
**LEGAL AND SOCIO-ECONOMIC CHALLENGES OF E-COMMERCE IN UGANDA:
BALANCING GROWTH AND REGULATION**

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Abstract

Digital technology has reshaped various sectors of the world so that tasks are executed seamlessly within the shortest period through digital technology. It suffices to state that Uganda has also incorporated the same in enhancing virtually all sectors. For example, in recent times, buying, selling goods, and negotiating contracts are done majorly through digital technology. However, despite the prospect of e-commerce, some challenges may limit its viability in Uganda. In this regard, the study examines the legal and socio-economic issues concerning the adoption of digital commerce in Uganda. A hybrid method was used, and 304 questionnaires were distributed (through Google form) to respondents residing in Uganda. The data obtained were analysed using a descriptive and analytical approach. The study found that adopting e-commerce has greatly enhanced the commercial sector. However, despite the advantages of e-commerce, there are challenges, which include Data security and privacy, regulatory compliance, consumer protection from internet fraudsters and unfair trade practices, illiteracy of consumers, and poor and high cost of internet access. The study, therefore, concludes and recommends that e-commerce is a good innovation that could enhance and lead to further economic development in Uganda. In this regard, for smooth e-commerce operations in Uganda, there is a need for effective mechanisms in ensuring legal compliance and prosecution of anyone involved in data privacy breaches and internet fraudster. Furthermore, active and cost reduction of internet access could aid in enhancing the operation of e-commerce in Uganda. This research builds upon existing knowledge by discovering the legal and social-economic factors prohibiting the adoption of e-commerce in Uganda followed

by specific recommendations and ensuring internet accessibility improvement in improving the country's digital economy.

Keywords: E-commerce, Legal and Socio-economic, Uganda

Introduction

Electronic commerce (e-commerce) is the modern approach to conducting business that involves the use of communications technology, particularly the Internet to buy,¹ sell, and market goods and services to customers.² Several academic scholars have averred that e-commerce is the internet-based buying and selling of various products and services accessible through different devices,³ offering a wide range of options, from books, music, and plane tickets to financial services such as stock investing and online banking. It is highly competitive.⁴ Such a market aims to substitute or complement traditional brick-and-mortar stores operating in multiple market segments.⁵ The concept of e-commerce, as found in several literature, is synonymous with online shopping, digital commerce, electronic commerce, internet commerce, online retail, virtual commerce, digital retail, online business, electronic retail, and internet shopping.⁶

E-commerce transaction takes the form of business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), and consumer-to-

¹ Hailan Qiu et al., "Exploring the Income-Increasing Benefits of Rural E-Commerce in China: Implications for the Sustainable Development of Farmers," *Sustainability* 16, no. 17 (August 28, 2024): 7437, <https://doi.org/10.3390/su16177437>.

² Medoh Chuks, "Resilience to Sustainability: System Dynamics Modelling in e-Commerce," *International Journal of Services and Operations Management* 49, no. 1 (2024): 42–69, <https://doi.org/10.1504/IJSOM.2024.141414>.

³ Paul Atagamen Aidonojie, Toyin Afolabi Majekodunmi, and Omolola Janet Adeyemi-Balogun, "The Legal Issues Concerning the Operation of Fin-Tech in Nigeria," *Jurnal Media Hukum* 30, no. 2 (October 31, 2023): 78–97, <https://doi.org/10.18196/jmh.v30i2.18337>.

⁴ Paul Atagamen Aidonojie and Oaihimore Idemudia Edetalehn, "A Facile Study of The Statutory Challenges Concerning Customary Practice of Intestate Succession in Nigeria," *JHR (Jurnal Hukum Replik)* 11, no. 1 (April 1, 2023): 1, <https://doi.org/10.31000/jhr.v11i1.7552>.

⁵ Nadia Andika, Lastuti Abubakar, and Tri Handayani, "Implementation of Principle for Responsible Investment in Distribution of Bank Credits on Infrastructure Projects," *Legality : Jurnal Ilmiah Hukum* 29, no. 1 (March 12, 2021): 130–43, <https://doi.org/10.22219/ljih.v29i1.15063>.

⁶ Simon Ejokema Imoisi and Paul Atagamen Aidonojie, "Legal and Socio-Economic Issues Concerning Black Marketer's Activities of Petroleum Products in Nigeria," *Yuridika* 38, no. 2 (May 1, 2023): 261–84, <https://doi.org/10.20473/ydk.v38i2.44999>.

business transactions(C2B); in each of these models, there is a transaction involving buying and selling of good and services or exchanging of products, services through the computer.⁷ E-commerce leverages information technology infrastructure to satisfy the desires of customers. This explains why other nations such as Kenya, Zambia, Cameroon Ethiopia, and Malawi invest in ICT and internet infrastructure to boost their e-commerce. E-commerce allows a vendor to display goods and services on their platform such as websites where they can interact with consumers.⁸ Any individual who indicates interest in any of the displayed items is required to pay through secured and convenient payment options, such as mobile money and digital wallets, thus enhancing the trust and usability of online shopping platforms among Ugandan consumers. From the customers' viewpoint, services offered through ICT platforms solve the problem of timely delivery and convenience. Many company now pay more attention to investing in similar service platforms. With this kind of interaction, nations with high internet broadband tend to benefit more.⁹

This approach has redefined the concept of marketplace, breaching the geographical barriers between sellers and buyers that may have existed in the physical market setting, offering a more relax and efficient means of doing business with less associated cost. in addition, the openness of such arrangements allows consumers to compare prices.¹⁰ The mechanism of instant feedback built into online business platforms, allow dissatisfied customers to review products and service. In many cases where the sellers and suppliers fail to provide for such avenue,

⁷ Paul Atagamen Aidonojie et al., "Prospect, Legal, and Socio-Economic Implication of Metaverse Operation in Nigeria," *YURISDIKSI: Jurnal Wacana Hukum Dan Sains* 19, no. 4 (March 11, 2024): 455–75, <https://doi.org/10.55173/yurisdiksi.v19i4.201>.

⁸ Daniela Gabor and Sally Brooks, "The Digital Revolution in Financial Inclusion: International Development in the Fintech Era," *New Political Economy* 22, no. 4 (July 4, 2017): 423–36, <https://doi.org/10.1080/13563467.2017.1259298>.

⁹ Emmanuel Stephen N, "The Impact of Tax Administration on Revenue Generation in Gombe State, Nigeria," *Scholedge International Journal of Management & Development ISSN 2394-3378* 5, no. 8 (November 11, 2018): 86, <https://doi.org/10.19085/journal.sijmd050801>.

¹⁰ P. A. Aidonojie, S. A. Wakili, and D. Ayuba, "Effectiveness of the Administration of Justice in Nigeria Under the Development of Digital Technologies," *Journal of Digital Technologies and Law* 1, no. 4 (December 15, 2023): 1105–31, <https://doi.org/10.21202/jdtl.2023.48>.

dissatisfied consumers could also challenge the producers, through their social media platforms to call their attention to poor service.¹¹ In most cases, in an attempt to avoid negative comments and responses from members of the public, quick attention is usually given to such complaints.

Over the years, the global e-commerce market has experienced rapid growth. Despite its perennial challenges, Sub-Sahara Africa has joined the digital revolution. Uganda, with its growing internet penetration and young population, has the potential to benefit significantly from e-commerce.¹² ECDB predicts that e-commerce in Uganda is expected to generate USD 74.0 million in revenue by 2024. The report noted that the Ugandan e-commerce market, with 18.9% in 2024, contributed to the worldwide growth rate of 10.4%. However, it has been observed that Ugandan businesses have been slow to adopt e-commerce. A recent study in this space, suggests that some organizations are faced with the challenge of digital marketing and a lack of loyalty programs for customer retention.¹³

It is worth mentioning that several authors have conducted research studies on the concept of e-commerce, and part of their viewpoints is essential to be given due consideration. Alan et al., particularly in their study, contributed to e-commerce by emphasizing the discourses on policy development for global inclusivity. It asserts on strengthening formal institutions, participating the less-developed countries, and interests of small and medium enterprises (SMEs). Another element was the effects of cooperating and standing together among governments and

¹¹ Adegbola Olubukola Otekunrin et al., "E-Tax System Effectiveness in Reducing Tax Evasion in Nigeria," *Problems and Perspectives in Management* 19, no. 4 (November 5, 2021): 175–85, [https://doi.org/10.21511/ppm.19\(4\).2021.15](https://doi.org/10.21511/ppm.19(4).2021.15).

¹² Paul Atagamen Aidonojie et al., "Potential and Legal Challenges of the Metaverse for Environmental Awareness and Sustainability in Nigeria: A Comparative Analysis with Singapore," *Administrative and Environmental Law Review* 5, no. 1 (April 30, 2024): 33–58, <https://doi.org/10.25041/aclr.v5i1.3230>.

¹³ Paul Atagamen Aidonojie, Joseph Nwazi, and Eruteya Ugiomo, "Illegality Of Income Tax Evasion In Edo State: Adopting An Automated Income Tax System As A Panacea," *JURNAL LEGALITAS* 16, no. 1 (April 16, 2023): 62–86, <https://doi.org/10.33756/jelta.v16i1.19422>.

stakeholders as regards international concerns. Gaojun & Zhang's¹⁴ research in e-commerce studies how logistics improve agricultural rural market access in China through e-commerce. The improvement of logistics efficiency in removing barriers that come with insufficient infrastructure, digital divide conditions, and regulatory challenges, is emphasized in this paper. Sustainable logistics practices and policy interventions must be carried out for rural development. Furthermore, Mpogole study contributes to e-commerce by analyzing consumer protection laws under digital lending in the financial sector of Tanzania.¹⁵ It captures the legal and regulatory challenges regarding app-based microfinance, including cybersecurity, data privacy, and unfair market practices. The study proposes a framework for reinforcing consumer protection for platforms for digital lending. Also, Fahrurrozi et al.,¹⁶ his research contribution extends into an endeavor of knowledge management within e-commerce systems, with Business-to-Business (B2B) pointing out creation, transfer, and application of knowledge as key enablers of adaptive environments for e-commerce. According to the research, this includes indicating that proper management of knowledge can enhance functionality and competitiveness in B2B platforms.

However, from the above, it suffices to state that, Alan studies focus on international e-commerce and inclusive development with respect to international policy recommendations while Gaojun Li and Hailong Zhang restrict their examination to China's agricultural e-commerce logistics efficiency. Another to consider is Mpogole, Matunda: consumer protection laws in Tanzania's digital

¹⁴ Gaojun Li and Hailong Zhang, "The Efficiency and Challenges of E-Commerce Logistics in Enhancing Market Access for Agricultural Products in Rural China," *Law an Economy* 3, no. 2 (2024): 31–43, <https://www.paradigmpress.org/le/article/view/1028>.

¹⁵ Matunda Mpogole, "The Examination of Consumer Protection and Digital Lending Law and Practice in Tanzania," *East African Journal of Law and Ethics* 7, no. 1 (December 8, 2024): 171–83, <https://doi.org/10.37284/eajle.7.1.2496>.

¹⁶ Muh. Fahrurrozi et al., "(2020) Business to Business Ecommerce and Role of Knowledge Management. Business to Business Ecommerce and Role of Knowledge Management, (2020) 82," *TEST: Enginering and Management* Januari-Fe (2020): 95–112, <https://eprints.hamzanwadi.ac.id/4512/>.

lending, with specific mention of financial-centric legal issues. Fahrurrozi et al. studied knowledge management in B2B e-commerce, focusing on technical adaptability, contrary to regulatory or socio-economic concerns. In contrast, this study aimed to investigate an inclusive legal-and-socioeconomic regulatory framework for e-commerce: how to balance growth from an enforcement policy perspective in Uganda.

Concerning the above it suffices to state that the study is novel in that it looks holistically into the legal and socio-economic challenges of e-commerce in Uganda and not study just in isolation. While other studies looked into consumer protection, business models, or cybersecurity, this one ties the legal framework to socio-economic impact and policy recommendations.

This study examines the legal and socio-economic issues concerning e-commerce in Uganda. The legal framework governing e-commerce in Uganda covers issues such as consumer protection, data privacy, contractual rights of parties, and validity of digital signatures. Additionally, it will examine the socio-economic implications of e-commerce on the country, including job creation, digital divide, and economic growth.

Methods

Concerning the focus on the legal and socio-economic issues related to digital commerce in Uganda, a hybrid method (involving a doctrinal and non-doctrinal method) of research was adopted.¹⁷ The essence of the doctrinal method is aimed at theorising and conceptualizing the concept of e-commerce, its relevance, and the challenges it tends to pose. Furthermore, it is also to analyse and examine the various legal frameworks as they concern e-commerce and the legal challenges that may limit the viability of e-commerce. Concerning this, the study utilises primary and secondary research materials such as laws and scholarly literature.

¹⁷ David Nelken, "Comparative Legal Research and Legal Culture: Facts, Approaches, and Values," *Annual Review of Law and Social Science* 12, no. 1 (October 27, 2016): 45–62, <https://doi.org/10.1146/annurev-lawsocsci-110615-084950>.

Furthermore, concerning the non-doctrinal method of study, 304 questionnaires were distributed to respondents residing in the various regions of Uganda. Concerning this, the questionnaire's data were analysed using a descriptive and analytical approach. The essence of the non-doctrinal method of study is aimed at ascertaining the possible legal and socio-economic challenges that respondents often encounter concerning the adoption and usage of digital commerce in transactions and negotiation.

Discussion

Conceptualising the Adoption and Operation of E-Commerce in Uganda

The advent of e-commerce presents boundless opportunities for enhanced market access and economic growth.¹⁸ Like many other developing countries, Uganda has witnessed substantial growth in the use of the internet and mobile technologies in the past few years (Otieno, 2023). According to the Uganda Communications Commission (2023) report, the total number of Ugandan internet subscribers stands at 27 million.¹⁹ The Commission noted that internet users have been steadily growing, with a 2% rise from the 57 per 100 Ugandans recorded in December 2022.²⁰ However, this growth was attributed to the increase in mobile device use. These figures emphasise the growing connectivity and digital readiness of Ugandan consumers.

This widespread adoption of mobile technology has enabled e-commerce platforms to reach a broader audience, including rural and underserved

¹⁸ Paul Atagamen Aidonojie et al., "The Prospect and Legal Issues of Income Tax in the Nigerian Metaverse," *Trunojoyo Law Review* 6, no. 1 (February 26, 2024): 17–50, <https://doi.org/10.21107/tlr.v6i1.23874>.

¹⁹ Warigia M. Bowman, "Uganda: Distribution in the Shadow of Surveillance," in *Digital Development in East Africa* (Cham: Springer International Publishing, 2023), 161–95, https://doi.org/10.1007/978-3-031-22162-0_6.

²⁰ Ivan Okuda, "Television's Uncertain and Fragmented Future: Battling the Digital Revolution in Uganda," in *The Future of Television in the Global South* (Cham: Springer International Publishing, 2023), 71–85, https://doi.org/10.1007/978-3-031-18833-6_5.

communities.²¹ Mobile phones are the primary means of accessing the internet and conducting online transactions in Uganda. These consumers patronise e-commerce platforms like Kabira Country Club's online platform, OLX, and pesaPal, where they can get a wide range of products, including clothing, electronics, and home goods.²² However, introducing e-commerce giants like Jumia into the Ugandan market has further increased the adoption of online shopping.²³ Jumia, originally founded in Nigeria, expanded its operations to Uganda and other African countries, offering a diverse range of products from global and local brands.²⁴ This expansion not only provided consumers with convenient access to goods but also stimulated competition and innovation within the local retail sector.

The advent of e-commerce in Uganda has profound implications for economic growth and development. E-commerce contributes to job creation, particularly in sectors related to logistics, digital marketing, and customer service.²⁵ Moreover, small and medium enterprises (SMEs) in Uganda can leverage e-commerce platforms to access larger markets, reduce operational costs, and increase profitability.²⁶ From a social perspective, e-commerce promotes exclusivity by providing rural communities with access to a wide range of products and services

²¹ Karen Sutherland, Sarah Casey, and Gail Crimmins, "Social Media Behaviors and Barriers Impacting Women E-Commerce Entrepreneurs in Rural Australia: A Pilot Study," *Community Development*, April 10, 2024, 1–20, <https://doi.org/10.1080/15575330.2024.2339279>.

²² Paul Atagamen Aidonojie, Joseph Nwazi, and Ugiomo Eruteya, "The Legality, Prospect, and Challenges of Adopting Automated Personal Income Tax by States in Nigeria: A Facile Study of Edo State," *Cogito: Multidisciplinary Research Journal* 14, no. 2 (2022): 149 – 170, <https://www.cogitojournal.ro/index.php/cogito/issue/view/3/3>.

²³ Solomon Rukundo, "Taxation in the Digital Era: An Analysis of the Challenges of Taxation of E-Commerce in Uganda," *Uganda Revenue Authority Research Bulletin*, OECD/G20 Base Erosion and Profit Shifting Project, September 16, 2016, 92–105, <https://doi.org/10.1787/9789264218789-en>.

²⁴ Paul Atagamen Aidonojie and Odojor Oyenmwosa Anne, "Impact and Relevance of Modern Technological Legal Educational Facilities amidst the Covid-19 Pandemic: A Case Study of Law Students of Edo University Iyamho," *KIU Journal of Humanities* 5, no. 4 (2020): 7–19, <https://doi.org/kijhus.kiu.ac.ug/>.

²⁵ Pascal Kwesiga, "Ugandans Want Cheaper Internet," *New Vision*, 2016, http://www.newvision.co.ug/new_vision/news/1429133/ugandans-cheaper-internet.

²⁶ Ernest Abaho et al., "E-Booster Uganda: Towards an Inclusive Digital Economy in Uganda through Provision of ICT Services to the Underserved and Unserved Communities," *Universal Access in the Information Society*, September 16, 2024, <https://doi.org/10.1007/s10209-024-01152-9>.

previously unavailable locally. It also empowers women entrepreneurs and youth by offering opportunities for digital entrepreneurship and skills development in online marketing and e-commerce management.²⁷

Despite its potential benefits, e-commerce in Uganda faces several challenges that warrant attention. Infrastructure limitations, including unreliable internet connectivity and inadequate logistics infrastructure, can hinder the scalability of e-commerce operations, particularly in remote areas.²⁸ Addressing these infrastructure gaps requires collaboration between government agencies, private sector stakeholders, and development partners to improve digital infrastructure and expand internet access across the country.²⁹ Similarly, concerns about cybersecurity, consumer protection, and regulatory frameworks have been observed. If addressed, these issues have the capacity to build trust in the system and promote suitable e-commerce in Uganda.

Legal Framework Concerning E-Commerce in Uganda

Uganda has a rich legal framework concerning e-commerce. Although this legislation does not employ the term e-commerce, similar concepts like digital commerce are used, making these legislations applicable and relevant to online businesses.³⁰ These enactments help protect vendors, consumers, and customers while transacting in the digital space.³¹ Those examined under this head are the

²⁷ Darrold L. Cordes and Dora Marinova, "Systematic Literature Review of the Role of E-Commerce in Providing Pathways to Sustainability for Poverty Alleviation in Sub-Saharan Africa," *Discover Sustainability* 4, no. 1 (February 2, 2023): 7, <https://doi.org/10.1007/s43621-022-00109-3>.

²⁸ Ransome Bawack, "Electronic Commerce for Development: A Conceptual Analysis and Future Research Agenda for Africa," *Information Technology for Development*, July 16, 2024, 1–29, <https://doi.org/10.1080/02681102.2024.2377277>.

²⁹ Paul Atagamen Aidonojie et al., "The Challenges and Impact of Technological Advancement to the Legal Profession in Nigeria given the Covid-19 Pandemic," *KIU Journal of Humanities* 6, no. 4 (2020): 5–19, <https://doi.org//kijhus.kiu.ac.ug/>.

³⁰ Karine HAJI, "E-Commerce Development in Rural and Remote Areas of BRICS Countries," *Journal of Integrative Agriculture* 20, no. 4 (April 2021): 979–97, [https://doi.org/10.1016/S2095-3119\(20\)63451-7](https://doi.org/10.1016/S2095-3119(20)63451-7).

³¹ Aminullah Aminullah and Hanafi Hanafi, "The Model of Legal Contract Between Courier and Expedition Company in Pamekasan Regency," *Trunojoyo Law Review* 6, no. 1 (February 10, 2024): 1–16, <https://doi.org/10.21107/tlr.v6i1.22005>.

Electronic Transaction Act of 2011, the Computer Misuse Act of 2011, and the Electronic Signatures Act of 2011.

The Electronic Transaction Act (ETA), 2011 is by far the most striking legal framework relevant to the domain of e-commerce. This opinion is based on the object of the Act which is clearly stated in section 4(1) (a)- (j), to the effect that it validates, promote, and facilitate electronic transaction. For the avoidance of doubt, section 4(1) (b) states that one of the objects of the Act is to remove and eliminate the legal and operational barriers to electronic transactions. To this end, and in line with the provisions of ESA 2011, section 6 of the ETA also legalises and validate the use of electronic signature.³² Sections 11 and 12 of ETA provide for the means of notarisatation, acknowledgment, and certification of documents electronically. Commercial transactions, typically, includes contract, and when this is automated, section 13 of the ETA provides that parties are bound by contracts entered into electronically whether or not they reviewed the terms of the contract. However, a contracting party is not bound unless the terms are capable of being reviewed by the person or his legal representative. Where there are errors, the human person is required to be notified promptly.³³ In addition, section 14 stipulates that a contract shall not be denied legal effect merely because it is concluded partly or wholly using data message (i.e. digitally).

A fine point to note in this enactment is that it made elaborate provisions for protecting consumers transacting business online.³⁴ Thus, to ensure transparency in digital transactions, section 24 places a demand on the supplier or seller to supply

³² Christopher G. Harris, "Unlocking the Potential of Blockchain in Sub-Saharan Africa: Opportunities and Challenges," in *2023 IEEE AFRICON* (IEEE, 2023), 1–6, <https://doi.org/10.1109/AFRICON55910.2023.10293641>.

³³ Hamidah Babirye, Madele Tait, and Nadine Oosthuizen, "Creating a Suitable Contract Compliance Environment in State Departments in Uganda: A Developing Economy Perspective," *Journal of Contemporary Management* 19, no. 1 (January 2022): 381–411, <https://doi.org/10.35683/jcm21049.152>.

³⁴ Nur Alimah, Asti Sri Mulyani, and Temmy Fitriah Alfiani, "Legal Protection of Consumers Against The Circulation of Illegal and Dangerous Cosmetics That Harm Consumers in Indonesia," *Trunojoyo Law Review* 5, no. 2 (August 30, 2023): 90–100, <https://doi.org/10.21107/tlr.v5i2.20864>.

consumers with certain information which may be relevant in their present and future decision-making process, whether to engage with the vendor or not and how to seek redress, where there are issues.³⁵ Information required to be supplied includes the full name and legal status of the person, physical address and telephone number of the person, website address or e-mail address of the person, description of the main characteristics of the goods or services offered by the person which is sufficient to enable a consumer to make an informed decision on the proposed electronic transaction. Among the listed items, paragraph (g) appears to be highly important because it requires the sellers or suppliers to state their physical address where they can be served with the document. It is submitted that the document paragraph (g) being contemplated may include legal processes to bring an action in the event of a breach of contract.

Another relevant statute in this regard is the Computer Misuse Act (CMA). Like the ETA, the CMA was enacted in 2011. It provides adequate safety and security of electronic transactions and information systems. The CMA aims to prevent unlawful access, abuse, or misuse of information systems, including computers, and particularly make provisions for securing the conduct of electronic transactions in a trustworthy electronic environment. One area of concern in e-commerce is data privacy and protection.³⁶ Due to the danger of losing vital data in the digital environment, people are usually inclined to opt for the traditional market rather than transact or engage with vendors online. An unsecured platform can erode the confidence of Consumers.³⁷ In fact, from customers' viewpoint, it is safer to visit the physical brick and mortar store and pay cash, than lose your vital details to

³⁵ Malni Kumarathunga, Rodrigo N. Calheiros, and Athula Ginige, "Sustainable Microfinance Outreach for Farmers with Blockchain Cryptocurrency and Smart Contracts," *International Journal of Computer Theory and Engineering* 14, no. 1 (2022): 9–14, <https://doi.org/10.7763/IJCTE.2022.V14.1304>.

³⁶ Lastuti Abubakar and Tri Handayani, "Investor Protection Through Exchange Transaction Settlement Guarantee and Investor Protection Fund," *Trunojoyo Law Review* 1, no. 1 (February 5, 2019): 46–60, <https://doi.org/10.21107/tlr.v1i1.5256>.

³⁷ Maren Duvendack and Philip Mader, "Impact of Financial Inclusion in Low- and Middle-income Countries: A Systematic Review of Reviews," *Campbell Systematic Reviews* 15, no. 1–2 (June 23, 2019), <https://doi.org/10.4073/csr.2019.2>.

fraudsters online. Most vendors, including small and medium-sized businesses (SMEs), are known to collect the data of their customers; on Google, this data is used for different purposes, including analysing the needs of their customers for improved decision-making, particularly concerning their preferences and to engage them with more advertisement of similar products. Apart from these reasons, data may also be collected for other reasons, which may be outside the scope of business or against the terms of use.

In some cases, customers' devices are hacked and sensitive information uploaded while trying to make payment is hacked, leading to great loss. In a bid to curb these challenges, section 10 of the CMA makes it compulsory for proper authorisation before data obtained by any source can be disclosed. Invariably, where disclosure of data is required for a criminal investigation of fraud or any criminal prosecution, the investigating officer may apply to the court for disclosure.³⁸ The implication is that the court's authorisation is required for a person to obtain the transaction record of a person from any agency or service provider. These classes of persons include government officials because it concerns the right to privacy.³⁹ It is supposed that the individual concerned may waive his right to protection and grant similar permission.⁴⁰ In that case, the court's order will become unnecessary. Conversely, where consent of the owner of such records is obtained then application to the court is unnecessary.

The point is that data privacy is a key element in e-commerce transactions. When an individual is not sure about the security of their data, this may affect their desire or willingness to transact online. Section 12 of the CMA clears this doubt as

³⁸ Caroline Peloso, "La Justice Pénale Numérique En France et Au Royaume-Uni," in *La Justice Pénale Numérique En France et Au Royaume-Uni* (Éditions Panthéon-Assas, 2024), 203–20, <https://doi.org/10.3917/epas.gadbi.2024.01.0203>.

³⁹ Anne Veerpalu et al., "The Hybrid Smart Contract Agreement Challenge to European Electronic Signature Regulation," *International Journal of Law and Information Technology* 28, no. 1 (June 1, 2020): 39–84, <https://doi.org/10.1093/ijlit/aaaa005>.

⁴⁰ Thomas Kruessmann, "Internal Investigations in Compliance Matters: What Role for Legal Professional Privilege in Europe?," *European Business Law Review* 32, no. Issue 2 (April 1, 2021): 389–418, <https://doi.org/10.54648/EULR2021014>.

it deemed it to be computer misuse and, indeed, a crime for a person to intentionally access or intercept any program or data without lawful authority or permission. It is observed that subsection (3) ingenuously makes provision against any countermeasure put in place by vendors to safeguard the data of their customers. The subsection is relevant to protect Consumers from vendors and hackers who may attempt to use data unlawfully.

Another point of note is section 19(1), which deals with electronic fraud; this perhaps is most relevant in protecting unsuspecting customers from fraudsters posing as vendors online.⁴¹ A person who carries out electronic fraud commits an offence and is liable on conviction to a fine not exceeding three hundred and sixty currency points or imprisonment not exceeding fifteen years or both. Subsection (2) explained that electronic fraud means deception, deliberately performed to secure an unfair or unlawful gain where part of a communication is sent through a computer network or any other communication and another part through the action of the victim of the offence or the action is performed through a computer network or both. It is worthy to observe that section 27 makes provision for the victim of such fraud. Thus, in addition to the fine and or imprisonment, the victim may be entitled to some form of compensation as the court may think fit.

The last statute to examine is the Electronic Signatures Act (ESA),⁴² like the previous two statutes, the ESA was enacted in 2011 to advance e-commerce transactions in Uganda. Under the provisions of the Act, the use of electronic signatures by parties in contractual relations is valid and accepted if it complies with the provisions of this Act. The ESA is divided into 100 hundred sections. Section 4(1) provides that where the law requires a signature of a person, that requirement is

⁴¹ David López Jiménez, Eduardo Carlos Dittmar, and Jenny Patricia Vargas Portillo, "The Trusted Third Party or Digital Notary in Spain: Effect on Virtual Transactions," *International Review of Law, Computers & Technology* 36, no. 3 (September 2, 2022): 453–69, <https://doi.org/10.1080/13600869.2021.2004760>.

⁴² Zainuddin Zainuddin and Rahmat Ramadhani, "The Legal Force of Electronic Signatures in Online Mortgage Registration," *Jurnal Penelitian Hukum De Jure* 21, no. 2 (June 24, 2021): 243, <https://doi.org/10.30641/dejure.2021.V21.243-252>.

met about a data message if an electronic signature is used. This provision is big boost for online transactions. In that, it validates digital signatures. As is the case with many digital transactions.⁴³ Thus, an electronic signature is as valid and reliable as physical signature. By the tenor of section 6 of the ESA, parties dealing online may decide to waive, or derogate from their right under this Act. This implies that the parties may agree that a physical signature (that it should be on paper) and not an electronic signature shall be acceptable in their transaction. That agreement would be regarded as valid and binding on both parties unless it is shown to have violated other laws. However, according to section 7, the onus is on the relying party who seeks to rely on an electronic signature to verify its reliability.

Legal Issues and Challenges Concerning E-Commerce in Uganda

It must be noted that commerce has taken a new dimension by being reshaped through digital technology.⁴⁴ Although considered a developing nation, Uganda has also incorporated the same in virtually all major and minor transactions. Furthermore, given the peculiar nature of e-commerce, the Uganda government has been legally and economically proactive in setting legal mechanisms for an effective legal regulation of e-commerce activities in Uganda.⁴⁵ However, despite the legal mechanisms put in place for the regulation of e-commerce in Uganda, several challenges seem to limit its viability and effectiveness. In this regard, it will be relevant to consider some of these challenges as follows.

⁴³ Rahmito Azhari, Wahyu Ramadhani, and Teuku Okta Randa, "Juridical Review of Electronic Signature Implementation of Duties of Notary Offices in Contracting in Agreements in The COVID-19," *Syiah Kuala Law Journal* 5, no. 1 (April 30, 2021): 26–40, <https://doi.org/10.24815/sklj.v5i1.20734>.

⁴⁴ Valentyn S. Shcherbyna et al., "Problems of Concluding Business Contracts in Electronic Form," *Linguistics and Culture Review* 5, no. S2 (August 7, 2021): 751–63, <https://doi.org/10.21744/lingcure.v5nS2.1417>.

⁴⁵ Sylvia Samalie and Mwebaza Kasimu, "An Overview of E-Commerce Businesses in Developing Countries: A Comparative Study between Uganda and Bangladesh," *Reflection* 1 (2024): 114–121., <http://hdl.handle.net/10361/24415>.

One major challenge of e-commerce in Uganda is safeguarding and protecting data privacy.⁴⁶ Although the Computer Misuse Act seems to have provided for the regulation of data privacy, it prohibits the unlawful access and illegal use of data information obtained from the individual.⁴⁷ This section of the Computer Misuse Act requires consent before disclosing customer data. The essence of this act is to secure compliance with the data privacy of e-commerce activities.⁴⁸ However, it suffices to state that despite this law, compliance with data protection law is still a major issue that often deters most individuals from engaging in e-commerce activities, thereby showing a preference for the traditional transaction method.

For example, in 2021, there was an incident of data privacy hacked by an Israeli software company known as Pegasus Spyware. It was reported that the Pegasus Spyware was developed to gain access to the phones of most government officials and the elite in most countries, which also include Uganda to obtain vital information. However, to date, there is no court case in Uganda against this company that committed this data security breach.⁴⁹ Furthermore, in 2017 there was a mandatory SIM card registration and biometric linkage to SIM card in Uganda, aimed at checkmating cyber security and data privacy. In this regard, several telecommunication providers obtain data of Uganda citizens during this process. However, it has been reported since this registration process of SIM cards, there have been incidents of data breaches and access by third parties, resulting in data privacy violations. Furthermore, in the case of *Patrick Sentongo vs Uganda*⁵⁰, the

⁴⁶ Milena Vučinić, "Fintech and Financial Stability Potential Influence of FinTech on Financial Stability, Risks and Benefits," *Journal of Central Banking Theory and Practice* 9, no. 2 (May 1, 2020): 43–66, <https://doi.org/10.2478/jcbtp-2020-0013>.

⁴⁷ Tolulope Olagunju, Oladapo Oyebode, and Rita Orji, "Exploring Key Issues Affecting African Mobile ECommerce Applications Using Sentiment and Thematic Analysis," *IEEE Access* 8 (2020): 114475–86, <https://doi.org/10.1109/ACCESS.2020.3000093>.

⁴⁸ Olayinka David-West, Nkemdilim Iheanachor, and Ikechukwu Kelikume, "A Resource-Based View of Digital Financial Services (DFS): An Exploratory Study of Nigerian Providers," *Journal of Business Research* 88 (July 2018): 513–26, <https://doi.org/10.1016/j.jbusres.2018.01.034>.

⁴⁹ Kudirat Magaji W. Owolabi, "Understanding the Place of Islamic Arbitration within the Nigerian Law," *Jurnal Hukum Novelty* 14, no. 1 (April 30, 2023): 69, <https://doi.org/10.26555/novelty.v14i1.a25926>.

⁵⁰ criminal appeal 37 of 2017

appellant was an employee of MTN Uganda. MTN Uganda operates as a telecommunication that renders mobile money and communication services. However, given that the appellant has access to most customer data, he conspired with others to defraud money from the MTN mobile money computer system called FUNDAMO. Although he was convicted, however, this case struck the fact that data privacy compliance is a major challenge that tends to pose a challenge to e-commerce. In essence, this shows the level of vulnerability of data information when utilise in e-commerce activities.

Also, another major challenge rocking e-commerce activities within the global environment and Uganda is internet fraudster.⁵¹ This is a common phenomenon not experienced alone by Uganda but by virtually all countries within the global terrain. Cyber fraud has become a major threat within the digital technology world that no one individual is consider safe enough when transacting through electronic or digital technology medium.⁵² Although, section 19(1) of CMA stipulates that it is a crime to engage in cyber fraud, however, cybercrime is still a major challenge in Uganda. This is concerning the fact that in Uganda mobile money is a common means of saving money and transacting e-commerce activities.⁵³ However, there have been reported cases and incidences of illegal money withdrawals from users of mobile money; according to Stephen Kafeero stated that in 2020, cyber fraudsters hacked into over 2000 mobile SIM cards to have access to their mobile money and stole over \$3.2 million. In a recent issue reported in 2024 by Wilfred Kamusiime, he reveals how a hacker named Kaporonyo Sabiiti was caught by the Uganda policy involving

⁵¹ Ngboawaji Daniel Nte, Vigo Augustine Teru, and Nadiyah Meyliana Putri, "Intelligence Education for National Security and Public Safety Policy: A Comparative Analysis of Nigeria, South Africa, and Indonesia," *Lex Scientia Law Review* 6, no. 1 (June 9, 2022): 187–218, <https://doi.org/10.15294/lesrev.v6i1.54431>.

⁵² Odotun M. Mbutor and I. Ajugo Uba, "The Impact of Financial Inclusion on Monetary Policy in Nigeria," *Journal of Economics and International Finance* 5, no. 8 (November 30, 2013): 318–26, <https://doi.org/10.5897/JEIF2013.0541>.

⁵³ Olayinka David-West, Nkemdilim Iheanachor, and Immanuel Umukoro, "Sustainable Business Models for the Creation of Mobile Financial Services in Nigeria," *Journal of Innovation & Knowledge* 5, no. 2 (April 2020): 105–16, <https://doi.org/10.1016/j.jik.2019.03.001>.

mobile money hacking and has made millions of shillings from his hacking business.⁵⁴ Furthermore, the case of *Stanbic Bank Uganda vs Moses rukidi gabigigo* also illustrates the rate of internet fraudsters hacking digital banking systems and stealing from customer accounts. Concerning this, it suffices to state that though there are laws that tend to curtail the incidence of internet fraud, however, it is still a major challenge rocking the e-commerce industry.

However, irrespective of the challenges discussed above, it is apt to state that other challenges could also affect the viability of e-commerce in Uganda and they are;⁵⁵ 1) High-level digital illiteracy; 2) High-cost of digital gadgets; 3) Cross-border jurisdictional issues; 4) Internet connectivity challenge; 5) Unfair trade practices, and 5) High rate of unemployment.

Data Presentation and Analysis

the data generated through the questionnaire distributed were analysed relying on descriptive and analytical approaches as presented below.

Sample Size and Selection Method

Concerning the fact that the study also focuses on the non-doctrinal method of study examining the legal and socio-economic issues concerning e-commerce in Uganda.⁵⁶ hence the questionnaire was distributed to respondents residing in Uganda.⁵⁷ In this regard, the study focuses on a sample size of 304 respondents. The study relied on simple random sampling techniques in selecting the respondents to respond to the

⁵⁴ Peters Idowu et al., "How Effective Is Monetary Policy in the Presence of High Informality in Nigeria," *Journal of Accounting, Business and Finance Research* 10, no. 2 (2020): 84–93, <https://doi.org/10.20448/2002.102.84.93>.

⁵⁵ Paul Atagamen Aidonojie et al., "The Increase of Child Labour in Nigeria: Legal Custody of Victim by the Nigerian Government as a Panacea," *Journal of Indonesian Constitutional Law* 1, no. 3 (2024): 151–75, <https://ejournal.pustakaparawali.com/index.php/jicl/article/view/26/15>.

⁵⁶ Paul Atagamen Aidonojie et al., "Curtailling Male Rape in Nigeria: Legal Issues and Challenges," *Journal of Sustainable Development and Regulatory Issues (JSDERI)* 2, no. 3 (September 24, 2024): 287–303, <https://doi.org/10.53955/jsderi.v2i3.43>.

⁵⁷ Paul Atagamen Aidonojie et al., "International Laws Regulating Human Rights in Business Operations in Uganda : Issues and Challenges," *Fenomena: Journal of the Social Sciences* 23, no. 2 (2024): 131–44, <https://doi.org/10.35719/fenomena.v23i2.188>.

questions.⁵⁸ A simple random sampling technique is considered relevant and most effective in identifying respondents.⁵⁹ Furthermore, a simple random sampling technique is said to possess the following relevance and advantages as follows:⁶⁰

- 1) A simple random technique is often considered unbiased about the data generated through the techniques;
- 2) There is little or absence of complication;
- 3) It is preferable when obtaining sampling respondents from a heterogeneous population;
- 4) It is preferable in a mixed legal research method of study.

Data Analysis and Discussion of the Study

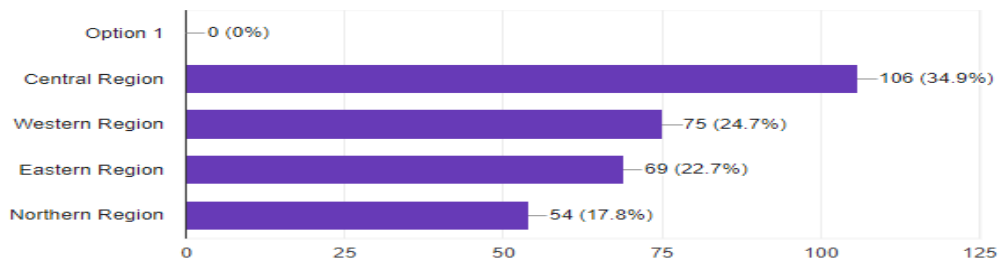
The data obtained through the study is therefore presented and analysed in tabular and graphical form for clarity and ease of understanding the outcome of the result

Research Question One

Figure 1. Residential area of the respondents

Which of the following regions in Uganda do you reside?

304 responses



⁵⁸ Paul Atagamen Aidonojie et al., "Legal Issues Concerning of Data Security and Privacy in Automated Income Tax Systems in Nigeria," *Hang Tuah Law Journal* 8, no. 1 (March 8, 2024): 14-41, <https://doi.org/10.30649/htlj.v8i1.223>.

⁵⁹ Paul Atagamen Aidonojie et al., "Legal and Socioeconomic Issues Concerning the Nigeria Higher Institution Loan Act 2023," *JURNAL LEGALITAS* 17, no. 1 (April 24, 2024): 17-37, <https://doi.org/10.33756/jelta.v17i1.23143>.

⁶⁰ Paul Atagamen Aidonojie, Anne Oyenmwosa Odojor, and Patience Omohoste Agbale, "The Legal Impact of Plea Bargain in Settlement of High Profile Financial Criminal Cases in Nigeria," *Sriwijaya Law Review* 5, no. 2 (July 28, 2021): 161, <https://doi.org/10.28946/slrev.Vol5.Iss2.852.pp161-174>.

Table 1. Valid identification of the residential area of the respondents

S/N	Regions in Uganda	Responses	Percent
1	Northern Region	54	17.8
2	Eastern Region	69	22.7
3	Western Region	75	24.7
4	Central Region	106	34.9
TOTAL		304	100%

Source: Figure 1 and Table 1 are sourced from survey results by the authors of this research.

Figure 1 and Table 1 are respondents identifying specific regions where they reside in Uganda.

Research Question Two

Figure 2. Identification of the number of usages of digital platforms for commerce transactions

How often do you make use of digital platforms for commerce transactions?

304 responses

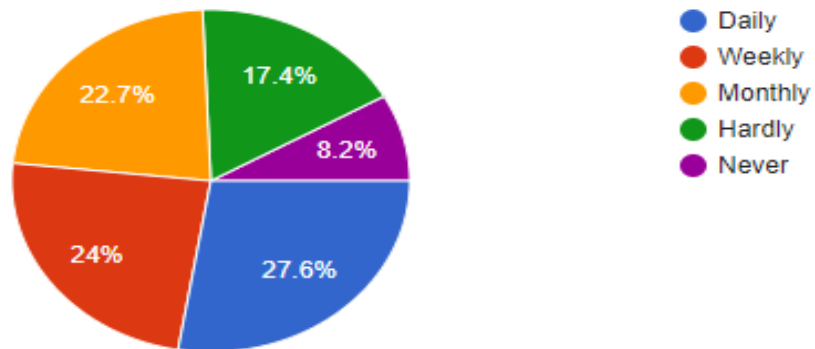


Table 2. Valid identification of the number of usage of digital platforms for commercial transactions

Use of digital platforms for commerce transactions	Responses	Percent
Daily	84	27.6%
Weekly	73	24%
Monthly	69	22.7%
Hardly	53	17.4%

Never	25	8.2%
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Source: Figure 2 and Table 2 are sourced from survey results by the authors of this research.

Figure 2 and Table 2 are responses from the respondents stating how often they utilise digital platforms for commercial activities.

Research Question Three

Figure 3. Confirmation of challenges associated with digital commercial activities in Uganda

Are there challenges in utilising digital platform platforms for commercial transactions?

303 responses

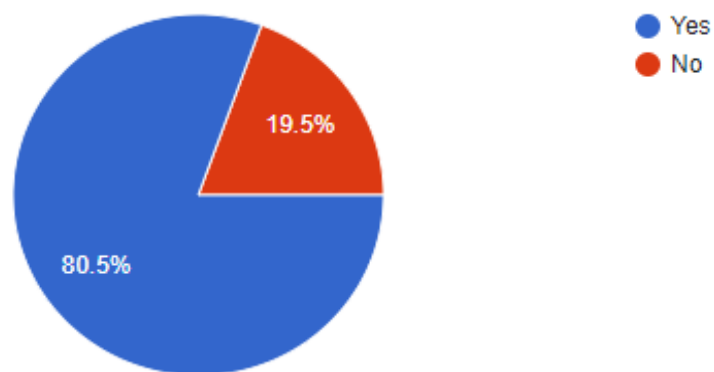


Table 3. Valid confirmation of the challenges of digital commercial transactions in Uganda

	Response	Percent
Valid Yes	244	80.5%
Valid No	59	19.5%
Total	303	100%

Source: Figure 1 and Table 1 are sourced from survey results by the authors of this research.

Figure 3 and Table 3 are respondents confirming that there are challenges that are associated with digital platform transactions.

Research Question Fourcx

Figure 4. Identification of challenges associated with digital commercial activities in Uganda

If your preceding answer is “Yes” Which of the following serves as the challenges concerning utilising an e-commerce platform for transactions? You can tick more than one option

245 responses

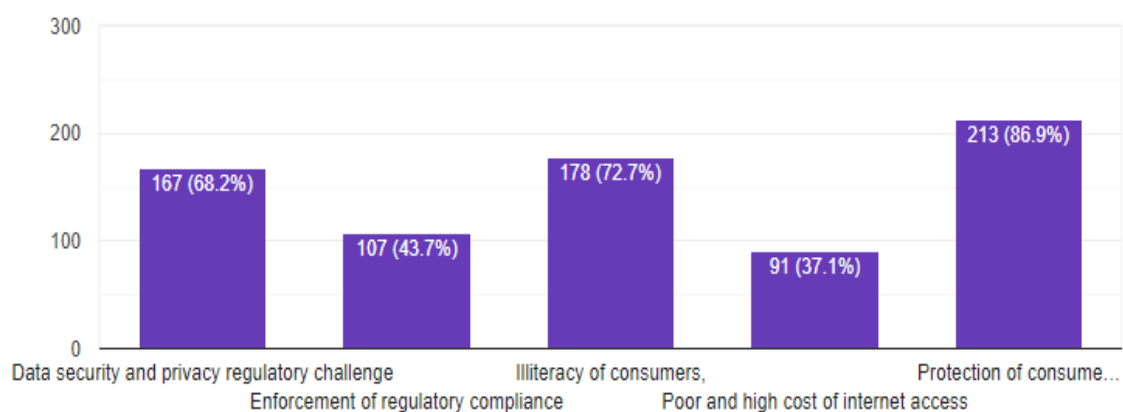


Table 4. Valid cluster of identification of the challenges concerning automating the Islamic banking system in Uganda

Challenges Associated with Digital Transaction	Cluster of Responses	Percentage
Data security and privacy regulatory challenge	167	68.2%
Enforcement of regulatory compliance	107	43.7%
Protection of consumers from internet fraudsters and unfair trade practices	213	86.9%
Illiteracy of consumers,	178	72.7%
Poor and high cost of internet access	91	37.1%

Source: Figure 4 and Table 4 are sourced from survey results by the authors of this research.

Figure 4 and Table 4 are respondents' valid responses or identification of the challenges associated with digital platforms' commercial activities.

Research Question Five

Figure 5. Remedies concerning the challenges associated with digital commercial activities in Uganda

Which of the following could aid in savaging the challenges concerning utilising e-commerce platform for transactions? You can tick more than one option

245 responses

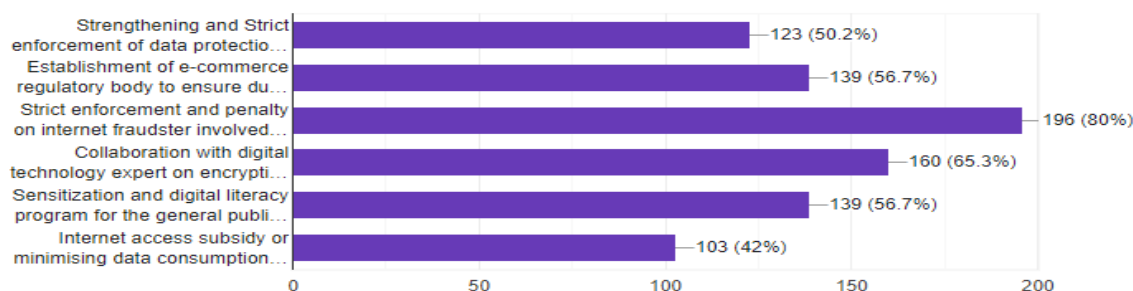


Table 5. Valid cluster of Remedies concerning the challenges of digital commercial activities in Uganda

Remedies in curtailing the challenges of digital commercial activities in Uganda	Cluster of Responses	Percentage
Strengthening and Strict enforcement of data protection on e-e-commerce activities	123	50.2%
Establishment of an e-commerce regulatory body to ensure due compliance	139	56.7%
Strict enforcement and penalty on internet fraudsters involved in e-commerce internet fraud-related activities	196	80%
Collaboration with digital technology expert on encrypting and providing security in platforms utilise for e-commerce purposes	160	65.3%
Sensitization and digital literacy program for the general public concerning the usage of most e-commerce platform	139	56.7%
Internet access subsidy or minimising data consumption by internet providers	103	42%

Source: Figure 5 and Table 5 are sourced from survey results by the authors of this research.

Figure 5 and Table 5 are valid clusters of confirmation and identifying the remedies that are likely to curtail the incidence of challenges being experienced when utilizing the digital platform for commercial activities.

The findings of this study are deduced from responses by the respondents (residing in Uganda) to the questionnaire distributed. However, the responses of the respondents are presented in tabular and graphical form for ease of presentation and clarity. Concerning this, the data obtained are therefore analysed and discussed as follows; In regard, to table 1 and Figure 1, is a representation of the respondents' identification of the various regions they reside in Uganda. In this regard, 304 of the respondents identify that they reside in Central, Western, Eastern, and Northern regions of Uganda. The essence of ascertaining where the respondents reside is aimed at ensuring that the respondents possess requisite knowledge concerning the execution of commercial activities in digital platform in Uganda.

Furthermore, Table 2 and Figure 2, are also aimed at ascertaining how often the respondents make use of digital platforms for commercial activities. Given this, 27.6% and 24% of the respondents stated that they use digital platforms for commercial activities on a daily and weekly basis. 22.7% and 17.4% stipulate monthly that they hardly utilize digital platforms for commercial activities respectively. Furthermore, 8.2% of the respondents agreed that they never made use of digital platforms for commercial activities. However, the number of respondents who confirm their usage of the digital platform for commercial activities on a daily, weekly, and monthly basis is quite high numbers. In this regard, it suffices to state that given the responses of the respondents as it concerns the usage of digital platforms for commercial activities is evident that they are well-acquainted concerning the usage of digital technology in commercial activities.

However, in Figure 3 and Table 3, 80.5% of the respondents representing a majority, confirm that there are challenges associated with the usage of digital platforms for commercial activities in Uganda. Furthermore, given the responses of the respondents in question three (3), in Table 4 and Figure 4, the respondents were able to identify some of the challenges often encountered when using digital platforms for commercial activities in Uganda. 68.2% and 43.7% of the respondents identified data security and privacy regulatory challenges and enforcement of

regulatory compliance, respectively as challenges often encountered. Also, 86.9% stated protection of consumers from internet fraudsters and unfair trade practices is often a major challenge. Furthermore, 72.7% and 37.1% of the respondents respectively identify illiteracy of consumers and poor and high cost of internet access servers as part of the challenges often encountered when utilising digital platform for commercial activities in Uganda. Concerning this, it suffices to state that despite the prospect of digital technology in transacting commercial activities, it is ridden with several challenges. However, in Figure 5 and Table 5, the respondents propose the following possible remedies concerning curtailing the challenges often encountered using digital platforms in commercial activities as follows:

- 1) 50.2% of the respondents stated that strengthening and strict enforcement of data protection on e-commerce activities
- 2) 56.7% identify the establishment of an e-commerce regulatory body to ensure due compliance
- 3) 80% was of the view of strict enforcement and penalty on internet fraudsters involved in e-commerce internet fraud-related activities
- 4) 65.3% stated that collaboration with digital technology experts on encrypting and providing security in platforms utilise for e-commerce purposes
- 5) 56.7% suggest sensitization and digital literacy programs for the general public concerning the usage of most e-commerce platform
- 6) Furthermore, 42% further stated internet access subsidy or minimising data consumption by internet providers

Concerning this, it suffices to state that implementing the above remedies could aid enhance the continuous usage of digital platforms for commercial activities in Uganda. Furthermore, it will also aid the various stakeholders in the digital commercial activities sectors in reorienting their strategies curtailing the challenges involved in transacting in digital platforms in Uganda.

Conclusion

The study examines in detail that commercial activities involve the buying, selling, and transacting of other business activities. This type of traditional transaction involves physical interaction with the stakeholders involved in commercial activities. Hence the challenges of geographical barriers, negotiation, and other barriers often hinder commercial activities. However, the study further examines the fact that the global environment has been experiencing sporadic growth and development in digital technology that has greatly enhanced virtually all sectors. Uganda, being a developing country is currently experiencing a sporadic change in its commercial activities, this is concerning the fact that the commercial sector has been redefined and reshape through the use of digital technology. These commercial activities have resulted in e-commerce activities involving the internet-based buying and selling of various products and services, accessible through different digital platforms, offering a wide range of options.

Concerning this, it suffices to state that through digital technology commercial activities has resulted in transacting commercial activities seamlessly, thereby reducing the level of barriers often experienced in traditional commercial activities. However, despite the above advantages identified with digital platform commercial activities in Uganda, there are several challenges associated with this form of commercial activities. These challenges include; privacy and data regulatory challenges, unfair trade practices, internet fraud, enforcement challenges, and a high level of illiteracy. Concerning this, it suffices to state that digital technology is consider a blessing to a man that has aided and enhanced several sectors within the global environment and Uganda inclusive. In this regard, to better harness the potential of digital technology in commercial activities, it is required that the following possible remedies as suggested by the respondents be observed and adopted by stakeholders such as government, ministry, business owners, and digital technology providers to enhance digital commercial activities.

References

- Abaho, Ernest, Dennis Aguma, James Beronda, Ismael Nkambwe, Hanington Obang, and Geoffrey Mayoka Kituyi. "E-Booster Uganda: Towards an Inclusive Digital Economy in Uganda through Provision of ICT Services to the Underserved and Unserved Communities." *Universal Access in the Information Society*, September 16, 2024. <https://doi.org/10.1007/s10209-024-01152-9>.
- Abubakar, Lastuti, and Tri Handayani. "Investor Protection Through Exchange Transaction Settlement Guarantee and Investor Protection Fund." *Trunojoyo Law Review* 1, no. 1 (February 5, 2019): 46–60. <https://doi.org/10.21107/tlr.v1i1.5256>.
- Aidonojie, P. A., S. A. Wakili, and D. Ayuba. "Effectiveness of the Administration of Justice in Nigeria Under the Development of Digital Technologies." *Journal of Digital Technologies and Law* 1, no. 4 (December 15, 2023): 1105–31. <https://doi.org/10.21202/jdtl.2023.48>.
- Aidonojie, Paul Atagamen, and Odojor Oyenmwosa Anne. "Impact and Relevance of Modern Technological Legal Educational Facilities amidst the Covid-19 Pandemic: A Case Study of Law Students of Edo University Iyamho." *KIU Journal of Humanities* 5, no. 4 (2020): 7–19. <https://doi.org//kijhus.kiu.ac.ug/>.
- Aidonojie, Paul Atagamen, Godswill Owoche Antai, Damina Joshua John, Success Ibeh, and Adesoji Kolawole Adebayo. "Curtailling Male Rape in Nigeria: Legal Issues and Challenges." *Journal of Sustainable Development and Regulatory Issues (JSDERI)* 2, no. 3 (September 24, 2024): 287–303. <https://doi.org/10.53955/jsderi.v2i3.43>.
- Aidonojie, Paul Atagamen, and Oaihimore Idemudia Edetalehn. "A Facile Study of The Statutory Challenges Concerning Customary Practice of Intestate Succession in Nigeria." *JHR (Jurnal Hukum Replik)* 11, no. 1 (April 1, 2023): 1. <https://doi.org/10.31000/jhr.v11i1.7552>.
- Aidonojie, Paul Atagamen, Obieshi Eregbuonye, Afolabi Toyin Majekodunmi, and Michael E. Inagbor. "The Prospect and Legal Issues of Income Tax in the Nigerian Metaverse." *Trunojoyo Law Review* 6, no. 1 (February 26, 2024): 17–50. <https://doi.org/10.21107/tlr.v6i1.23874>.
- Aidonojie, Paul Atagamen, Toyin Afolabi Majekodunmi, and Omolola Janet Adeyemi-Balogun. "The Legal Issues Concerning the Operation of Fin-Tech in Nigeria." *Jurnal Media Hukum* 30, no. 2 (October 31, 2023): 78–97. <https://doi.org/10.18196/jmh.v30i2.18337>.
- Aidonojie, Paul Atagamen, Toyin Afolabi Majekodunmi, Obieshi Eregbuonye, and Isaac Ottah Ogbemudia. "Legal Issues Concerning of Data Security and Privacy in Automated Income Tax Systems in Nigeria." *Hang Tuah Law Journal* 8, no. 1 (March 8, 2024): 14–41. <https://doi.org/10.30649/htlj.v8i1.223>.

- Aidonojie, Paul Atagamen, Toyin Afolabi Majekodunmi, Eregbuonye Obieshi, and Omolola Janet Adeyemi-Balogun. "Potential and Legal Challenges of the Metaverse for Environmental Awareness and Sustainability in Nigeria: A Comparative Analysis with Singapore." *Administrative and Environmental Law Review* 5, no. 1 (April 30, 2024): 33–58. <https://doi.org/10.25041/aclr.v5i1.3230>.
- Aidonojie, Paul Atagamen, Tom Mulegi, Muwaffiq Jufri, Andrew Ikhayere, and Antai Godswill Owoche. "International Laws Regulating Human Rights in Business Operations in Uganda : Issues and Challenges." *Fenomena: Journal of the Social Sciences* 23, no. 2 (2024): 131–44. <https://doi.org/10.35719/fenomena.v23i2.188>.
- Aidonojie, Paul Atagamen, Joseph Nwazi, and Ugiomo Eruteya. "The Legality, Prospect, and Challenges of Adopting Automated Personal Income Tax by States in Nigeria: A Facile Study of Edo State." *Cogito: Multidisciplinary Research Journal* 14, no. 2 (2022): 149 – 170. <https://www.cogitojournal.ro/index.php/cogito/issue/view/3/3>.
- Aidonojie, Paul Atagamen, Joseph Nwazi, and Eruteya Ugiomo. "Illegality Of Income Tax Evasion In Edo State: Adopting An Automated Income Tax System As A Panacea." *JURNAL LEGALITAS* 16, no. 1 (April 16, 2023): 62–86. <https://doi.org/10.33756/jelta.v16i1.19422>.
- Aidonojie, Paul Atagamen, Eregbuonye Obieshi, Esther Chetachukwu, Ismaila Hassan, and Damina Joshua John. "The Increase of Child Labour in Nigeria: Legal Custody of Victim by the Nigerian Government as a Panacea." *Journal of Indonesian Constitutional Law* 1, no. 3 (2024): 151–75. <https://ejournal.pustakaparawali.com/index.php/jicl/article/view/26/15>.
- Aidonojie, Paul Atagamen, Eregbuonye Obieshi, Michael Inagbor, and Ottah Ogbemudia. "Legal and Socioeconomic Issues Concerning the Nigeria Higher Institution Loan Act 2023." *JURNAL LEGALITAS* 17, no. 1 (April 24, 2024): 17–37. <https://doi.org/10.33756/jelta.v17i1.23143>.
- Aidonojie, Paul Atagamen, Anne O. Odojor, Oluwaseye O. Ikubanni, Adeniyi A. Oyebade, Adefisayo I. Oyedeji, and Nosa Okuoghae. "The Challenges and Impact of Technological Advancement to the Legal Profession in Nigeria given the Covid-19 Pandemic." *KIU Journal of Humanities* 6, no. 4 (2020): 5–19. <https://doi.org//kijhus.kiu.ac.ug/>.
- Aidonojie, Paul Atagamen, Anne Oyenmwosa Odojor, and Patience Omohoste Agbale. "The Legal Impact of Plea Bargain in Settlement of High Profile Financial Criminal Cases in Nigeria." *Sriwijaya Law Review* 5, no. 2 (July 28, 2021): 161. <https://doi.org/10.28946/slrev.Vol5.Iss2.852.pp161-174>.
- Alimah, Nur, Asti Sri Mulyani, and Temmy Fitriah Alfiani. "Legal Protection of Consumers Against The Circulation of Illegal and Dangerous Cosmetics That

- Harm Consumers in Indonesia.” *Trunojoyo Law Review* 5, no. 2 (August 30, 2023): 90–100. <https://doi.org/10.21107/tlr.v5i2.20864>.
- Aminullah, Aminullah, and Hanafi Hanafi. “The Model of Legal Contract Between Courier and Expedition Company in Pamekasan Regency.” *Trunojoyo Law Review* 6, no. 1 (February 10, 2024): 1–16. <https://doi.org/10.21107/tlr.v6i1.22005>.
- Andika, Nadia, Lastuti Abubakar, and Tri Handayani. “Implementation of Principle for Responsible Investment in Distribution of Bank Credits on Infrastructure Projects.” *Legality : Jurnal Ilmiah Hukum* 29, no. 1 (March 12, 2021): 130–43. <https://doi.org/10.22219/ljih.v29i1.15063>.
- Azhari, Rahmito, Wahyu Ramadhani, and Teuku Okta Randa. “Juridical Review of Electronic Signature Implementation of Duties of Notary Offices in Contracting in Agreements in The COVID-19.” *Syiah Kuala Law Journal* 5, no. 1 (April 30, 2021): 26–40. <https://doi.org/10.24815/sklj.v5i1.20734>.
- Babirye, Hamidah, Madele Tait, and Nadine Oosthuizen. “Creating a Suitable Contract Compliance Environment in State Departments in Uganda: A Developing Economy Perspective.” *Journal of Contemporary Management* 19, no. 1 (January 2022): 381–411. <https://doi.org/10.35683/jcm21049.152>.
- Bawack, Ransome. “Electronic Commerce for Development: A Conceptual Analysis and Future Research Agenda for Africa.” *Information Technology for Development*, July 16, 2024, 1–29. <https://doi.org/10.1080/02681102.2024.2377277>.
- Bowman, Warigia M. “Uganda: Distribution in the Shadow of Surveillance.” In *Digital Development in East Africa*, 161–95. Cham: Springer International Publishing, 2023. https://doi.org/10.1007/978-3-031-22162-0_6.
- Chuks, Medoh. “Resilience to Sustainability: System Dynamics Modelling in e-Commerce.” *International Journal of Services and Operations Management* 49, no. 1 (2024): 42–69. <https://doi.org/10.1504/IJSOM.2024.141414>.
- Cordes, Darrold L., and Dora Marinova. “Systematic Literature Review of the Role of E-Commerce in Providing Pathways to Sustainability for Poverty Alleviation in Sub-Saharan Africa.” *Discover Sustainability* 4, no. 1 (February 2, 2023): 7. <https://doi.org/10.1007/s43621-022-00109-3>.
- David-West, Olayinka, Nkemdilim Iheanachor, and Ikechukwu Kelikume. “A Resource-Based View of Digital Financial Services (DFS): An Exploratory Study of Nigerian Providers.” *Journal of Business Research* 88 (July 2018): 513–26. <https://doi.org/10.1016/j.jbusres.2018.01.034>.
- David-West, Olayinka, Nkemdilim Iheanachor, and Immanuel Umukoro. “Sustainable Business Models for the Creation of Mobile Financial Services in Nigeria.” *Journal of Innovation & Knowledge* 5, no. 2 (April 2020): 105–16.

<https://doi.org/10.1016/j.jik.2019.03.001>.

- Duvendack, Maren, and Philip Mader. "Impact of Financial Inclusion in Low- and Middle-income Countries: A Systematic Review of Reviews." *Campbell Systematic Reviews* 15, no. 1-2 (June 23, 2019). <https://doi.org/10.4073/csr.2019.2>.
- Fahrurrozi, Muh., J F X Susanto Soekiman, Antonius Philipus Kurniawan Ghetta, Yayan Sudaryana, and T. Husain. "(2020) Business to Business Ecommerce and Role of Knowledge Management. Business to Business Ecommerce and Role of Knowledge Management, (2020) 82." *TEST: Engineering and Management* Januari-Fe (2020). <https://eprints.hamzanwadi.ac.id/4512/>.
- Gabor, Daniela, and Sally Brooks. "The Digital Revolution in Financial Inclusion: International Development in the Fintech Era." *New Political Economy* 22, no. 4 (July 4, 2017): 423-36. <https://doi.org/10.1080/13563467.2017.1259298>.
- HAJI, Karine. "E-Commerce Development in Rural and Remote Areas of BRICS Countries." *Journal of Integrative Agriculture* 20, no. 4 (April 2021): 979-97. [https://doi.org/10.1016/S2095-3119\(20\)63451-7](https://doi.org/10.1016/S2095-3119(20)63451-7).
- Harris, Christopher G. "Unlocking the Potential of Blockchain in Sub-Saharan Africa: Opportunities and Challenges." In *2023 IEEE AFRICON*, 1-6. IEEE, 2023. <https://doi.org/10.1109/AFRICON55910.2023.10293641>.
- Idowu, Peters, Yaaba N. Baba, Adetoba O. Olufunso, Tomologu Okunomo E. Aduni, and Tonuchi E. Joseph. "How Effective Is Monetary Policy in the Presence of High Informality in Nigeria." *Journal of Accounting, Business and Finance Research* 10, no. 2 (2020): 84-93. <https://doi.org/10.20448/2002.102.84.93>.
- Imoisi, Simon Ejokema, and Paul Atagamen Aidonojie. "Legal and Socio-Economic Issues Concerning Black Marketer's Activities of Petroleum Products in Nigeria." *Yuridika* 38, no. 2 (May 1, 2023): 261-84. <https://doi.org/10.20473/ydk.v38i2.44999>.
- Kruessmann, Thomas. "Internal Investigations in Compliance Matters: What Role for Legal Professional Privilege in Europe?" *European Business Law Review* 32, no. Issue 2 (April 1, 2021): 389-418. <https://doi.org/10.54648/EULR2021014>.
- Kumarathunga, Malni, Rodrigo N. Calheiros, and Athula Ginige. "Sustainable Microfinance Outreach for Farmers with Blockchain Cryptocurrency and Smart Contracts." *International Journal of Computer Theory and Engineering* 14, no. 1 (2022): 9-14. <https://doi.org/10.7763/IJCTE.2022.V14.1304>.
- Li, Gaojun, and Hailong Zhang. "The Efficiency and Challenges of E-Commerce Logistics in Enhancing Market Access for Agricultural Products in Rural China." *Law an Economy* 3, no. 2 (2024): 31-43. <https://www.paradigmpress.org/le/article/view/1028>.
- López Jiménez, David, Eduardo Carlos Dittmar, and Jenny Patricia Vargas Portillo.

- “The Trusted Third Party or Digital Notary in Spain: Effect on Virtual Transactions.” *International Review of Law, Computers & Technology* 36, no. 3 (September 2, 2022): 453–69. <https://doi.org/10.1080/13600869.2021.2004760>.
- Mbutor, Odutun M., and I. Ajugo Uba. “The Impact of Financial Inclusion on Monetary Policy in Nigeria.” *Journal of Economics and International Finance* 5, no. 8 (November 30, 2013): 318–26. <https://doi.org/10.5897/JEIF2013.0541>.
- Mpogole, Matunda. “The Examination of Consumer Protection and Digital Lending Law and Practice in Tanzania.” *East African Journal of Law and Ethics* 7, no. 1 (December 8, 2024): 171–83. <https://doi.org/10.37284/eajle.7.1.2496>.
- Nelken, David. “Comparative Legal Research and Legal Culture: Facts, Approaches, and Values.” *Annual Review of Law and Social Science* 12, no. 1 (October 27, 2016): 45–62. <https://doi.org/10.1146/annurev-lawsocsci-110615-084950>.
- Nte, Ngboawaji Daniel, Vigo Augustine Teru, and Nadiyah Meyliana Putri. “Intelligence Education for National Security and Public Safety Policy: A Comparative Analysis of Nigeria, South Africa, and Indonesia.” *Lex Scientia Law Review* 6, no. 1 (June 9, 2022): 187–218. <https://doi.org/10.15294/lesrev.v6i1.54431>.
- Okuda, Ivan. “Television’s Uncertain and Fragmented Future: Battling the Digital Revolution in Uganda.” In *The Future of Television in the Global South*, 71–85. Cham: Springer International Publishing, 2023. https://doi.org/10.1007/978-3-031-18833-6_5.
- Olagunju, Tolulope, Oladapo Oyeboode, and Rita Orji. “Exploring Key Issues Affecting African Mobile ECommerce Applications Using Sentiment and Thematic Analysis.” *IEEE Access* 8 (2020): 114475–86. <https://doi.org/10.1109/ACCESS.2020.3000093>.
- Olubukola Otekunrin, Adegbola, Tony Ikechukwu Nwanji, Damilola Felix Eluyela, Henry Inegbedion, and Temitope Eleda. “E-Tax System Effectiveness in Reducing Tax Evasion in Nigeria.” *Problems and Perspectives in Management* 19, no. 4 (November 5, 2021): 175–85. [https://doi.org/10.21511/ppm.19\(4\).2021.15](https://doi.org/10.21511/ppm.19(4).2021.15).
- Owolabi, Kudirat Magaji W. “Understanding the Place of Islamic Arbitration within the Nigerian Law.” *Jurnal Hukum Novelty* 14, no. 1 (April 30, 2023): 69. <https://doi.org/10.26555/novelty.v14i1.a25926>.
- Pascal Kwesiga. “Ugandans Want Cheaper Internet.” *New Vision*, 2016. http://www.newvision.co.ug/new_vision/news/1429133/ugandans-cheaper-internet.
- Paul Atagamen Aidonojie, Adesoji Kolawole Adebayo, Eregbuonye Obieshi, Antai Godswill Owoche, Isaac Ottah Ogbemudia, and Muhammad Mutawalli.

- “Prospect, Legal, and Socio-Economic Implication of Metaverse Operation in Nigeria.” *YURISDIKSI: Jurnal Wacana Hukum Dan Sains* 19, no. 4 (March 11, 2024): 455–75. <https://doi.org/10.55173/yurisdiksi.v19i4.201>.
- Peloso, Caroline. “La Justice Pénale Numérique En France et Au Royaume-Uni.” In *La Justice Pénale Numérique En France et Au Royaume-Uni*, 203–20. Éditions Panthéon-Assas, 2024. <https://doi.org/10.3917/epas.gadbi.2024.01.0203>.
- Qiu, Hailan, Xueyi Zhang, Mingrui Feng, Zhenquan Zhang, Jiawei Wang, and Zhipeng Wang. “Exploring the Income-Increasing Benefits of Rural E-Commerce in China: Implications for the Sustainable Development of Farmers.” *Sustainability* 16, no. 17 (August 28, 2024): 7437. <https://doi.org/10.3390/su16177437>.
- Samalie, Sylvia, and Mwebaza Kasimu. “An Overview of E-Commerce Businesses in Developing Countries: A Comparative Study between Uganda and Bangladesh.” *Reflection* 1 (2024): 114–121. <http://hdl.handle.net/10361/24415>.
- Shcherbyna, Valentyn S., Viktoriia V. Rieznikova, Valeria V. Radzyviliuk, Svitlana I. Bevz, and Iryna M. Kravets. “Problems of Concluding Business Contracts in Electronic Form.” *Linguistics and Culture Review* 5, no. S2 (August 7, 2021): 751–63. <https://doi.org/10.21744/lingcure.v5nS2.1417>.
- Solomon Rukundo. “Taxation in the Digital Era: An Analysis of the Challenges of Taxation of E-Commerce in Uganda.” *Uganda Revenue Authority Research Bulletin*, OECD/G20 Base Erosion and Profit Shifting Project, September 16, 2016, 92–105. <https://doi.org/10.1787/9789264218789-en>.
- Stephen N, Emmanuel. “The Impact of Tax Administration on Revenue Generation in Gombe State, Nigeria.” *Scholedge International Journal of Management & Development ISSN 2394-3378* 5, no. 8 (November 11, 2018): 86. <https://doi.org/10.19085/journal.sijmd050801>.
- Sutherland, Karen, Sarah Casey, and Gail Crimmins. “Social Media Behaviors and Barriers Impacting Women E-Commerce Entrepreneurs in Rural Australia: A Pilot Study.” *Community Development*, April 10, 2024, 1–20. <https://doi.org/10.1080/15575330.2024.2339279>.
- Veerpalu, Anne, Liisi Jürgen, Eduardo da Cruz Rodrigues e Silva, and Alex Norta. “The Hybrid Smart Contract Agreement Challenge to European Electronic Signature Regulation.” *International Journal of Law and Information Technology* 28, no. 1 (June 1, 2020): 39–84. <https://doi.org/10.1093/ijlit/eaaa005>.
- Vučinić, Milena. “Fintech and Financial Stability Potential Influence of FinTech on Financial Stability, Risks and Benefits.” *Journal of Central Banking Theory and Practice* 9, no. 2 (May 1, 2020): 43–66. <https://doi.org/10.2478/jcbtp-2020-0013>.
- Zainuddin, Zainuddin, and Rahmat Ramadhani. “The Legal Force of Electronic Signatures in Online Mortgage Registration.” *Jurnal Penelitian Hukum De Jure*

21, no. 2 (June 24, 2021): 243.
<https://doi.org/10.30641/dejure.2021.V21.243-252>.