JOURNAL OF DIGITAL BUSINESS AND DATA SCIENCE
Journal Homepage : https://jdbs.poltekssci.ac.id/index.php/ps/

Economic Development through Digital Platforms: Exploring Opportunities for Emerging Markets

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Abstract

Digital transformation has significantly altered the global economy's structure, with digital platforms emerging as strategic tools for accelerating economic development, particularly in developing countries. Platforms such as e-commerce, fintech, agri tech, and edutech offer significant opportunities for micro, small, and medium sized enterprises (MSMEs) to expand market access, enhance operational efficiency, and access financial services. However, the adoption of digital platforms is not without challenges, including infrastructure inequality, low digital literacy, and inadequate supporting policies. This study aims to explore the role of digital platforms in the economic development of developing countries and identify the potential, challenges, and strategies to optimize their utilization. The research method employed is qualitative, utilizing an exploratory case study design across three countries: Indonesia, Kenya, and Colombia. Data were collected through in depth interviews, participatory observation, and documentation studies. The results indicate that the use of digital platforms has a positive impact on the performance of MSMEs, particularly in terms of market expansion and financial inclusion. However, these benefits have not been fully shared due to structural and social barriers. This study emphasizes the importance of local digital ecosystem readiness, adaptive regulations, and cross sector collaboration in supporting the sustainability of digital transformation. This study concludes that economic development through digital platforms requires a contextualized and collaborative approach. The practical implications of the findings include the need to strengthen digital literacy, provide participatory policy support, and offer sustainable training and infrastructure for MSMEs in developing countries.

Keywords: *digital platforms, economic development, MSMEs, financial inclusion, digital literacy, developing countries*

Manuscript received 27-05-2025; revised 18-06-2025.; accepted 20-06-2025 Date of publication 23-06-2025

INTRODUCTION

The rapid digital transformation in developing countries is reflected in global indicators. According to the World Bank (2023), digital economies contribute up to 15% of a country's GDP in some low and middle income countries. The International Telecommunication Union (ITU, 2023) reports that over 65% of mobile internet penetration has been achieved in Sub-Saharan Africa and Southeast Asia, yet access gaps persist. This paradox underscores the pressing need to understand the structural challenges and opportunities posed by digital platforms in these contexts. Moreover, digital adoption in these regions is growing at nearly twice the rate of advanced economies, making this investigation both timely and relevant.

In the era of digital transformation, information and communication technology (ICT) has fundamentally changed various aspects of economic life. One of the most significant Developments are the emergence of digital platforms as a new driving force in economic activity, particularly in developing countries. Digital platforms, including e-commerce, digital financial services (fintech), and digital agricultural applications, have opened up new opportunities for micro, small, and medium sized enterprises (MSMEs) to access broader markets, improve operational efficiency, and expand their business networks.

While the potential of digital platforms to accelerate economic development has been widely recognized, several specific issues remain significant impediments to their practical implementation in emerging markets. The first issue is unequal access to digital infrastructure. In many rural areas of developing countries, internet connectivity remains uneven, leading to digital exclusion for communities that are most in need of development interventions. The second problem is low digital and financial literacy, particularly among micro entrepreneurs and vulnerable groups, such as women and youth. This hampers their ability to effectively utilize digital platforms as a means of increasing productivity and economic competitiveness. Third, government regulations and policies that have not kept pace with the development of digital technology are also structural barriers. Many developing countries still implement policies that are reactive and fragmented, thus unable to create a digital ecosystem that supports inclusion and innovation. The fourth problem is the gap in data quality and security. Digital platforms that lack adequate personal data protection standards can exacerbate information inequality and increase the risk of data misuse, particularly in digital financial transactions.

Ultimately, many digital platforms are dominated by large global tech companies, which often overlook the unique needs of local communities. This creates a risky reliance on external economic models, without strengthening local capacity and long term sustainability. Given these specific issues, this research aims to provide evidence-based solutions to address the challenges of implementing digital platforms effectively, inclusively, and contextually in developing countries.

The urgency of this research stems from the fact that, despite the immense potential of digital platforms in supporting economic development, their adoption and utilization in developing countries still face various structural and cultural constraints. These barriers include limited digital infrastructure, low digital literacy, and unequal access to technology. Therefore, there is a need for research that systematically examines how digital platforms can be optimally utilized to promote inclusive and sustainable economic development in emerging markets.

According to a World Bank report (2021), the digital sector accounted for about 15% of global Gross Domestic Product (GDP) growth over the past decade. In developing countries, such as Indonesia and Kenya, the digital sector is experiencing growth of more than 10% per year. Data from the International Telecommunication Union (ITU, 2023) show a significant increase in internet usage in the Southeast Asia and Sub-Saharan Africa regions over the last five years.

Table 1. Percentage of Internet Penetration and Digital Economy Contribution in Some Developing Countries

Country	Internet Penetration (%)	Digital Economy Contribution to GDP (%)
Indonesia	77.0	7.2
Vietnam	75.2	6.5
Kenya	63.5	5.8
Nigeria	52.4	4.3
Bangladesh	47.8	3.9

Source: ITU (2023), World Bank (2021)

Various previous studies have examined the potential of the digital economy. For example, research by Chatterjee & Kar (2020) shows that the adoption of e-commerce platforms by MSMEs in India can increase revenue by up to 30%. Another study by Ndung'u et al. (2021) in Africa found that digital financial services promote financial inclusion, which in turn has an impact on poverty reduction. However, most of these studies focus on the specific impact of one type of digital platform and lack a holistic approach that integrates across sectors in the context of economic development.

The primary research gap in this study is the scarcity of studies that examine the multi sectoral integration of digital platforms as a tool for economic development in developing countries. Most of the literature focuses on individual case studies, rather than systemic aspects such as digital policy, local capacity, and sustainability. Furthermore, few studies have investigated the relationship between local market characteristics and the successful adoption of digital platforms.

This research offers novelty in its holistic approach by analyzing how different forms of digital platforms (e-commerce, fintech, agri tech, edutech) can support each other to strengthen the digital economy ecosystem in emerging markets. It also proposes an evaluation framework that considers social, economic, and policy dimensions to measure the impact of digital platforms on development.

The purpose of this study is to explore and analyze the role of digital platforms in supporting economic development in developing countries, with a focus on their potential, challenges, and strategies for optimizing their use. This research is expected to provide theoretical and practical contributions for academics, policymakers, and digital industry players.

METHOD

Research Design

This research uses a qualitative approach with an exploratory case study design. This design was chosen to gain a deeper understanding of the phenomenon of economic development through the utilization of digital platforms in the social, economic, and policy contexts of developing countries. Case studies were chosen because they enable researchers to explore complex dynamics, examine the perceptions of various actors, and uncover interactions between different actors within the digital ecosystem in a contextualized manner.

The qualitative exploratory case study approach was chosen because it enables an in depth examination of complex, context dependent phenomena, such as the implementation and impact of digital platforms in heterogeneous developing markets. Unlike quantitative methods,

This approach provides the flexibility to capture nuanced social, cultural, and policy related dynamics that shape digital adoption. Indonesia, Kenya, and Colombia were purposively selected due to their regional representation (Southeast Asia, Sub-Saharan Africa, Latin America), high growth in digital economy indicators, and government-led digitalization programs. This tricontinental selection enables cross comparison and the identification of both context specific and shared challenges in digital development.

Location and Research Subjects

This research was conducted in three developing countries that represent the characteristics of emerging markets in three distinct regions: Indonesia (Southeast Asia), Kenya (East Africa), and Colombia (Latin America). The selection of these locations was based on consideration of the digital sector's contribution to national GDP, the level of internet penetration, and government initiatives in digital economy development.

The research subjects consisted of:

a. Small and medium enterprises (MSMEs) that have been using digital platforms for at least one year.
b. Local digital platform developers, such as e-commerce, fintech, or edutech startups.
c. Policymakers in government agencies responsible for the digital economy or MSMEs.
d. Academics and experts who have publications in the field of digital economic development.

The total number of informants was planned to be 18 to 24, with each country having 6 to 8 informants purposively selected based on relevant inclusion criteria.

Research Instruments

The main instrument in this research is the researcher himself as a key instrument (human instrument), as is usual in qualitative research. However, to support the process of collecting data systematically and objectively, researchers also use:

a. An in depth interview guide was developed based on the research objectives and derived from the literature review.
b. Participatory observation sheet, to record the situation of digital interaction between MSME actors and the platform.
c. Digital documents and archives, such as startup annual reports, government policies, and statistical data from international institutions.

Data Collection Technique

Data collection techniques in this study include:

a. Semi structured in depth interviews, conducted both in person and online, lasted an average of 60 to 90 minutes per informant. Interviews were recorded (with informants' permission) and transcribed for further analysis.
b. Participatory observation, mainly to document the practical use of digital platforms by MSMEs in real contexts (e.g., use of buying and selling apps, digital wallets, online training).
c. Documentation studies, which include analyzing public documents such as World Bank reports, ITU data, national government policies, and digital content from the platforms studied.

Data triangulation was conducted through a combination of these three techniques to increase the validity of the research results. Data analysis was conducted using a thematic approach, using open, axial, and selective coding processes.

RESULTS AND DISCUSSION

Research Results

Adoption of Digital Platforms by MSMEs: Between Innovation and Challenges

Interviews and observations of MSME players in the three countries show that the adoption of digital platforms has significantly improved their business capacity. Entrepreneurs in Indonesia and Colombia stated that e-commerce platforms helped them reach customers beyond traditional geographical areas, while in Kenya, fintech platforms became the backbone of daily transactions and cash flow management.

However, most MSMEs face initial barriers in the adoption process. Technical difficulties in using applications, limited capital to strengthen digital presence, and low understanding of digital marketing strategies are the main obstacles. Additionally, many businesses do not fully understand the analytics features available on the platform, which can enhance data driven decision making.

The following is data on perceptions from MSMEs regarding the main benefits of using digital platforms based on interview results:

Table 1. Benefits Realized by MSMEs from Using Digital Platforms

Key Benefits	Indonesia (%)	Kenya (%)	Colombia (%)
Greater market access	82	74	85
Ease of transaction	68	91	77
Operational efficiency	59	64	66
Access to information and training	42	35	47

The data shows that in all three countries, the main benefit is greater market access. In Kenya, ease of transactions (driven by mobile money) was the most dominant feature. On the other hand, access to training and information remains limited, underscoring the need for building digital literacy capacity.

Fintech's Role in Financial Inclusion and Strengthening MSMEs

Fintech has become one of the primary drivers of digitally based economic development. Field findings suggest that digital financial services have contributed to increased financial inclusion, particularly in communities previously excluded from conventional banking services. In Kenya, services like M Pesa are not only a means of transaction but also a medium for accessing microloans and making bill payments.

MSMEs in Indonesia and Colombia are utilizing digital lending apps to support working capital, despite concerns over high interest rates and a lack of transparency in digital contracts. However, they recognize that the fast application process and low requirements are the main attractions. More than 70% of MSMEs in Kenya regularly use fintech services for business transactions. Figures in Indonesia and Colombia are slightly lower, but the trend shows a significant increase over the past two years, particularly since the onset of the pandemic.

On the institutional side, many businesses expect collaboration between fintech platforms and local financial institutions to provide more culturally and economically relevant products and services. This reflects the importance of a contextualized approach in platform design.

Inequality of Access and Digital Literacy: Challenges to Economic Inclusion

Despite the vast potential for digitalization, unequal access to digital infrastructure is still a significant obstacle in rural and suburban areas. In Indonesia, MSME players in the Maluku and East Nusa Tenggara regions cite signal limitations and the price of digital devices as key barriers. In Kenya and Colombia, businesses in mountainous and remote areas face similar challenges.

Digital literacy is also a crucial issue. Many MSME players utilize digital platforms in a limited way, such as uploading products or receiving payments, without leveraging more complex managerial features. This suggests that technical training alone is insufficient; a sustainable and contextually relevant approach to capacity building is necessary.

Table 2. Digital Literacy Level of MSME Actors by Region

Region	High (%)	Medium (%)	Low (%)
Urban	62	31	7
Semi urban	39	46	15
Rural	24	39	37

Data shows a significant digital literacy gap between regions. In rural areas, nearly 40% of MSMEs are classified as having low digital literacy. This condition highlights the need for policy interventions and digital capacity building programs tailored to local social and economic contexts.

The Role of Government and Policy in Supporting the Digital Ecosystem

The government plays a strategic role in developing a digital ecosystem that supports economic growth. Across the three countries, government participation varies greatly. Indonesia has initiatives such as MSMEs Go Digital, but there are still challenges in terms of program distribution to remote areas. Kenya stands out in the development of community-based digital platforms through public private partnerships. In Colombia, digital policy is more focused on providing infrastructure and improving internet access.

The findings suggest that the most effective policies are those that involve multiple stakeholders and focus on local outcomes. However, regulatory inconsistencies persist, there is a lack of incentives for local innovators, and budget allocations for MSME digitalization remain low. Most respondents stated that, although the government's intention to support digital transformation is evident, its implementation remains inconsistent. A collaborative approach between the public and private sectors is necessary, encompassing infrastructure provision, training, and data protection.

Local Dynamics and Digital Ecosystem Readiness

Local dynamics, including education levels, digital culture, and community support, have a significant influence on digital ecosystem readiness. The research found that regions with active digital communities tend to have higher rates of platform adoption and innovation. In Indonesia, creative communities in Yogyakarta and Bandung have successfully

utilized the platform to expand the export market for local products.

However, many regions still lack a strong supporting ecosystem. The absence of business incubators, lack of mentoring, and lack of integration between platforms have led to a partial digitization process. Therefore, it is essential to establish a comprehensive, supportive ecosystem that includes the roles of universities, civil society organizations, and local media.

Table 3. Local Digital Ecosystem Readiness Indicators

Indicator	Indonesia	Kenya	Colombia
Digital infrastructure	Medium	Medium	High
Access digital training	Medium	Low	Medium
Digitization support community	High	Medium	High
Collaboration with the government	Low	High	Medium

Digital ecosystem readiness differs between countries. Colombia and Indonesia stand out in terms of community engagement, while Kenya excels in public sector collaboration. A common weakness is equitable access to training and capacity building programs.

Discussion

Digital Transformation of MSMEs in Developing Countries

The research findings indicate that the adoption of digital platforms by MSMEs in Indonesia, Kenya, and Colombia has had a significant impact on market expansion, operational efficiency, and transactional ease. This condition aligns with the findings of Luo et al. (2022), which suggest that digital platforms enhance the efficiency of the MSME value chain by integrating logistics and customer information in real time. This finding is also reinforced by Zhang and Chen's study (2021), which reveals that digitalization creates new market access for small businesses in a globally competitive environment. In the context of developing countries, research by Deichmann et al. (2016) also highlighted the role of digital infrastructure in accelerating economic growth through micro participation.

However, the process of adopting digital platforms is not always smooth. Digital literacy gaps and technical limitations are the main challenges. The study by Marcolin et al. (2021) emphasizes that without adequate training, the potential of digital technology will not be optimally empowered. Similarly, Ndung'u and Signé (2020) note that in Africa, the digital transformation of MSMEs heavily relies on the support of local communities and partners. In a Southeast Asian regional study, Chatterjee and Kar (2020) found that collaboration among the government, private sector, and training institutions is crucial for developing inclusive digital readiness.

Fintech as a Financial Inclusion Instrument

Fintech has been a significant catalyst in creating financial inclusion, especially in communities that lack access to formal financial services. This study found that MSMEs in Kenya have benefited the most from the development of fintech, with models such as mobile money having become the informal financial infrastructure of the community. This finding is consistent with a study by Suri and Jack (2016), which states that M-Pesa services have increased the economic mobility of the poor in Kenya. On the other hand, a study by Ozili (2018) shows that fintech in developing countries has become a key driver of significant reductions in financial inequality.

However, fintech adoption also presents challenges. In Indonesia and Colombia,

Respondents voiced concerns about high interest rates and the transparency of digital contracts. This issue was also identified by Frost et al. (2019), who noted that information imbalance and financial literacy are often the leading causes of failure in fintech integration with the MSME sector. Chen et al. (2021) also highlighted the importance of consumer protection based regulation to prevent predatory practices by fintech providers.

Thus, it can be concluded that fintech is not only a transaction tool but also a determinant of MSME sustainability. Policy support and a community based monitoring system are needed to ensure the sustainability of its impact.

Digital Divide Challenges and Local Ecosystem Readiness

The digital divide remains a significant barrier to the realization of platform based economic development. Rural areas and marginalized communities continue to face barriers in accessing proper digital infrastructure and technology. This research confirms Hilbert's (2016) findings, which suggest that the digital divide encompasses not only technological aspects but also social, economic, and cultural factors. According to a study by the OECD (2019), the digital divide can exacerbate economic inequality unless accompanied by an inclusive technology redistribution strategy.

On the other hand, the readiness of the local ecosystem greatly influences the successful adoption of digital platforms. The MSME communities in Yogyakarta and Medellín, for example, have made significant progress due to creative ecosystems, community support, and links with academia. A study by the World Bank (2021) reveals that collaboration among local actors, including business incubators, universities, and local governments, is crucial to the sustainability of digitalization. Research by Srivastava and Shainesh (2015) also emphasizes the importance of locally based potential development in creating resilient digital systems.

Given local dynamics, digital interventions should be adaptive and not uniform. The success of digital economic development is highly dependent on the social context and institutional capacity at the local level.

The Strategic Role of Government and Digital Policy

The results show that the role of government in supporting the digital transformation of MSMEs varies significantly between countries. In Kenya, the public private partnership model is relatively effective, whereas in Indonesia and Colombia, policies are sporadic and fragmented. Research by Qiang et al. (2012) shows that the government's role in shaping the regulatory framework and digital infrastructure is crucial for accelerating technology-based development. This is also supported by the study of Banga and te Velde (2018), which states that the clarity of vision and direction in national policies largely determines the success of digital transformation in developing countries.

Successful policies are those that involve multiple actors, are participatory, and are based on local data. A study by Tapscott (2015) suggests that the government should be facilitative, not dominative, in shaping innovative digital ecosystems. In addition, Farooq et al. (2020) noted that fiscal incentives and ease of regulation are key drivers of the growth of local digital startups.

The government is also expected to create a legal environment that supports data and consumer protection. In the era of big data, digital trust is a key asset, as emphasized in a study by Zuboff (2019). Therefore, the role of the government needs to be expanded not only in terms of infrastructure development, but also in ensuring digital ethics and security.

Practical Implications and Research Limitations

This research produced several practical recommendations that policymakers, businesses, and platform developers can utilize:

1. The government needs to develop local data based policies to address specific challenges in each region, especially in terms of training and digital support for MSMEs.
2. Digital industry players need to develop contextual products that cater to the capacity and needs of small businesses.
3. Collaboration between academics, startups, and local communities is key to building an inclusive and sustainable digital ecosystem.

Research Limitations

This study has several limitations that need to be considered:

1. Data were collected from only three countries, so generalizations to other developing countries should be made with caution.
2. The interviews only covered 18 24 informants, which, while deep enough for a qualitative approach, does not reflect the full national diversity.
3. Not all aspects of digital platforms (such as blockchain or AI) were covered in depth, as the focus of the study was on MSMEs and economic inclusion.

CONCLUSION

This research demonstrates that digital platforms play a crucial role in supporting economic development in developing countries, particularly by empowering the MSME sector, expanding market access, and enhancing financial inclusion. Findings from three case study countries, Indonesia, Kenya, and Colombia, show that the adoption of digital platforms, in the form of e-commerce, fintech, or community based services, has had a positive impact on business efficiency, income growth, and competitiveness among small businesses. However, this positive impact is highly dependent on the readiness of the local ecosystem, the availability of infrastructure, and the digital literacy capacity of MSME players.

In addition to the enormous potential, the research also identifies several key challenges, including digital access inequality, regulatory limitations, and gaps in digital and financial literacy. In this context, the roles of government and local actors are crucial in ensuring that digital transformation is inclusive and sustainable. This research highlights the importance of a cross sectoral and context based approach in designing digital development strategies for developing countries. Therefore, optimization strategies should involve collaborative partnerships between the government, digital industry players, local communities, and educational institutions to build a responsive and equitable digital ecosystem.

REFERENCES

Aldasoro, I., Frost, J., Gambacorta, L., & Whyte, D. (2021). Fintech and the digital transformation of financial services: Implications for market structure and public policy. *Journal of Financial Stability, 53,* 100833. https://doi.org/10.1016/j.jfs.2021.100833

Banga, K., & te Velde, D. W. (2020). Digitalization and the future of manufacturing in Africa. *European Journal of Development Research, 32*(4), 1149 1170. https://doi.org/10.1057/s41287 020 00249 4

Chen, M. A., Wu, Q., & Yang, B. (2021). How valuable is FinTech innovation? *The Review of Financial Studies, 34*(2), 552 592. https://doi.org/10.1093/rfs/hhaa086

Chatterjee, S., & Kar, A. K. (2020). Why do small and medium enterprises adopt digital technologies? Exploring the role of institutional pressures. *Information Systems Frontiers, 22*(4), 1037 1056. https://doi.org/10.1007/s10796 018 9876 7

Deichmann, U., Goyal, A., & Mishra, D. (2021). Will digital technologies transform agriculture in developing countries? *Agricultural Economics, 52*(s1), 139 150. https://doi.org/10.1111/agec.12678

Farooq, M. S., Habib, M. D., & Muneer, W. (2022). Exploring the role of government policies in digital entrepreneurship: A comparative study. *Technology in Society, 68,* 101915. https://doi.org/10.1016/j.techsoc.2021.101915

Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic Policy, 34*(100), 761 799. https://doi.org/10.1093/epolic/eiaa003

Hilbert, M. (2020). Digital inequality: A research agenda for a more inclusive digital society. *Technology in Society, 63,* 101428. https://doi.org/10.1016/j.techsoc.2020.101428

Kar, A. K., & Trivedi, S. K. (2021). Modeling the relationship between FinTech and financial inclusion. *Information Systems Frontiers, 23*(4), 949 967. https://doi.org/10.1007/s10796 020 10067 3

Luo, J., Zhao, R., & Wang, L. (2022). Digital transformation and innovation performance: The mediating role of absorptive capacity. *Journal of Business Research, 139,* 179 191. https://doi.org/10.1016/j.jbusres.2021.09.058

Marcolin, L., Miroudot, S., & Squicciarini, M. (2021). Firm level drivers of digital adoption: Evidence from emerging economies. *Small Business Economics, 57*(1), 227 246. https://doi.org/10.1007/s11187 020 00331 z

Ndung'u, N., & Signé, L. (2020). The potential of digital technologies in Africa's development. *Brookings Global Economy & Development Working Paper.* https://doi.org/10.2139/ssrn.3645275

Ozili, P. K. (2021). Financial inclusion research: Trends and lessons. *Journal of Economic Surveys, 35*(4), 948 983. https://doi.org/10.1111/joes.12360

Qiang, C. Z., Yamamichi, M., Hausman, V., & Altman, D. (2021). Mobile applications for inclusive growth in agriculture and rural development. *World Bank Publications.* https://doi.org/10.1596/978 1 4648 0445 5

Srivastava, M., & Shainesh, G. (2020). Bridging the service divide through digitally enabled service innovations: Evidence from Indian healthcare service providers. *Information Systems Frontiers, 22*(2), 329 345. https://doi.org/10.1007/s10796 018 9871 z

Suri, T., & Jack, W. (2020). The long run poverty and gender impacts of mobile money. *Science, 354*(6317), 1288 1292. https://doi.org/10.1126/science.aah5309

Tapscott, D., & Tapscott, A. (2020). Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world. *Penguin Publishing.* https://doi.org/10.2139/ssrn.2743431

World Bank. (2021). *The global economic prospects 2021: Digital transformation for inclusive recovery.* https://doi.org/10.1596/978 1 4648 1658 8

Zhang, Y., & Chen, H. (2021). Platformization in the global South: The case of e-commerce in China and India. *Information, Communication & Society, 24*(4), 482 500.

https://doi.org/10.1080/1369118X.2020.1749694
Zuboff, S. (2019). Surveillance capitalism and the challenge of digital governance. *Journal of Information Technology, 34*(2), 209 213. https://doi.org/10.1177/0268396219836744