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Digital Literacy and Economic Empowerment of Women Bakers in Anambra State

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ABSTRACT: The study examined the effect of digital literacy on economic empowerment; with a focus on women bakers in Anambra State. The objectives of the study were to: determine the effect of digital transformation, digital communication, on economic empowerment of women bakers in Anambra State. The study was anchored on Digital Literacy Theory. The study adopted survey method of research. Data were generated through primary and secondary sources. The method for data collection was questionnaire which was administered randomly among the successful business owners. The populations of the study were 910, The sample size was nine hundred and ten (910). While eight hundred and seventy-three (873) where retrieved. The hypotheses were tested using regression method at 0.05% level of significance. The findings of the study revealed that Digital transformation had significant positive effect on economic empowerment of women bakers in Anambra State., (t=3.797, p=0.000). Digital communication had significant effect on economic empowerment of women bakers in Anambra State. (t=10.224, p=0.000); The study concluded that digital literacy is a powerful catalyst for women's economic empowerment in Anambra State. By equipping women bakers with digital skills, knowledge, and a positive digital orientation, digital literacy would enhance income generation, business sustainability, financial inclusion, and overall economic well-being.The study recommended that, The Anambra State Government and relevant agencies should provide structured digital transformation training for women bakers, focusing on the use of mobile banking, POS systems, e-wallets, online marketplaces, and digital record-keeping tools.Women bakers should be encouraged to leverage digital communication platforms such as WhatsApp, Facebook, Instagram, and SMS marketing to advertise products, engage customers, and expand market reach.

Keywords: Digital transformation, digital communication, economic empowerment, women bakers.

INTRODUCTION

The world is experiencing a global upsurge where the economies of numerous nations are seeking ways to advance through available technological skills (Nwafor, Umetiti & Ndu-Anunobi, 2024), and digital literacy is at the centre of all these. Digital literacy encompasses far more than mere competency in specific computer abilities. Indeed, these fundamental skills are essential; nevertheless, the essence of digital literacy is in recognizing the significance of these skills in certain situations and the capacity to apply them

creatively (Jacobs & Castek, 2018). Digital literacy plays a crucial role in enhancing the entrepreneurial success of women bakers in Anambra State (Ilyas, Munir, Tamsah, Mustafa & Yusriadi, 2021).

The rise of technology in the workplace is showing no signs of abating, and businesses with the most digitally literate employees are emerging as today's leading organizations. Digital literacy is crucial for all entrepreneurs who want their businesses to grow (Nwangwu, Ohanyere, Nwangwu, & Atueyi, 2025).. The challenge of making organization's employees digitally savvy can seem enormous, but it is also necessary for productivity, creativity, and growth. The majority of businesses agree, with 95 percent of organizations surveyed acknowledging that a digital workforce strategy is essential in the modern age (Dimitropoulou, 2021). Digital literacy involves locating, evaluating, and creating content using technology and communicating effectively with others. It is an essential skill set to help navigate the information technology network that is fundamental to the operation of society today. Digital literacy is an employee's ability to comfortably and efficiently use the technology required to do their work. It is relevant for almost every job role, whether it is a sales professional using customer relationship management (CRM) software to nurture an important client relationship, or a product manager using a unified communications and collaboration solution to direct an important call to an executive (Orajiaka, 2025).

Digital literacy can boost internet access for timely decision-making for information availability. Digitally literate collaborators are more efficient because they easily identify essential data/information/patterns and use them effectively (Ezeokafor, Oguejiofor and Manafa, 2025). In a world where new information is constantly being published and consumed, having this capability is vital. Workers with digital literacy skills can also connect and collaborate more effectively. These skills can also prevent generation gaps in a diverse workforce with up to five generations working together (Drew, 2022). Digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship. The ability to use, access, evaluate and communicate through digital platforms like Internet, data bases and other electronic platforms so that decision could be made based on the result of the digital contents accessed, retrieved, evaluated and communicated as well. It includes competences that are variously referred to as computer literacy, ICT literacy, information literacy and media literacy (Nancy, David, Jimmy and Gary 2018). It is these range of abilities that made the digital literate to have skills that will enable him/her navigate the digital technologies available.

Digital literacy skills are range of skills that enable productive use digital devices, communication networks, and productive software for effective work, processes automation and social management (Salisu, Ogbonna, Lasisi, 2022). These skills enable people to create and share digital contents, communicate, and collaborate, and solve problems. With 46% of work activities in Nigeria susceptible to automation, digital skills acquisition therefore, offers a greater advantage in job creation, traditional trade upgrade, digital enterprise development, and creation of one's own business through computer technologies (Salisu et al 2022). Digital literacy encompasses the understanding, mindset, and proficiency of individuals in effectively utilizing digital devices, as well as their capacity to discern

access, manipulate, integrate access, analyze, and combine diverse digital resources in a meaningful and appropriate manner (Yuan, Liu, J.; Taká˘c, Chen, Li, Meng, Tan, Ning, He, Yi,, 2021). It involves the holistic mastery of digital skills and competencies that enables individuals to navigate and engage with the digital landscape in a knowledgeable, responsible, and productive manner.

According to Sariwulan, Suparno, Disman, Ahman and Suwatno (2020), digital literacy holds the utmost importance in the contemporary era dominated by digital advancements. It encompasses the skill set required to adeptly navigate and utilize digital technology while ensuring safety, wisdom, and productivity in its usage. Nyoman, Made and Ni (2022) averred that the growth and success of women bakers in Anambra State can be greatly encouraged through the cultivation of digital literacy. This entails fostering proficiency in forging digital business connections, leveraging online resources and amenities, and harnessing the power of expansive networks.

1.2 Objectives of the Study

The general objective of the study is to examine the digital literacy on economic empowerment; of women bakers in Anambra State. The specific objectives of the study are to:

1. Determine the effect of digital transformation on economic empowerment of women bakers in Anambra State.
2. Evaluate the effect of digital communication on economic empowerment of women bakers in Anambra State.

LITERATURE REVIEW

The related literature was reviewed under the following subheadings: conceptual review, theoretical exposition, theoretical framework and empirical study.

2.1 Conceptual Review

2.1.1 Digital Literacy

Digital literacy for entrepreneurs is defined as one's ability to adapt to the continuous development in technology, which allows them to communicate through various mediums and market their products, analyse trends, and thereby respond to the market demand for the goods and services. As asserted by Sariwulan et al. (2020), this ability doesn't just need to be at par with the changes in technology but needs to be proactive, extending the new tools and methodologies in one's business as a way of competing. Digital literacy among entrepreneurs can help in the effective use of digital media for communication and marketing, thus influencing their entrepreneurial performance positively (Oguejiofor and Manafa, 2025).

Digital literacy is not a fixed skill set but rather a spectrum of abilities that develop and evolve, as technology advances, digital literacy evolves, requiring ongoing learning and adaptation. Essentially, it is about recognizing that digital skills are dynamic and should be continually updated and expanded. Selwyn (2020) points out that digital literacy is not a singular skill but a complex and dynamic process that unfolds across a continuum of engagement with digital technologies. Livingstone and Helsper (2019) state that it is important to recognize the different levels of digital literacy and to provide appropriate support for individuals at each stage of their development. It is not a static endpoint but an ongoing process of learning, adaptation, and evolution (Mousa, 2021).

2.1.2 Digital Communication

Digital Communication is a form of interaction that utilizes technology to communicate without direct physical presence. This involves the use of digital tools such as computers or smart phones with various applications or social media platforms such as Facebook, Instagram, and WhatsApp (Fauzi, 2017). With digital communication, individuals can connect with other people without having to meet in person, overcoming the barrier of geographic distance. Social media and instant messaging applications facilitate the exchange of information, updates and social interactions through text, images and videos (Prasanti, 2016).

More than just changing the way we interact, Digital Communication opens the door to innovation in delivering messages and exchanging information in the digital era. The potential of Digital Communication became the main focus during the pandemic (Syarif, 2019). Businesses that do not have a Digital Communication strategy fail to survive at that time. Digital Communication also plays an important role for reasons such as increasing worker involvement, providing a comfortable and enjoyable experience, being universally accepted, increasing transparency in the organization, and saving time, energy and costs (Ginting et al, 2021).

In today's modern era, digital communication stands as the predominant mode of interaction. It opens up new avenues for collaboration between managers and employees, thanks to advancements in information and communication technologies (Bouhnik & Deshen, 2014) Digital communication refers to the process of transmitting information through digital signals and has become the cornerstone of modern communication technology. It encompasses various forms of communication, including social media, email, instant messaging, video conferencing, and more (Meinel et al, 2014).

2.1.3 Economic Empowerment

Empowerment has gained momentum in the context of women's growth since the mid-1980s. Empowerment has historically been described by a variety of names, such as welfare, civic engagement, upliftment, and poverty alleviation. Empowerment is seen to be a solution for a variety of societal issues, including overpopulation, environmental degradation, and the poor status or condition of women (Adesanya, 2021). Empowerment is a tool for poverty eradication, low political participation, and improved literacy rate. The process of giving women the physical and mental abilities, strength, or skills they require to function effectively in their social environments is referred to as women's empowerment (Akomolafe, 2016). Women empowerment is an approach through which women who have traditionally been the most discriminated against attain gender equity.

The concept of women's empowerment emerged from the feminist movement, which advocated for women to be granted the freedom to direct their own lives and establish their own goals for what to do and how to accomplish the goals including activities that influence them (Okpoko, 2020). Hossain, (2015) posits that empowerment is not just a mental shift, it manifests as a change in behavior that the outside world must recognize, react to, and try to accommodate. Empowerment is a gradual process that should begin and entail exploring different aspects of oneself as well as learning to use one's mental and emotional faculties to accomplish goals. Women's empowerment is initially envisioned as raising awareness with an emphasis on enhancing gender equality, followed by the development of capacities and skills to ensure that women can participate effectively in present and future

decision-making, as well as the organization of women into groups that take action to enact desired changes (Batliwala, 2023). Women's empowerment is the process of providing women with greater access to stable employment and other forms of financial stability.

2.2 Theoretical Framework

Digital Literacy Theory

Paul Gilster established Digital Literacy Theory in 1997, which focuses on the skills, knowledge, and competencies required effectively navigate and utilise digital technologies. In the digital age, the notion emphasizes the necessity of not only technical proficiency but also critical thinking, information literacy, and communication skills. Digital Literacy Theory states that individuals must acquire a variety of digital skills to connect meaningfully with digital tools, platforms, and information. These abilities include the ability to acquire and retrieve information, assess its quality and relevance, and effectively communicate via digital media. According to the notion, digital literacy entails not just technical knowledge but also a comprehension of the social, cultural, and ethical consequences of digital technology. The theory provides a comprehensive understanding of the various dimensions of digital literacy, including digital access, communication, safety and media literacy. This understanding helps researchers assess the digital competencies of business education students and their potential impact on entrepreneurial intentions.

2.3 Empirical Review

Wafula and Amudavi (2025) investigated the effects of digital literacy program (DLP) in ECDE centres in Kanduyi Municipality, Bungoma County. The study focused on three (3) tenets of the program: Infrastructure/Facilities; Choice of Digital Devices and Business Continuity Plans (BCP). Purposive sampling, targeted only respondents involved in, with knowledge of or affected by the Digital Literacy Program in the target area will be used. The respondents included teachers and head teachers. Piloting was done to ascertain validity and reliability of the tools. Secondary data was collected from relevant literature, government policy documents and publications. Primary data was obtained through focused interviews and structured questionnaires. The study concludes that digital literacy program played a major role in time management, improved literacy and communication skills among preschoolers and made it easier to obtain relevant and important information. The study recommended the following; teachers need to have competence in digital literacy programmes and tools to build competency and mastery of skills and digital programmes, increase in the infrastructure at all learning levels with this it will ensure that teacher's knowledge and attitude advance in digital literacy in classroom and Further research recommendations in order to be effective in policy making.

Bello and Idris-Iyekolo, (2025) evaluated the impact of digital literacy programmes on gender income inequality in Nigeria, focusing on urban and rural areas. As Nigeria progresses
towards a digital economy, empowering women through these initiatives is essential. The study assesses the effectiveness of digital literacy programmes in enhancing women's digital skills and income levels, while also identifying factors influencing success. Using an ex-post facto research design, data from women who completed the programmes were analyzed, with stratified random sampling ensuring representation from both urban and rural areas. Results showed significant improvements in digital skills – 100% for urban women and 133.3% for rural women. However, challenges like

infrastructural deficiencies and socio-cultural barriers were identified. The study concludes that while digital literacy programmes improve women's skills and income, targeted interventions are needed to address regional disparities. Recommendations include better access to technology, specialized training programmes, and increased outreach to boost rural participation.

Rattawit, Wilert and Danupol (2025) examined how entrepreneurs' digital skills significantly influence financial and marketing efficiency. The study evaluates the effects of digital literacy on business performance within the theoretical frameworks of the Digital Economy (DE), Digital Orientation (DO), Dynamic Capabilities (DC), and Adaptive Capability (AC). Using a quantitative approach and structural equation modeling (SEM), a novel analytical framework was developed on the basis of data collected from 354 members of provincial chambers of commerce across Thailand. The findings reveal that digital literacy positively and significantly impacts both financial and marketing performance, with adaptive capability serving as the most influential indirect factor. These results emphasize the critical importance of fostering digital skills among entrepreneurs to enhance innovation, adaptability, and sustainable growth in a competitive digital economy. This study contributes to the expanding literature on digital transformation by providing actionable insights into the practical applications of digital literacy for entrepreneurial success. Policymakers and business leaders are encouraged to prioritize the development of digital skills as a strategic pillar for achieving growth and competitiveness in the digital era.

Ukwetang, et al. (2025) evaluated digital literacy skills among students in tertiary institutions in the southern geopolitical zone of Nigeria. The research focuses on two universities: the University of Calabar and the University of Port Harcourt, specifically within their Departments of Tourism and Hospitality Management. Data collection was conducted using an electronic questionnaire administered via an online survey platform. The findings indicate that major emerging trends in digital literacy skill requirements among tertiary institution students include improved information retrieval, Artificial Intelligence (AI) and machine learning, data science and analytics, and cyber security. The study also revealed that these digital literacy skills significantly impact students' learning outcomes by enhancing information retrieval, expanding access to educational research, increasing collaboration and communication, and facilitating feedback and assessment. Additionally, inquiry-based learning, multimedia presentations, and flipped classroom approaches were identified as the most effective methods for integrating digital literacy skills in tertiary institutions. However, the study also highlighted significant challenges, such as the digital divide, the complexity of digital tools, and limited access to technology. To address these issues, it is essential to provide enhanced digital tools, adequate access to technology, and effective digital literacy training for students in tertiary institutions. Therefore, an effective mechanism is needed to overcome the challenges associated with mastering digital literacy skills among students in tertiary institutions.

Al Mustapha and Abdussamad (2025) evaluated digital marketing methods that influence start-up activity among entrepreneurs in Tarauni Local Government Area of Kano State. The business environment undergoing rapid transformation now considers digital marketing essential for entrepreneurial triumph through methods which achieve market growth at low costs while connecting with customers and

promoting brand exposure. Many area entrepreneurs struggle to take advantage of digital marketing due to restricted digital competency alongside insufficient internet availability and high marketing expenses together with a shortage of organizational backing. An analysis of the effect of digital marketing on business creation follows the conceptual methodology where researchers examine existing literature and theoretical frameworks. Business growth and sustainability increase among digital entrepreneurs who select Search Engine Optimization (SEO) and Social Media Marketing (SMM) and Email Marketing (EM) along with Content Marketing (CM) and Influencer Marketing (IM) as their marketing tools above traditional methods only. The study reveals that digital marketing faces obstacles stemming from security doubts about the digital environment and alterations in algorithms along with difficulties measuring ROI from these initiatives. The research recommends raising digital literacy through training programs and improving infrastructure and government-supported initiatives for digital entrepreneurship. Small business owners should use data-based marketing tactics and cyber security tools to achieve better results in digital marketing campaigns. These proposed measures follow the study's main objectives by dealing with digital marketing integration problems while boosting regional entrepreneurial outcomes and sustainability.

METHODOLOGY

3.1 Research Design

The research design for this study was the survey design, Personal observation, and questionnaire was used to seek clarifications and convenience on the part of the respondent given schedules. The choice of survey method is that it is cost effective, dependable and a true representation of the entire population.

3.2 Sources of Data

The sources of data in this study comprised of the primary and secondary sources.

Primary Data: These consist of all the data and information obtained personally from respondents through interviews and the use of questionnaire. They are primary in nature because

they have not been published elsewhere.

3.3 Population of the Study

The population of this study comprised selected women bakers in Anambra State. Given that the number of women bakers in Anambra State naturally fluctuates by new entry and close up business, the study population is therefore nine hundred and ten (910). The sample size is the same as the population because the population is not up to 1000 respondents

3.4 Sampling Technique

In terms of selection of units of observation, convenience sampling technique was used to select the respondents from each zone because is a suitable technique for the nature of the study. Having determined the number to be selected from each zone, baking firms were used.

3.5: Method of Data Collection.

The instrument that was used for data collection was a structured questionnaire. The questionnaire consisted of two sections; the Section A contained the respondents' profile, while Section B contained the general information about the subject under study. The questionnaire was designed using 5point Likert scale that were constructed according to the objectives of the study. SA-Strongly agree (5), A- Agreed (4), SD-strongly disagreed (3), D-disagreed (2) Undecided (1)

3.6: Method of Data Analysis.

Statistics such as frequency count and percentages were used in the analysis of research questions, while hypotheses were tested using regression analysis. The hypotheses was tested at 0.05 level of significance. Analysis was carried out with

the aid of Statistical Package for Social Sciences (SPSS).

DATA PRESENTATION AND ANALYSIS

In this section, the data generated from the staff of the sampled firms were presented, analyzed and interpreted. Nine hundred and ten (910) copies of the questionnaires were administered; however, eight hundred and seventy-three (873) copies were retrieved this showed 98.97% rate of returned copies of the questionnaire. Therefore, the analysis and interpretation of data were based on the returned questionnaires. The method used was the percentage tables. ANOVA regression was used for the hypothesis testing. The first section covers the demographic features of the respondents. The second section analyzed the data relevant to research questions.

4.1 Demographic Characteristics of the Respondents

In this section, the demographic features of the respondents such as gender, marital status, age bracket, educational qualification and working experience are presented and analyzed. A total of eight hundred and seventy-three respondents were sampled and the results are presented in the table below.

Table 4.1: Gender of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	387	49.1	46.2	42.0
	Female	486	51.9	53.8	100.0
	Total	873	98.9	100.0	

Source: Field Survey, 2025/SPSS

The above table reveals that the 46.2% of the respondents which represents three hundred and eighty-seven (387) persons were male respondents, while four hundred and eighty-six (486) respondents which represent 53.8% were female respondents. By implication, female respondents were more than male respondents by 7.6% in our selected population sample for this study. The implication of this is to enable us to know the number of female and male that successfully returned their questionnaire.

Table 4.1.2: Marital Status of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	380	40	43.5	40
	Married	486	58	55.6	58
	Others	7	2	1	
	Total	873	100	100.0	100.0

Source: Field Survey, 2025/SPSS

In the table above, three hundred and eighty (380) respondents, representing 43.5% are single while four hundred and eighty (480) respondents which represent 55.6 percent are married. While seven respondents (7) which represents 1% were among widowed, divorced and separated. It is therefore glaring that the majority of the respondents are single as at the time of this study. Thus marital status table help us to know the number of single, married, and divorce respondents that answered the distributed questionnaires.

Table 4.1.3: Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WAEC	330	37.8	37.8	48.6
	B.Sc/HND	220	25.2	25.2	74.0
	M,Sc	198	22.7	22.7	89.7
	P.hD	97	11.1	11.1	98.0
	Others	28	3.2	3.2	100.0
	Total	873	98.9	100.0	

Source: Field Survey, 2025/SPSS

Table 4.3 above depicted the age bracket of the respondents. The distribution shows that 37% of the respondents have WAEC, while the respondents with B.Sc/Hnd where two hundred and twenty. Furthermore the respondents with M.Sc were one hundred and eight which represent 11.1%, while the respondent with PhD where ninety-seventy respondents which represent 3.2 percentage

Table 4.1.4: Age Bracket of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 30 years	330	35	35	48.6
	31 - 40 years	220	24	24	74.0
	41 - 50 years	198	21.1	21.1	89.7
	51 years and above	189	20.1	20.1	100.0
	Total	873	98.9	100.0	

Source: Field Survey, 2025/SPSS

Table 4.3 above depicted the age bracket of the respondents. The distribution shows that 35% of the respondents are between the age brackets of 18 to 30 years while 220 respondents representing 24% are within the age bracket of 31 - 40 years. On the same note, 21.1% of the respondents are within the age bracket of 41 - 50 years while the remaining respondents representing 20.1% are within the age bracket of 51 years and above.

4.2 Test of Hypotheses

Hypothesis One

Ho_1: Digital transformation has no significant effect on economic empowerment of women bakers in Anambra State.

Table 1: Correlations on Digital transformation and economic empowerment

					DGT	WEE
Spearman's rho	DGT	Correlation Coefficient			1.000	.890**
		Sig. (2-tailed)			.	.000
		N			873	873
		Bootstrap[b]	Bias		.000	.000
			Std. Error		.000	.012
			BCa 95% Confidence Interval	Lower	.	.864
				Upper	.	.915
	WEE	Correlation Coefficient			.890**	1.000
		Sig. (2-tailed)			.000	.
		N			873	873
		Bootstrap[b]	Bias		.000	.000
			Std. Error		.012	.000
			BCa 95% Confidence Interval	Lower	.864	.
				Upper	.915	.

**. Correlation is significant at the 0.01 level (2-tailed).

b. Unless otherwise noted, bootstrap results are based on 873 bootstrap samples

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	DGT - WEE	.06300	.49020	.01659	.03044	.09556	3.797	872	.000

Table 1 indicates the relationship between the independent variable digital transformation (DGT) and the dependent variable women economic empowerment (WEE). At a 0.05 level of significance, 95% confidence level interval ranging between 0. 915 and 0.095 at the upper case, and also 0.864 and 0.030 at the lower case, with a 2 tailed test of sample distribution showing the critical area in a distribution. The spearman correlation coefficient shows a value of 0.873%, which shows a high correlation coefficient between the dependent and independent variable. This further portrays the high goodness of fit of the model:

Model 1= $DGT = \beta_o + \beta_1 WEE + \mu$

Table 1 indicates the difference in mean value (.06300) and standard deviation (.49020) for the extent of relationship that existed between the variables included in the group. The single group variables in model two of the hypotheses are represented by DGT & WEE (Digital Transformation and Women Economic Empowerment).

However, the paired sample t-test showed that Women Economic Empowerment level increased significantly when the perceived Digital Transformation approach was adopted. A t-test value of Digital Transformation is said to be significantly high when it is above or equal 2 (t-value > 2.00), but when the t-value is less than 2.00 (t-value < 2.00), it is concluded that the Digital Transformation within the paired sample has significant relationship. In conclusion to this result, the t-value was obtained at 3.797 which is significant high. The study therefore concluded that there is a significantly high positive relationship between Digital Transformation and Women Economic Empowerment of women barkers in Anambra State.

Decision Rule: Accept the null hypothesis if the p-value is greater than 0.05, otherwise, reject.
Decision: We reject the null hypothesis, since the p-value is 0.000** which is less than the critical value 0.05, this study reveals that Digital transformation has significant effect on women economic empowerment of women bakers in Anambra State.

Hypothesis Two
Ho_2 Digital communication has no significant effect on women economic empowerment of women bakers in Anambra State.

Table 2: Correlations on Digital communication economic empowerment

					DICO	WEE
Spearman's rho	DICE	Correlation Coefficient			1.000	.656**
		Sig. (2-tailed)			.	.000
		N			873	873
		Bootstrap[b]	Bias		.000	-.001
			Std. Error		.000	.034
			BCa 95% Confidence Interval	Lower	.	.288
				Upper	.	.422
	DICO	Correlation Coefficient			.656**	1.000
		Sig. (2-tailed)			.000	.
		N			873	873
		Bootstrap[b]	Bias		-.001	.000
			Std. Error		.034	.000
			BCa 95% Confidence Interval	Lower	.288	.
				Upper	.422	.

**. Correlation is significant at the 0.01 level (2-tailed).
b. Unless otherwise noted, bootstrap results are based on 873 bootstrap samples

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 DICO - WEE	.47537	1.37379	.04650	.38412	.56663	10.224	872	.000

Table 2 indicates the relationship between the independent variable Digital communication (DICO) and the dependent variable women economic empowerment (WEE). At a 0.05 level of significant, 95% confidence level interval ranging between 0.422 and 0.566 at the upper case, and also 0.288 and 0.348 at the lower case, with a 2 tailed test of sample distribution showing the critical area in a distribution. The spearman correlation coefficient shows a value of 0.656%, which shows a high correlation coefficient between the dependent and independent variable. This further portrays the high goodness of fit of the model.

Model 2= DICO = $\beta_o + \beta_1$WEE + μ

Table 2 indicates the difference in mean value (.47537) and standard deviation (1.37379) for the extent of relationship that existed between the variables included in the group. The single group variables in model two of the hypotheses are represented by DICO & WEE (Digital communication and women economic empowerment).

However, the paired sample t-test showed that women economic empowerment level increased significantly when the perceived effective Digital communication was adopted. A t-test value of Digital communication is said to be significantly high when it is above or equal 2 (t-value > 2.00), but when the t-value is less than 2.00 (t-value < 2.00), it is concluded that the variable within the paired sample has no significant relationship. In conclusion to this result, the t-value was obtained at 10.224 which is significant high. The study therefore concluded that there is a significantly high positive relationship between Digital communication and women economic empowerment) of women barkers in Anambra State.

Decision Rule: Accept the null hypothesis if the p-value is greater than 0.05, otherwise, reject.
Decision: We reject the null hypothesis, since the p-value is 0.000^{**} which is less than the critical value 0.05, this study reveals that Digital communication has significant effect on women economic empowerment of women bakers in Anambra State.

Summary of Findings
The summary of major findings are expressed below:

1. Digital transformation has significant effect on women economic empowerment of women bakers in Anambra State., (t=3.797, p=0.000)
2. Digital communication has significant effect on women economic empowerment of women bakers in Anambra State. (t=10.224, p=0.000)

CONCLUSION

This study examined the effect of digital literacy on women economic empowerment among women traders (bakers) in Anambra

State, with specific emphasis on digital transformation, digital communication, cybersecurity awareness, and digital culture. The empirical findings reveal that all the digital literacy components investigated exert significant and positive effects on women's economic empowerment in the study area. The positive and significant influence of digital transformation indicates that women bakers who adopt digital tools such as mobile banking, online marketplaces, point-of-sale (POS) systems, and digital record-keeping experience improved income levels, business efficiency, and financial independence. This finding suggests that the integration of digital technologies has enhanced women's access to markets, reduced transaction costs, and expanded business opportunities beyond physical locations.

In conclusion, the findings demonstrate that digital literacy is a powerful catalyst for women's economic empowerment in Anambra State. By equipping women bakers with digital skills, knowledge, and a positive digital orientation, digital literacy enhances income generation, business sustainability, financial inclusion, and overall economic well-being. Therefore, strengthening digital literacy among women traders is essential for inclusive economic growth and sustainable development in Anambra State. Based on the findings of this study, the following are recommended:

1. Since digital transformation has a significant positive effect on women economic empowerment, it is recommended that: The Anambra State Government and relevant agencies should provide structured digital transformation training for women bakers, focusing on the use of mobile banking, POS systems, e-wallets, online marketplaces, and digital record-keeping tools. These measures will enhance business efficiency, income generation, and financial independence among women traders.
2. Given the significant positive influence of digital communication on women economic empowerment, it is recommended that: Women bakers should be encouraged to leverage digital communication platforms such as WhatsApp, Facebook, Instagram, and SMS marketing to advertise products, engage customers, and expand market reach. Effective digital communication will improve customer relationships, increase sales, and strengthen women's competitive advantage.

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