills framework for training adult traders and individuals in order to improve their essential digital

transaction skills in digital economy on the following such as: turn on the computer; enter account information as required locate the available controls on computer, make use of a mouse and keyboard on a computer; make use of

a touch screen on a computer make use of accessibility tools on computer to make it easier to use interact with the home screen on computer use settings menus to change device display to make content easier to read and find applications by choosing the correct icons on the home screen and set up.

The findings are also in consonance with the findings of GOV.UK. (2018) on the essential online skills improvement needed for digital transactions include such as: connect a computer to the internet using the Wi-Fi or modem settings insert the password when required; connect to the internet and open a browser to find and use websites; identify passwords and personal information needed for online business operation; update and change password when prompted to do so for security purpose set up an account online, using appropriate websites or apps. that can enables one to buy goods or services; register and apply for services, buy and sell goods and services and administer and manage transactions online. The findings of this study is also in line with the World Bank Trade Organization (2017) on a survey to improve the e-Trade environment in order to assist developing countries' traders on digital economy where it was reported that the traders need improvement skills on modern education programmes from the basic literacy and numeracy and entrepreneurship for digital markets in order to be able to go online and perform online/mobile transactions in offering online products, services and tasks to customers in digital business environment.

Similarly, the findings are also in agreement with the study of Illanes *et al.* (2018) on retraining and reskilling companies' executives and workers in the age of automation or digitization in United States and Europe where the authors found out that 62-82% of executives and workers in businesses needed retraining and reskilling in order to address potential digital skills gaps due to advance in automation and digitization in devices like point-of-sale machines, cash counting machine, computer, internet among the rest. The findings also agreed with the findings of the United Kingdom Government (2018) where it was stated that essential technology skills improvement needed in digital business transactions are: to use different payment systems such as credit/debit card in point-of-sale terminal for direct bank transfer among the rest and phone accounts, to make payments for goods or services online would improve digital transactions of UK adult traders. On the findings of hypotheses tested, it was found out that there is no significant difference in the mean ratings of the responses of e-bank officials, lecturers of business education and medium entrepreneur's employees on the technology skills improvement items on computing Table 1 online business Table 2 and point-of-sale machine Table 3 as essentials for digital economy. However, there is a significance difference in

item 2 (0.03) in Table 1, items: 4, 8 and 12 as follows 0.03, 0.04 and 0.04 and item 1 (0.04) in Table 3 due to disagreement of responses of the 2 professionals and employees in the responses of the item. This shows that the professional career of the respondents influences significantly the responses of the respondents on these items. The findings reveal that the differences in the professional career of the two groups (e-Bankers and lecturers) and employees did not significantly influence their responses on the items on Table 1 (0.03), Table 2 item as to cause a sharp difference in their responses. The E^2 (correlation ratio) of all the items for the study ranged from 0.85-0.99 indicating a very high relationship.

CONCLUSION

The researcher's experiences through the media, literature and interactions with medium enterprises employees in Kwara State were not able to integrate electronic technologies to their entrepreneurial activities successfully. This make the medium enterprises to always encounter challenges by making losses instead of profits in their business transactions. To improve this situation these employees were assessed in order to identify their potential digital skills gaps for technology skills improvement for digital economy. The findings of the study revealed the technology skills improvement needs of medium employees to strengthen entrepreneurial activities in digital economy in Kwara State, Nigeria and beyond. It was found out that medium entrepreneur's employees needed technology skills improvement in computing, online business and point-of-sale machine operations for business success in digital economy. Based on the findings, the following recommendations were made.

RECOMMENDATIONS

It is therefore, recommended that the technology skills where medium enterprises employees needed improvement in digital economy be utilized for retraining them for efficiency or improved performance on the job. Government should initiate policy that would entice medium sized enterprises employees to seek for relevant IT skills so as to add values to their principals.

Small and Medium Enterprise Development Agency staff should embark on capacity building of the medium enterprises employees for their effectiveness to access current global business information in order to be able to bridge the gaps of Nigeria business owners and employees. There should be special directive by the government through the Central Bank of Nigeria to grant loans to SMEs in order to be able to procure necessary electronic gadgets meant for digital economy.

The curriculum of business education in Nigeria should be repositioned through regular review and updates to include the teaching of the essential technology skills for self and paid employment of graduates. Government and donor agencies as well as well-to-do individuals should supply adequate ICT facilities to schools for teaching and training of students, existing and potential entrepreneur's employees who need upskilling for effectiveness and efficiency on the job.

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