Research Paper

Essential Digital Education Required by Agrarian Community Members in the Use of Electronic Resources for Enhancing Marketing of Goods and Services

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Abstract

This study identifies digital education required by community members in the use of e-resources for enhancing the marketing of goods and services. To achieve these objectives, three research questions guided the study. The study adopted an action group design supported by the practices in the industry model. The population for the study was 75 comprising: 30 hi-tech Bank Officials from commercial banks (Marketing Units), 15 Lecturers of Business Education, and 30 digitally medium business entrepreneurs. A purposive sampling technique will be adopted for selecting e-bankers and e-entrepreneurs with certain criteria. The instrument for data collection will be a structured questionnaire on e-resources in business. Three experts will validate the instrument while Cronbach's alpha reliability method will be used to ascertain the internal consistency of the items. Weighted mean will be involved in answering the research questions while analysis of variance (ANOVA) will be used to test the hypotheses at 0.05 level of probability.

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1. INTRODUCTION

The present knowledge economy requires individuals including agrarian business community members to possess essential digital education to engage in the digital world. Digital education according to UNESCO (2018) is defined as a range of processes of teaching and learning how to use digital devices for communication, buying, selling, and payments of goods and services. Grand-Clement (2017) defined digital education as the teaching and learning of technical skills required for the use of digital technologies and success in the digital world. With

reference to this study, digital education is the processes of teaching agrarian business community members on how to use electronic devices for advertising, maintain customers, and payments of goods and services. The possession of digital education according to Kanyaru and JKyalo (2015); Shien and Yazdanifard (2014); Agu (2013); and MacGregor (2011) will enable individuals to communicate, sell, and receive payment from customers, achieve the aim of building close relationships with customers, understanding the information of the customers well, and knowing the expectations of the customers in market environment. Goel (2014); America Marketing Association in Kotler, Armstrong, Wong and Sunders (2008); Agomuo (2005) opinionated that in contemporary society, advancement in communication technology will help in reducing distance and bringing like-minded people in terms of trade together, thus increasing the functionality of interest-based communities. America Marketing Association further stated that with skills in electronic resources, transactions can be carried out 24 hours a day. Digital education become imperatives in the sense that Agomuo (2005); Osuala (2004) stated that for customers scattered across different geographical locations, the only means to reach them, as well as exchange of money is through the use of modern technologies. Osuala (2004) concluded that to maintain a customer, business operators need to establish data base to register the lists of customers' address, email address, phone numbers and etc. for effective business transactions. Hence, the adoption of technologies such as mobile phones and computers would assist sustainable agri-business activities in agrarian communities. Many commercial activities are going on in an agrarian area being managing by agrarian community members in the society. Community members according to the Robert Wood Foundation Program and the University of Wisconsin Population Health Institute (2020) are all who live, learn, and work as farmers, engineers, tailors, traders, teachers, transporters, and priests, among the rest, play one role of the other in community. Agrarian community members are individuals that dwelt in agrarian or disadvantage areas with major occupation in agro-business transactions as a means of survival. These agrarian business community members engage in sourcing for agricultural produce from farmers in the society and sell to the individual consumers or industries for profit maximization; hence, they are also involving in community development. In agreement, UniversalClassTM (2020) narrated that community development often tackles issues related to poverty; many of the improvements target the economic aspects of the community. UniversalClassTM (2020) further stated that stable economy in the community means that resources have to be coming in or going out either for individuals or industries for further production for the benefit of the community members. To engage in market activities, Osuala (2006); Agomuo (2005); Osuala (2004) reported that in order to satisfy customers with goods or services required excess dissemination of information, maintenance of customers for referral buying, and exchange of money as a receipt for the transfer of goods or services is of significant important. This has to be facilitated through the use of electronic resources with internet connectivity.

2. OBJECTIVES

The objectives are: providing all agrarian community members with the opportunity for education of higher level irrespective of sex, social status, religious or ethnic background; offering diversified curriculum to cater to differences in talents, opportunities, and future roles; providing trained manpower in applied technology and commerce at sub-professional g and vocational skills, necessary for agricultural, industrial, commercial, and economic development. Achieving the above objectives proves abortive as observations by researchers in the area of study during the interaction with some groups of females (women and girls) lack essential digital skills to use digital systems and tools to process information, browsing the net, communication, and transactions involved in a digital environment. Some women and girls in the area of study possessed smartphones but could not use them to access information, communicate, and carry out transactions digitally rather than to play music and take snaps of pictures with the support of male counterparts and advanced female learners. Findings by the OECD (2019) asserted that the inability to manipulate digital technologies is affecting women and girls of all ages in rural areas and across international boundaries; hence, this has its roots include: the lack of digital literacy, which leads to less confidence use of digital technologies; time poverty, which hinders studying; the affordability of access to digital technologies; security and safety concerns and inherent biases and social norms. University College London IOE (2020) narrated that a lack of essential digital skills and infrastructure can place individual men, women, and organizations to a competitive disadvantage; hence, almost every job now involves a range of digital skills. Kiss and Abdellatif (2019) noted that many females are not accessing the technologies and the internet which prevents them from maximizing the potential benefits and becoming poorer in society. Kiss and Abdellatif (2019) further revealed the reports in Ebonyi State, Nigeria, across all age groups, that the percentage of girls and women with access to the internet was much poorer. Study on women in the US workplace by McKinsey and Company's (2015b) concluded that based on employee pipeline data from 118 companies in 2015 and 60 companies in 2012, two broad themes emerge: women are still underrepresented, and they face real barriers to advancement. According to Ekine and Abay (2015) available girl's and women's enrolment data from Nigeria shows the trend of under-enrolment in science and technology classes at the secondary level due to cultural biases among the rest. Ekine and Abay further disclosed that most African countries including Nigeria and Kwara State not exempted lag behind in the generation of the human technological capacity particularly females on which present knowledge economy is heavily dependent. MDGs (2016) disclosed that lack of access to modern information technology to access global economy is poverty. Poverty according Fasoranti (2013) is the lack of

access to basic necessities of life. In this work, poverty is the lack of female job seeking school leavers' access to digital economy for personal, work and further studies benefits. Fasoranti (2013) noted that poverty is majorly located in the rural areas and high percentages are women and girls. Nigeria Bureau of Statistics NBS (2009) showed that 70% of Nigeria female is poor and majority of them live below the minimum poverty line. Information and communication technology has come for the convenience conveyance of personal, economic and education information to individuals. Female (women and girls) school leavers in rural areas of Bauchi State could not manipulate digital equipment to source or access information, communicate or carry out digital transactions. They lack knowledge about what will affect their lives positively. This makes female to be poorer in rural areas of Bauchi State; hence, cannot cater for themselves or bear family responsibilities in most cases. Agrarian community members could be equipped through essential digital skills to reduce their poverty for sustainable development. Essential digital skills are defined by UNESCO (2018) as a range of processes of learning how to use digital devices for sourcing information, communication, buying, selling, and payments of goods and services. Collier (2011) regarded essential digital skills as those that make individuals to learn other skills such as using different kinds of electronic technology applications and other related technical tools (using software to create letters, sending emails, operate a computerized cash register, using cell phones which can enable people to participate fully in the workplace and in the community. With reference to this study, essential digital skills are the relevant skills required by agrarian community members for effective utilization of digital tools to process information, browsing, communication and transactions involved in the digital environment for personal, work, and further studies. OECD (2019) opinionated that digital-related jobs are increasingly requiring workers with technical skills including processing information, communication, payments, and collaboration skills. Essential digital skills of individual citizens both male and female as revealed by Asliturk, Cameron, and Faisal (2016) are important for the prosperity of every economy to compete in a globally hyper-connected world. Kilaiber and Hermanus (2015) reported that possession of digital skills will change people's behavior patterns and reduce distances of acquire information, buying, selling and payments. Millennium Development Goals (2016) observed that educating females (girls and women) in general education and ICT has a positive multiplier effect on progress across virtually all development areas. Sustainable Development Goals (2016) narrated that one important aspect of SDG 17 is that it binds the other goals together including finance, capacity building, systemic issues, technology, and trade; hence, it requires girl and women empowerment through electronic technologies. Ekine and Abay (2016) affirmed that gender gap in technology must be more effectively addressed to enable women increasing participating in technology driven society; hence, their communities and nations will also reap the benefits. Antonio and Tuffley (2014) is of the views that girl and women's use of ICTs could, potentially, play a part in sustainable rural poverty reduction since they play a crucial role in food distribution. This study is anchored on essential digital skills required by agrarian community members for their effectiveness in digital economy for life, their work and further study for sustainable standard of living. Submissions and findings by Gateway Qualification (2020); Iwuchukwu and Uzuagu (2020); United Kingdom Government Publication (2018) & (2019); University College London IOE (2019); Jibril, Nuhu and Sani (2018); Udensi and Ugwuede (2018); Asliturk, Cameron and Faisal (2016); OECD (2015); Intel Corporation (2015); Petrovic (2012); Collier (2011) revealed the essential digital skills required by adult individuals including girls and women for personal development and business purposes where computer basics, the use of computer various parts, searching and selecting of digital information, creating and printing a basic document, the use of the internet, communicating online, electronic banking, bank at ATM and protecting digital identity are necessary to improve the standard of living for the sustainable development. The above literature reviewed would serve as a guide for the generation of instruments and discussion of the study. The general purpose of this study is the identification of essential digital skills for poverty reduction among job-seeking female school leavers in rural areas in Bauchi State. Specifically, the study sought to identify:

(a) Essential skills for computing,
(b) Essential skills for browsing the net,
(c) Essential skills for digital collaboration,
(d) Essential skills for digital transactions

3. METHODOLOGY

Four research questions were answered by the study. The study adopted an action group design supported by the approved practice of the industries (function of the industry model). Action group design as explained by Kumar (2011) is a participatory study where the experts in the concerned field shared their ideas in problems affecting phenomenal together by evaluating, take decisions and improve based on the approved practices of their industries. This design is suitable for this study because it involves the action of small groups of experts such as Computer Educators, Business Educators (OTM), and ICT Experts from Corporate Organizations in Bauchi State to identify the essential skills in computing, browsing the net, collaboration and digital transaction skills through a questionnaire. The study was carried out in rural areas in Bauchi State, Nigeria. The State is made up of 21 Local Government Areas (LGAs) and found in North-East, Nigeria with many agrarian community members that digital skills for personal and economics. The population for the study was 75 comprising 30 Computer Educators, 15 Business Educators (OTM) all, from the Tertiary Institutions in Bauchi State, and 30 hi-tech Experts from the Corporate Organizations in Bauchi State. A purposive sampling technique was employed to select 30 Computer Educators and 15 Business Educators (OTM) from the Tertiary Institutions including Bauchi State

University, Colleges of Education Azare, and FCE Jama'are with the following criteria Each must have studied Business (Office Technology and Management Education) or Computer education, with 5-10 years experiences, efficiency in the digital economy and 30 ICT Experts from the Corporate Organizations that have B. Sc in Computer Science and Business Management with ICT professional qualification, 7-10 years experience, and efficiency in using e-technologies for commercial transactions. The instrument used for data collection was a questionnaire developed by the researchers from literature and the approved practices of the industries. The questionnaire items had a four-point response scale options of highly required, averagely required, slightly required, and not required. Three experts face-validated the instrument; they were one each from the Department of Business Education, Bayero University Kano, Department of Business Education, FCE Zaria, and a Programme Development Specialist from the Curriculum Department in ABU Zaria. Their corrections and suggestions were used to produce the final copies of the questionnaires. Cronbach Alpha method was used to determine the internal consistency of the instrument through the administration of a questionnaire to 20 respondents comprising 6 ICT Experts from the various corporate organizations in Kano, 5 Business Educator from FCE Kano, and 5 Computer Educators from the Department of Computer Education, Aminu Salle Colleges of Education Azare and 4 from the Department of Computer Science, ABU Zaria. The analyses of the data yield 0.83 as an overall coefficient. Three research assistants' each that are familiar with the environment where data is collected were hired. Seventy-five copies of the questionnaire were administered to the professionals at various locations. Sixty-nine copies of a well-completed questionnaire were retrieved and analysed using weighted mean to answer the research question based on the real limit of: highly required: 4.00 – 3.50, averagely required: 3.00 - 2.50, slightly required: 2.00 -1.50 and not required: 1.49 – 1.00. Standard deviation was used to determine the spread of the responses around the mean and from the opinion of one another. Analysis of Variance (ANOVA) was used to test the null hypothesis of no significant difference at $P< 0.05$ level of significance. Any item with a value of $P \geq 0.05$ is accepted while the reverse is true for any item with a value of $P \leq 0.05$ level of significance is rejected.

4. RESULTS

Research Question 1: What are the essential skills for computing required among agrarian community members for poverty reduction?

Ho 1: There is no significant difference in the mean ratings of the Computer Educators, Business Educators (OTM), and ICT Experts on the essential skills for computing required among agrarian community members for poverty reduction.

The data for answering the research questions and testing of hypotheses is presented in Table 1-4.

Table 1: Mean ratings, standard deviation, and Analysis of Variance (ANOVA) of the three groups of respondents on the essential skills for computing required among agrarian community members for poverty reduction. (N=69)

S/N	Essential Skills for Computing (Ability to):	X	SD	Tss	Mss	Pval	e^2	Decision		
								Rmks	e^2	Ho
1	Set functioning computer/ e-system on desk	3.89	0.30	31.76	0.22	0.36	0.99	HR	HC	NS
2	Connecting means (stabilizer) to the source of power through the cables	3.52	0.41	37.61	0.51	0.33	0.99	HR	HC	NS
3	Fix the mouse and other hardware to the computer where applicable	3.75	0.59	21.68	0.88	0.68	0.96	HR	HC	NS
4	Boot/reboot/off the computer	3.78	0.46	36.28	0.43	0.18	0.99	HR	HC	NS
5	Check the computer for functionality	3.71	0.09	36.28	0.43	0.88	0.96	HR	HC	NS
6	Take the cursor to the start menu	3.81	0.49	22.60	2.49	0.02	0.89	HR	HC	S*
7	Select and click to open the window environment	3.87	0.21	19.90	0.69	0.18	0.97	HR	HC	NS
8	Identify MS Word and other environments for general keyboarding exercises etc.	3.78	0.06	30.19	0.28	0.32	0.99	HR	HC	NS
9	Perform basic typing of words, and figures and formatting or editing text	3.69	0.24	28.90	0.39	0.48	0.99	HR	HC	NS
10	Create, copying, and process electronic file in MS Word	3.92	0.50	27.02	2.98	0.01	0.89	HR	HC	S*
11	Create file name with its elements as number, date, content, and title	3.70	0.84	31.18	0.77	0.39	0.98	HR	HC	NS
12	Store and retrieve documents from the computer (computer-assisted retrieval system)	3.88	0.29	20.90	0.41	0.34	0.98	HR	HC	NS
13	On the scan machine connect the cable to the computer where necessary	3.76	0.70	32.69	0.93	0.50	0.97	HR	HC	NS
14	Scan a document, transfer and edit in a computer	3.72	0.51	19.30	0.72	0.40	0.96	HR	HC	NS
15	Print the document	3.64	0.60	35.18	0.50	0.35	0.99	HR	HC	NS

Key: $\overline{X}$= Mean; SD= Standard Deviation; TSS=Total Sum of Squares; MSS=Mean Sum of Squares; HR= Highly Required; Average Required; Slightly Required; Not Required; Pval= Significant; e^2=Correlation Ratio; N= Total number of Respondents; NS= No significance difference.

The mean values of items 1-15 ranged from 3.52 – 3.92 and were above the real limit of 1.50. This indicates that the respondents judged the fifteen items as essential skills for computing required among agrarian community members for poverty reduction in rural areas in Bauchi State. The standard deviation of the 15 items ranged from 0.06 – 0.84 and was less than 1.96 (95% confidence limit). This indicates that the respondents were not far from the mean in their responses or from one another. The P-values of fourteen out of fifteen items ranged from P-0.18 – 0.88 and were higher than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the fifteen items as essential skills for computing required among job-seeking female school leavers for poverty reduction in rural areas in Bauchi State. The

p-value of item 10 (0.01) is <0.05 indicating that there is a significant difference in the mean ratings of the three groups of respondents on item 10.

Research Question 2: What are the essential skills in browsing required among agrarian community members for poverty reduction?

Ho2: There is no significant difference in the mean ratings of the Computer Educators, Business Educators (OTM), and ICT Experts on the essential skills in browsing required among agrarian community members for poverty reduction

Table 2: Mean ratings, standard deviation, and Analysis of Variance (ANOVA) of the three groups of the respondents on the essential skills for browsing required among agrarian community members for poverty reduction. (N=69)

S/N	Essential Skills in Browsing (Abilityto)	X	SD	Tss	Mss	Pval	e^2	Decision		
								RMKs	e^2	Ho
1	Insert A Modem into the Port of a Computer	3.64	0.46	30.52	0.64	0.93	0.98	HR	HC	NS
2	Install Modem Software/Wi-Fi/Hot Spot, etc. in A Computer	3.85	0.43	23.36	0.42	0.23	0.93	HR	HC	NS
3	Subscribe Modem to Preferred Network Service Provider	3.60	0.30	20.72	0.53	0.35	0.97	HR	HC	NS
4	Convert Credit into Data For At Least One Service Provider (E.G., Mtn/Glo/Airtel) Where Applicable	3.66	0.53	32.01	0.26	0.54	0.99	HR	HC	NS
5	Access And Delete Messages Sent by Network Providers If Necessary	3.67	0.42	24.80	0.60	0.10	0.98	HR	HC	NS
6	Install A Web Browser (E.G., Mozilla Firefox, Google Chrome, Etc.)	3.65	0.29	32.50	0.68	0.50	0.98	HR	HC	NS
7	Go To Browser (E.G. Google, Opera Mini, etc.)	3.72	0.31	27.86	0.58	0.68	0.98	HR	HC	NS
8	Input URL In Search Engine Erg Www.Google.Com	3.81	0.38	24.69	0.49	0.10	0.98	HR	HC	NS
9	Use the Back, And Forward Button to Reach Pages	3.68	0.53	30.62	0.69	0.23	0.98	HR	HC	NS
10	Use Boolean Operators (And/Or/Not) To Narrow or Widen Searches	3.71	0.50	26.88	0.73	0.14	0.97	HR	HC	NS
11	Download A File From A Website	3.84	0.29	21.69	0.50	0.55	0.98	HR	HC	NS
12	Save A Downloaded into A Computer, CD, Or Flash	3.75	0.56	32.09	0.30	0.38	0.99	HR	HC	NS
13	Reload Website Address or Word(S) Into Tab	3.71	0.22	38.60	0.67	0.48	0.98	HR	HC	NS
14	Open A New and Close the Tab Home	3.66	0.40	28.84	0.91	0.10	0.97	HR	HC	NS
15	Open A File in A New Tab	3.80	0.43	22.86	0.79	0.12	0.97	HR	HC	NS
16	Disconnect To Network Service Provided at The End of The Task	3.73	0.45	38.41	0.70	0.40	0.98	HR	HC	NS

Key: $\bar{X}$= Mean; SD= Standard Deviation; TSS=Total Sum of Square; MSS=Mean Sum of Square; HR= Highly Required; Average Required; Slightly Required; Not Required; Pval= Significant; e^2=Correlation Ratio; N= Total number of Respondents; NS= No significance difference.

The mean values of items 1-16 ranged from 3.60 – 3.85 and were above the real limit of 1.50. This indicates that the respondents judged the sixteen items as essential skills for browsing the net required among job-seeking female school leavers for poverty reduction in rural areas in the study area. The standard deviation of the 16 items ranged from 0.22 – 0.46 and was less than 1.96 (95% confidence limit). This indicates that the respondents were not far from the mean in their responses or from one another. The P-values of the fourteen out of sixteen items ranged from P-0.10 – 0.93 and were higher than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the fifteen items as essential skills for browsing the net required among job-seeking female school leavers for poverty reduction in rural areas in Kwara State.

Research Question 3: What are the essential communication skills required among agrarian community members for poverty reduction?

Ho 3: There is no significant difference in the mean ratings of the Computer Educators, Business Educators (OTM) and ICT Experts on the essential skills for communication required among agrarian community members for poverty reduction.

Table 3: Mean ratings, standard deviation, and Analysis of Variance (ANOVA) of the three groups of the respondents on the essential skills for communication required among agrarian community members for poverty reduction. (N=69)

S/N	Essential skills for Communication (Ability to:)	X	SD	TSS	MSS	Pval	$e2$	Rmks	$e2$	NS
1	Connect to the electronic system browser	3.62	0.51	19.30	0.72	0.40	0.96	HR	HC	NS
2	create an e-mail account with secured password	3.64	0.70	35.18	0.50	0.35	0.99	HR	HC	NS
3	log on with appropriate details and log out at the end of transactions	3.67	0.41	38.70	0.81	0.52	0.98	HR	HC	NS
4	Compose and key in e-mail address at designed space	3.77	0.69	32.40	0.25	0.19	0.99	HR	HC	NS
5	send an e -mail to an individual or more persons	3.89	0.67	28.37	0.79	0.92	0.97	HR	HC	NS
6	replaying to an e- mail	3.55	0.21	31.78	0.74	0.59	0.97	HR	HC	NS
7	Copy /forwarding an incoming e- mail to another person	3.82	0.79	34.28	0.70	0.75	0.98	HR	HC	NS
8	Down load information from the e-mail	3.75	0.70	39.30	0.65	0.37	0.98	HR	HC	NS
9	Attach files, images or graph to e-mail	3.71	0.60	22.06	2.37	0.23	0.89	HR	HC	NS
10	receive and save an attachment from an e- mail	3.64	0.61	20.09	2.05	0.14	0.89	HR	HC	NS
11	open and delete a file from in box	3.75	0.69	39.61	0.63	0.21	0.98	HR	HC	NS
12	add an address to an electronic address book	3.78	2.42	32.42	0.88	0.10	0.97	HR	HC	NS
13	file incoming and outgoing e- mails	3.96	0.90	29.80	0.67	0.12	0.94	HR	HC	NS
14	Communicate with friends, business associates and family using video tools	3.88	0.53	32.19	0.70	0.24	0.99	HR	HC	NS
15	Post messages, photographs, videos or blogs on social media platforms	3.90	0.50	24.06	0.14	0.41	0.99	HR	HC	NS

Key: $\bar{X}$= Mean; SD= Standard Deviation; TSS=Total Sum of Square; MSS=Mean Sum of Square; HR= Highly Required; Average Required; Slightly Required; Not Required; Pval= Significant; e^2=Correlation Ratio; N= Total number of Respondents; NS= No significance difference.

The mean values of items 1-15 ranged from 3.63 – 3.96 and are above the real limit of 1.50. This indicates that the respondents judged the fifteen items as essential skills for communication required among agrarian community members for poverty reduction in in rural areas in the study area State. The standard deviation of the 15 items ranged from 0.21 – 0.90 and was less than 1.96 (95% confidence limit). This indicates that the respondents were not far from the mean in their responses or from one another. The P-values of the fifteen items ranged from P-0.10 – 0.52 and were higher than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the fifteen items as essential skills for communication required among agrarian community members for poverty reduction in rural areas in the study area.

Research Question 4: What are the essential skills for digital transactions required among agrarian community members for poverty reduction?

Ho[4]: There is no significant difference in the mean ratings of the Computer Educators, Business Educators (OTM), and ICT Experts on the essential skills for digital transactions required among agrarian community members for poverty reduction.

Table 4: Mean ratings, standard deviation, and Analysis of Variance (ANOVA) of the three groups of respondents on the essential skills for digital transactions require among agrarian community members for poverty reduction. (N=69)

S/N	Essential Transaction Skills (Ability to):	$\overline{X}$	*SD*	Tss	Mss	Pval	e^2	Decision		
								Rmks	e^2	Ho
1	Connect to the electronic system browser	3.66	0.10	38.02	0.20	0.15	0.99	HR	HC	NS
2	Go to browser e g opera mini/Firefox etc	3.77	0.31	13.80	0.69	0.09	0.95	HR	HC	NS
3	Go to the search engine e g www.google.com	3.22	0.80	22.40	0.88	0.16	0.96	AR	HC	NS
4	Key in the URL /the information you want to achieve and click enter	3.00	0.34	34.63	0.44	0.36	0.99	AR	HC	NS
5	Set up an account online using the appropriate website/apps for buying and selling goods or services	3.80	0.37	27.30	0.64	0.33	0.98	HR	HC	NS
6	Filling transaction forms online e g licence, bank etc	3.98	0.32	39.84	0.70	0.64	0.98	HR	HC	NS
7	Upload transactional documents online	3.19	0.74	23.64	0.36	0.21	0.98	AR	HC	NS
8	Use travel websites and apps to book tickets and reservations	3.58	0.50	31.80	0.60	0.18	0.98	AR	HC	NS
9	Use payment systems such as credit/debit cards through POS etc	3.62	0.17	30.39	0.87	0.32	0.97	HR	HC	NS
10	Use Internet bank for payments, etc	3.79	0.51	46.30	0.29	0.34	0.99	HR	HC	NS
11	Use mobile phone banking for financial transactions	3.68	0.59	28.22	0.97	0.14	0.97	HR	HC	NS
12	Maintain financial transactions online to avoid security threats	3.70	0.26	30.15	0.13	0.48	0.99	HR	HC	NS

Key: *$\overline{X}$= Mean; SD= Standard Deviation; TSS=Total Sum of Square; MSS=Mean Sum of Square; HR= Highly Required; Average Required; Slightly Required; Not Required; Pval= Significant; e^2=Correlation Ratio; N= Total number of Respondents; NS= No significance difference.*

The mean values of items 1-12 ranged from 3.00 – 3.98 and were above the real limit of 1.50. This indicates that the respondents judged the twelve items as essential skills for digital transactions required among agrarian community members for poverty reduction in rural areas in the study area. The standard deviation of the 12 items ranged from 0.10 – 0.80 and was less than 1.96 (95% confidence limit). This indicates that the respondents were not far from the mean in their responses or from one another. The P-values of the fifteen items ranged from P-0.09 – 0.68 and were higher than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the fifteen items as essential skills for digital transactions required among job-seeking female school leavers for poverty reduction in rural areas in Bauchi.

5. DISCUSSION OF FINDINGS

The findings from the study revealed that 58 essential skills (15 computing, 16 browsing, 15 communication, and 12 transactions are required among agrarian community members for poverty reduction in rural areas in Bauchi State. These findings agreed with the study of Gateway Qualification (2020) which researched the Essential Digital Skills standards in the United Kingdom where it was found that individual Adults including females required skills in operating electronic devices, using devices and handling information, creating and editing, and networking e-devices for sharing data. Similarly, the study also agreed with the submission of Collier (2011) on the training package developed in Newfoundland and Labrador Laubach Literacy Council Inc. found that essential basic skills and knowledge such as computer basics, using the computer's various parts, creating and printing a basic document, the use of the internet are required by adult individuals including females. The findings of the study were in agreement with the reports of Intel Corporation (2015) in a study that learned easy steps on the net, found the essential skills such as starting an internet browser, typing the address of a web page in the location box, identifying and use common buttons on the browser and navigating between the web pages. The findings of the study further agreed with Collier (2011) where essential browsing skills were identified as: learn how to navigate the internet, identify and using search engines, understanding the basics of how the Web works and conduct an online job search. Furthermore, the findings of the study is in conformity with Udensi and Ugwued (2018) on a study communication skills needed by operators of Agricultural SMEs for effective public relations in Enugu State found that communication skills are required by Operators of Agricultural SMEs for effective public relations in Enugu State, found that the operators include females required ability to operate computer, edit documents, use social medias, send and receive e-mail messages for the management of their businesses in Enugu State. In line with United Kingdom Government Publication (2018) where it was

found that individuals required essential skills to create an email account, send and receive messages, create a contacts list, create a folder in an email account, and share documents with others by attaching them to an email. The findings of the study is in line with Gateway Qualification (2020) on essential digital skills, which found that filling transaction forms online for buying, selling, and use of payment systems such as credit/debit cards through POS, ATM, use of internet bank and mobile phone banking digital transactions online activities, being responsible, safe and legal online. The findings of the study is also in agreement with United Kingdom Government Publication (2018) where it was found that adults include females required essential digital skills to register and apply for services, buy and sell goods and services and administer and manage transactions online. On the findings from the test of hypotheses tested, it was found that there is no significant difference in the mean ratings of the 3 groups of respondents on essential skills required among job-seeking female school leavers for poverty reduction in rural areas in Kwara State. The findings of the study reveal that the differences in the professional careers of the three groups of respondents did not significantly influence their responses to cause a sharp difference in their responses but only on Table 1 item 10 (0.01) as a result of disagreement between the respondents. The e^2 (correlation ratio) of all the items from Table 1-4 for the study ranged from 0.93 – 0.99 indicating a very high reliability on the findings of the study.

6. CONCLUSION

Agrarian community members in rural areas in Bauchi State could not manipulate digital equipment to source or access information, communicate, or carry out digital transactions. They lack essential skills to maximize the benefits of the modern world. This study, therefore, focused on the following: (a) 15 items on essential computing skills (b) 16 items on browsing skills (c) 15 items on communication skills, and (d) 12 items on essential transaction skills required among job seeking female school leavers to reduce poverty in rural areas of Bauchi State. Based on the findings, it is, therefore, recommended that:

1. Agrarian members should be given re-training on identified essential digital skills to prevent future digital disparity among females.
2. The findings of this study should be utilized to mobilizing the agrarian members in order to equip them with digital skills to reduce poverty in rural areas of Bauchi State.
3. The government should provide the required resources that will enhance the effective practice of digital skills in the rural areas of Bauchi State.

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