



Digital Transformation of Public Services and Its Influence on the Business Landscape in African States

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ABSTRACT:

The digital transformation of public services is reshaping the business landscape in African states, fostering innovation, economic growth, and inclusivity. This evolution, driven by technological advancements and government initiatives, has revolutionized service delivery, transparency, and citizen engagement. Initiatives like e-governance and online payment solutions have modernized public services, enhancing citizen experiences and providing a fertile ground for entrepreneurship. E-commerce has transcended geographical boundaries, offering global market access. Fintech and agritech startups are revolutionizing finance and agriculture sectors, while technology hubs are driving innovation and economic expansion. Nonetheless, challenges such as the digital divide, cybersecurity, regulatory frameworks, and infrastructure constraints persist. Addressing these issues while capitalizing on digital opportunities is crucial for sustained progress. Recommendations include prioritizing equitable access to technology, developing robust cybersecurity strategies, creating adaptive regulatory frameworks, and investing in rural infrastructure. By navigating these challenges and harnessing digital potential, African states can forge a path to inclusive and innovation-driven economic development.

Keywords: Digital Transformation, Public Service, Business Landscape, Business, African states

Introduction

The digital transformation of public services has emerged as a pivotal driver of economic and social development in African states (Osangwa, 2020). This research delves into the profound impact of digital transformation on the business landscape within these nations. By examining the multifaceted interactions between technological advancements, government policies, and entrepreneurial activities, this study seeks to illuminate the mechanisms through which digital transformation has been reshaping traditional business models, fostering innovation, and driving inclusive growth in Africa (Amoah, 2023; Solomon & Klyton, 2020).

One domain where this transformation has shown remarkable potential and significance is the realm of public services. Public service delivery plays a pivotal role in ensuring the well-being and progress of nations, and its modernization through digital technologies has become a paramount concern, particularly for African states. Over the past few decades, the rapid proliferation of digital technologies has ushered in an era of profound societal change, influencing various aspects of human life, including governance and commerce. In the context of African states, digital transformation of public services has emerged as a critical catalyst for enhancing government efficiency, citizen engagement, and economic development (World Bank, 2023). As these nations strive to overcome challenges such as inadequate infrastructure, limited access to services, and uneven economic development, embracing digital technologies has been identified as a viable means of leapfrogging traditional developmental trajectories (Osangwa, 2020).

The digital transformation of public services entails the integration of technology, data-driven processes, and innovative solutions into the traditional mechanisms of governance, administration, and service provision (Yukhno, 2022; Mergel, Edelmann, and Haug, 2019). This paradigm shift not only holds the promise of enhancing the efficiency, accessibility, and transparency of public services but also has the potential to reshape the broader business landscape within African nations. The interplay between digital transformation and the business environment opens up new avenues for economic growth, entrepreneurship, and investment.

While the literature on digital transformation and its impact on developed economies is relatively extensive, there remains a noticeable research gap when it comes to the African context. Existing studies often focus on developed countries or generalize global trends, neglecting the specific challenges and opportunities that African states face. This research aims to address this gap by centering its investigation on the unique dynamics within African states. Additionally, while some studies have explored the effects of digital transformation on government services or the private sector independently, there is a scarcity of research that comprehensively examines how the digital transformation of public services interplays with the broader business landscape in

African countries. This paper fills the identified research gap by offering an in-depth exploration of the intricate relationship between the digital transformation of public services and the business landscape in African states. Through empirical analysis, this study aims to shed light on the extent to which digital transformation initiatives have influenced sectors such as e-commerce, fintech, agribusiness, and healthcare, and how these changes have contributed to overall economic development. Against the backdrop of diverse socio-economic conditions, infrastructure limitations, and developmental challenges, African states present a unique context for examining the dynamics of digital transformation in public services. This research endeavor seeks to delve into the multifaceted aspects of this transformational journey, exploring its drivers, challenges, and far-reaching implications for businesses operating within these states. By scrutinizing the intricate interplay between the digital evolution of public services and the evolving business landscape, a comprehensive understanding can be gained regarding the potential synergies, disparities, and strategic opportunities that arise.

Conceptualization of digital Transformation

Digital transformation involves the integration of digital technology into all aspects of society, fundamentally changing how services are delivered and experienced (Enterprisers Project, 2016; Kraus, Jones, Kailer, Weinmann, Chaparro-Banegas, and Roig-Tierno, 2021). In Ashfaq's (2023) conceptualization, Digital transformation within the realm of government and the public sector encompasses a multifaceted process that entails the strategic integration of technology and digital innovations. This integration aims to revitalize and elevate the provision of public services by harnessing the potential of digital solutions. This paradigm shift involves not only the adoption of advanced technological tools but also a fundamental restructuring of operational methodologies. By implementing digital transformation, governmental bodies seek to achieve two overarching objectives: the optimization of service delivery and the refinement of internal workflows. On one hand, this pertains to the augmentation of citizen-centric services through digital platforms, thereby ensuring accessibility, efficiency, and inclusivity. On the other hand, it involves the reengineering of bureaucratic processes and administrative procedures to cultivate a more agile and transparent governance structure. Crucially, digital transformation extends beyond mere technological implementation; it necessitates a change in mindset and organizational culture. The adoption of data-driven decision-making, the cultivation of innovation, and the embrace of adaptability become integral components of this transformation journey. Furthermore, as technology continues to evolve, ongoing adaptation and the embracement of emerging digital trends remain essential to sustain the benefits derived from this transformative effort. In essence, Ashfaq's definition encapsulates digital transformation in government and the public sector as an intricate progression towards leveraging technology's potential to revamp public service provision, enhance internal mechanisms, and ultimately foster an elevated standard of governance for the digital age.

The profound digitization of both society and economy is fundamentally revolutionizing how services are provided. Innovative methods for delivering services in the corporate sphere have significantly heightened the public's anticipations concerning the administration of government services. The move from passive to active service provision methods, facilitated by the evolution from e-government to digital government, in which the incorporation of digital technologies is seamlessly woven into the fabric of governmental modernization and inventive strategies, generates societal benefits by involving a diverse range of collaborators. This transformation presents an opportunity to more effectively address user requirements, thereby enhancing the responsiveness to user needs (OECD, 2017). Daub, Domeyer, [Lamaa](#), and Renz, (2020) stated that an intricate process of fully digitizing public services is a multifaceted endeavor that may engage thousands of government officials. In African states, this transformation is seen in the digitization of government processes and services. The adoption of digital platforms for services like e-governance, online tax filing, and digital identification systems, in western world, has streamlined bureaucratic procedures, reduced corruption, and increased efficiency.

Public Services

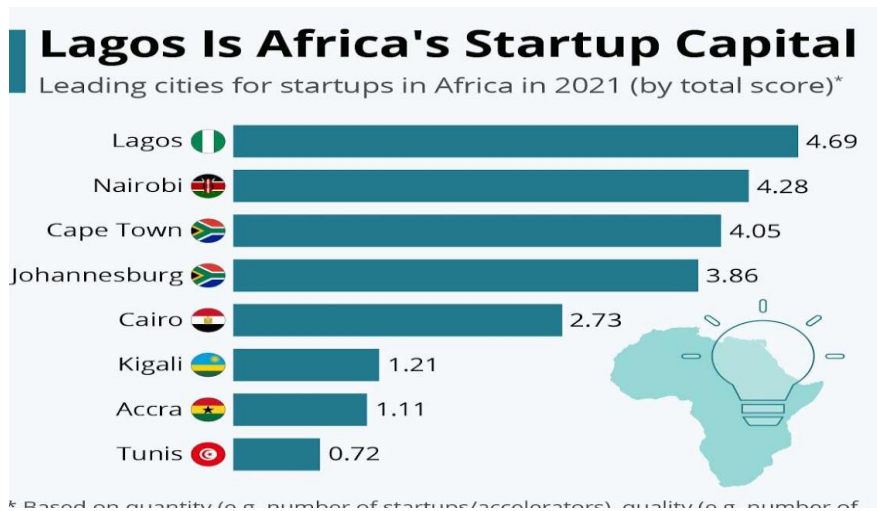
Public service refers to the range of activities and essential functions carried out within a governmental capacity, all aimed at promoting the welfare of the common domain and advancing the greater good of the general populace. These critical endeavors encompass a spectrum of sectors, encompassing law enforcement, national security, healthcare provisions, educational facilitation, and more (Shittu, 2020). According to Marshall and Murtala (2015), the definition of public service is outlined in section 277 (91) of the 1979 Constitution of the Federal Republic of Nigeria, which has now been renumbered as section 169 in the 1999 Constitution. This definition encompasses various sectors including the civil service (ministerial departments), statutory corporations or parastatals, judiciary, legislature, educational institutions primarily owned by government at the State, Local, and Federal levels, as well as entities such as the Nigeria Police, Armed Forces, and other organizations where the Federal or state governments hold a controlling share or interest. In Nigeria, the nation's governmental bureaucracy constitutes the public service, as governmental bodies at all levels formulate and execute their policies, programs, and projects through the conduit of the public service apparatus. The majority of public services in the country are oriented towards providing various services to the public.

Digital Transformation of Business Landscape in African States: The Journey so far

The digital transformation of public services has had a profound and far-reaching influence on the business landscape in African states. This transformation, driven by technological advancements and evolving societal needs, has reshaped the way businesses operate, engage with customers, and contribute to economic growth. The following points highlight the multifaceted impact of this transformation on the African business environment:

In the context of the ongoing digital transformation across African states, a remarkable outcome has been the symbiotic relationship between economic growth and innovation. As governments actively work towards establishing comprehensive digital ecosystems, an environment conducive to fostering

innovation has flourished. This fertile ground has given rise to a dynamic landscape where local startups and businesses are capitalizing on the emerging opportunities, propelling both technological advancements and economic expansion. Alekhuogic (2023) said that in recent times, Nigeria has witnessed a remarkable surge in the establishment of indigenous technology hubs. These dynamic centers are diligently crafted to foster a conducive atmosphere for fledgling enterprises to flourish and actively bolster the expansion of Nigeria's technological landscape.



Source: This day Live, 2023

In this swiftly evolving digital landscape, governments are playing a pivotal role by laying down the foundation for interconnected digital infrastructures. These infrastructures act as enablers, facilitating the seamless exchange of information and services. As a result, the barriers to entry for entrepreneurs and innovators have been significantly lowered, unleashing a wave of creative disruption across various sectors. Amidst this backdrop, enterprising startups and businesses have embraced the chance to cater to the evolving needs of citizens. Fueled by the accessibility and convenience offered by digital platforms, these entities have embarked on a journey to conceptualize and actualize groundbreaking solutions that address pertinent challenges faced by their communities. One prominent example lies in the realm of financial technology (fintech). Digital transformation has given birth to a vibrant fintech ecosystem, where startups are crafting innovative mobile payment solutions. By harnessing the ubiquity of mobile phones, these companies are revolutionizing traditional banking models, empowering individuals with the ability to conduct secure financial transactions even in the absence of a brick-and-mortar bank. This not only enhances financial inclusion but also drives economic activity by facilitating smoother and more efficient transactions (Feyen, 2021). Another facet of this innovation surge can be witnessed in the agricultural sector through agritech startups. These innovative enterprises are leveraging digital tools to optimize agricultural practices. From precision farming techniques that utilize data analytics to make informed planting decisions, to remote sensing technologies that monitor crop health, these solutions are enhancing productivity and sustainability in a sector vital to many African economies. The result is not only improved agricultural output but also increased income for farmers, contributing to overall economic growth (Stephens and Wolf, 2023).

The relentless surge of online platforms has heralded a new era of economic transformation in Africa, one that transcends geographical boundaries and empowers businesses, regardless of their location, to actively engage in the realm of e-commerce (United Nations Conference on Trade and Development (2023)). This paradigm shift has not only dismantled the barriers of distance and accessibility but has also extended a beckoning hand to small-scale enterprises, inviting them to partake in the boundless opportunities of the digital marketplace. In an unprecedented manner, these nascent online avenues have unshackled businesses from the limitations of their immediate surroundings, propelling them onto a grand stage where their products and services can be showcased to a global audience (Ndemo and Weiss, 2016). This liberation from geographical constraints has proven to be a game-changer, particularly for those enterprises nestled in remote corners of the African continent. A craftsman crafting unique artifacts in a remote village, a farmer nurturing organic produce in the heart of the savannah, or an artisanal manufacturer perfecting age-old techniques deep within the rural tapestry — all now find themselves armed with the tools to traverse beyond local thresholds and establish connections with consumers far and wide. The implications of this online market expansion ripple far beyond mere convenience. No longer confined to the limitations of their immediate vicinities, businesses can now tap into larger markets, unlocking a spectrum of opportunities that were once deemed unreachable. The digital storefronts have breathed life into the entrepreneurial dreams of countless individuals, bridging the gap between aspiration and accomplishment in Nigeria (Salaudeen & Howell, 2021). A small boutique that was once hidden in the labyrinthine alleyways of a bustling African city can now catch the discerning eye of a shopper continents away, leading to an exchange that not only impacts the boutique owner but ripples through the entire value chain, right back to the local artisans who supply it.

In the contemporary landscape, the relentless surge in the demand for digital services has orchestrated a paradigm shift within the realm of public services. This groundbreaking transformation is anchored in the imperative integration of technology and proficient data management. Consequently, the erstwhile conventional contours of the public service sector are undergoing a metamorphic reconfiguration. African youth, with their innate propensity for innovation and adaptability, are rising to the fore as the vanguards of this transformative trajectory (Gate, 2023). This resounding surge in the acquisition of digital prowess has invariably given rise to an avant-garde cohort – a tech-savvy workforce that stands poised at the intersection of tradition and

modernity. These individuals, armed with an arsenal of cutting-edge proficiencies, are catalyzing the propulsion of public services into an era defined by efficacy, transparency, and responsiveness. According to Gate (2023), a pivotal consequence of this workforce transformation is the fostering of an ebullient culture of entrepreneurship and self-reliance. The newfound adeptness in technology has not only endowed these individuals with the skills to navigate the intricate labyrinth of the digital age but has also emboldened them to traverse uncharted territories. The confluence of technological acumen and entrepreneurial spirit has kindled a conflagration of innovative startups and ventures that not only cater to the evolving needs of public services but also burgeon into the vanguard of economic dynamism. Also, the adoption of e-payment solutions, which facilitate secure and convenient financial transactions, has the potential to revolutionize the way governments interact with citizens and businesses alike. This research explores how the shift towards e-payment solutions within the context of digital transformation is reshaping the business environment in African states.

In the dynamic landscape of today's digital age, the seamless integration of diverse digital services invariably hinges upon substantial investments in robust and advanced infrastructure. One pivotal facet demanding attention is the establishment of dependable and high-speed internet connectivity (Duarte, 2021). In a world increasingly reliant on digital interconnectivity, governments and private enterprises are forging strategic partnerships to architect the essential framework that underpins the modern digital ecosystem. These collaborations transcend conventional boundaries, instigating a convergence of interests where mutual benefits unfold. Governments, cognizant of the pivotal role digitalization plays in socio-economic progress, are proactively engaging with private sector leaders to coalesce resources, knowledge, and capital for bolstering the technological foundations of their nations. Central to this cooperative narrative is the unprecedented expansion of telecommunications networks in Africa, especially in Nigeria (Alabi, n.d.). According to Further Africa (2022), the mobile subscription landscape in Sub-Saharan Africa is marked by significant growth. As of 2020, 46% of the region's population, totaling 495 million people, were mobile subscribers, with 64% adopting smartphones. Projections indicate that by 2025, these figures will rise to 50% and 75% for mobile subscriptions and smartphones, respectively. This growth is fueled by a youthful demographic, as more than 40% of the population is under 15 years old. Around 120 million new subscribers are expected by 2025, reaching a total of 615 million subscribers, contributing to the region's economy. Among African countries with high mobile penetration, Nigeria leads with 199.6 million mobile connections, while South Africa follows with 108.6 million. Egypt, Kenya, Ethiopia, Tanzania, Morocco, Algeria, Ghana, and the Democratic Republic of Congo also feature prominently in mobile adoption. For example, Kenya experienced a slight drop in active mobile subscriptions due to SIM registration efforts but remains a significant player with 64.9 million subscribers. The report emphasizes the positive impact of mobile technologies, contributing over \$130 billion (8% of GDP) to the region's economy in 2021. This trend underscores the increasing role of mobile technology in shaping Africa's economic and social landscape.

As the government moves more of its services onto the internet, they gather a whole bunch of information. This information can be super helpful if it's used correctly. It can assist the government in creating smarter strategies and also benefit businesses. Folks are using this information to make decisions, such as figuring out where to invest their money and how to enhance their businesses. This helps make sure that resources are used wisely and plans end up successful.

Challenges of digital transformation of public services

Challenges and Considerations: While the digital transformation of public services presents numerous benefits, challenges remain that necessitate careful consideration and strategic planning:

1. Digital Divide Widening Social Disparities: The presence of a digital divide underscores the persistent disparities in access to technology and the consequential impact on various societal facets. Those lacking the means to access digital resources and lacking proficiency in digital literacy are left further marginalized in an increasingly digitally-dependent world. Educational, economic, and healthcare opportunities that are readily available to digitally-connected populations become distant aspirations for those who are left on the wrong side of the digital divide. Addressing this issue becomes not just a matter of technological inclusion, but a fundamental step towards equitable and inclusive development.

2. Urgent Need for Comprehensive Cybersecurity Measures: In the era of rapid digital expansion, the specter of cybersecurity threats looms larger than ever before. The interconnectedness of systems, devices, and networks has created an intricate web that hackers and malicious actors seek to exploit. Governments and businesses are compelled to allocate significant resources to safeguard sensitive data, protect critical infrastructure, and preserve the privacy of individuals. The ramifications of a successful cyberattack can extend far beyond immediate financial losses, reaching into the realm of national security and public trust. Thus, an unwavering commitment to robust cybersecurity practices is paramount, necessitating not only reactive measures but also proactive strategies that continually evolve to counter emerging threats.

3. Regulatory Frameworks: In today's swiftly evolving landscape of technological advancements, the speed of innovation often overtakes the pace at which regulatory frameworks are established. This disparity can lead to a disparity between the capabilities of emerging technologies and the legal and ethical boundaries within which they should operate. Therefore, the development and establishment of well-defined and up-to-date laws and regulations have become paramount. These regulations not only act as guardrails, steering the course of technological progress towards socially responsible and secure outcomes, but they also facilitate the harnessing of the full potential of digital platforms.

4. Infrastructure Constraints: The digital transformation sweeping across industries and societies is underpinned by a robust and efficient technological infrastructure. However, one of the persistent challenges on the road to this transformation is the existence of infrastructure constraints, particularly in rural and underserved areas. While urban centers might experience seamless connectivity and access to digital services, rural regions often grapple with inadequate network coverage, limited internet speeds, and unreliable power supply.

Conclusion

The digital transformation of public services in African states has significantly impacted the business landscape, fostering innovation, economic growth, and inclusivity. This transformation, driven by technology and government efforts, has redefined service delivery, efficiency, and citizen engagement. Digital transformation has modernized public services, making them more transparent and accessible through initiatives like e-governance and online payment solutions. This has not only improved citizen experiences but also provided fertile ground for entrepreneurship to thrive. The effect on businesses is notable. E-commerce has transcended geographical barriers, enabling global market access. Fintech and agritech startups are reshaping financial and agricultural sectors, and indigenous technology hubs are nurturing innovation and economic expansion. However, challenges like the digital divide, cybersecurity concerns, regulatory frameworks, and infrastructure limitations persist. Addressing these challenges while leveraging digital opportunities will be pivotal for sustained progress.

Recommendations

1. To bridge the digital divide, prioritize equitable access to technology and digital literacy training. Invest in community centers, mobile internet initiatives, and educational programs to empower marginalized populations. Collaborate with NGOs and private sectors for sustainable solutions that ensure inclusivity in education, healthcare, and economic opportunities.
2. Establish a robust cybersecurity strategy combining preventive, detective, and responsive measures. Collaborate with cybersecurity experts to assess vulnerabilities and develop tailored solutions. Foster public-private partnerships to share threat intelligence, promote awareness, and ensure continuous adaptation to evolving cyber threats.
3. Fast-track the development of adaptive regulatory frameworks that balance innovation with security and ethics. Engage technology experts, policymakers, and industry stakeholders to draft comprehensive and agile laws. Regularly review and update regulations to keep pace with technological advancements, fostering responsible innovation and protecting public interests.
4. Prioritize infrastructure development in rural and underserved areas to ensure digital inclusivity. Collaborate with telecom companies and invest in expanding network coverage and improving internet speeds. Renewable energy solutions and innovative connectivity models can mitigate power supply challenges and bridge the urban-rural digital divide.

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