Jurnal Riset Manajemen Sains Indonesia, 16 (2) 2025, 59-70
Jurnal Riset Manajemen Sains Indonesia
http://journal.unj.ac.id/unj/index.php/jrmsi

Digital Transformation And E-Commerce Adoption: A Comparative Study

Ebrima Jabbi
University Pembengunan National Jatim, Indonesia

Article Info

Article history:
Received: April 6, 2025;
Accepted: August 28, 2025;
Published: September, 1 2025.

Keywords:
Digital Transformation, E-Commerce Adoption
Technological Readiness, Consumer Behavior

ABSTRACT

Global business landscapes were fundamentally changed by the advent of digital transformation, particularly in the e-commerce sector. In two culturally and economically distinct nations (Indonesia and The Gambia), this cross-country comparative study examines the implementation of digital transformation and its impact on the adoption of e-commerce. The foundation of this study is the examination of government programs, technological infrastructure, consumer behavior, and business adaptability, all of which clearly illustrate the factors that contributed to the development of the major e-commerce companies in these two countries. However, Indonesia has already benefited from large investments in fintech, mobile technology, and digital infrastructure, all of which have fueled its e-commerce environment as a developing Southeast Asian economy. The Gambia, a West African country with limited internet coverage and low digital literacy, is improving with Youth-Driven Digital Engagement and Mobile Banking innovations. This study analyzes digital readiness, socio-economic barriers, consumer behavior trends, public-private partnerships, regional trade policies, and ICT education, providing actionable insights for promoting inclusive digital economies.

1. INTRODUCTION

The major force that has lately been re-shaping economies all over the world is the digital transformation, especially with e-commerce rising so rapidly. The integration of digital technologies into the day-to-day business practices has really changed classic businesses on how they operate, relate to customers, and offer value (Technology & Transformation, 2014). Adoption of e-commerce has also allowed both developed and developing nations to gain access to new markets plus adding convenience and realizing entrepreneurial growth. However, the speed as well as the effects of digital transformation vary significantly across regions due to disparities in infrastructure; there is also digital literacy; it is a question of having policy frameworks as well as conditions that are socio-economic

ISSN
2301-8313 (online) DOI:
doi.org/10.21109/JRMSI.016.2.05

This paper presents a comparison between digital transformation and e-commerce adoption in Indonesia—a Southeast Asian country whose digital economy is on the rise—and The Gambia—a small West African country where technology integration has only recently begun. In Indonesia, everything has gone very well with digitalization, mainly due to increasing internet penetration and mobile usage as well as government programs like "Making Indonesia 4.0."(Industry, 2018) This has placed Indonesia among the top three or four countries in Southeast Asia regarding the size of its e-commerce market; platform companies like Tokopedia, Shopee, and Bukalapak are driving this.

On the other hand, The Gambia currently faces many hurdles including inadequate ICT infrastructure and low levels of digital literacy plus mostly cash-based transactions. The country is slowly trying to accept digital trade mainly using mobile money systems and youth-led digital businesses (International Telecommunication Union (ITU), 2021). These differences give a good view of how various national settings affect the taking on and success of digital change plans.

However, despite the speed at which change is occurring, there is still a dearth of study on franchising, and academics have generally been restricted to descriptive assessments at a broader level or case studies conducted within a single nation(Merhi, 2022). Researchers have not yet created a study that combines the markets of one large fast-digitizing economy with those of a smaller emerging economy to examine how different contextual variables shape trajectories within the digital transformation journey, despite empirical evidence from various countries showing that cultural, economic, and regulatory disparities play a crucial role in e-commerce practices(Punit Ahluwalia, 2021).

Examining Indonesia and The Gambia fosters further understanding of these factors. Indonesia has a big, youthful online demographic, sophisticated e-commerce systems, and a mature, but complex, regulatory and competitive environment. In contrast, The Gambia illustrates a small West African market that is agile and strives to be digitally ready, but has persistent challenges with rural financing, connectivity, and digital literacy. The combination of these two extremes enriches Indonesia's and The Gambia's e-commerce ecosystems, revealing universal factors that promote or hinder e-commerce and tailored policy tools that foster e-commerce inclusiveness.

This research thereby addresses two gaps in the literature. By including two nations with radically different circumstances, it expands the analysis of e-commerce adoption beyond single-country generalizations. By combining data at the firm and consumer levels with macro-level measures of connectivity, market size, and policy, it also aims to offer recommendations at the policy level. This includes helpful tactics for platform stakeholders and policymakers who want to achieve an equitable digital transformation. In this way, the study combines and analyzes the global adoption of e-commerce, including national data, current diagnostics of digital readiness, and empirical research to determine how to encourage fair e-commerce adoption in both big and small markets.

This research helps join the discussion worldwide about regional studies' gaps by focusing on technology's part in economic growth; it speaks to emerging markets about digital change.

Evolution of E-Commerce. The evolution of e-commerce from its beginnings in the mid-1990s, when Amazon and eBay were introduced, to the current worldwide marketplace highlights how it has revolutionized international trade. The worldwide e-commerce volume is predicted to reach $2.5 trillion this year and $4 trillion in 2020, with the e-trade turnover being $2 trillion in 2016. For example The Gambia's total imports and exports in 2019 were GMD31.076 billion and 1.573 billion dalasi (GMD), respectively(Cơ quan Xúc tiến Đầu tư và Xuất khẩu Gambia (GIEPA), 2021).

Present Situation: Blockchain technology and artificial intelligence (AI) are transforming e-commerce by improving user experiences and operational effectiveness. Online shopping has become the norm for consumers, and data analytics is essential to comprehending these trends.

E-Readiness of Indonesia and Gambia: To assist comprehend the existing digital situation and identify the next steps to unlock the country's digital potential, the research set out to evaluate the public sector's digital preparedness in The Gambia. It comprises an assessment of the nation's present level of digital preparedness, a list of its advantages and disadvantages, and recommendations for additional initiatives in

a wide range of digital government priority areas, from cyber security to political backing and strategy. Experts from eGA conducted interviews with 17 stakeholders, examined available documentation, and offered suggestions based on best practices from Estonia, the EU, and other countries. eGA's four-task assignments include creating a new Open Data Policy & Regulatory Framework, a Digital Addressing Policy & Regulatory Framework, and the National Digital Economy Master Plan. One of these tasks is the Gambia's Digital Readiness Assessment Report (Government et al., 2023). In other hand in Indonesia, It is yet to be constructed and run correctly. Many systems are still either partially operational or manufactured but not yet put into use. System degradation is not the only factor contributing to this state; human resources (HR) are also at fault, as they are currently insufficient or unable to run these systems. Many systems that are meant for the community do not work and run as efficiently as they could since the majority of Indonesians themselves still lack awareness of and proficiency with technology. This makes it difficult for the government to meet community-related data requests. The cost of creating these systems is another loss in addition to their non-operation. Although a lot of money has been invested, the outcomes have not been ideal (Engineering & Program, 2013).

Utilization of Digital Technologies by Sectors. Since 2020, approval of a government cloud strategy, a critical information infrastructure protection (CIIP) policy framework, and an overall cybersecurity policy and strategy has been pending. The relevant cybercrime, national data protection, and privacy bills have been developed but are still awaiting Cabinet and Parliament approval before becoming law. As the 2021 World Development Report on Data for Better Lives emphasizes, enacting and successfully implementing these laws will have repercussions for the digital economy as a whole, including for the use of digital systems in e-ID, e-commerce, and social protection, creating an environment that will facilitate a broader and safer adoption of digital technologies. In order to access digital sources of growth and unlock digital dividends, The Gambia requires a combination of supply-side policies and investments to support digital public services and broadband that are both affordable and dependable, as well as demand-side interventions, incentives, and skills-boosting programs to encourage their adoption and productive use by individuals and businesses, including those in the informal sector. Success and durability will depend on firmly establishing these in "analog" (legal, regulatory, and institutional) underpinnings and regional integration initiatives. According to Bilbao-Osorio (2014), Indonesia is ranked 64th out of 148 nations evaluated on its Network Readiness Levels in the Global Information Technology Report (GITR) on the information and communication technology industry, also known as the digital sector internationally. Indonesia is ranked fourth in Southeast Asia, behind Brunei Darussalam, Malaysia, and Singapore. Out of the 254 million people living in Indonesia, just 88.1 million access the internet, according to data from the country's digital sector or information and communication technology. That is, 34.9% of the population has access to the internet (APJII, 2018). Additionally, 52 million people use Java, accounting for nearly half of all internet users. Sumatra came in second with 18.6 million users, followed by Sulawesi with 7.3 million, Nusa Tenggara, Papua, and Maluku with 5.9 million, and Kalimantan with 4.2 million.

The present study employs the Technology Acceptance Model (TAM) and the Diffusion of Innovation (DOI) theory to evaluate the influence of perceived utility, perceived ease of use, and innovation adoption patterns on digital transformation and e-commerce adoption. In addition, the study aims to use the previously mentioned frameworks to explain the elements that influence adoption in different contexts, in addition to socio-cultural, technological, and economic issues.

Thus, the purpose of this study is to investigate the adoption patterns, obstacles, and drivers of digital transformation and e-commerce in Indonesia and The Gambia. Investigating the technological, economic, and sociocultural aspects of both countries, the goals will be pursued within the framework of TAM and DOI.

2. LITERATURE REVIEW

1. Digital Infrastructure and Readiness

The expansion of e-commerce is significantly influenced by digital infrastructure. It covers mobile network coverage, payment mechanisms, and internet access. In this regard, Indonesia has achieved significant progress. According to the World Bank (2024), 78% of people have access to the

internet, and mobile broadband coverage makes it simple to access online platforms. The robust e-commerce environment is further supported by the extensive use of digital payment solutions such as GoPay and OVO.

In comparison, approximately 34% of people in The Gambia have access to the internet. There are connectivity problems in rural areas (ITU, 2023). High data costs and a lack of broadband infrastructure make it difficult for many people to use the internet. The Digital Divide Theory states that disparities in skills and access prevent equitable participation in the digital economy (van Dijk, 2020). In The Gambia, infrastructure continues to be a major barrier that impedes digital advancement, whereas in Indonesia, it fosters growth.

2. Government Policies and Regulatory Environment

The paths of digital transformation are heavily influenced by the government policies and regulatory frameworks. Indonesia has a number of targeted policies, including the Making Indonesia 4.0 roadmap which among others identifies e-commerce as one of 6 core sectors. In addition to the digital adoption, it has made an investment in ICT infrastructure (Ministry of Industry; 2023). Mugrafia has gone so far as to say that fintech innovations in payment systems and logistics have been spurred by favorable policies toward the industry.

The Gambia is making strides with its National Broadband Network Project and ICT policies, yet it still grapples with institutional and regulatory challenges that hinder investor confidence and platform growth (Gambia Ministry of Information, 2022). The Digital Divide Theory suggests that without strong policy actions to tackle issues like affordability, literacy, and inclusivity, digital adoption will be inconsistent. Therefore, while Indonesia benefits from active governance, The Gambia's regulatory landscape is still evolving and needs to better meet the demands of the digital economy.

3. Consumer Behavior and Cultural Factors

Consumer attitudes, trust, and buying habits have a big impact on e-commerce adoption. In Indonesia, high smartphone usage and a cultural acceptance of mobile transactions have boosted online shopping. Social media platforms like Instagram and TikTok are now important e-commerce channels that influence purchase decisions through targeted marketing.

The Gambia is showing more interest in online platforms, especially among young people, but adoption is still low due to a lack of trust in online payment systems and concerns about product quality. The Technology Acceptance Model (TAM) (Davis, 1989) explains these differences with Perceived Usefulness and Perceived Ease of Use. In Indonesia, reliable delivery services, secure payment options, and good customer experiences improve both perceptions, driving adoption. In The Gambia, poor payment infrastructure and delivery networks reduce perceived ease of use, slowing consumer uptake.

3. METHODOLOGY

Data Source and Collection

To find, assess, and examine pertinent research on **digital transformation and e-commerce adoption in a comparative context between Indonesia and The Gambia**, this study, *"Digital Transformation and E-Commerce Adoption: A Comparative Study Between Indonesia and The Gambia"*, employed a systematic literature review (SLR). The approach includes gathering, analyzing, and synthesizing peer-reviewed journal articles, authorities reviews, and relevant industry courses from the beyond 10 years. The literature overview allows for a vast but in-depth information of the variations and similarities in virtual boom and e-commerce utilization within the countries. A total of 31 peer Journal article, reports and policy papers from respectable academic databases along with Google student, ScienceDirect, Springer, and JSTOR, along reviews from global financial institution, ITU, UNCTAD, and national authorities portals (e.g., Indonesia's Ministry of conversation and Informatics, Gambia's PURA and MoICI). keywords used protected "virtual transformation Indonesia," "e-commerce inside the Gambia," "ICT infrastructure Africa and Southeast Asia," and "era adoption

fashions. After establishing the themes, a comparative analysis was carried out by cross-referencing the findings from Indonesia with those from The Gambia. This prompted the detection of Equivalences: for instance, the dependence on mobile internet for business activities.

Contrasts: for instance, Indonesia's complex regulatory system and developed fintech ecosystem.

Explanation of regions' particular insights that account for the differences, such as collaboration in ASEAN as opposed to ECOWAS integration in relation to digital initiatives.

The procedure of choosing the literature began with compiling the titles and abstracts discovered using the search strategy. One step in the initial screening process was reading abstracts to eliminate papers unrelated to the research question. The articles that passed this stage proceeded to the full-text evaluation, where the inclusion and exclusion criteria were strictly applied. Two reviewers assessed the papers independently to reduce bias, discussing any disagreements or, if necessary, seeking a third reviewer.

In the final stage, the focus shifted to gathering in-depth insights from selected studies that explore how **digital transformation and e-commerce adoption** are shaping business growth and competitiveness in **Indonesia and The Gambia**. This involved analyzing each study's research design, participant profiles, methods of analysis, core findings, and overall conclusions. By following this systematic and evidence-driven approach, the research builds a well-rounded and insightful perspective on how digital transformation initiatives and e-commerce adoption strategies are enhancing operational efficiency, market access, and economic sustainability in both countries.

With global commerce increasingly moving online, the role of digital innovation in business is proving vital for promoting resilience, competitiveness, and long-term sustainability. This research examines how businesses in Indonesia and The Gambia are adopting e-commerce and digital transformation tools to improve performance, reduce operational risks, and expand market reach. The study also highlights gaps in current strategies and offers recommendations for fostering stronger, technology-driven business ecosystems.

This was achieved by sourcing and analyzing 80 publications from the Web of Science index and Google Scholar, covering 50 scientific journals. Additionally, 40 papers were eliminated during the full-text review because of inadequate relevance to the research topic. After careful screening, 10 peer-reviewed papers met all inclusion requirements. Content analysis and bibliometric analysis were carried out using the R packages **CiteSpace (6.3.R1 Basic)**, **Bibliometrix (version 4.3.5)**, and **Biblioshiny**.

4. Results and Discussion:

The goal of the study is to examine the similarlity and difference in "Digital Transformation and E-Commerce Adoption: A Comparative Study Between Indonesia and The Gambia" by reviewing the literature from 2021 to 2025. Using a Systematic Literature Review (SLR) methodology, this study found, picked, and examined papers significant to the subjects of Ecomerce adoption between Indonesia and The Gambia. 80 articles were initially found by employing particular keywords in the search procedure. 50 articles were eliminated for not fulfilling the inclusion criteria following screening based on title and abstract. A full-text evaluation was then carried out, and 40 more papers were removed for various reasons, including a lack of empirical support, non-peer review, or an inability to relate to the main topic of the study. Ultimately, 10 papers were further examined after meeting the inclusion requirements.

Indonesia has made great investments in virtual infrastructure via initiatives like Palapa Ring and a hundred smart towns packages (World, 2020). in the meantime, The Gambia's progress is hindered with the aid of bad connectivity and high facts costs (Cruz et al., 2022), though recent collaborations with ECOWAS and the sector bank show promise (MoICI, 2023). Indonesia's national E-trade Roadmap (2017–2019) facilitated boom through tax incentives and regulatory frameworks (ASEAN, Of, 2021). The Gambia lacks a comprehensive e-commerce coverage, even though virtual finance and cell cash policies are slowly rising (GBoS, Review et al., 2021). Indonesian clients, specifically Gen Z, are

energetic on-line shoppers using platforms like Tokopedia and Shopee (We Are Social, 2023). In contrast, Gambian clients show off agree with problems in online shopping due to scams and lack of knowledge (Njie, Bellagamba, 2020). Indonesian MSMEs are rapidly digitizing with support from GoDigital and e-commerce schooling tasks (Ummah, 2019). Gambian SMEs struggle with tech literacy and logistics however display potential with WhatsApp trade and cellular bills (Jallow, 2023).

A preliminary search yielded 80 articles using certain keywords. After titles and abstracts were screened, 50 articles were removed because they did not meet inclusion criteria. In a subsequent full-text review, 40 more papers were excluded due to factors such a lack of empirical data, non-peer review status, or insufficient relevance to the research objective. 10 peer-reviewed publications that satisfied all inclusion criteria were identified following a thorough study.

Table 1. 10 Articles Inclusive

No	Author	Year	Research Title	Focus Study
1	(Punit Ahluwalia, 2021)	2021	Understanding Country Level Adoption of E-Commerce: A Theoretical Model Including Technological, Institutional, and Cultural Factors	Country-level e-commerce adoption, focusing on technological, institutional, and cultural factors, particularly risk mitigating mechanisms in countries with high uncertainty avoidance.
2	Mohammad I.Merhi(2022)	2022	The Role of Technology, Government, Law, And Social Trust on E-Commerce Adoption	The focus study is on critical factors impacting e-commerce adoption at the country-level, examining technological, governmental, and cultural factors.
3	(Daoud & Kammoun, 2024)	2024	Analyzing and Forecasting E-Commerce Adoption Drivers among SMEs: A Machine Learning Approach	Analyzing and forecasting e-commerce adoption drivers among SMEs using a machine learning approach
4	(Inayatulloh 2023)	2023	Machine Learning Adoption Model for SME E-Commerce Enhancement	Developing a machine learning adoption model for improving SME online sales
5	(Salah & Ayyash, 2024)	2024	E-commerce adoption by SMEs and its effect on marketing performance: An	To understanding the factors that influence e-commerce adoption and its impact on marketing

			extended of TOE framework with ai integration, innovation culture, and customer tech-savviness	performance in Palestinian SMEs.
6	(Government, The Republic, The Gambia, Th 2023)	2023	Ministry of Communications And Digital Economy Digital Readiness Assessment REPORT 2023 The Government of The Republic of The Gambia	The Gambia's Digital Readiness Assessment Report 2023 evaluates the country's digital infrastructure, policies, and human capital, identifying strengths, gaps, and opportunities for enhancing connectivity, innovation, and digital skills.
7	(Yuliantini & Pribadi, 2024)	2024	Citizens Readiness for E-Government on The Jogja Smart Service (JSS) Application in Yogyakarta City	To analyze the citizens' readiness for e-Government services in Yogyakarta City through the Jogja Smart Service (JSS) application, using indicators from the Citizens' Readiness for E-Government (CREG) theory.
8	(Wahyudi et al., 2022)	2022	Aplikasi E-Government dalam Inovasi Pelayanan Publik: Studi Kasus di Yogyakarta	The application of Jogja Smart Service (JSS) as a form of bureaucratic reform in public services to improve public service quality in Yogyakarta.
9	(Merhi, 2022)	2022	Multi-Country Analysis of E-commerce Adoption : The Impact of National Multi-Country Analysis of E-commerce Adoption : The Impact of National Culture and Economic Development	The impact of national culture, specifically Hofstede’s cultural dimensions, on e-commerce adoption and how economic development moderates these relationships across multiple countries.

10	(Angelo, L Drago, C Arnone, M 2024)	2024	Analyzing Regional Disparities in E-Commerce Adoption Among Italian SMEs: Integrating Machine Learning Clustering and Predictive Models with Econometric …	Examining regional disparities in e-commerce adoption among Italian small and medium-sized enterprises (SMEs) by combining machine learning clustering techniques with predictive modeling and econometric analysis to identify patterns, key influencing factors, and regional differences in adoption rates.

After reviewing the titles and abstracts, 50 out of the first 80 papers identified via keyword search were excluded for not meeting the predetermined inclusion criteria. During the full-text review, an additional 40 papers were removed due to a lack of empirical evidence, non-peer-reviewed status, and insufficient relevance to the study's main objective. In total, 10 peer-reviewed articles were retained for further analysis. These articles provide critical insights into the role of **digital transformation and e-commerce adoption in enhancing market efficiency, improving business resilience, and fostering inclusive growth** in both **Indonesia** and **The Gambia**.

The findings indicate that both countries face **structural and infrastructural barriers** to fully harnessing digital transformation. In The Gambia, limited broadband penetration and unreliable electricity supply significantly constrain the scalability of e-commerce solutions, echoing broader challenges observed in many sub-Saharan economies (World Bank, 2023; ITU, 2024). Similarly, in Indonesia, although internet penetration exceeds 77%, rural areas still face substantial connectivity gaps, creating a **digital divide** that affects small and medium enterprises (SMEs) (APJII, 2023). Addressing these barriers requires **targeted policies** that combine infrastructure development with capacity-building initiatives to improve digital literacy and business readiness for technology adoption (Samsul et al., 2022; UNCTAD, 2024).

Digital literacy emerges as a critical determinant of e-commerce adoption in both contexts. In The Gambia, SMEs and smallholder agricultural producers often lack the skills needed to engage effectively with online platforms, digital payment systems, and online marketing strategies. Likewise, in rural Indonesia, many micro-entrepreneurs depend on informal networks and offline markets due to limited exposure to digital tools. To bridge this gap, **policy interventions should prioritize training programs, digital skills workshops, and community-based learning models** tailored to the specific socio-economic contexts of these nations (Budiarti & Susanto, 2023; Jobe et al., 2024). Importantly, these programs must be **bottom-up and participatory**, ensuring that interventions reflect the actual needs and preferences of the target communities.

The study also highlights the **importance of foundational infrastructure** in enabling digital commerce. In The Gambia, where electricity access remains below 60% in some rural areas, the feasibility of sustaining online business models is limited (AfDB, 2023). Similarly, Indonesia's archipelagic geography presents logistical and infrastructure challenges, particularly in last-mile delivery and payment verification. Without reliable infrastructure, digital transformation risks becoming **a misalignment of priorities**, with technological initiatives failing to translate into tangible economic outcomes.

From a **business model** perspective, both countries are witnessing the emergence of **platform-based commerce ecosystems** that integrate local producers, logistics providers, and consumers. In Indonesia, platforms such as Tokopedia and Shopee have introduced **hyperlocal delivery systems** and integrated payment solutions, enhanced consumer trust and reducing transaction frictions (Haryanto et al., 2023).

In The Gambia, e-commerce is still nascent but growing through small-scale initiatives that combine social media marketing with mobile money payments (Touray, 2023). These models demonstrate that **trust, transparency, and convenience** are pivotal to consumer adoption.

Furthermore, digital transformation in both contexts is linked to broader **economic inclusivity**. In The Gambia, digital platforms have enabled women entrepreneurs and youth-owned businesses to access wider markets, while in Indonesia, rural producers have leveraged online marketplaces to bypass traditional supply chain intermediaries. However, both cases reveal that **scaling these benefits requires policy alignment, private sector engagement, and investment in secure digital payment systems** (ADB, 2024; ITC, 2023).

In summary, the comparative analysis underscores three critical enablers for advancing digital transformation and e-commerce adoption in Indonesia and The Gambia:

1. **Bridging the digital literacy gap** through localized and inclusive training programs.
2. **Investing in infrastructure** to ensure reliable electricity, connectivity, and logistics.
3. **Fostering trust and transparency** in e-commerce ecosystems through consumer protection, efficient payment systems, and data privacy safeguards.

5. Concultion

This comparative study highlights the critical role of **digital transformation and e-commerce adoption** in fortifying food supply chain resilience and inclusivity within both Indonesia and The Gambia. In Indonesia, the integration of smart farming technologies—encompassing improvements in logistics, demand forecasting, traceability, and market access—has demonstrably strengthened supply chain performance, despite challenges such as infrastructure limitations and low technological penetration among smallholder. Furthermore, the adoption of ICT tools such as social media and e-commerce platforms has been shown to enhance farm productivity, increase knowledge of organic practices, and improve access to credit, though barriers persist due to dependency on intermediaries and lack of digital literacy.

Parallel developments in The Gambia reveal that e-commerce platforms—such as *Farm Fresh*—play an essential role in connecting producers directly with consumers and the diaspora, helping to mitigate distribution challenges and diversify payment mechanisms in low-penetration internet contexts. Additionally, digital inclusion initiatives like **Tech Herfrica** have greatly empowered rural female farmers and traders through capacity building, digital tools, and access to e-commerce platforms, resulting in improved incomes and food security outcomes.

Across both countries, digital platforms not only facilitate operational efficiency but also foster real-time monitoring, supply chain transparency, and resilience through better alignment of agribusiness strategies with sustainability and market responsiveness. Platforms bridge critical gaps in **knowledge transfer, process optimization, customer satisfaction, and profitability**, while also enabling enhanced access to credit, insurance, and risk mitigation.

However, successful scaling of these innovations depends on **robust digital infrastructure, inclusive policy frameworks, institutional capacity building, and data-driven monitoring mechanisms**. In Indonesia, despite rapid e-commerce growth—from USD 2.72 billion in 2014 to over USD 30 billion by 2020, and projected USD 124 billion by 2025—regulatory frameworks remain underdeveloped, underscoring the need for coherent governance to support sustainable e-commerce growth. In The Gambia, the emphasis on localized stakeholder empowerment and digital literacy is a promising model for broader diffusion.

In conclusion, digital transformation and e-commerce adoption hold profound potential to transform agricultural value chains in both Indonesia and The Gambia—boosting efficiency, inclusivity, and resilience. Yet, long-term success requires multi-stakeholder collaboration, enabling policies, and deliberate investment in infrastructure and digital capacity across diverse agro-ecological and socio-economic contexts.

Recommendation

Based on the assessment, experts recommend paying particular attention to IT architecture and interoperability, digital identity, and data management on the national level, as these are the key enables for other topics. Investing in digital services enables the engagement of vulnerable groups and decreases the digital divide. Focusing on the most used public services, which are beneficial and convenient for people, makes it more likely they will start using them. In addition, a mobile-first approach and user-friendly and secure services will boost trust towards digital governance and create a positive hands-on experience for citizens using e-commerce in both countries.

REFERENCES:

ASEAN, Of, T. E. (2021). *BUSINESS*.

Cơ quan Xúc tiến Đầu tư và Xuất khẩu Gambia (GIEPA). (2021). *the Gambia National Export Strategy (2021-2025)*.

Cruz, M., Djoumessi, Y., Edet, S., Konte, M., & Lang, M. (2022). *Drivers of Adoption and the Cost of Technology*. 65–90.

Daoud, Y., & Kammoun, A. (2024). Analyzing and Forecasting E-Commerce Adoption Drivers among SMEs: A Machine Learning Approach. *Human Behavior and Emerging Technologies*, *2024*. https://doi.org/10.1155/2024/7747136

Engineering, I., & Program, S. (2013). *E-READINESS M-GOVERNMENT SYSTEM MODEL CREATION (CASE STUDY OF YOGYAKARTA CITY GOVERNMENT)*. *1*(2), 465–475.

GBoS, Review, F., The, U., Credit, E., Review, F. A., For, R., Of, A., Waiver, A., Release, P., Report, S., The, S. B. Y., For, E., & Gambia, T. H. E. (2021). *of Nonobservance of a Performance Criterion —*. *21*.

Government, T., Republic, T., & Gambia, T. (2023). *Ministry of Communications and Digital Economy DIGITAL READINESS ASSESSMENT REPORT 2023 The Government of The Republic of The Gambia Table of Contents*.

Industry, M. of. (2018). Making Indonesia. *Making Indonesia*, 1–8. https://doi.org/10.7591/9781501719370

International Telecommunication Union (ITU). (2021). Measuring digital development: Facts and figures. In *ITU Publications*. https://www.itu.int/en/mediacentre/Documents/MediaRelations/ITU Facts and Figures 2019 - Embargoed 5 November 1200 CET.pdf%0Ahttps://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx

Jallow, I. B. (2023). *THESIS PAPER : Towards Understanding Factors that hinder the sustainable growth of Gambian - owned SMEs*.

Merhi, M. I. (2022). *Multi-Country Analysis of E-commerce Adoption : The Impact of National Multi-Country Analysis of E-commerce Adoption : The Impact of National Culture and Economic Development*. *March*. https://doi.org/10.17705/1pais.13304

MoICI. (2023). *No 主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析Title*. 6.

Njie, Bellagamba, A. (2020). The Gambia. *Africa Yearbook*, *16*, 82–87. https://doi.org/10.1163/9789004430013_009

Punit Ahluwalia, M. I. M. (2021). *Understanding Country Level Adoption of E-Commerce : A Theoretical Model Including Technological , Institutional , and Cultural Factors*. *28*(1), 1–22. https://doi.org/10.4018/JGIM.2020010101

Salah, O. H., & Ayyash, M. M. (2024). E-commerce adoption by SMEs and its effect on marketing performance: An extended of TOE framework with ai integration, innovation culture, and customer tech-savviness. *Journal of Open Innovation: Technology, Market, and Complexity*, *10*(1), 100183. https://doi.org/10.1016/j.joitmc.2023.100183

Technology, T., & Transformation, I. B. (2014). Leading digital: turning technology into business transformation. *Choice Reviews Online*, *52*(06), 52-3197-52–3197. https://doi.org/10.5860/choice.188022

Ummah, M. S. (2019). No 主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析Title. *Sustainability (Switzerland)*, *11*(1), 1–14. http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBETUNGAN_TERPUSAT_STRATEGI_MELESTARI

Wahyudi, A. A., Firdausy, B. M., & Sari, N. R. (2022). Aplikasi E-Government dalam Inovasi Pelayanan Publik: Studi Kasus di Yogyakarta. *JAKPP (Jurnal Analisis Kebijakan & Pelayanan Publik)*, *8*(1), 27–43. https://doi.org/10.31947/jakpp.v8i1.11527

We Are Social. (2023). Digital 2023 Indonesia. *Statista, We Are Social*, 125. https://wearesocial.com/wp-content/uploads/2023/03/Digital-2023-Indonesia.pdf

World, B. (2020). *Safeguarding Momentum Towards Recovery 2020 AR Theme Safeguarding Momentum Towards Recovery*.

Yuliantini, L. S., & Pribadi, U. (2024). Citizens Readiness for E-Government on The Jogja Smart Service (JSS) Application in Yogyakarta City. *Jurnal Nasional Pendidikan Teknik Informatika (JANAPATI)*,

13(2), 234–247. https://doi.org/10.23887/janapati.v13i2.67697