

At-Issue

ICT Growth and the Fintech Boom: A Mismatched Capability Perspective from Nigeria

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Abstract: This article draws on both, dynamic capability theory and reviews of contemporary market research studies to assess the sustainability of Nigeria's burgeoning fintech sector. It highlights the need for targeted education and training schemes to address a skills-driven, dynamic capability mismatch between larger and micro-enterprise employers in Nigeria's organizational landscape. The talent pool of qualified candidates is limited, competition is intense, and the fintech boom has led to substantial emigration of the young and digitally skilled. Although unevenly distributed government efforts are evident, micro-employers have yet to benefit from these interventions.

Keywords: dynamic capabilities, ICT, fintech, talent gap, Nigeria

Introduction

Not unlike many other developing economies in the world, Nigeria has accepted the importance of Information and Communication Technology (ICT) as a catalyst for sustainable socio-economic development. In particular, the country has emerged as a dominant force in the ever-evolving African financial technology market—popularly known as fintech—with the largest concentration of fintech start-ups on the African continent. This growth is driven by a surge in mobile telephone access, mobile banking, online lending, blockchain, and cryptocurrencies. As commentators in the popular press already see the country's fintech future as a "bright new star," how sustainable is Nigeria's financial technology success in the long term?¹

Nigeria is certainly widely acknowledged as the largest ICT market in Africa, laying claim to approximately 82% of the continent's telecom subscribers and around 29% of internet usage.² It thus comes as no surprise that the ICT sector in Nigeria remains pivotal in driving the country's economic resurgence following the challenging years of the pandemic.

Drawing on both dynamic capability theory and reviews of contemporary market research studies, this piece highlights the acute need for targeted education and training interventions to

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address a skills-driven, dynamic capability mismatch between large and micro-enterprise employers in a scramble for digital talent within the Nigerian organizational landscape.

Dynamic Capabilities

In organizational theory literature, dynamic capability refers to an organization's ability to adapt its resource base purposefully.³ Specifically, the dynamic capability theory extends the resource-based view.⁴ It provides additional theoretical perspectives on how organizations transform and adapt available resources to preserve their performance in uncertain times and environments.⁵ Put differently, as a performance theory, dynamic capability seeks to reveal the origins of enduring competitive advantage in the face of rapid technological advancements.⁶

The fundamental premise of the dynamic capability framework posits that leveraging core competencies is essential for adapting short-term competitive positions, which in turn can be harnessed to establish a sustainable long-term competitive advantage.⁷ As a conceptual framework, it is easy to see that dynamic capabilities hold great promise. However, an important conceptual concern also questions the roots of dynamic capabilities and, in turn, leads to a growing interest in micro-level foundational thinking about innovative capabilities.⁸ What exactly should organizations prioritize to rebuild their capabilities? One notable area for a better understanding of organizational capabilities relates to the enhancement of employees' skill sets, not least because employees and their skills play a vital role in the success and creativity of an organization.

ICT Growth and Digital Skills Gaps in Nigeria

In terms of its regional economic outlook, the growth rate in Sub-Saharan Africa has been predicted to be the highest globally, reaching 4.6% annually. Between 2024 and 2029, the region is expected to see an increase of over 167 million ICT subscribers. Nigeria alone is anticipated to account for more than half, exceeding 55%, of this growth.⁹ However, it is not uncommon for the Nigerian government to undergo substantial and frequent changes in its governance approach towards ICT, including the possibility of stringent regulations in certain areas of the nation. In addition, there is a severe shortage of skilled ICT professionals with appropriate levels of digital knowledge in Nigeria.

Small- and medium-sized enterprises (SMEs) are strong contributors to the economic development in Nigeria.¹⁰ Micro-enterprises account for over 90 per cent of Nigerian SMEs, reflected in employers with fewer than 10 employees. These micro-enterprises face significant challenges on both the demand and supply sides of digital skills. On the demand side, the International Telecommunication Union (ITU) notes that only 1.8% of Nigeria's micro-enterprises across all industries currently benefit from online business creation.¹¹ This severely limits their ability to create digital skills-based employment opportunities. At the same time, on the supply side, most providers of digital skills training are themselves micro-enterprises and often face infrastructure constraints such as unstable power supply, lack of access to financial investment assets, and a shortage of digital skills trainers.

Taken together, this scenario results in costly training provision, thus presenting a major obstacle for young professionals aspiring to gain pertinent skills for forthcoming digital job

prospects. A recent ITU survey reveals that micro-workers on online digital platforms hold most jobs that require digital skills.¹¹ This finding raises concerns because a considerable number of micro-workers are expected to continue using these platforms in the future.¹² It is alarming to note that less than 50% of young workers possess knowledge about how micro-task platforms operate. Similarly worrying is the fact that grant-funded government initiatives and programs to provide digital skills and other forms of technical support tend to target larger employers in the Southwest and Northwest Industrial Areas of Nigeria, neglecting the needs of micro-employers who are least likely to benefit from such initiatives.

The Rise of Nigeria's Fintech Market

Conducted in 2022, a report by McKinsey consultants envisaged that the financial services market in Africa could grow by about 10% per annum, reaching about \$230 billion in revenues by 2025.¹³ As a powerful industry example, Nigeria's fintech sector accounts for about 30% of the continent's fintech market. This unfolding success story continues to be closely watched by executives and senior financial experts as the country's fintech growth continues to capture the attention of not only the Nigerian market, but also the global financial community.

Beyond impressive growth scenarios, the appeal of the Nigerian 'fintech miracle' also lies in its promise to address the perennial challenge of financial inclusion. However, in the country's rural areas, where physical bank branches are virtually non-existent, many businesses and households remain unbanked and underserved.¹⁴ This should come as no surprise: around 90% of all transactions on the African continent are still cash-based. Furthermore, while the fintech space may grow exponentially in urban conurbations, the sustainability of fintech also depends heavily on reliable internet infrastructure, services, and a suitably skilled digital workforce.

Successful fintech operators will thus need to rely on ambitious strategies to attract, develop, and retain the most talented digital workforce, and this is a significant challenge, particularly for Nigeria's micro-enterprises. Moreover, the skills dilemma does not only affect the sector's growth at the national level. Rather, a significant 'brain drain' of ICT professionals from low- and middle-income countries is expected globally, as these workers seek better job opportunities and higher wages in countries where the digital sector is more developed.¹⁵

In Nigeria, this problem has already been exacerbated. The talent pool of qualified candidates is limited, competition is intense, and the fintech boom has led to substantial emigration of the young and digitally skilled to Canada and Europe. Due to this significant emigration of Nigerian professionals—commonly known as *japa*—the shortage of technical expertise is steadily increasing. Data analysis, cybersecurity, and software development are the areas that have been identified as the key skills in demand. Financial management, marketing, and administrative expertise are also essential but remain scarce skills needed by fintech startups. In this context, Olodun reminds us that "according to a survey by Techpoint Africa, 70% of Nigerian tech startups face challenges in hiring software developers, while 57% struggle to find product managers."¹⁶ Consequently, Nigerian fintech founders and their learning and development practitioners rely increasingly on in-house training programs for new employees as well as costly recruitment campaigns to hire international candidates. This may be feasible

for large and financially well-endowed fintech companies, but Nigeria's micro-enterprises can ill afford such strategies to close the talent gap.

Narrowing the tech talent gap in Nigeria will also demand longer-term solutions. By providing Nigerian students at the primary, secondary, and tertiary education levels with a growing exposure to STEM fields and internships in fintech companies, tech-based entrepreneurship can be effectively fostered to tackle the distinctive challenges faced by the nation. From an organizational theory perspective, a competitive advantage requires such integration of external activities and technologies. Zahra and Nielsen have argued that internal and external human resources and technological resources are related to technology commercialization.¹⁷

Some industry-education partnerships do exist, but most ventures across the nation are small-scale and geographically fragmented. For example, the Lambda School Africa Pilot utilizes several Nigerian fintech start-ups (e.g. Paystack, Buycoins, Wallets Africa) and reaches out to the California-based Lambda School, sponsoring Nigerian applicants for a nine-month 'full stack' developer training program. Such initiatives are undoubtedly worthy, but they usually capture no more than a few hundred applicants per annual intake. Similarly, the creation of software developer communities (e.g. ForLoop Africa; Data Science Nigeria) has allowed for several masterclass events on data science and machine learning to take place, but such activities are usually restricted geographically to the City of Lagos. In the meantime, most fintech companies across Nigeria face the dual challenge of national skills shortages and international competition for talent.

Conclusion

As the ICT sector in Nigeria continues to expand, the demand for individuals with digital skills is expected to grow significantly. Such a trend will drive the developmental need for training programs and initiatives to help people acquire relevant digital skills. In fairness, some government efforts are already evident. For example, at the time of writing the National Information Technology Development Agency (NITDA) is currently providing training to approximately one million developers in Python for machine learning and data science through its subsidiary, the National Center for Artificial Intelligence & Robotics (NCAIR). At the local level, the Lagos State government has initiated the second phase of the Eko Digital program to equip around one million young individuals in the state with cybersecurity skills.

While such developments are promising endeavors in many ways, most micro-entrepreneurs have yet to benefit from these interventions. The Nigerian economy will continue to be significantly influenced by ICT in the future, especially with the anticipated increase in broadband penetration across the country.¹⁸ However, unless government intervention begins with a targeted approach to support digital talent retention in the micro-enterprise economy, a dynamic human capability mismatch is likely to dominate the policy narrative for years to come.

Nigeria has indeed the potential to become a long-term, fintech powerhouse. However, to move this vision from an ambition to a reality, the Nigerian fintech ecosystem requires access to an even playing field across the nation, with smaller companies able to attract and retain digital

talent. Commentators who understand the issues involved have a responsibility to be more realistic and candid in their analysis.

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Notes

¹ Hyde 2021.

² MWR 2024.

³ Helfat et al. 2007.

⁴ Seriki 2023.

⁵ Furnival et al. 2019.

⁶ Denrell and Powell 2015.

⁷ Teece 2018.

⁸ Palmie et al. 2023.

⁹ Mordor Intelligence 2024.

¹⁰ FATE Institute 2023.

¹¹ ITU 2024.

¹² Ochinanwata and Ochinanwata 2023.

¹³ Flötotto et al. 2022.

¹⁴ Soetan and Umukoro 2023.

¹⁵ de Azevedo 2022.

¹⁶ Olodun 2023.

¹⁷ Zahra and Nielsen 2002.

¹⁸ Nigerian Communications Commission 2020.