ROLE OF DIGITAL SKILLS ACQUISITIONS IN PROMOTING ECONOMIC INDEPENDENCE AMONG UNDERGRADUATE STUDENTS OF UNIVERSITY OF IBADAN, OYO STATE, NIGERIA

Olukemi, Y. AKINYEMI, Ph.D.,
Department of Counseling and Human Development Studies,
University of Ibadan, Ibadan, Nigeria.
Email: olukemiakinyemi100@gmail.com
Mobile Phone: 08140618410

Ukpabi, I. D., Ph.D.
Department of Adult Education, University of Ibadan
E-mail: ukpabidonatus@gmail.com
Tel No: +234(0)8063373862
ORCID iD-0009-0006-4648

Abstract
This study examined the role of digital skills in income generation and poverty reduction among undergraduate students. The study was motivated by the increasing level of financial hardship faced by students and the growing relevance of digital competencies in addressing economic challenges within the contemporary digital economy. However, the study was to address three specific objectives: one is to identify the types of digital skills acquisition among undergraduate students of the University of Ibadan; two, is to examine the contribution of digital skills acquisition to income generation among undergraduate students; and third is to Identify the challenges faced by undergraduate students in acquisition and utilising digital skills for economic empowerment
A descriptive survey research design was adopted, and data were collected from 200 undergraduate students using a structured questionnaire administered via Google Forms. Data were analysed using frequency counts, percentages, mean scores, and descriptive interpretation. Findings revealed that a significant proportion of students had acquired at least one digital skill during their undergraduate studies, mainly through self-learning and online platforms. The results further showed that digital skills contributed meaningfully to students' income generation, helped reduce dependence on parents or guardians, and improved their ability to meet basic needs such as feeding and transportation. Additionally, digital skills were found to enhance students' financial confidence and preparedness for economic self-reliance after graduation. However, challenges such as poor internet connectivity, lack of digital tools, academic workload, and insufficient institutional support were identified as major constraints to effective digital skills acquisition and utilisation. The study concluded that digital skills serve as a viable tool for economic empowerment and poverty reduction among undergraduate students. It is therefore recommended to increase institutional support, improve access to digital infrastructure, and integrate practical digital skills training into university curricula to enhance students' economic sustainability during and after their studies.
Keywords: Digital Skills acquisitions, promoting economic independence, Undergraduate Students, University of Ibadan

Introduction

The world economy is going digital, and it is happening faster than most people realise. Artificial intelligence (AI), machine learning, and online platforms are changing everything about how we work and do business. According to the World Economic Forum (2024), 70% of all new money generated worldwide by 2025 is expected to come from digital platforms. This is not just about tech companies. This is about every sector, from agriculture to healthcare, banking to retail. And here is the reality: if you do not have digital skills, you are locked out. Skills such as understanding data, creating content with AI tools, basic cybersecurity, cloud computing, and digital entrepreneurship is no longer an optional extra. They are the minimum requirements to compete, whether you are looking for a formal job or building your own business. However, in order to facilitate the best learning ability for the youth and to ensure that they get the best skills needed for the demand of today's world of work, there is a need to continue exposing the youth to the best literacy programmes (Ukpabi, 2019).

Given that people around the world have the same human potential, every job and career, every field of study, and even social and personal lives are increasingly impacted by technology. To level the playing field, Nigeria must move its citizens to a greater competitive position in the global economic marketplace. Equipping Nigerians with relevant digital literacy skills to keep up with the best global practices will put the current workers, youths, and other professionals in a ready mode for opportunities that may open within and beyond the shores of Nigeria. In turn, this will improve investment and transform Nigeria into a country well known for technology, problem-solving, and critical thinking. The evolution of technology has also led to the stratification of countries depending on how they adopt digital technologies. The economic and social development of digitally literate countries has outstripped that of countries that have failed to embrace digital literacy. Unfortunately, Nigeria currently falls under the latter category. National Information Technology Development Agency 2023 (NITDA)

Akinyooye (2024), an expert in adult education, argues that the future learning environments almost certainly involve some form of digital learning, whether it is in the foreground or the background. The potential of information and communication technologies is substantial when integrated into a social, economic, and organisational framework that is open to innovation and backed by a supportive policy environment, despite the fact that it is obvious that technology alone, however strong, cannot automatically bring about the essential changes. According to Ukpabi and Olakunle (2025), they are of the opinion that literacy is the ability to read and write, compute, and use communication technology effectively to communicate with others in any setting. The necessity of changing the location of learning for Nigerian workers, opportunities for digital training, and difficulties associated with using digital technology for training.SS at the workplace, and some recommendations for maximising its advantages for training Nigerian workers. The effects of digital technology, which should allow businesses to enhance business procedures, automate repetitive work, and lower the cost of contacts with suppliers and consumers, enhancing corporate efficiency, are in line with the submission of Michaels (2018). A person who performs a specific sort of job or who works in a specific manner is referred to as a worker. It can be skilled or unskilled. The work could be a white-collar job or a blue-collar job. Training is the action of teaching workers some particular skills or types of behaviour in relation to their job. It has three types: induction, on-the-job, and off-the-job training. When digital technology is used, it increases efficiency and lowers overall costs (Akinyooye, 2024). According to Ukpabi & Olakunle (2025). They are of the opinion that digital literacy is necessary in the present era to fully engage in society;

to interact, communicate, and obtain information online, people must be able to use technology efficiently.

The University of Ibadan (UI), established in 1948 as Nigeria's first university, has remained a leading institution in academic excellence, research, and human capital development. Over the decades, the university has adapted to global educational trends to remain relevant in a rapidly changing world. Historically, the University of Ibadan focused primarily on traditional academic and professional training, with limited attention given to practical or income-generating skills. However, the expansion of information and communication technology (ICT) in Nigeria and the increasing digitalisation of global economic activities necessitated a shift in approach. The introduction of ICT facilities, computer-based learning, and internet access on campus marked the beginning of structured exposure to digital skills among UI students (Olatokun & Adebayo, 2012).

The development of digital skills at the University of Ibadan has followed a steady but meaningful progression that has significantly shaped students' economic orientation. What initially began as basic computer literacy has expanded into more advanced and market-relevant digital engagements. Today, many students actively acquire and apply skills such as graphic design, software development, data analysis, digital marketing, content creation, and online freelancing. These skills are developed through a combination of formal academic exposure, university-supported ICT facilities, student-driven learning initiatives, online platforms, and personal effort.

More importantly, digital skills have emerged as a practical and reliable means of reducing financial hardship among students of the University of Ibadan. In the face of increasing educational expenses, rising living costs, and limited financial capacity of parents and guardians, many students now depend on digital skills as a source of income while still pursuing their academic programmes. Through digital platforms and online marketplaces, students engage in freelance services, remote work, and small-scale online businesses that enable them to support themselves financially. This has helped many students meet essential needs such as feeding, transportation, accommodation, and academic materials, thereby reducing economic vulnerability and promoting self-reliance within the university community.

This study is focused on examining digital skills acquisition among undergraduate students within the context of Nigeria's evolving digital and entrepreneurial environment. The implementation of Nigeria's Startup Act in 2024 has introduced formal legal and institutional support for technology-driven enterprises, thereby expanding the range of economic opportunities available to digitally skilled youths. At the same time, the rapid growth of global digital labour platforms and Africa's emerging gig economy has created alternative income pathways that transcend traditional employment structures. Within this changing landscape, the study seeks to explore how undergraduate students can harness digital skills to access these opportunities, generate sustainable income, and achieve greater economic independence while still in university.

Statement of the Problem

Rising costs of tuition-related expenses, accommodation, transportation, and learning materials have placed considerable pressure on students, while the economic capacity of parents and guardians to provide adequate financial support has steadily declined. As a result, many undergraduates struggle to meet basic needs, which often affects their academic performance, mental well-being, and overall university experience.

Although digital skills acquisition presents a viable pathway for income generation and economic self-reliance, access to structured digital skills training remains uneven among undergraduate students. At the University of Ibadan, digital skills development is often driven by individual effort rather than systematic institutional support. Many students acquire digital skills informally through self-learning, peer influence, or external online platforms, with little guidance on how these skills can be effectively translated into sustainable income opportunities. Furthermore, the implementation of supportive national policies and the expansion of digital labour markets have not automatically translated into improved economic outcomes for undergraduates. While opportunities exist within the digital and gig economy, many students lack the practical exposure, mentorship, and awareness required to navigate these platforms successfully. It is an unfortunate reality that some students are lured into multi-level marketing schemes like **NeoLife** with the promise of gaining digital skills and receiving free devices. These organisations often target the desperation of undergraduates who are looking for a way to overcome the high costs of data and hardware. Instead of receiving training in valuable technical skills like web development or digital marketing, students often find themselves stuck in a cycle of recruiting others and selling health supplements. This diversion not only drains their limited financial resources but also consumes the valuable time they could have spent learning actual, marketable digital competencies. In view of these issues, the problem addressed by this study is the insufficient understanding of how digital skills acquisition contributes to economic independence among undergraduate students of the University of Ibadan. Most critically, existing research in the Nigerian context has predominantly focused on post-graduation employment outcomes with minimal attention to income generation during undergraduate studies as a pathway to early economic independence. This study, therefore, seeks to address this problem by examining the role of digital skills acquisition in promoting economic independence among undergraduate students of the University of Ibadan, Oyo State, Nigeria.

Specific Objectives of the Study:

1. Identify the types of digital skills acquisition among undergraduate students of the University of Ibadan.
2. Examine the contribution of digital skills acquisition to income generation among undergraduate students
3. Identify the challenges faced by undergraduate students in acquisition and utilising digital skills for economic empowerment

Research Questions

The following research questions guided the study:

1. To what extent does digital skills acquisition contribute to income generation among undergraduate students?
2. How does digital skills acquisition influence the economic independence of undergraduates? students of the University of Ibadan?
3. What challenges do undergraduate students of the University of Ibadan face in acquiring and utilising digital skills for economic empowerment?

Theoretical Framework

This study is anchored on the human capital theory, which explains how investment in education, training, and skill acquisition enhances individuals' productivity (Becker, 1964) and economic

outcomes. The theory was popularised by economists such as Schultz (1961), who argued that skills and knowledge acquired through education function as capital because they contribute directly to income generation and economic growth. In the context of this study, digital skills are viewed as a form of human capital that undergraduate students acquire to improve their economic independence.

Human capital theory assumes that individuals who invest time and resources in acquiring relevant skills are more likely to experience improved employability and higher earnings. For undergraduate students, the acquisition of digital skills such as programming, graphic design, digital marketing, and online freelancing represents a deliberate investment aimed at enhancing their economic capacity. These skills increase students' productivity and enable them to participate in income-generating activities within the digital economy, even before graduation.

The theory further recognises that learning is not limited to formal education but also includes informal and self-directed skill development. This assumption aligns with the realities of digital skills acquisition among university students, who often rely on online platforms, peer learning, and personal practice rather than structured academic programmes alone. Through these learning processes, students accumulate human capital that can be directly converted into economic benefits such as freelance income, remote employment, and digital entrepreneurship.

In applying human capital theory to this study, digital skills acquisition serves as the independent variable, while economic independence functions as the dependent variable. The theory predicts that as students acquire and effectively utilise digital skills, they are more likely to generate income, reduce dependence on parents or guardians, and improve their financial wellbeing. This relationship is particularly relevant in the Nigerian context, where limited formal employment opportunities compel students to seek alternative income sources through digital means.

Furthermore, human capital theory provides a useful framework for understanding how digital skills can contribute to poverty reduction among undergraduate students. By enhancing students' earning capacity and economic resilience, digital skills reduce vulnerability to financial hardship and support long-term economic self-reliance. Therefore, the theory offers a strong explanatory basis for examining the role of digital skills acquisition in promoting economic independence among undergraduate students of the University of Ibadan.

Methods:

The study adopts a descriptive survey research design, which allows for the collection of detailed information from a sample of undergraduate students to examine the role of digital skills in promoting economic independence. This design is appropriate because it facilitates the investigation of the current status of digital skills acquisition, the extent of income generation, and the economic impact on students while allowing for generalisation of findings within the study population.

Population

The population for this study comprises all undergraduate students enrolled at the University of Ibadan, representing a diverse mix of faculties, departments, and academic levels. These students are the primary focus because they are the direct beneficiaries of digital skills acquisition and are actively engaged in activities that may contribute to their economic independence. The total population of undergraduate students is estimated at approximately 25,000, providing a broad base from which a representative sample can be drawn for the study. This population allows the research to capture a comprehensive understanding of how digital skills are acquired and applied across different academic disciplines and demographic groups within the university. Hence, 200 participants were selected for the study to ensure we achieve the solid result.

Method of Data Analysis

Data collected from the questionnaire were analysed using descriptive statistical methods. Frequency, counts, percentages, and mean scores were used to summarise respondents' demographic information, types of digital skills acquired, and levels of economic independence among the students.

The data were presented in tables and charts to enhance clarity and ease of interpretation. The results were discussed in relation to the research questions to provide a clear understanding of the role of digital skills acquisition in promoting economic independence among undergraduate students of the University of Ibadan.

Results

Table 1: showing digital skills acquisition contribution to income generation among undergraduate.

Item	**SA (%)**	**A (%)**	**D (%)**	**SD (%)**	**Total (%)**
Students utilise acquired digital skills to generate income while studying.	21	58	21	0	100
Digital skills offer flexible income opportunities compatible with academic schedules.	15	71	14	0	100
Income generated through digital skills contributes substantially to personal expenses.	22	57	21	0	100
Digital platforms enhance access to paid opportunities.	29	71	0	0	100

The data indicates a strong integration of digital skills into students' economic activities. A substantial majority (79%) affirmed that they actively utilise digital skills to generate income while pursuing their studies. Furthermore, 86% of respondents agreed that digital skills provide flexible income opportunities that align with academic schedules. Similarly, 79% reported that income

derived from digital skills contributes significantly to their personal expenses. Notably, unanimous agreement (100%) was recorded regarding the role of digital platforms in facilitating access to paid opportunities. This reflects the centrality of online marketplaces, social media, and digital networks in bridging students with income-generating prospects. Overall, the findings demonstrate that digital skills function as a viable and flexible income-generation mechanism among undergraduates.

Q2: How does digital skills acquisition influence the economic independence of undergraduate students of the University of Ibadan?

Table 2: showing digital skills acquisition influence the economic independence of undergraduate students of the University of Ibadan

Item	**SA (%)**	**A (%)**	**D (%)**	**SD (%)**	**Total (%)**
Digital skills have reduced students' financial dependence on parents or guardians.	7	65	28	0	100
Income earned from digital activities supports basic needs (e.g., feeding, transportation).	22	57	21	0	100
Acquisition of digital skills enhances financial confidence.	43	43	14	0	100
Digital skills prepare students for post-graduation economic self-reliance.	42	50	8	0	100

Table 2; in its findings, it reveals that digital skills contribute meaningfully to students' financial autonomy. A majority (72%) agreed that digital skills have reduced their dependence on parents or guardians. However, the (28%) disagreement suggests that while digital income is beneficial, it may not entirely substitute traditional financial support structures. Regarding the ability to meet basic needs, 79% of respondents affirmed that digital income assists with essential expenses such as feeding and transportation. This indicates that digital earnings play a functional role in sustaining students' day-to-day living conditions. Financial confidence appears to be significantly influenced by digital skill acquisition, as 86% agreed that it has improved their financial self-assurance. This suggests that beyond monetary value, digital competence fosters psychological empowerment and economic optimism. Moreover, an overwhelming (92%) agreed that digital skills prepare them for economic self-reliance after graduation. This finding highlights the

perceived long-term economic relevance of digital literacy in a competitive labour market. In summary, digital skills serve as both an immediate financial support mechanism and a long-term pathway to economic independence.

Q3: What challenges do undergraduate students of the University of Ibadan face in acquiring and utilising digital skills for economic empowerment?

Table 3: showing challenges undergraduate students of the University of Ibadan face in acquiring and utilising digital skills for economic empowerment

Item	**SA (%)**	**A (%)**	**D (%)**	**SD (%)**	**Total (%)**
Limited access to digital tools constrains skill development.	36	36	14	14	100
Poor internet connectivity affects the effective use of digital skills for income generation.	36	50	7	7	100
Academic workload restricts time available for digital skill development.	35	65	0	0	100
Greater institutional support is required to maximise benefits from digital skills.	43	50	7	0	100

Table 3 revealed structural and contextual constraints affecting digital skill acquisition and utilisation. A majority (72%) agreed that inadequate access to digital tools limits their capacity to develop digital competencies. Internet connectivity emerges as a significant barrier, with 86% agreeing that poor network quality affects their ability to use digital skills for income generation. Reliable internet access is therefore a critical enabling factor.

Academic workload represents the most pronounced constraint, as all respondents (100%) acknowledged that it limits the time available for digital skill development. Finally, 93% of respondents expressed the need for enhanced institutional support. This suggests that universities and educational stakeholders have a strategic role to play in providing infrastructure, training, mentorship, and policy frameworks that strengthen digital capacity.

Collectively, these findings demonstrate that while digital skills offer substantial economic benefits, their full potential is moderated by infrastructural limitations, academic pressures, and insufficient institutional backing.

Discussion of results

Research question one: it's demonstrated that 79% of respondents actively use their digital skills to earn income while studying, and 86% agreed that digital work offers flexibility compatible with academic schedules. Additionally, 100% affirmed that digital platforms facilitate access to paid opportunities. These findings reflect the increasing integration of students into the digital gig economy.

This outcome supports the position of the International Labour Organisation (2021), which reported that online freelancing and digital labour platforms enable young people to combine education with income-generating activities due to the flexible and task-based structure of digital work. Furthermore, the World Economic Forum (2023,) Future of Jobs Report, emphasised that platform-based digital work has become a significant entry point for youth economic participation, especially in emerging economies.

The strong agreement that digital platforms enhance access to opportunities suggests that technological intermediation reduces traditional employment barriers such as physical location, capital requirements, and formal recruitment processes

In research question two, it was revealed that (72%) of respondents agreed that digital skills have reduced their dependence on parents or guardians, while (92%) believed that digital skills prepare them for economic self-reliance after graduation. Additionally, 86% indicated improved financial confidence as a result of acquiring digital skills.

These findings align with the African Development Bank (2024) report on youth entrepreneurship in Africa, which noted that digital entrepreneurship significantly enhances youth financial autonomy and resilience. The bank emphasised that digital income pathways foster both economic inclusion and psychological empowerment among young people.

Moreover, the United Nations Development Programme (2022) Digital Strategy Report highlighted that digital capability strengthens self-efficacy and long-term employability prospects. The improvement in financial confidence observed in this study reflects this broader developmental impact. Therefore, digital skills function not only as income-generating tools but also as instruments of economic identity formation and self-reliance.

Research question three: identified infrastructural and structural barriers affecting digital skills acquisition. A majority (72%) reported that limited access to digital tools constrains skill development, while 86% cited poor internet connectivity as a major obstacle. Notably, all respondents (100%) agreed that academic workload limits the time available for digital skill development, and (93%) expressed the need for greater institutional support.

These findings are consistent with the International Telecommunication Union (2023) report on digital inclusion, which identified affordability of devices and internet connectivity as primary constraints to effective digital participation in Sub-Saharan Africa. Similarly, the World Bank (2023) Africa Pulse Report emphasised that infrastructural deficits continue to limit youth participation in the digital economy despite increasing digital adoption rates.

The unanimous agreement regarding academic workload suggests that time poverty among students significantly affects digital skill deepening. This reinforces the argument that institutional intervention through structured digital programmes, flexible curricula, and infrastructural investment is necessary to maximise digital skill outcomes.

Collectively, the findings across Tables 1 to 3 confirm that digital skills acquisition significantly contributes to income generation and economic independence among undergraduate students. The results are consistent with contemporary global development literature, which positions digital competence as a strategic driver of youth economic inclusion.

However, while students demonstrate high levels of initiative and practical engagement, infrastructural challenges and limited institutional support remain critical constraints. Therefore, digital skills within the University of Ibadan context operate as both an empowerment mechanism and a policy opportunity area requiring institutional strengthening.

Conclusion

Based on the findings of the study, it can be concluded that digital skills acquisition plays a significant role in promoting economic independence among undergraduate students of the University of Ibadan. Digital skills have become important tools for income generation, self-reliance, and financial empowerment among students. The study establishes that students who possess relevant digital skills are better positioned to support themselves financially while still pursuing their academic goals.

The findings further suggest that digital skills not only provide immediate income opportunities but also prepare students for economic self-reliance after graduation. Despite existing challenges, the overall impact of digital skills on students' economic wellbeing remains positive. Therefore, digital skills acquisition should be regarded as an essential component of undergraduate development in Nigerian universities.

Recommendations

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

1. The University of Ibadan should strengthen institutional support for digital skills acquisition by providing more structured digital training programmes, workshops, and seminars for students across faculties.
2. The university management and relevant stakeholders should improve access to digital infrastructure, including reliable internet connectivity and digital tools, to enable students to effectively develop and utilise digital skills.
3. Students should be encouraged to actively engage in self-directed digital learning and explore online platforms that provide opportunities for skill development and income generation.
4. Government and educational policymakers should integrate digital skills development into undergraduate education as a strategy for promoting youth economic independence and reducing student poverty.

References

African Development Bank. (2024). *African economic outlook 2024: Driving Africa's transformation through digital entrepreneurship and innovation* (pp. 1–250). African Development Bank Group. https://www.afdb.org

Akinyooye, F. E. (2024). *Digital technology as a tool for changing learning space for workers' training in Nigeria* (pp. 1–20). Department of Adult Education, Faculty of Education, University of Ibadan, Ibadan, Nigeria.

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education* (pp. 1–187). Columbia University Press.

Eze, C., Mohammed, A., & Oni, S. (2023). Graduate employability in Nigeria's digital economy: A five-year trend analysis. *Nigerian Journal of Educational Development, 18*(2), 112–129.

International Labour Organization. (2021). *World employment and social outlook 2021: The role of digital labour platforms in transforming the world of work* (pp. 1–200). International Labour Office. https://www.ilo.org

International Telecommunication Union. (2023). *Measuring digital development: Facts and figures 2023* (pp. 1–60). ITU Publications. https://www.itu.int

Michaels, A. (2018).Global Economic Trends. Pp.20-25

National Information Tecnology Development Agency (2022). Annual Report on Digital Economy. Pp.10-15

Olatokun, W. M., & Adebayo, A. A. (2012). ICT use and digital capacity development in Nigerian universities. *International Journal of Education and Development Using ICT, 8*(3), 56–69.

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review, 51*(1), 1–17.

Ukpabi, I. D. (2019). Impact of skills training on employment among young entrepreneurs in selected local government areas in Ibadan, Nigeria. *International Journal of Literacy Education, 9*(2), 119–131.

Ukpabi, I. D., & Olakunle, T. A. (2015). Technologies in literacy education research. *Unizik Journal of Educational Research and Policy Studies, 9*(2), 1–15. https://uniijerps.org

Unitednations development programme. (2022). Sustainable Development Goals Report. Pp10-15.

World Bank. (2023). *Africa's pulse* (Issue 27): Expanding opportunities in the digital economy (pp. 1–100). World Bank Group. https://www.worldbank.org

World Economic Forum. (2023). *The future of jobs report 2023* (pp. 1–150). World Economic Forum. https://www.weforum.org