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The Impact of Digitalization on Informal Roadside Businesses in Indonesia and its Contribution to GDP

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Abstract

Indonesia's informal roadside businesses, while prevalent, remain unrecorded, representing a hidden pillar of economic potential. This study investigates how digitalizing these businesses could significantly boost Indonesia's Gross Domestic Product (GDP). The primary research question explores how digitalization can capture unrecorded transactions and integrate them into the formal economy, thereby enhancing economic measurement and growth. Employing a mixed-methods approach, the research combines quantitative analysis of transaction volumes and digital payment adoption rates with qualitative insights from roadside business owners, financial experts, and policymakers.

According to the World Economic Forum, "digitalizing informal roadside businesses could increase Indonesia's GDP by 21-22%". This boost is primarily driven by capturing previously unrecorded economic activities by the informal roadside businesses. However, significant challenges remain, including poor digital literacy and access to financial services. This study underscores the urgent need for targeted strategies to enhance digital infrastructure, provide digital literacy training, and incentivize digital payment adoption. By finding a solution to these challenges, Indonesia can achieve a more inclusive and boosted economy, which will lead to economic growth and the empowerment of small businesses through better financial inclusion.

The theoretical framework supporting this research is framed around digitalization, financial inclusion, and the informal economy. The analysis uses descriptive data to contrast revenues before and after digitalization. The finding from the difference in revenue instills a sense of desire for policy recommenders to move forward with the initiative of digitizing informal businesses because it also benefits them.

Keywords: digitalization, informal economy, financial inclusion, economic growth, digital payment adoption

I. Introduction

Indonesia's informal economy is very large and plays a critical role in the country's economic activities. Over 60% of Indonesian workers are involved in the informal sector through micro and medium enterprises (MSMEs). These MSMEs make up 99% of all businesses in Indonesia, highlighting their critical role in the national economy. However, these particular businesses are usually unregistered and don't contribute to the final calculation of GDP (Gross Domestic Product).

The fact that businesses in the informal sector are not included in the computation of GDP creates a false growth rate of a country's economy, portraying it as lower than it should be. GDP is used for economic planning, policy-making, and attracting foreign investments, which indicates the need for accurate data. Adding these informal businesses into the formal economy will encourage financial inclusion, thereby allowing them to receive government assistance and be presented with other market opportunities. However, challenges such as legal ambiguity, small and scarce funds, and lack of legal knowledge hinder the process of going formal. These challenges must be addressed with specific policies and supportive mechanisms to include informal businesses in the sphere of the formal economy:

Digitalizing informal roadside businesses involves using digital payment systems, enhancing digital literacy, and improving the infrastructure to support online transactions. This proposal aims to capture unrecorded transactions, reduce costs, and improve financial transparency. By adopting digital solutions, informal businesses can transition into the formal economy, contributing more accurately to GDP and benefiting from formal financial systems.

The primary purpose of this research is to examine the possible increase in Indonesia's Gross Domestic Product when informal roadside sellers engage in digitalization. Through analyzing data and interviewing real-life vendors, the research question of: **"To what extent can digitalization of informal roadside businesses in Indonesia contribute to the country's GDP?" will be answered.**

II. Literature Review

The informal economy, which encompasses several unregulated economic activities by government authorities, is a crucial sector in many developing nations. For instance, most street vendors in Southeast Asian and African countries are informal players who play a vital role in their respective country's GDP figures but rarely have access to efficient financial services. As for the prior research related to this subject, the attention has gradually shifted towards the effects of digitalization, especially in the sphere of improving financial access and boosting the economic development of this segment.

Hernando De Soto's seminal work, The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else (2000), and Martha Chen's paper, The Informal Economy: Definitions, Theories, and Policies (2012), stressed the significance of the informal economy by highlighting that it is the only source of employment and income in areas where formal employment is scarce. However, the informal economy seems on the fringe of the formal economy. These works highlight that formalizing micro and other informal businesses entails economic difficulties due to constrained credit and financial services. While there might be difficulties, these two works both agree on the same thing: integrating informal businesses into formal financial systems is a necessity in order to unlock their full potential and advance in the future which is especially important because the financial sector is such a competitive field.

The financial sector is one of the most prominent fields that is expected to be revolutionized by digitization efforts. In their influential study Measuring Financial Inclusion: The Global Findex Database (2013), Demirgüç-Kunt and Klapper notes that financial services, including savings accounts, credit, and insurance, can positively impact informal businesses to upgrade their financial management abilities and invest in the opportunities for their development. However, as highlighted by Aker and Mbiti in their paper Mobile Phones and Economic Development in Africa (2010), many owners of businesses in the informal sector do not possess the necessary documents, credit history, or formal education to access conventional banking services. This has brought about the use of other ways through which people with limited knowledge can be financially included, namely through the use of mobile phones and digital wallets.

The benefits of digitization for informal businesses are well established in literature especially on the financial inclusion and more market access. According to a study by Suri and Jack (2016) titled The Long-Run Poverty and Gender Impacts of Mobile Money, researchers found that through mobile money, poverty can be cut down as the informal businesses get secure and convenient methods of saving their money and making transactions. This financial inclusion helps the tracking tracking of cash, investment in inventories and minimizing on theft or loss. Moreover, digitization allows informal businesses to access new markets through e-commerce platforms, as highlighted by Ondiege (2010) in Mobile Banking in Africa: Taking the Bank to the People, which points out that through use of mobile banking, small enterprises have been in a position to get customers outside their locality hence increasing the number of potential customers and profits.

However, the literature sources also presented several harms and possible negative impacts of digitization. One crucial issue which can be talked about in relation to Heeks (2010) in Do Information and Communication Technologies (ICTs) Contribute to Development?, is that the move to digital consumption is likely to exclude those who have low digital literacy levels for business. This digital exclusion can also widen the inequality within the informal sector since the less fortunate businesses will find it hard to compete with the technologically enhanced counterparts. In addition, the use of the digital platform brings the issue of data privacy and security into the spotlight, especially since the owners of the informal businesses may not be knowledgeable about the dangers of performing digital transactions. This situation is deepened by the fact that many developing countries have no legal bodies governing these businesses thus these businesses can easily be conned among other vices.

Another focal concern is the challenges that hinder the implementation of digitization especially in the BIS sector. A study by Duncombe (2014) in Understanding Mobile Phone Impact on Livelihoods in Developing Countries, reveals that the following physical constraints are still a major barrier to adopting higher levels of digital technology adoption in the informal economy; fluctuating electricity supply, constrained internet connection, and high cost of gadgets. Additionally, the cultural and social barriers which are discussed Slater and Tacchi (2004) in ICT Innovations for Poverty Reduction include the reluctance of business owners to change their ways of working due to a routine. This resistance can be attributed to the fact that users do not trust digital systems as they are seen as complicated relative to face-to-face transactions which characterize most informal transactions. These barriers can only be addressed through technology fixes as well as properly designed education and support programs that are directly responsive to the needs of the owners of informal businesses.

Based on all the previous literary works analyzed, it can be concluded that scholarly literature continues to record mixed sentiments about the long-term consequences of digitization on informal businesses. In their study, A Review of Evidence on Mobile Use by Micro and Small Enterprises in Developing Countries (2010), Donner and Escobari argue that there is a vast potential for digital financial services. Still, an equally primary concern is the digital divide that will cause interferes with the efficiency of potential technological solutions around the world. Furthermore, new research observes that, while M-PESA has had a significant level of success, replicating the idea in other settings has not been as successful and thus proposes that local factors may be pivotal in determining the success of those electronic interventions.

Although there are still some gaps regarding studies on how digitization affects the sustainability and profitability of informal businesses in the long run, several prior works address the positive effects of digital payments and financial services. On the other hand, a few studies examine the possible adverse effects, including higher risk exposure or digital platform reliance. Thus, more studies should be conducted on the impact of digitization on informal businesses to determine the long-term implications and ways of reducing the adverse effects.

Overall, the literature perceives the positive use of digitization towards improving the financial sector inside the informal economy and the growth of economic growth, but there is a need to perform further studies to analyze the varied effects of these technologies. Filling these research gaps will prove paramount in formulating policies and interventions that will foster the digitization of informal businesses for their continued growth and incorporation into the formal economy.

III. Theoretical Framework

Operating outside of the established norms set by a government and being generally excluded from the nation's banking system, the informal economy comprises prohibitive economic activities. Some activities include unregistered businesses, informal employment, and unrecorded income. Informal economies are essential since they offer sources of income; different countries, notably third-world countries, may lack adequate formal employment.

The importance of the informal economy is that it provides a home to as many people as possible, especially when unemployment is high. In Indonesia alone, informal employment occupies more than 60 percent of employees. With these numbers, it is possible to indicate that the informal sector is essential in maintaining economic stability and providing income to millions of people. Yet, non-observer of these activities in standard output measures such as GDP distorts an accurate picture of a country's performance to policymakers, planners, investors, and those engaged in resource mobilization. It may also be helpful when it comes to managing the money, which becomes more effortless and reaches out to more people in the market.

3.1 Concepts of Digital Literacy and Financial Inclusion

The first concept is digital literacy. Digital literacy can be defined as the competencies one possesses that enable one to find, sift, create, and share information through digital tools. It comprises online literacy, present and future use of mobile devices, and knowledge of digital money services. This is why education in ICT is crucial to apprise individuals and firms of new opportunities provided through digitalization and make it possible for them to engage in better economic activities through using facilities such as online banking and mobile payment systems.

The next concept is financial inclusion. Financial inclusion, therefore, implies that everyone needs to have easy access to viable and inexpensive financial tools and services that are relevant to them. Such services are credit, payment, saving, transaction, and insurance services that are safe and provided sustainably. Economic development of a country requires the provision of financial services as they empower individuals to save, invest, and insurance, hence promoting stability in the economy. For informal businesses, financial inclusion can provide credit facilities, open up market opportunities, and help mainstream business enterprises.

3.2 Economic Theories Related to GDP Growth and Market Inclusion

The first economic theory is Gross Domestic Product, which, in simple terms, is one of the most significant economic concepts regarding the enhancement of the worth of the products and services by a given economy at a given period. There is the possibility of raising GDP by perfecting the transition of informal businesses into formal players, thus accommodating the previously excluded economic activities, decreasing the cost of transactions, and increasing the level of formalization. The sectors can result in better economic informality statistics, improved policies, and more investment.

The next economic theory is Market expansion. Market expansion involves the absorption of all the members of the economy, especially the sectors that are considered to be informal sectors, into the formal market. Such inclusion implies that it can result in better utilization of resources, greater utilization of the economy through the equals sign, as well as improved economic development. Scopes associated with the market access center on a fair market entry-level, integrating

the deprived economy sector with financial products and using technology to link the excluded business entities with the formal ones.

IV. Methodology

4.1 Research Design

In this research report, I employed a comprehensive research design that integrates both qualitative and quantitative data collection methods. Given the focus on the informal economy, gathering specific qualitative data directly from roadside vendors was essential to ensure the accuracy of the findings. I conducted surveys and interviews with these vendors to gain a deep understanding of their current struggles and to explore how digitization might impact their businesses. Additionally, I collected qualitative and quantitative data through case studies. The combination of these qualitative and quantitative approaches has provided a broad and detailed understanding of the potential benefits of digitizing these roadside businesses.

The quantitative and qualitative data were collected through three different ways. The first one was through questionnaires filled out by informal businesses from various regions of Indonesia. The survey was conducted online and face-to-face to achieve broad coverage, especially in areas with different levels of digitization. The response rate was about 60 percent, as 36 completed questionnaires out of 60 were sent out. The survey gathered information on the management of the firms and proclaimed challenges to going digital.

The following way of collecting qualitative data was through in-person interviews and surveys. The sampling included people who completed the surveys and were later interviewed to gather more in-depth qualitative data. The distribution of people chosen for the survey was obtained using factors like geographical location, size of business, and level of adoption of digital technologies. The interviews were based on the questions concerning the participants' experiences, challenges, and perception of digitalization and overall access to financial resources.

The last way quantitative and qualitative data were collected was through case studies. Different case studies were chosen and analyzed to get a sense of financial inclusion initiatives in real life and their impact on vendors. In all five cases analyzed, the data seemed to come to the consensus that, to a great extent, adopting digitization did indeed help these small businesses thrive and expand more effectively.

4.2 Data Analysis

Firstly, the quantitative data was analyzed using statistical means through surveys filled in by the owners of small businesses in the informal sector. By examining the data between business performance and using digital financial systems and tools, we could identify a positive linear regression indicating a strong correlation between the two variables. This means that as businesses use digital systems, their businesses tend to do better because they have a sense of budgeting and how much they make compared to when they only take cash and don't consider how much they make and how much they spend.

Secondly, the qualitative data was analyzed through personal interviews and questionnaires filled out by various roadside business owners. The qualitative data collected from these illustrated the digital literacy challenges and financial barriers for many of the roadside vendors, ultimately painting the problem in a very bright light. In addition, thematic analysis supported the quantitative data and provided insights into the issues and prospects of incorporating informal businesses (UIBs) into the formal sector.

The methods used to collect data are justified through the concurrent use of the quantitative and qualitative ways is reasonable due to the comprehensiveness of the informal economy and digitalization. Quantitative data gives the big picture and trends, while qualitative data gives detailed data that may explain the trends. These procedures increase the credibility and accuracy of the research study findings.

VI. Results

5.1 Current State of Indonesia's Informal Economy: Statistical Overview

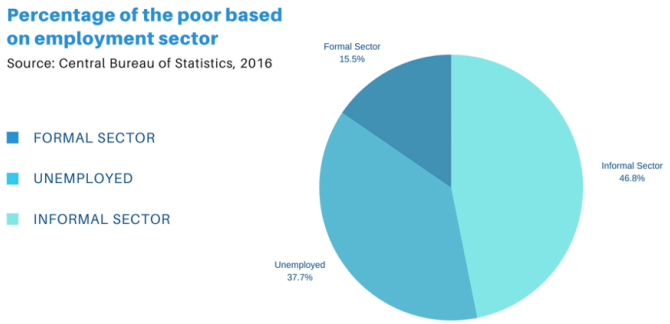

Figure 1: *(Source: Central Bureau of Statistics - Name: Percentage of Poor in different unemployment sectors)*

Indonesia's informal sector is vast and diverse, including workers from hawkers to artisans and designers. According to the Central Statistics Agency (BPS), informal employment comprises 57% of Indonesia's workforce, providing income for millions. However, this sector is challenging to quantify fully, leading to an underestimation of its economic impact. It is believed that if the informal sector were entirely registered and included, it could contribute between 20% and 30% to the GDP.

The informal employment comprises the following activities in that area: sale of cooked foods, fruits and vegetables, butcheries, and other small businesses like dressmakers and mechanics, among others. They are mainly small-scale entrepreneurs, require little capital, have restricted credit and banking facilities, and are frequently unregistered. This has left them with little or no formal registration, making them legally invisible and in a state of legal limbo where their legal status is unknown. Without licenses and permits, these businesses can be harassed with arbitrary fines, closure, and legal actions, among other legal measures, with no legal means of defending themselves.

Figure 2: *(Source: Pixabay - Name: Roadside Watermelon Vendor Image)*

However, these businesses are primarily unregistered and, therefore, do not follow the legal requirements for paying taxes; hence, their tax status is often unclear, and they may encounter issues with the tax department. They also do not enjoy the legal rights accorded to formally recognized enterprises, such as enterprising legal contracts and owning property. This puts them at a disadvantage because they can easily be exploited, their property stolen, or they are subjected to unfair practices and cannot approach the courts for protection. Clarifying these legal uncertainties is essential for enhancing the solidity and development potentiality of the informal sector enterprises.

5.2 Mathematical Analysis of How Digitization Can Help Revenue for Small Businesses

5.2.1 Descriptive Statistics Analysis for Informal Businesses

Step 1: Average Revenue Calculation

To calculate the average revenue of informal businesses before and after digitalization in Indonesia, we will use data from reports and surveys.

- *Before Digitalization*
  According to the Asian Development Bank (ADB) report, the average annual revenue for MSMEs in Indonesia before digitalization was about IDR 100 million rupiah (Asian Development Bank).
- *After Digitalization*
  According to BCG Global, the average annual revenue increased to around IDR 150 million after digitalization (BCG Global).

Step 2: Calculate the Mean (Average) Revenue

- *Before Digitalization*
  Average Revenue Before=100 million IDR
- *After Digitalization*
  Average Revenue After=150 million

5.2.2 Proportion of Businesses Adopting Digital Technologies

According to the Ministry of Cooperatives and SMEs, by mid-2022, 90% of the 20.9 million merchants who adopted the QR payment system were MSMEs (Indonesia Business Post).

Proportion = Number of MSMEs using digital tools / Total number of MSMEs
= 18.81 Million / 20.9 Million

= 0.9 or 90%

5.2.3. Changes in Employment Rates

To measure the changes in employment rates within these businesses before and after digitalization, the data indicates a significant improvement. According to a survey by the Boston Consulting Group (BCG), employment rates in digitally enabled MSMEs increased by approximately 25% after digitalization (BCG Global).

Employment Data:

- *Before Digitalization*
  Assume a total of 100 employees across a sample of businesses.
- *After Digitalization*
  This number increased to 125 employees.

Employment Rate Change = Total employees after Digitalization - Total employees before Digitalization) / Total employees before Digitalization)

= (125 - 100) / 100
= 0.25 or 25%

5.2.4 Summary

1. Average Revenue Increase:
   - *Before Digitalization*
     100 million IDR
   - *After Digitalization*
     150 million IDR
2. The proportion of Businesses Adopting Digital Technologies: 90%
3. Change in Employment Rates: 25% increase

These statistics highlight the significant impact of digitalization on informal businesses in Indonesia. The increase in average revenue and employment rates, along with a high proportion of businesses adopting digital technologies, underscores the potential benefits of integrating digital tools within the informal sector. By enhancing digital infrastructure, providing digital literacy training, and incentivizing digital payment adoption, Indonesia can further bolster its economic growth and financial inclusion efforts (DailySocial) (Asian Development Bank) (BCG Global) (Indonesia Business Post).

VI. Discussion

6.1 Challenges Faced by Informal Businesses: Financial Exclusion, Lack of Digital Literacy, and Infrastructure Issues

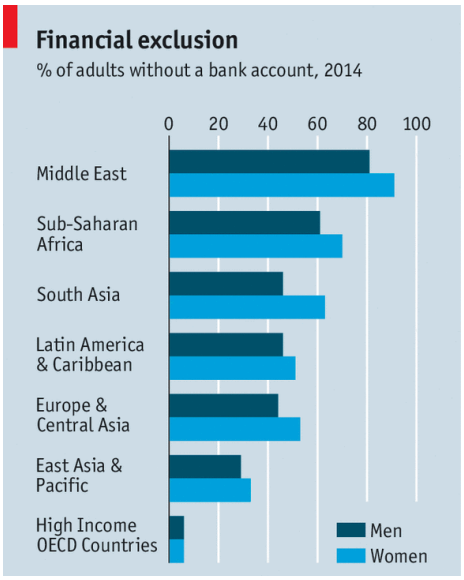

Figure 3: *(Source: The Economist - Name: Financial Exclusion Article)*

Financial exclusion is a significant challenge for informal businesses in Indonesia. Most informal business owners lack formal financial education, making it difficult for them to borrow, save, and conduct transactions efficiently. Issues such as missing paperwork, perceived high risks by financial institutions, and high transaction fees emphasize this problem. Consequently, many informal businesses operate on a cash basis, making them prone to theft and difficult to trace, thereby remaining excluded from formal financial systems.

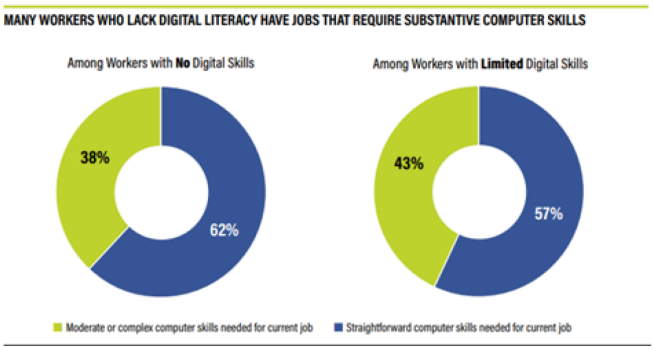

Figure 4: *(Source: Viasat News - Name: Basic computer literacy statistics)*

Next, In informal businesses, the level of computer literacy among owners usually is poor. The lack of skills in using the available tools hinders the implementation of electronic payment systems and other e-financial services among business owners. Availability of training programs is a challenge, and where there is any, it is very rare that it will have the kind of training that informal businesses require. This digital literacy gap then poses a significant hurdle to the advancement in the

approach of digitalization since business owners, for example, may not know why they should embark on using or, at the very least, may not trust these tools since they do not understand them.

Lastly, another major problem is the limitation of digital resources. Despite relatively good internet connectivity and digital service usage in urban areas of Indonesia, internet coverage and access to digital technologies remain very low in rural and remote regions. This digital divide exacerbates problems for informal businesses, particularly those located outside major cities. Due to weak internet connections and the high cost or unavailability of digital technologies, these businesses cannot effectively engage in online commerce.

6.2 Analysis of Existing Digital Platforms and Their Impact on Similar Economies

Several digital platforms have been successfully implemented in other countries to make sure that informal businesses are included in the formal economy. This provides a learning opportunity for Indonesia to see what worked for other digital platforms in other countries.

Figure 5: *(Source: Wikipedia - Name: M-Pesa Payment Till Image)*

The first example of a successfully implemented digital platform is M-Pesa in Kenya. M-Pesa is a mobile money service introduced in Kenya, allowing millions of users to deposit, withdraw, transfer money, and make payments for goods and services using just their mobile phones. M-Pesa is very easy to use and has enhanced financial inclusion significantly, particularly among small businesses in rural populations. M-Pesa's impact on Kenya's economy includes increased savings, reduced transaction costs, and enhanced monetary safety for users.

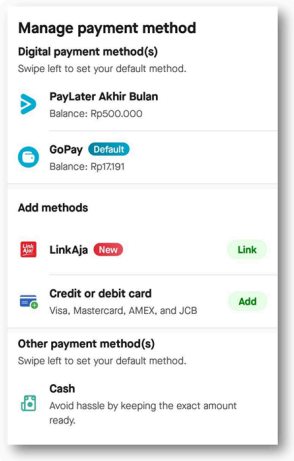

Figure 6: *(Source: Gojek Help Center - Name: How to Set Up Payment Methods)*

The next example of a successfully implemented digital platform is Gojek in Indonesia. The Indonesian on-demand multi-service platform Gojek has been a key factor in integrating informal businesses such as these roadside vendors. Initially a food delivery app, Gojek has diversified to include various services, including the digital wallet GoPay. By using GoPay, users can make transactions to purchase items throughout Indonesia. This provides a convenient digital payment method for informal businesses to use for both when purchasing items and for receiving money by selling items. This transformation from cash to digital payments has significantly boosted the financial security of many informal businesses.

Figure 7: *(Source: Paytm Blog - Name: How Paytm Revolutionized QR and UPI)*

The last example of a successfully implemented digital platform is Paytm in India. Paytm is a notable example, particularly relevant to India's large informal economy. Targeting mobile commerce users, Paytm serves millions of shoppers and sellers, including those in the informal economies. The introduction of QR code payments has provided a cost-effective way for informal businesses to adopt digital payments.. This has led to increased transparency, lower transaction costs, and improved financial management for many small business owners.

6.3 Summary of Findings

The study of digitalizing the informal economy in Indonesia reveals huge possibilities of enhancing the GDP since the informal economy is characterized by numerous unlawful transactions that hinder the economic growth of the country. Nevertheless, factors like financial exclusion, financial literacy, and infrastructure challenges need to be overcome to encourage such initiatives. Thus, the positive experience of other countries and Indonesian cases of the informal sector's functioning show that with the proper conditions of a digital economy, monetary accessibility will increase, the national economy will grow, and the quality of life for millions of Indonesians will be improved.

For the government of Indonesia to foster the digitalization of the informal sector, the following strategies may be taken into consideration: Financial education, infrastructure development, incentives for going digital, and easy entry into the business registry. The outlined steps will work towards the manner of ensuring that the informal business firms transition into the formal sector in order to foster inclusiveness.

The process of digitalization is promoted by private companies, non-governmental organizations, and international organizations. The private sector can develop cheap software, NGOs can conduct awareness classes, and international organizations can contribute monetarily and knowledgeably. These stakeholders need to come up with strategies that will encourage the authorities to support the informal sector.

Studies on the local level have confirmed the prospects of utilizing digital initiatives, an increase in business performance, and financial reliability. These examples give solid proof that it is possible to improve the informal sector through digital means.

Further studies should be carried out on the sustainable effects of digitalization on business and the social and economic effects of affirmative informal businesses in the country's economic systems. Specifically, quantitative measures regarding the possible economic effect of digitalization of the informal sector would also be useful to actors such as policymakers. When Indonesia uses these strategies and engages the stakeholders, the country can achieve the optimum results of digitalizing the informal economy in terms of social inclusion and economic stability.

Even though the data points towards a clear stance that digitization is beneficial to informal businesses, there are some limitations in the data collection that need to be addressed. The primary limitation is the responses to the questionnaires. Small business owners might not feel comfortable answering such questions needed for the data collection because they might not know where this data could end up. If it were to be identified by the government, small businesses could face severe problems with taxes because since they are part of the informal economy, not all their transactions are currently included, meaning they understate their revenue and income. This consists of the accuracy of the questionnaire but still gives us a reasonable estimate of the overall consensus among the different people in the informal economy. To address this limitation in the future, maybe instead of sending out a questionnaire, actually having a discussion with them and directly observing their small businesses to get a real sense of their daily business.

Another limitation is the need for more consideration of the long-term impact of digitization on these informal businesses. The identified short-term benefits, such as increased revenue and better finances, are evident, but it doesn't discuss how digitization could affect these small businesses in the long term. One major issue with digitization in the long term is digital literacy. The owners of companies in the informal sector might need the proper education to maintain a financial account for a sustained period. Since they are so used to just doing cash transactions, moving towards digital payments also increases the amount of money they have to report, meaning they have to pay more taxes, which is also a significant

limitation that should have been considered. To address this, there must be specific ventures trying to help increase the digital literacy of these vendors and also offer some other incentive to convince them that going digital is beneficial even though they might have to pay slightly more in taxes to the government.

VI. Conclusion

This paper looks at the potential of digitizing the informal roadside businesses in Indonesia to stimulate the economy and increase the nation's GDP. By looking at financial data on digital payment rates, interviewing roadside vendors, and providing them with questionnaires, overall, the conclusion is that digitization of these informal roadside businesses is indeed beneficial to both the economy and to the vendors themselves by providing them with access to financial systems they could use to distribute their finances better.

Overall, adding informal businesses into the digital economy could potentially boost Indonesia's GDP by around 21 to 22 percent, which is a sign that the economy is doing extremely well and is still growing. However, digitization is not easy to implement due to the challenges of low digital literacy, low financial literacy, and overall access to technology for business in the informal economy. A comprehensive strategy is needed to face these challenges and ensure that the firms in the informal economy can gain knowledge and have the support to digitize their businesses. Other developing countries worldwide already have present ventures striving to bridge the gap by creating financial systems such as M-Pesa in Kenya and Paytm in India, which drive financial inclusion between the informal and formal sectors. Digitizing the informal businesses presents a massive opportunity for Indonesia to create a more inclusive economy that benefits roadside vendors. Future research is still needed to study the long-term effectiveness of digitalization strategies and address barriers such as digital literacy and infrastructure to ensure all segments of the informal economy are included.

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