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LAW, ECONOMY AND DIGITALIZATION: BENEFITS AND DETRIMENTS OF THE USE OF TECHNOLOGY IN ZAMBIA

Abstract:

The paper discusses the benefits and detriments of Zambia's digital economy through the medium of technology in relation to strides made in the law in the digitalization of the economy. Zambia like the regional and global community at large, has embraced various mediums of information and communication technology in many aspects of peoples' daily lives ranging from education, work, agriculture, electronic commerce, social media and the use of electronic government services such as payment of taxes, registration of businesses, access to social security benefits, obtaining land ownership documents, motor vehicle and driver licensing, acquiring citizenship identity documents, immigration permits and visa services, investment permits and licenses among other services. Digitalization of the Zambian economy is a driver of both economic and socio-economic growth achievable through government's unwavering long-term commitment in leveraging technologies for the overall upward thrust of the country's economy. Thus, it is against this backbone that necessary state actors have put in place relevant policies and laws aimed at regulating and enhancing the use of the digital economy through technology. However, the ills of technology cannot be completely ignored. While the digital economy is a benefit for a third-world country like Zambia, this paper reveals a worrying trend of persistent and grappling ills or detriments such as cybercrimes, unreliable internet infrastructure and connectivity, high data costs, high digital divide and youth decay which threaten the greater good of achieving a meaningful digital economy.

Keywords: *Zambia, development, economy, law, technology.*

INTRODUCTION

Zambia's digital economy is a relatively novel and thrilling phenomenon. Over the years, the country has coped with the traditional and conventional way of doing business, which has proven to be costly, cumbersome, laborious, beaurocratic and time-consuming ultimately resulting in poor client satisfaction.

Key policy and legislative reforms and milestones in achieving digitalization of Zambia's economy between 2006 and 2010

The role of government in creating an enabling environment for a digitalized economy, cannot be over-emphasized. In fact, (Konde, 2004) put it more aptly when he stated the vital part played by governments in national development in that, "The ability

of nations to generate and use advanced knowledge for industrial competitiveness is partly determined by the relationship between government, industry and research institutions as well as policies and regulations that govern the generation, transfer and commercialisation of new knowledge”.¹

Thus, the Zambian government has made significant strides in appreciating the crucial role and function of information and communication technology in fronting and thrusting national development.² In that vein, it has been at the forefront of spearheading initiatives, policies, and legislation which have culminated into key and notable milestones discussed in the subsequent portions of this article.

A number of policies and legislative reforms over the last decade, have been enacted and notable among the policies, is the National Information and Communications Technology policy. The first of this kind was created in 2006 in order to achieve the Fifth National Development Plan for the period 2006 to 2010. Among other objectives of the policy and of particular relevance to this article, was to:

1. Support the creation of satisfactory and operative sector legislation and regulatory framework. This objective was premised on the fact that the legal and regulatory framework governing the Zambian ICT sector at the time, was viewed as inadequate by
2. stakeholders in the sector in addressing concerns mainly because it was drawn without a clear sector policy in place; thus, creating room for assumption on key policy issues as well as lack of clear direction on roles and responsibilities. Therefore, the 2006 policy sought to birth revised legislation in order to cure this particular challenge.
3. Ensure coordinated and effective use of ICTs as an instrument for accelerated social and economic development. This objective was formulated on the basis of the wide digital divide and hence the development divide existing between the developed and developing countries largely due to economic discrepancies stemming from technology utilisation including ICTs. Despite the fact that developing countries are still focused on resource-based economies, ICTs have become economic drivers in developed countries. It was thus identified in this policy, that Zambia too could benefit from this lesson to break the chain of poverty.³
4. The aforementioned objectives of the National Information and Communications Technology policy 2006 were thus attained through the enactment of the following key pieces of legislation:
 - a) The Information and Communications Technology Act No. 15 of 2009 which came into force on 28th August 2009 and is still in operation to date. The objective of the Act is to among other things, re-name the Communications

1 Konde, V. (2004) Internet development in Zambia: a triple helix of government-university-partners International journal of technology management : IJTM. - Geneva-Aeroport : Inderscience Enterprises Ltd, ISSN 0267-5730, ZDB-ID 55978-7. - Vol. 27.2004, 5, p. 440-451.

2imba, A. (2025) Navigating the Digital Landscape: 60 Years of ICT Evolution in Zambia - Progress, Challenges, and Opportunities for National Development. ZAMBIA AT 60: Invigorating Innovation for Sustainable Development (pp.172 - 195) Edition: 1 Chapter: 9 Publisher: Mission Press, Ndola, Zambia.

3 National Information and Communications Technology Policy 2006.

Authority of Zambia (CAZ) as the Zambia Information and Communication Technology Authority (ZICTA) and continue its existence through the latter; to make provision for the regulation of the information and communication technology sector in Zambia; to enable accessibility to information and communication

technologies; to protect the rights and interests of information and communication providers and consumers.* technology service

- b) The Electronic and Communications Transactions Act No. 21 of 2009, which also came into force on 28th August 2009. The Act was the first of its kind dealing with electronic communications and transactions in Zambia (e-commerce), information security, cybercrimes and data protection. In term of its objectives, it therefore sought to develop a safe, secure and effective environment for the consumer, business sector and the Government to conduct and use electronic communications; promote legal reliability and guarantee, as well as boost investment and innovation, in the electronic communications industry; facilitate the creation of secure communication systems and networks; establish the Central Monitoring and Coordination Centre and define its functions. However, this particular piece of legislation fell short in quite a number of ways and was eventually repealed and replaced by the Electronic and Communications Transactions Act No. 4 of 2021.⁴

KEY POLICY AND LEGISLATIVE REFORMS AND MILESTONES IN ACHIEVING DIGITALIZATION OF ZAMBIA'S ECONOMY BETWEEN 2010 AND 2025.

Stemming from the weaknesses of the now repealed Electronic and Communications Transactions Act No. 21 of 2009, the Zambian government saw it fit to formulate the National Cyber Security Policy of 2021. The policy sets out the wide-ranging objective of addressing cyber security and elasticity. As a result of this, three key pieces of legislation were birthed by the policy. These are the Cyber Security and Cyber Crimes (CSCC) Act No. 2 of 2021, the Electronic Communications and Transactions Act No. 4 of 2021 and the Data Protection Act No.3 of 2021.⁵ These are discussed below:

1. The Electronic Communications and Transactions Act No. 4 of 2021

The Act in its objectives, sought to provide a safe and operative atmosphere for electronic transactions; promote secure electronic signatures; enable the electronic filing of documents by public authorities; provide for the use, security, enablement and regulation of electronic communications and transactions; promote legal certainty and confidence, and encourage investment and novelty in relation to electronic transactions.⁶

4 Electronic and Communications Transactions Act No. 21 of 2009.

* Information and Communications Technology Act No. 15 of 2009.

5 National Information and Communications Technology Policy 2023 *op. cit.* p.14.

6 Electronic Communications and Transactions Act No. 4 of 2021.

2. Electronic Government Act No. 41 of 2021

This Act aims to enhance the administration and advancement of electronic Government services and procedures; establish the Electronic Government Division and provide for its powers and functions; enable accessibility to electronic Government services in order to enhance service delivery.⁷

3. Cyber Security and Cyber Crimes Act No. 2 of 2021

The Act was a legislative response to the weaknesses of the Electronic and Communications Transactions Act No. 21 of 2009 and among other aims, it intended to enhance and widen the laws pertaining to cybersecurity in Zambia; provide for the protection of persons against cyber-crime; provide for child online protection; enable identification, assertion and fortification of critical information infrastructure; provide for the collection of and safeguarding of evidence of cyber related crime; and provide for the admission in criminal matters, of electronic evidence.⁸

4. Data Protection Act No.3 of 2021

In response to the lack of provision for data protection principles in the repealed Electronic and Communications Transactions Act No. 21 of 2009, this Act aims to provide an operative scheme for the usage and fortification of personal data; control the gathering, usage, dissemination, repository and refining of personal data; the certification of data controllers and licencing of data auditors; provide for the duties of data controllers and data processors and provide for the rights of data subjects.⁹

5. Cyber Crime Act No.4 of 2025

The Act was passed as a legislative response to the inadequacies of its predecessor, the Cyber Security and Cyber Crimes Act No. 2 of 2021 which had a limited scope of cyber-crimes. The objectives of the 2025 Act, are to make provision for offences relating to computers and computer systems; make provision for the protection of persons against cyber-crimes in a more heightened manner; and make provision for an enhanced and robust child online protection framework.

6. Cyber Security Act No.3 of 2025

Like the Cyber Crime Act discussed above, this Act, too was passed as a legislative response to the inadequacies of its predecessor, the Cyber Security and Cyber Crimes Act No. 2 of 2021 which had a limited scope of cyber security laws. The Act therefore aims to make provision for cyber security in the Republic; legally constitute and enhance the operations and functions of the Zambia Cyber Incident Response Team and the sectoral cyber incident response teams; and augment the description, fortification and registration of critical information and critical information infrastructure.

7. National Information and Communications Technology Policy 2023

In 2023, Zambia embarked on a robust campaign and venture of revising the 2006 ICT policy which has been viewed to be inadequate over the years, stemming from emerging

7 Electronic Government Act No. 41 of 2021.

8 Cyber Security and Cyber Crimes Act No. 2 of 2021

9 Data Protection Act No.3 of 2021

issues in the ICT sector in the wake of various technological advancements such as artificial intelligence, big data, machine learning and robotics, and nanotechnology. The 2023 policy augments the strides made by the 2006 policy, by focusing on the robust digitalization of the Zambian economy riding on the vision; “An integrated ICT ecosystem for Zambia’s digital economy”.¹⁰

ACCELERATED GROWTH OF ZAMBIA’S DIGITAL ECONOMY

Zambia like many countries around the world, was hard hit by the Covid-19 pandemic between the period 2019 and 2021. It was during this particular period, that the country experienced an exponential growth and adoption of information communication technology tools by citizens to conduct business and ease other activities in their daily endeavours. In fact, (Amankwah- Amoah, Khan et al 2021) argue that the Covid-19 pandemic significantly transformed the global *modus operandi* of human way of life and business models in particular, through the implementation of state measures of national lockdowns, social distancing and restricted social human interactions, thus accelerating the expansion of digital economies around the world.¹¹

In view of the foregoing, one of the major objectives of the National Information and Communications Technology Policy 2023 is “to promote the development and utilisation of electronic-services in both public and private sectors”. A discussion of how this objective has been achieved, is highlighted below:

THE DIGITAL ECONOMY ACCESSIBLE THROUGH THE ELECTRONIC GOVERNMENT PLATFORM

Through the enactment of the Electronic Government Act No. 41 of 2021 which came into effect on 7th January 2022, the dedicated electronic government division (Smart Zambia Institute), derives its legal mandate to smoothen the access to electronic government services in order to enhance service delivery in relation to transactions and processes between government institutions, departments and agencies; transactions between governments and businesses; as well as transactions between citizens and the government.¹² In that vein, the following e-government services in Zambia’s digital economy, can conveniently be accessed via the e-service bus called ZamPortal:

Individuals and business entities alike, can easily access and obtain a number of online services via the ZamPortal, ranging from driver license acquisition and renewal services; motor vehicle clearance; road tax motor vehicle licensing; road safety fitness inspection application; e-visas; immigration employment, investor and study permits; electronic tax payment services; the introduction of various e-health programmes such as SmartCare for the management of patient records in public hospitals; company and business registration services and more recently, the online registration of trademarks. Other accessible services include agricultural permits; mining licensing; land and survey

10 National Information and Communications Technology Policy 2023 *op. cit.* p.15

11 Amankwah-Amoah, J., et al (2020). COVID-19 and Business Failures: The Paradoxes of Experience, Scale and Scope for Theory and Practice. *European Management Journal*. DOI: 10.1016/j.emj.2020.09.002., p.1

12 Our Mandate (Retrieved on 1st July 2025) from: https://www.szi.gov.zm/?page_id=169.

services; competition and consumer protection services; national parks and wildlife services; firearm certificates; groundwater drilling licenses; guest accommodation and other tourism services; environmental management services; and the registration of clubs, societies and associations among numerous other services.¹³

THE DIGITAL ECONOMY ACCESSIBLE THROUGH PRIVATE ELECTRONIC PLATFORMS

Zambian citizens, visitors and residents, have hoped onto the bandwagon of utilising various mediums of information communication technology tools and applications, in order to flawlessly and conveniently ease many aspects of their daily lives, ranging from education, work, agriculture, electronic commerce, social media, electronic hailing taxi services; courier delivery services; the use of digital financial services provided on banking platforms; mobile money payment channels provided by mobile service providers among others. In the education sector, the advent of the covid-19 pandemic obligated both private and public schools and learning institutions to employ digital platforms and applications to ensure the continuous and seamless remote learning environment in the wake of lockdown measures instituted by government.

Due to the heightened measures on the restriction of movements and public gatherings, the use of digital platforms such as Yango, were exponentially utilised by citizens and businesses alike for courier delivery and e-hailing taxi services. A trend which has been normalised as a *modus operandum* post the covid-19 pandemic era.

Social media, has rapidly transformed into an electronic commerce marketplace for both formal and informal entrepreneurs with both groups jostling for clients and customers to patronize their businesses. This trend too, was heightened during the covid-19 pandemic and has largely become the usual way of conducting e-commerce in Zambia.

Like traditional banks and other financial institutions which have evolved in the digital financial space, mobile service providers have also over the last five years, diversified their business portfolio to include the provision of digital financial services through mobile money applications for the large unbanked population.¹⁴ Clients and businesses are now able to invoke real time digital financial transactions in the form of either money transfers or payment for goods and services at the click of a button or swipe of a phone screen.

BENEFITS OF ZAMBIA'S DIGITALIZED ECONOMY

Overall, the benefits of Zambia's digital economy through the medium of mobile phones and digital applications in the private sector, are numerous to tabulate. Efficiency in service delivery, job creation, a reduction in the cost of services, enhanced and increased use of electronic commerce platforms such as online stores for the purchase goods and services are some of the notable benefits worth highlighting.

13 ZamServices <https://eservices.gov.zm/#/service-directory> (Retrieved on Accessed 1st July 2025) from 9th July 2025.

14 Iluba, E., & Phiri, J. (2021). The FinTech evolution and its effect on traditional banking in Africa—a case of Zambia. *Open Journal of Business and Management*, 9(02), p.838.

As for services delivered through the electronic government (ZamPortal), this has resulted in an efficient, virtual, paperless and seamless mode of service delivery. Ultimately resulting in an increased revenue base for government and culminating into economic development in a broader perspective.¹⁵

Notably, the Zambian government in underscoring and appreciating the contribution (albeit meagre), that the digital economy makes towards the country's gross domestic product. It recently announced plans to amend and update the Independent Broadcasting Act 2002, which partially regulates social media activities, in order to introduce the monetizing of social media for content creators and influencers. This plan, if implemented successfully, will enable social media content creators and influencers earn a decent living from their work and also enable the country to earn much needed revenue through taxes collected from the monetization of social media.¹⁶

DETRIMENTS OF ZAMBIA'S DIGITALIZED ECONOMY

Notwithstanding the benefits underscored above, Zambia's digital economy has faced several challenges and hurdles even in its infancy.

Firstly, in spite of the advancements made thus far, the current infrastructure has remained unsatisfactorily dispersed, derelict and of inferior grade which is insufficient to support the application of new technologies such as Block Chain, Internet of Things (IOT), Machine Learning (ML), Big Data, and Artificial Intelligence (AI).

Secondly, Internet connectivity is a persistent challenge as it has remained elementary for cutting-edge technology applications such as WhatsApp, X, Youtube, Tik-Tok, e-learning platforms and other advanced applications.¹⁷

Thirdly, according to the 2022 national survey on access and usage of information and communications technology in Zambia, the statistics collected show a very worrying low uptake of ICT which has an overall negative impact on the digital economy. For instance, according to the survey, household access to basic commodities like electricity stand at a meagre 34.1%. While household computer and other ICT device ownership stands at 9.5%. Internet access stands at 33.4% as subscribers continuously face challenges with accessing data and internet services in both urban and rural areas, with outages being the norm. Furthermore, not all Zambians can afford a smart phone and other similar smart ICT gadgets, being the most suitable tools to seamlessly and conveniently access the digital economy.¹⁸

Fourthly, the gradual but steady uptake and usage of technology by subscribers to access the digital economy has inevitably stimulated cyber criminals to innovative

15 The 2021 E-Government Division Annual Report highlighted that the Government, through the Government Service Bus, collected a total amount of ZMW632.15m as non-tax revenue from payments for various public e- government services.

16 A glimpse into Social Media Monetization in Zambia [Opinion] (Retrieved 1st July, 2025) from: <https://jpalegal.com/en/a-glimpse-into-social-media-monetization-in-zambia/#::~:~:text=On%20the%2022nd%2>.

17 National ICT Policy 2023 *op. cit.* p.20.

18 The 2022 National survey on access and usage of ICT in Zambia (Retrieved on 9th July, 2025) from: zamstats.gov.zm/wp-content/uploads/2025/02/National-ICT-Survey-2022.pdf.

sophisticated cyber related crimes, scams and incidents, thus exposing the general citizenry to cyber related risks and ultimately posing a potential threat to the economic and financial sustainability of the entire economy. Between January and December, 2021, alone, the Zambia Computer Incident Response Team (ZM-CIRT) recorded a snowballing number of financial cyber-attacks, ranging from mobile money reversal scams, social media account hijacking and fake online product promotions and investment schemes. This therefore resulted in an estimated financial loss of over K200 million (approximately \$8 million).¹⁹

Fifthly, in relation to the Zambian government's announcements to review the law and introduce the monetization of social media activities by content creators and influencers, such plans and political will, appear to have abruptly stalled. This then translates into the continued meagre contribution of the digital economy towards the country's gross domestic product.

In conclusion, Zambia has made strides at modernising the country's ICT infrastructure and technology, in order to exponentially leverage the country's digital economy. That notwithstanding, more remains to be done and achieved in the wake of the numerous challenges countering the full exploitation of particularly emerging technologies in order to increase the digital economy's contribution towards the country's gross domestic product. It is thus recommended that both the legal and regulatory frameworks be extensively reviewed and strengthened in order for the now seemingly lean benefits to eventually outweigh the afore-mentioned detriments. It is also recommended that the Zambian government resumes its initial plans to review the relevant law aimed at introducing the monetization of social media activities.



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PRAVO, EKONOMIJA I DIGITALIZACIJA: PREDNOSTI I NEDOSTACI UPOTREBE TEHNOLOGIJE U ZAMBIJI

Apstrakt:

Rad razmatra koristi i štete digitalne ekonomije Zambije putem tehnologije u vezi sa postignutim napretkom prava u procesu digitalizacije ekonomije. Zambija, poput regionalne i globalne zajednice u celini, prihvatila je različite oblike informacionih i komunikacionih tehnologija u mnogim aspektima svakodnevnog života ljudi, počev od obrazovanja, rada, poljoprivrede, elektronske trgovine, društvenih mreža i korišćenja elektronskih usluga javne uprave kao što su plaćanje poreza, registracija firmi, pristup

19 Information Brief On Cyber Security And Cybercrime Trends In Zambia: Constructed from Statistical Trends on Cyber Cases of Concern by Zambia Information and Communications Technology Authority (ZICTA) (Retrieved on 9th July, 2025) from: https://www.parliament.gov.zm/sites/default/files/images/publication_docs/Info%20Brief_Brochure_Cyber%20Trends%20in%20Zambia.pdf.

pravima iz socijalnog osiguranja, pribavljanje dokumenata o vlasništvu nad zemljištem, izdavanje dozvola i licenci za motorna vozila i vozače, pribavljanje ličnih dokumenata o državljanstvu, dozvola za imigraciju i viza, investicionih dozvola i licenci, kao i drugih usluga. Digitalizacija zambijske ekonomije predstavlja pokretač kako ekonomskog tako i socioekonomskog rasta, koji se može postići kroz nepokolebljivu dugoročnu posvećenost vlade korišćenju tehnologija za ukupan uzlazni razvoj privrede zemlje. Shodno tome, upravo na toj osnovi nadležni državni akteri uspostavili su odgovarajuće politike i zakone usmerene na regulisanje i unapređenje korišćenja digitalne ekonomije putem tehnologije. Međutim, negativne strane tehnologije ne mogu se u potpunosti zanemariti. Iako digitalna ekonomija predstavlja korist za zemlju trećeg sveta poput Zambije, ovaj rad otkriva zabrinjavajući trend trajnih i ozbiljnih problema ili šteta kao što su sajberkriminal, nepouzdana internet infrastruktura i povezanost, visoki troškovi podataka, veliki digitalni jaz i propadanje omladine, koji ugrožavaju ostvarivanje šireg društvenog dobra kroz razvoj značajne digitalne ekonomije.

Ključne reči: *Zambija, razvoj, privreda, zakon, tehnologije.*

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