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Research Article

Digitalisation as an Elixir for Addressing the School-to-Job Conundrum in Nigeria: Issues and Prospects

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Abstract: This research examined digitalisation as a transformative elixir to the school-not-to-job conundrum in Nigeria, with analytical focus on four critical variables: digital skills acquisition, digital entrepreneurship, ICT-based learning, and internet accessibility. Graduate unemployment remains one of Nigeria's most debilitating socioeconomic crises, as the structural disconnect between educational attainment and labour market absorption, continues to deepen despite annual increases in tertiary institution output. Drawing on an extensive review of extant literature, empirical studies, and policy documents spanning 2015 to 2025, the study adopts a conceptual-analytical methodology situated within the Human Capital Theory as its primary theoretical framework, with the Technology Acceptance Model providing complementary explanatory power. The paper finds that digital skills acquisition significantly enhances graduate employability across all disciplines and institutional types; that ICT-based learning environments improve employment readiness when adequately implemented; that digital entrepreneurship offers a viable, scalable pathway to self-employment and income generation; and that internet accessibility functions as the foundational enabling condition for all other dimensions of digitalisation. The study further argues that every Nigerian undergraduate must acquire at least one or two marketable digital skills before graduation, thereby reducing dependence on increasingly scarce white-collar employment. Significant barriers including infrastructural deficits, curricular rigidity, digital divides, and cultural orientations towards formal employment are identified and interrogated alongside considerable prospects for progress. Five actionable recommendations are advanced for government, educational institutions, the private sector, and individual graduates to collectively harness digitalisation as a credible and sustainable solution to Nigeria's school-not-to-job crisis.

Keywords: *Digitalisation, Graduate Unemployment, Digital Skills, ICT-Based Learning, Digital Entrepreneurship, Internet Accessibility, Nigeria*

1. Introduction

The phenomenon of graduate unemployment has become one of the most persistent and multidimensional socioeconomic crises confronting developing nations in the twenty-first century. Nowhere is this problem more acutely felt than in Nigeria, Africa's most populous nation and largest economy, where successive waves of university graduates are churned into an absorptive-deficient labour market each year (Adeyemi & Adu, 2022). The school-not-to-job conundrum, a term that captures the structural disconnect between academic qualification and gainful employment, has grown into a national emergency that erodes human capital investment, feeds social unrest, and truncates the productivity potential of a youthful demographic dividend (Obi & Nwosu, 2021). Nigeria's National Bureau of Statistics (NBS) has consistently documented alarming youth unemployment figures. By 2023, youth unemployment hovered around 42.5 percent, with graduate unemployment comprising a significant proportion of that figure (NBS, 2023). The paradox is stark: Nigeria annually produces over 500,000 graduates from tertiary institutions, yet the formal economy can absorb only a fraction of these entrants (Adekunle & Olaitan, 2022). This structural imbalance arises from a combination of factors including curricular misalignment, inadequate vocational training, a predominantly certificate-oriented education system and a private sector constrained by macroeconomic instability. Digitalisation has, in recent scholarly and policy discourse, emerged as a potentially transformative intervention capable of rewriting this narrative.

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Digitalisation refers to the systematic integration of digital technologies into economic, social, and educational processes, enabling new modes of value creation, service delivery, knowledge dissemination, and enterprise development (Schwab, 2016; Brennen & Kreiss, 2016). When applied to the education-to-employment transition landscape, digitalisation manifests in multiple dimensions: the acquisition of digital skills by graduates, the deployment of ICT-based learning modalities that enhance employability, the democratisation of entrepreneurial opportunities through digital platforms and the expansion of internet accessibility that connects talent to opportunity irrespective of geographic constraints (Deursen & Dijk, 2019; Nwachukwu & Emeh, 2023). Contemporary society operates entirely on technology, which systematically alters both daily human routines and global infrastructures (Daniel, 2025). The theoretical promise of digitalisation as a corrective mechanism for graduate unemployment is undergirded by robust global evidence. In economies such as Estonia, South Korea and Rwanda, deliberate investment in digital infrastructure and digital skills education has yielded measurable improvements in youth employment outcomes (Ndemo & Weiss, 2017; OECD, 2020). Nigeria is leveraging on rapid global technological advancements to completely upgrade its public administration and governance (Atairet & Ngonso, 2024). However, Nigeria's engagement with digitalisation as a labour market intervention remains fragmented, insufficiently coordinated, and characterised by significant implementation deficits including inadequate broadband penetration, low institutional capacity for digital education, and persistent digital divides across geographic and socioeconomic lines (Okafor & Eze, 2022; Adegoke, 2021).

On the above premise, this paper undertakes a comprehensive conceptual and analytical examination of digitalisation as an elixir to the school-not-to-job conundrum in Nigeria. The study is particularly attentive to the lived realities of Nigerian undergraduates and young graduates, arguing that digital skills acquisition is not merely desirable but existentially necessary for any young Nigerian seeking economic independence in the contemporary labour market.

2. **Problem Statement**

Nigeria's education sector has continued to produce graduates in volumes that far outstrip the absorptive capacity of its formal labour market, creating a structural unemployment crisis with severe developmental consequences. Despite the significant public and private investment in tertiary education, the transition from school to employment remains chaotic, prolonged, and increasingly futile for a large segment of Nigerian graduates. The National Universities Commission (NUC) reports that over 1.8 million students graduate annually from universities, polytechnics, and colleges of education, yet the Nigerian economy generates far fewer formal sector jobs annually (NUC, 2022; Adeyemi & Adu, 2022). This mismatch is not merely quantitative but fundamentally qualitative as many graduates lack the competencies, particularly digital and technology-oriented skills that the contemporary economy demands. The emergence of the digital economy as the primary driver of employment and value creation in the twenty-first century has fundamentally altered the skills landscape. Globally, occupations requiring digital literacy, data analysis, coding, digital marketing and cloud computing are among the fastest-growing, even as traditional white-collar jobs in the public sector continue to contract (World Economic Forum, 2020; Nwachukwu & Emeh, 2023). Yet Nigeria's university curricula remain heavily oriented towards conventional academic subjects, with digital skills education often relegated to peripheral or optional status. This curricular inertia creates graduates who are technically qualified for an economy that no longer exists in the form they were trained for. Furthermore, the deployment of ICT-based learning in Nigerian educational institutions remains severely limited by inadequate infrastructure, power supply instability, low bandwidth availability, and insufficient faculty capacity for technology-mediated instruction (Okafor & Eze, 2022). The COVID-19 pandemic exposed the fragility of Nigeria's digital education infrastructure with devastating clarity: while universities in advanced economies transitioned relatively seamlessly to remote learning, most Nigerian institutions faced collapse of instructional continuity (Eze & Chukwuemeka, 2021). This infrastructural deficit not only undermines educational quality but also deprives students of experiential exposure to digital tools and platforms that would enhance their employability. Digital entrepreneurship, widely recognised as a viable alternative pathway to employment generation, particularly for technology-savvy youth, remains underdeveloped in Nigeria despite a vibrant informal technology ecosystem. While Nigeria's technology startup scene for example Lagos's 'Yabacon Valley' which has attracted significant investment and generated notable success stories, its reach and impact remain concentrated among a relatively small, already-privileged segment of the population (Okpara, 2021; Adekunle & Olaitan, 2022). The majority of graduates, particularly those from public institutions outside Lagos and Abuja, lack access to the mentoring, funding, market networks and digital infrastructure necessary to leverage digital entrepreneurship as an employment alternative. Internet accessibility, the foundational infrastructure upon which all other dimensions of digitalisation rest, remains deeply inequitable in Nigeria. While urban

centres enjoy improving broadband connectivity, rural and semi-urban areas, where a significant proportion of Nigeria's population resides remain severely underserved. The International Telecommunication Union (ITU, 2022) reported that only about 36% of Nigerians had active internet access, with stark urban-rural disparities. This digital divide perpetuates existing inequalities and ensures that the emancipatory potential of digitalisation is not equitably distributed. These interrelated problems; curricular rigidity, ICT infrastructure deficits, underdeveloped digital entrepreneurship ecosystems, and unequal internet access, converge to render digitalisation's potential largely unrealised in addressing Nigeria's school-not-to-job crisis. This study is therefore motivated by the urgent need to interrogate these problems systematically, identify their root causes and manifestations, and chart a viable, evidence-informed pathway through which digitalisation can genuinely serve as an elixir to one of Nigeria's most pressing developmental challenges.

3. Research Objectives

The main aim of this research is to examine the extent to which digitalisation can serve as a viable solution to the school-not-to-job conundrum in Nigeria. Specifically, the research seeks to:

i. Examine the relationship between digital skills acquisition and the employability outcomes of graduates in Nigeria.
ii. Assess the role of ICT-based learning in facilitating a smoother school-to-job transition for Nigerian graduates.
iii. Investigate the extent to which digital entrepreneurship contributes to employment generation and reduces graduate unemployment in Nigeria.
iv. Evaluate the influence of internet accessibility on graduates' capacity to participate in digital economic opportunities in Nigeria.

4. Research Questions

In line with the above objectives, this research is guided by the following research questions:

i. To what extent does digital skills acquisition improve the employability outcomes of graduates in Nigeria?
ii. How does ICT-based learning influence the school-to-job transition process for Nigerian graduates?
iii. In what ways does digital entrepreneurship contribute to employment generation and reduction of graduate unemployment in Nigeria?
iv. How does internet accessibility influence graduates' ability to participate in digital economic opportunities in Nigeria?

5. Research Significance

This research holds significance across multiple stakeholder domains. For policymakers, the findings will provide evidence based recommendations for curriculum reform, infrastructure investment, and programme design aimed at bridging the gap between education and employment. For educational institutions, the study offers actionable insights regarding the integration of digital skills training and ICT based learning into existing programmes. For students and graduates, the research illuminates pathways to economic self sufficiency through digital skill acquisition and entrepreneurship. For employers, the study identifies the digital competencies most critically needed in the Nigerian labour market. Finally, for development partners and international organisations, the research provides contextualised understanding of how digitalisation can address youth unemployment in developing economy settings.

6. Scope

This study is primarily conceptual and analytical in orientation, drawing on secondary data, extant literature, policy documents, and empirical studies conducted within the Nigerian context and complemented by relevant international evidence. The study focuses on the period from 2015 to 2025, a decade that encompasses significant developments in Nigeria's digital economy, tertiary education policy, and youth unemployment landscape. The four key variables; digital skills acquisition, digital entrepreneurship, ICT-based learning, and internet accessibility, are examined in relation to the broader school-not-to-job conundrum, with particular attention to tertiary-level graduates from universities, polytechnics, and colleges of education across Nigeria's six geopolitical zones. While the study acknowledges the diversity of Nigeria's institutional and regional contexts, it does not purport to offer institution-specific or region-specific findings. Rather, it provides a national-level analysis that identifies systemic patterns, challenges, and opportunities. The study's conceptual framework is drawn from the Technology Acceptance Model and the Human Capital Theory, the latter of which serves as the adopted theoretical anchor. Issues related to primary and secondary education, while occasionally referenced for contextual purposes, fall outside the main scope of this inquiry.

7. Operational Definition Of Terms

i. Digitalisation

Digitalisation refers to the process of integrating digital technologies, including internet-enabled platforms, software applications, artificial intelligence tools, and data analytics systems, into the educational, entrepreneurial, and employment landscapes of Nigeria,

with the aim of enhancing productivity, creating new economic opportunities, and bridging the gap between educational outcomes and labour market requirements.

ii. School-Not-to-Job Conundrum

This term refers to the persistent structural disconnect between the acquisition of formal educational qualifications and the attainment of gainful, meaningful employment in Nigeria. It captures the experience of graduates who, despite completing tertiary education, remain unemployed or underemployed due to skills mismatches, labour market saturation, and economic structural constraints.

iii. Digital Skills Acquisition

Digital skills acquisition, as operationalised in this study, refers to the process through which students and graduates develop competencies in the use of digital tools, platforms, and technologies, including coding, data analysis, digital marketing, graphic design, content creation, cybersecurity, cloud computing, and social media management, that enhance their value in the contemporary labour market.

iv. Digital Entrepreneurship

Digital entrepreneurship refers to the creation, management, and scaling of business ventures that are primarily enabled or mediated by digital technologies and internet platforms. In the Nigerian context, this includes e-commerce, freelancing, fintech startups, digital content enterprises, online education platforms, and app development businesses founded or operated by graduates.

v. ICT-Based Learning

ICT-based learning refers to instructional approaches and educational environments in which information and communication technologies such as learning management systems, e-learning platforms, virtual laboratories, digital libraries, video conferencing tools and mobile learning applications, are systematically deployed to enhance the quality, accessibility and relevance of education.

vi. Internet Accessibility

Internet accessibility, as used in this study, denotes the availability, affordability, reliability, and equitable distribution of internet connectivity infrastructure across Nigeria's urban, peri-urban, and rural territories, and its implications for graduates' capacity to access digital economic opportunities, online learning resources and digital entrepreneurship platforms.

8. Conceptual Explication and Literature Review

Digitalisation

The concept of digitalisation has attracted considerable scholarly attention since the widespread diffusion of the internet and mobile technologies in the late twentieth century. Digitalisation represents a paradigmatic shift in how human societies organise production, communication, and value creation. Brennen and Kreiss (2016) provide a foundational conceptual distinction between 'digitisation' which connotes the technical process of converting analogue information into digital formats and 'digitalisation' the broader sociotechnical process through which digital technologies reshape social and economic practices, institutions, and structures. It is the latter, more expansive understanding that informs this study. Schwab (2016), in his seminal articulation of the Fourth Industrial Revolution (4IR), positions digitalisation as the central driver of a new economic paradigm characterised by the fusion of physical, digital, and biological domains. In this framework, digital technologies are not merely tools of efficiency but agents of structural transformation that fundamentally alter how value is created, distributed, and consumed. For developing economies like Nigeria, the implications are both promising and challenging: promising because digitalisation can potentially compress development timelines and create leapfrog opportunities; challenging because the preconditions for effective digital transformation (robust infrastructure, educated human capital, enabling policy frameworks) are often weakly developed (Ndemo & Weiss, 2017; Deursen & Dijk, 2019).

Within the African context, Ndemo and Weiss (2017) have documented the transformative potential of digitalisation in economies such as Kenya, where mobile money platforms and digital entrepreneurship ecosystems have generated significant employment and productivity gains. In Nigeria, the government's National Digital Economy Policy and Strategy (2020–2030) articulates a vision of a digitally inclusive economy in which every Nigerian has access to affordable, reliable digital infrastructure and the skills to leverage it productively. However, the gap between policy aspiration and implementation reality remains substantial (Okafor & Eze, 2022). Deursen and Dijk (2019) introduce the concept of 'digital capital' as an extension of human capital theory to the digital domain, arguing that individuals' acquisition of digital skills, access to digital resources, and ability to leverage digital technologies for economic and social benefit constitute a form of capital with significant distributional consequences. Their framework is particularly relevant to the Nigerian context, where digital capital is unequally distributed along geographic, socioeconomic, and gender lines, with significant implications for employment outcomes.

The School-Not-to-Job Conundrum

The school-not-to-job conundrum in Nigeria is a manifestation of a broader global phenomenon that scholars have variously described as the skills mismatch problem, the graduate premium paradox and the qualification inflation crisis (Adeyemi & Adu, 2022; Obi & Nwosu, 2021). It reflects a fundamental misalignment between the outputs of educational systems and the demands of labour markets, a misalignment that is particularly acute in economies undergoing structural transformation. The school-not-to-job conundrum describes a systemic disconnection between educational outputs and labour market outcomes. This phenomenon is not unique to Nigeria but manifests with particular severity in developing economies where educational systems were designed for bureaucratic and industrial era employment paradigms that no longer predominate. Obi and Nwosu (2021) trace the historical roots of Nigeria's graduate unemployment crisis to the post-independence expansion of tertiary education that was undertaken without a commensurate expansion of the economic base capable of absorbing educated labour. The public sector, which historically served as the primary employer of graduates, has been contracting since the structural adjustment programmes of the 1980s, creating a persistent absorption deficit. The private sector, constrained by infrastructure deficits, regulatory uncertainty, and access to finance challenges, has failed to fill this gap adequately.

Adekunle and Olaitan (2022) argue that the school-not-to-job crisis is not simply a product of economic stagnation but is also deeply rooted in the design of Nigeria's educational system. The continuing emphasis on rote learning, examination performance, and certification acquisition, at the expense of practical skills development, critical thinking, and entrepreneurial disposition, produces graduates who are credentialled but not competent in the ways that contemporary employers value. This argument is in tandem with the broader literature on the employability gap; the difference between the competencies graduates possess and those that employers require (Pool & Sewell, 2007; Tomlinson, 2017). Bello and Ibrahim (2020) added a gendered dimension to the analysis, documenting the disproportionate impact of graduate unemployment on Nigerian women, who face additional structural barriers such as discriminatory hiring practices, caregiving responsibilities, and limited access to professional networks, that compound the generic challenges of the school-not-to-job transition. The digital economy, with its remote work possibilities and platform-mediated opportunities, holds particular promise for women as a space where some of these structural barriers can be partially circumvented.

Digital Skills and Employability

The relationship between digital skills acquisition and graduate employability has emerged as one of the most consequential research questions in the contemporary education-employment literature. The World Economic Forum's (2020) Future of Jobs Report identifies digital literacy, programming, data analysis, and digital content creation as among the most in-demand skills across all industry sectors, with demand projected to intensify through 2025 and beyond. This consensus is echoed in regional studies focused on Sub-Saharan Africa, where digital skills are increasingly identified as critical differentiators in graduate employment outcomes (Adegoke, 2021; Nwachukwu & Emeh, 2023).

In the Nigerian context, Adegoke (2021) conducted a survey of 1,200 graduates across six states and found that those with demonstrable digital skills (including proficiency in Microsoft Office suite, social media management, basic coding, and data entry) were significantly more likely to secure employment within six months of graduation compared to those without such skills. Importantly, the study found that digital skills had a compensatory effect for graduates from lower-ranked institutions, partially offsetting the institutional prestige premium that typically advantages graduates from elite universities. This finding carries significant equity implications: digital skills democratise employability in ways that conventional academic qualifications do not. Nwachukwu and Emeh (2023) extend this analysis by examining the role of advanced digital skills such as, data science, machine learning, cybersecurity, and digital marketing, in accessing remote work opportunities and the global gig economy. Their study found that Nigerian freelancers with advanced digital skills were earning incomes that compared favourably with formal sector salaries, and that platforms such as Upwork, Fiverr, and Toptal provided accessible entry points for skilled graduates to connect with international clients. This evidence underscores the employment-generation potential of digital skills in contexts where the domestic labour market is insufficient.

However, the digital skills landscape in Nigeria is characterised by significant challenges. Okafor and Eze (2022) identify the lack of structured digital skills curricula in Nigerian universities as a major obstacle, noting that digital skills acquisition often occurs informally, through self-directed learning or paid training programmes that are inaccessible to many students. The absence of mandatory digital skills courses in most university curricula means that graduates' digital competencies vary enormously and are largely a product of individual initiative and socioeconomic advantage rather than systematic educational provision. Tomlinson (2017) and Yorke (2006) offer theoretical grounding for understanding employability as a multidimensional construct that encompasses not only skills and

knowledge but also dispositions, identities, and social capital. In this expanded framework, digital skills function not only as technical competencies but as signals of adaptability, technological sophistication, and contemporary relevance that shape employers' perceptions of graduates' overall employability. Nigerian graduates who can credibly demonstrate digital competencies thus signal a bundle of attributes such as self-directed learning ability, technological fluency and market awareness, that extend beyond the specific technical skills themselves.

ICT-Based Learning and the School-Not-to-Job Transition

ICT-based learning encompasses a broad spectrum of technology-mediated educational practices, from fully online degree programmes to blended learning environments that combine face-to-face and digital instruction, to the supplementary use of digital tools within conventional classroom settings. The deployment of ICT in learning environments is widely theorised to enhance educational outcomes through increased engagement, personalised learning pathways, access to global knowledge resources, and development of digital literacy as a by-product of the learning process itself (Eze & Chukwuemeka, 2021; Adeyemi & Adu, 2022). In developed economies, the relationship between ICT-based learning and employment outcomes is well documented. Students who experience technology-rich learning environments develop not only subject knowledge but also digital fluency, online collaboration skills, and comfort with technology-mediated work (OECD, 2020). For developing economies including Nigeria, the potential benefits of ICT-based learning are amplified by the additional function it serves in overcoming geographic and institutional access barriers to quality education.

Eze and Chukwuemeka (2021) conducted a study of ICT integration in Nigerian universities and found significant heterogeneity in adoption levels across institutions, regions, and disciplines. Engineering and computer science departments showed higher levels of ICT integration, while humanities, social sciences, and education faculties lagged significantly. The study also documented significant infrastructure constraints: unreliable power supply, inadequate bandwidth, insufficient computer hardware, and limited faculty training in technology-mediated instruction were identified as the primary barriers to ICT-based learning in Nigerian universities. Adekunle and Olaitan (2022) examined the impact of the COVID-19 pandemic on ICT-based learning in Nigeria and found that the forced shift to remote learning, while exposing severe infrastructural deficiencies, also catalysed increased investment in digital learning tools and a shift in institutional attitudes towards technology-mediated education. Many universities invested in learning management systems, video conferencing infrastructure, and digital content development during this period, creating a digital learning infrastructure that, with continued investment, could yield long-term benefits for graduate employability.

The relationship between ICT-based learning and the school-to-job transition operates through several mechanisms. First, ICT-based learning environments develop digital fluency as a natural by-product, equipping students with the technological competencies that modern employers value. Second, online and blended learning platforms provide access to industry-relevant content, including MOOCs from global providers such as Coursera, edX, and LinkedIn Learning, that complement and extend university curricula with practical, employer-valued knowledge. Third, digital learning environments can facilitate networking between students and industry professionals through virtual internships, online mentoring programmes, and digital communities of practice that create social capital relevant to employment (Deursen & Dijk, 2019; World Economic Forum, 2020).

Digital Entrepreneurship and Employment Generation

Digital entrepreneurship has attracted growing scholarly attention as a mechanism for employment generation in contexts where formal labour market absorption is insufficient. Nambisan (2017) defines digital entrepreneurship as the pursuit of opportunity through the creation of new digital artefacts, platforms, or processes, and identifies it as a distinct entrepreneurial phenomenon characterised by rapid scalability, low barriers to entry, global market access, and innovative business model architecture. For Nigerian graduates confronting a saturated formal labour market, digital entrepreneurship represents not merely an employment alternative but a vehicle for value creation, economic agency, and contribution to the broader digital economy. The Nigerian digital entrepreneurship ecosystem, while relatively nascent, has demonstrated significant vitality in recent years. Okpara (2021) documents the emergence of fintech, e-commerce, health tech, and edtech startups that have not only generated employment for their founders and employees but have also created demand for a range of digital services for example: software development, digital marketing, content creation and data analytics which provides employment opportunities for a wider circle of digital workers. High-profile successes such as Paystack (acquired by Stripe in 2020), Andela and Flutterwave have demonstrated the global scalability of Nigerian digital enterprises and inspired a new generation of graduate entrepreneurs. Bello and

Ibrahim (2020) analyse the structural determinants of digital entrepreneurship outcomes among Nigerian graduates and identify several key enablers: access to relevant digital skills training, mentorship from experienced digital entrepreneurs, access to startup financing (including equity investment, grants, and credit facilities), reliable digital infrastructure, and supportive regulatory environments. Conversely, the absence of any of these enablers significantly reduces the likelihood of successful digital enterprise formation and survival, explaining why the transformative potential of digital entrepreneurship remains concentrated among a relatively privileged minority of graduates.

The gig economy dimension of digital entrepreneurship is particularly relevant to the Nigerian context. Platforms such as Upwork, Fiverr, Freelancer, and PeoplePerHour enable Nigerian graduates to offer digital services to a global market, effectively decoupling employment from geographic proximity to employers. Nwachukwu and Emeh (2023) found that Nigerian freelancers on these platforms collectively earned several hundred million dollars annually, with the most successful earning incomes comparable to senior professionals in the formal sector. This evidence positions digital freelancing as a viable, scalable employment pathway for graduates with appropriate digital skills and internet access. However, digital entrepreneurship in Nigeria faces significant structural constraints. Irregular electricity supply increases operational costs and unreliability. Limited access to affordable credit constrains startup investment capacity. Underdeveloped digital payment infrastructure creates friction in commercial transactions. Regulatory uncertainty in emerging technology sectors creates investment risk. And the predominance of a certification-seeking cultural orientation among graduates and their families creates social pressure against entrepreneurial career paths (Adeyemi & Adu, 2022; Okpara, 2021). Addressing these constraints is a prerequisite for realising the employment-generation potential of digital entrepreneurship at scale.

9. Theoretical Framework

Technology Acceptance Model (TAM)

The Technology Acceptance Model, originally developed by Davis (1989) and subsequently extended by Venkatesh and Davis (2000), posits that individuals' acceptance and use of technology is primarily determined by two key constructs: perceived usefulness (the degree to which a person believes that using a technology will enhance their performance) and perceived ease of use (the degree to which using the technology is believed to be effort-free). TAM has been widely applied in studies of technology adoption in educational and organisational contexts, and its principles are directly relevant to understanding why digitalisation initiatives succeed or fail in the Nigerian context. In the context of this study, TAM provides a framework for understanding the conditions under which Nigerian students, graduates and educational institutions adopt digital tools, platforms and skills for employability enhancement. The model suggests that for digitalisation to effectively address the school-not-to-job conundrum, digital technologies must be perceived as genuinely useful for employment outcomes (perceived usefulness) and must be accessible and user-friendly enough for widespread adoption across diverse digital literacy levels (perceived ease of use). This has implications for how digital skills programmes are designed, how ICT-based learning platforms are implemented, and how internet accessibility initiatives are communicated and structured.

TAM's relevance to this research is further demonstrated by its explanatory power in contexts where technology adoption lags despite technological availability, a pattern which is frequently observed in Nigerian educational institutions. Many universities have invested in ICT infrastructure that remains underutilised due to faculty and student perceptions of limited relevance, technical complexity, or unreliability. Understanding and addressing these perceptual barriers, alongside the material infrastructure constraints, is essential for effective digitalisation of Nigerian education. TAM thus offers both a diagnostic and prescriptive framework: it identifies the psychological and attitudinal barriers to technology adoption and points to interventions such as awareness campaigns, demonstration projects, peer learning networks, and usability improvements, that can overcome them.

Human Capital Theory

Human Capital Theory, foundationally articulated by Schultz (1961) and Becker (1964), posits that individuals' productive capacities, and by extension their economic outcomes, are significantly determined by the investments made in their knowledge, skills, and competencies through education, training, and experience. In this framework, education is understood not merely as a consumption good or a social credential but as an investment in productive capacity that yields returns both to individuals (in the form of higher earnings and employment rates) and to societies (in the form of economic growth and productivity gains). Human Capital Theory has been extensively applied to the analysis of education-employment linkages in both developed and developing economies, and its core insights which are; that skills investment increases productivity and employability; that returns to education are partly determined by the relevance of skills acquired to labour market demands; and that under-investment in certain types of human capital creates structural mismatches, are directly applicable to Nigeria's school-

not-to-job crisis. The persistent unemployment of Nigerian graduates, from a human capital perspective, reflects not a surplus of human capital per se but a mismatch between the types of human capital being produced and those demanded by the contemporary economy.

This study adopts Human Capital Theory as its primary theoretical anchor because it provides the most direct and comprehensive framework for understanding how digitalisation can address the school-not-to-job conundrum. Specifically, the theory supports the central argument that strategic investment in digital human capital through; digital skills curricula, ICT-enabled learning environments, digital entrepreneurship education, and internet infrastructure, will yield measurable improvements in graduate employment outcomes and economic productivity. The theory also provides a basis for policy recommendations: public and private investment in digital education and infrastructure constitutes an economically rational allocation of resources with returns that justify the investment costs. Moreover, the extended human capital framework that incorporates digital capital (Deursen & Dijk, 2019) enriches the theoretical foundation of this study by emphasising the differential distribution of digital capital across socioeconomic groups and the consequent implications for equality of employment outcomes. In Nigeria, where socioeconomic inequality is pronounced and education quality varies enormously across institutional and geographic lines, the human capital lens draws attention to the need for equitable distribution of digital skills investment, ensuring that digitalisation serves as a vehicle of social mobility rather than a new axis of inequality.

10. Issues Hindering Digitalisation In Nigeria

Despite the compelling potential of digitalisation to address Nigeria's school-not-to-job conundrum, its implementation is beset by a complex constellation of structural, institutional, economic, and socio-cultural challenges. Understanding these barriers is essential for designing effective interventions.

Inadequate Digital Infrastructure

Nigeria's digital infrastructure deficit is arguably the most fundamental barrier to digitalisation. Despite significant growth in mobile phone penetration, broadband internet connectivity remains limited, unreliable, and expensive by global standards. The Nigerian Communications Commission (NCC, 2023) reported that while mobile internet penetration stood at approximately 47%, broadband penetration remained below 15% of the population, with stark disparities between urban and rural areas. Last-mile connectivity challenges, spectrum allocation inefficiencies, and inadequate investment in fibre optic backbone networks continue to constrain the quality and availability of internet services that digitalisation requires. Furthermore, Nigeria's chronic electricity supply crisis (with an average daily electricity availability of less than 12 hours in many locations) directly undermines the use of digital devices and platforms, increasing operational costs and reducing reliability (Okafor & Eze, 2022).

Inadequate Funding for Digital Education

Nigerian universities, already severely underfunded relative to their needs, have struggled to allocate the resources necessary for meaningful ICT-based learning infrastructure. The UNESCO benchmark of 26% of national budget allocation to education is consistently unmet in Nigeria, with education typically receiving between 5–9% of the federal budget (UNESCO, 2021). Within university budgets, ICT infrastructure investment is often deprioritised in favour of recurrent expenditure on salaries and other operational costs. The consequence is a stock of outdated computer laboratories, inadequate bandwidth provision, and insufficient technical support staff that render ICT-based learning aspirations largely unfulfilled in many institutions (Eze & Chukwuemeka, 2021).

Curriculum Rigidity and Institutional Inertia

Nigeria's university curriculum structure, governed by the National Universities Commission (NUC), has historically been slow to adapt to labour market changes. The minimum academic standards framework, which specifies curriculum content across disciplines, has only recently begun to incorporate digital skills components, and implementation remains inconsistent (NUC, 2022). Faculty resistance to curriculum change, driven by comfort with established teaching content and methods and scepticism about the academic legitimacy of digital skills education, further slows the pace of curricular digitalisation. This institutional inertia means that graduates emerge from a system that has not adequately prepared them for the digital economy.

The Digital Divide and Inequality

Nigeria's digital divide operates along multiple axes: geographic (urban-rural), socioeconomic (wealthy-poor), gender (male-female), and generational (younger-older). Students from rural areas, low-income households, and marginalised communities face compounded barriers to digital skills acquisition, including lack of access to devices, unaffordable internet data plans, and limited exposure to digital technologies in their home environments. Bello and Ibrahim (2020) documented the gendered dimension of this divide, noting that Nigerian women face specific barriers to digital participation including restrictive social norms, lower rates of device ownership, and reduced access to digital skills training.

These inequalities mean that the benefits of digitalisation, if not deliberately addressed, will accrue disproportionately to already-privileged groups, exacerbating rather than ameliorating social inequality.

Policy Implementation Gaps

While Nigeria has developed ambitious digital economy policy frameworks, including the National Digital Economy Policy and Strategy (2020–2030) and various state-level digital innovation initiatives, the implementation of these frameworks has been hampered by inadequate funding, institutional coordination failures, corruption, and the short-termism that characterises governance cycles linked to electoral timelines. Adegoke (2021) documents a pattern of policy announcement without follow-through that has characterised many of Nigeria's ICT initiatives, eroding stakeholder trust and deterring private sector investment that might otherwise complement public efforts.

Limited Digital Entrepreneurship Ecosystem Development

While Lagos and, to a lesser extent, Abuja have developed nascent startup ecosystems with co-working spaces, accelerator programmes, and venture capital activity, these resources remain geographically concentrated and institutionally fragile. The majority of Nigerian graduates, particularly those from states outside the economic capital, have limited access to the mentoring, financing, market networks, and technical assistance that successful digital entrepreneurship requires. The broader business environment, characterised by high interest rates, bureaucratic registration processes, limited intellectual property protection, and infrastructure constraints, creates significant headwinds for digital startup formation and survival (Okpara, 2021).

Cultural Orientation Towards White-Collar Employment

A deeply entrenched cultural preference for white-collar, formal sector employment (rooted in historical associations between public service, social status, and economic security) continues to shape the aspirations and choices of Nigerian graduates and their families. This orientation inhibits entrepreneurial initiative and digital skills investment among graduates who continue to perceive formal sector employment as the only legitimate career outcome of higher education. Changing this cultural orientation requires sustained exposure to successful digital entrepreneur role models, family and community sensitisation programmes, and tangible evidence that digital career pathways offer credible income and social mobility prospects (Adeyemi & Adu, 2022).

11. Prospects Of Digitalisation In Solving The School-Not-To-Job Conundrum In Nigeria

Notwithstanding the challenges explicated above, there are compelling reasons for cautious optimism regarding digitalisation's potential to address Nigeria's graduate unemployment crisis. Several converging trends create favourable conditions for transformative digital interventions.

Nigeria's Youthful and Technology-Hungry Population

Nigeria's demographic profile (with a median age of approximately 18 years and over 60% of the population under 25) represents a powerful structural asset for digital transformation. Young Nigerians demonstrate remarkable technological adaptiveness, rapidly adopting new digital platforms and technologies even in challenging infrastructure environments. This demographic dividend, properly harnessed through targeted digital skills education and entrepreneurship support, could generate enormous economic value and employment (NBS, 2023; World Economic Forum, 2020).

Growing Mobile Internet Penetration

Despite the challenges of broadband penetration, Nigeria's mobile internet ecosystem has grown significantly, with smartphone adoption accelerating rapidly. Affordable Android smartphones and competitive mobile data tariffs have extended internet access to millions of Nigerians who lack fixed-line connectivity. This mobile-first internet access provides a foundation for mobile-based digital skills training, digital entrepreneurship, and ICT-based learning initiatives that can reach a far broader population than infrastructure-intensive fixed connectivity approaches (ITU, 2022; NCC, 2023).

Expanding Digital Skills Training Ecosystem

A diverse ecosystem of digital skills training providers like government initiatives such as the National Information Technology Development Agency's (NITDA) Digital Skills Programme, private sector initiatives such as Google's Digital Skills for Africa, Microsoft's digital literacy programmes, Andela's software engineering training, and a proliferating array of local coding bootcamps and online learning platforms, is expanding access to digital skills training beyond the formal university system. These initiatives are reaching hundreds of thousands of Nigerians annually and demonstrating measurable impact on employment outcomes (Adegoke, 2021; Nwachukwu & Emeh, 2023).

Fintech and Digital Payment Infrastructure Development

Nigeria's fintech revolution, centred on mobile money, digital payments, and financial inclusion platforms, has

created a more enabling environment for digital entrepreneurship by reducing transaction friction, expanding access to financial services, and creating new market opportunities for digital service providers. The Central Bank of Nigeria's policies promoting cashless transactions and financial inclusion have accelerated the adoption of digital financial infrastructure that supports the commercial ecosystem within which digital entrepreneurs operate (Okpara, 2021).

Increasing Diaspora Investment in Nigeria's Digital Ecosystem

The Nigerian tech diaspora (highly skilled Nigerian technology professionals based in Europe, North America, and other advanced economies) is increasingly investing in, mentoring, and providing market access for Nigerian digital startups. Organisations such as the African Tech Roundtable and various Nigerian tech diaspora networks facilitate knowledge transfer, investment flows, and market connections that strengthen the domestic digital entrepreneurship ecosystem. This diaspora dividend represents an underutilised but growing resource for accelerating Nigeria's digital transformation (Ndemo & Weiss, 2017).

Government Policy Commitment to Digital Economy

The Nigerian government's articulation of the National Digital Economy Policy and Strategy (2020–2030) and various complementary initiatives, including the Presidential Enabling Business Environment Council's digital reform agenda, the NCC's broadband deployment strategy, and state-level digital innovation initiatives, signals a growing policy recognition of digitalisation as a priority development agenda. While implementation has been inconsistent, the policy framework provides an enabling context for coordinated public-private investment in digital infrastructure and digital skills development (Adegoke, 2021).

Remote Work and Global Labour Market Access

The accelerated adoption of remote work models by global employers, catalysed by the COVID-19 pandemic and now institutionalised in many organisations, has created unprecedented opportunities for Nigerian graduates to participate in global labour markets without relocating. Digital skills-equipped Nigerian graduates can now compete for remote positions with global companies, access international freelancing platforms, and earn internationally competitive incomes while residing in Nigeria. This globalisation of the labour market for digitally skilled workers fundamentally alters the employment equation for Nigerian graduates and strengthens the case for prioritising digital skills investment (Nwachukwu & Emeh, 2023; World Economic Forum, 2020).

12. Findings

The conceptual analysis and literature synthesis conducted in this study yield several significant findings that advance scholarly understanding of digitalisation as a response to Nigeria's school-not-to-job conundrum. These findings are presented thematically, aligned with the four research objectives and variables of the study.

Digital Skills Acquisition and Employability

The evidence overwhelmingly supports a positive relationship between digital skills acquisition and graduate employability outcomes in Nigeria. Graduates who possess demonstrable digital competencies, whether in basic digital literacy, advanced technical skills such as programming and data analysis, or applied digital skills such as digital marketing and content creation, demonstrate significantly superior employment outcomes compared to graduates without such skills. This finding holds across institutional types, geographic regions, and academic disciplines, suggesting that digital skills have a cross-sectoral relevance that makes them a particularly powerful investment for any Nigerian graduate.

The finding also reveals an important equity dimension: digital skills acquisition can partially compensate for institutional prestige deficits, geographic disadvantages, and socioeconomic barriers that typically disadvantage graduates from lower-ranked institutions and underserved communities. This democratising potential of digital skills makes their widespread dissemination through university curricula and supplementary training programmes a matter not only of economic efficiency but of social justice.

ICT-Based Learning and Employment Readiness

ICT-based learning environments, where adequately implemented, contribute to graduates employment readiness through multiple pathways: developing digital fluency as a by-product of technology-mediated learning; providing access to global, industry-relevant knowledge resources; facilitating connections between students and the professional world through virtual platforms; and cultivating the self-directed learning dispositions that are increasingly valued by employers. The persistent underinvestment in ICT learning infrastructure in Nigerian universities represents a significant foregone opportunity to enhance the employment readiness of millions of graduates annually.

Digital Entrepreneurship as an Employment Pathway

Digital entrepreneurship represents a viable, scalable, and relatively accessible pathway to economic self-sufficiency for Nigerian graduates, particularly those equipped with appropriate digital skills. The global reach of digital platforms enables Nigerian digital

entrepreneurs to transcend the limitations of a constrained domestic labour market and access international clients, customers, and collaborators. However, the realisation of this potential requires a supportive ecosystem such as digital skills training, mentorship, affordable internet access, fintech infrastructure, and an enabling regulatory environment, that is currently available only to a minority of Nigerian graduates.

The Critical Importance of At Least One or Two Digital Skills

Perhaps the most important practical finding of this study is the conclusion that every undergraduate student in Nigeria must, as a matter of professional survival, acquire at least one or two marketable digital skills before graduation. This is not a luxury or an optional enhancement to a conventional academic programme, it is an existential necessity in a labour market that has irreversibly shifted towards digital competency as a basic criterion for employability. A student who completes a four-year university programme in any discipline without developing any digital skills has, in the current economic environment, significantly diminished their prospects of securing gainful employment upon graduation.

The range of accessible digital skills that any motivated undergraduate can acquire is vast and does not require extraordinary talent or resources: digital marketing and social media management can be learned through freely available online courses; graphic design tools such as Canva and Adobe Photoshop are accessible and teachable within weeks; basic coding in Python or web development using HTML, CSS, and JavaScript is accessible through platforms like Codecademy, freeCodeCamp, and Coursera; content creation and video editing skills can be developed using widely available free tools; and data analysis using Excel or Google Sheets represents a universally applicable digital competency. Any one of these skill sets, developed to a reasonable level of proficiency, can generate income through freelancing platforms, enable employment in digitally intensive organisations, or provide the foundation for a digital enterprise.

The implication is clear: Nigerian undergraduates who deliberately invest in digital skills acquisition during their university years, spending just a few hours per week on self-directed digital skills learning alongside their formal academic programme, can fundamentally alter their employment trajectory. Rather than emerging from university as seekers of increasingly scarce white-collar jobs, they can emerge as digitally skilled professionals with multiple pathways to income generation: formal employment, freelancing, digital entrepreneurship, or some combination of all three. The decision to acquire digital skills during university is, in the current economic environment, one of the most consequential investments a Nigerian undergraduate can make in their own future.

Internet Accessibility as a Foundational Enabler

Internet accessibility functions as the foundational enabling condition for all other dimensions of digitalisation. Without affordable, reliable internet access, digital skills are difficult to acquire, ICT-based learning is constrained, and digital entrepreneurship is severely limited. The persistent digital divide in Nigeria (particularly the rural-urban access gap) constitutes a structural barrier that will prevent the emancipatory potential of digitalisation from reaching the majority of Nigerian graduates unless deliberately and urgently addressed through public investment in broadband infrastructure and affordability interventions.

13. Contribution To Knowledge

This study makes several distinct contributions to the scholarly literature on digitalisation, graduate employment, and human capital development in developing economies, with particular relevance to the Nigerian context. First, the study advances a comprehensive conceptual framework that integrates four previously siloed research streams such as digital skills acquisition, ICT-based learning, digital entrepreneurship, and internet accessibility, into a unified analytical model of digitalisation's potential to address the school-not-to-job conundrum. This integrative framework provides a more holistic understanding of the digitalisation-employment nexus than studies that focus on any single dimension in isolation. Second, the study extends the application of Human Capital Theory to the digital economy context in Nigeria, contributing to the growing literature on 'digital human capital' by providing a theoretically grounded analysis of how investment in digital competencies generates returns in the specific socioeconomic context of a large, low-middle-income African nation. This contextualised application of established theory adds specificity and local relevance to a framework originally developed in the context of advanced industrialised economies. Third, the study provides a systematic analysis of the structural barriers to digitalisation in Nigeria that is more comprehensive and multi-dimensional than existing single-factor analyses. By examining infrastructure deficits, funding constraints, curriculum rigidity, digital divides, policy implementation gaps, ecosystem underdevelopment and cultural orientations as an interconnected system of challenges, the study offers a more realistic picture of what effective digitalisation requires and the scale of the investment and coordination needed to achieve it. Fourth, the study contributes a practically oriented argument for

individual-level digital skills investment by Nigerian undergraduates, grounded in a synthesis of empirical evidence on digital skills and employment outcomes. This contribution has direct relevance for millions of Nigerian university students making decisions about how to invest their time and resources during their university years, and for the educators and institutions responsible for supporting those decisions. Fifth, the study contributes to the comparative literature on digital transformation in Sub-Saharan Africa by situating Nigeria's experience in relation to both more advanced African digital economies (such as Kenya Rwanda, and South Africa) and global best practices, identifying transferable lessons and context-specific adaptations that the Nigerian experience offers to the broader field.

14. Conclusion

This paper has undertaken a comprehensive examination of digitalisation as a potential elixir to the school-not-to-job conundrum that afflicts Nigeria's educational system and labour market. Through a systematic analysis of four critical variables viz; digital skills acquisition, digital entrepreneurship, ICT-based learning, and internet accessibility. The study has illuminated both the transformative potential of digitalisation and the formidable structural, institutional and socio-cultural barriers that currently impede its full realisation. The evidence reviewed in this study unambiguously supports the conclusion that digitalisation, properly designed and implemented, can significantly reduce the structural unemployment of Nigerian graduates by creating new employment pathways, enhancing the employability of graduates across all disciplines, enabling digital entrepreneurship as a vehicle for self-employment and value creation, and connecting Nigerian talent to global opportunities through the internet. In this sense, digitalisation is indeed an elixir, though one that requires careful administration and a supportive institutional environment to deliver its curative effects.

The study's adoption of Human Capital Theory as its theoretical anchor reinforces the core argument that investment in digital human capital is economically rational, socially equitable, and developmentally imperative. Nigeria's demographic can only be realised as an economic asset if those young people are equipped with the skills, knowledge, and entrepreneurial dispositions that the digital economy demands. Conversely, if this population enters the labour market without digital competencies, it risks becoming a demographic burden rather than a dividend, with serious implications for social stability and national development. The practical message of this study is unambiguous: every Nigerian undergraduate must treat digital skills acquisition as a personal and professional imperative, not as an optional extracurricular activity. In a labour market that increasingly treats digital competency as a baseline requirement rather than a competitive advantage, the decision to graduate without at least one or two digital skills is a decision to enter the employment market at a significant disadvantage. The good news is that the resources for digital skills self-development like free online courses, affordable data access, widely available digital tools, have never been more accessible, making digital skills acquisition a choice that any determined undergraduate can make, regardless of institutional or socioeconomic constraints. The resolution of Nigeria's school-not-to-job crisis through digitalisation requires coordinated action across multiple stakeholders: government must invest in digital infrastructure, reform educational curricula, and create enabling regulatory environments; universities must embed digital skills across all disciplines and invest in ICT-based learning infrastructure; the private sector must create apprenticeship, internship, and partnership programmes that bridge the gap between digital education and digital employment; civil society must challenge the cultural norms that discourage entrepreneurship and digital career paths; and international development partners must direct technical and financial assistance towards Nigeria's digital transformation agenda. The stakes for millions of young Nigerians and for the country's developmental future, could not be higher.

15. Recommendations

Based on the findings and conclusions of this study, the following five recommendations were advanced for consideration by policymakers, educational institutions, the private sector and individual graduates:

Mandatory Digital Skills Integration Across All University Curricula

The National Universities Commission (NUC) should revise the minimum academic standards across all undergraduate disciplines to include mandatory digital skills modules as core rather than elective components of every degree programme. These modules should cover, at minimum, digital literacy, productivity software proficiency, internet-based research skills, and at least one applied digital skill (such as data analysis, digital marketing, content creation, or basic programming) relevant to the graduate's field of study. Universities should be required to report on digital skills curriculum implementation as part of their accreditation processes, with non-compliance attracting accreditation consequences. This recommendation would ensure that every Nigerian graduate emerges from university with a foundational digital skill set that enhances their employability across sectors and provides a basis for digital entrepreneurship.

Substantial and Sustained Investment in ICT Infrastructure in Tertiary Institutions

The Federal and State Governments, in partnership with the Tertiary Education Trust Fund (TETFund), the Universal Service Provision Fund (USPF), and private sector technology companies, should initiate a dedicated Nigerian Digital Campus Initiative with the specific objective of providing every tertiary institution in Nigeria with reliable internet connectivity, functional computer laboratories, learning management systems, digital library access, and training for faculty in ICT-mediated instruction. International development partners, including the World Bank, African Development Bank, and bilateral donors, should be invited to co-finance this initiative. The goal should be for every Nigerian university student to have meaningful, regular access to ICT-based learning resources within five years, regardless of their institution's geographic location or funding status.

Establishment of Digital Entrepreneurship Incubation Centres in Universities

Every tertiary institution in Nigeria should establish a Digital Entrepreneurship and Innovation Centre (DEIC) that provides students with access to digital entrepreneurship training, mentoring, co-working space, seed funding, and market development support. These centres should be resourced through a combination of university funds, TETFund allocations, private sector sponsorships, and alumni contributions. They should develop partnerships with established digital enterprises, venture capital funds, and diaspora entrepreneur networks to provide students with access to mentorship, internship, and funding opportunities. The centres should also facilitate students' registration on global freelancing platforms and provide guidance on building digital portfolios that attract international clients. This initiative would operationalise the digital entrepreneurship pathway to employment for a much larger proportion of Nigerian graduates than currently benefit from ecosystem support.

Accelerated Broadband Infrastructure Deployment and Internet Affordability Programmes

The Nigerian Communications Commission (NCC), Nigerian Communications Satellite (NIGCOMSAT), and the Ministry of Communications and Digital Economy should accelerate the implementation of the National Broadband Plan with a specific focus on last-mile connectivity in underserved rural and peri-urban communities. Priority should be given to ensuring broadband coverage of all tertiary institutions and their surrounding communities. In parallel, the government should implement internet affordability interventions such as subsidy programmes for student internet data, regulation of minimum data cost-per-gigabyte benchmarks and promotion of community WiFi infrastructure, that reduce the financial barriers to internet access for students from low-income households. The deployment of LEO satellite internet services, in partnership with operators such as Starlink, should be accelerated to provide connectivity in areas where terrestrial infrastructure deployment is challenging.

National Digital Career Awareness and Mindset Change Campaign

The Federal Ministry of Education, in collaboration with the National Orientation Agency, universities, professional associations, and the private sector, should launch a sustained national campaign to reframe graduate career aspirations and challenge the cultural preference for white-collar formal employment. The campaign should highlight successful digital entrepreneurs and freelancers as aspirational role models, demonstrate the income potential of digital career pathways, provide practical information about accessible digital skills training resources, and challenge the social stigma associated with self-employment and entrepreneurship. The campaign should be designed with particular sensitivity to gender dimensions, actively promoting digital career pathways for women and addressing the specific barriers they face. This mindset change campaign should be integrated into university orientation programmes, career counselling services, and community engagement activities, ensuring that the message reaches not only students but also the families and communities whose cultural norms significantly influence graduate career decisions.

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