



Digital Payments and Economic Growth in Developing Countries - Investigate how the adoption of digital payment systems is driving economic growth and financial inclusion in developing nations.

Module:

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Chapter 1: Introduction

1.1 Background

A digital payment, also known as an electronic payment, is the process of transferring funds between two or more payment accounts through the use of a digital device or channel. Payment methods such as credit cards, debit cards, mobile money, and prepaid cards may all be included in this definition. There are three distinct types of digital payments: partially digital, mostly digital, and totally digital. The 1 percentage point rise in the use of digital payments is linked to 0.04 and 0.10 percentage points, respectively, in the growth rates of total factor productivity and GDP per capita (Tombini, 2023). Given that the population claiming to use digital payments ranged from virtually 0% to 100% (Tombini, 2023), this is a substantial amount. Greater employment reduces the share of informal payments by 0.06 percentage points and makes loans easier (Tobini, 2023). This study will examine how innovations in digital payment systems affect financial inclusion and economic growth in developing countries, evaluate relevant studies, and make recommendations for long-term financial growth through digital payment systems.

1.2 Rationale

The research examines how the implementation of digital payment systems in developing countries, while promoting financial inclusion and economic growth, faces significant obstacles like security risks, regulatory hurdles, and infrastructure hurdles, which impede their efficient implementation and long-term adoption.

1.3 Aim

This research aim to investigate how digital payment systems drive economic growth and financial inclusion in developing countries, as well as to analyse the related challenges and policy implications for financial inclusion.

1.4 Objectives

The following objectives have been developed for investigating digital payments and economic growth in developing countries.

- To evaluate the impact of digital payment systems on the developing countries' economic growth of developing countries.
- To investigate on the impact of digital payment systems on developing countries' financial inclusion.
- To evaluate the challenges in the adoption the digital payments' role within developing nations.
- To provide recommendations in promoting digital payment systems for sustainable economic development in developing nations.

1.5 Question

The following questions are developed to investigate upon investigate how the adoption of digital payment systems is driving economic growth and financial inclusion in developing nations.

1. How the digital payment systems impact developing countries' economic growth of developing countries?
2. How the digital payment systems impact the financial inclusion of developing countries?
3. What are the challenges in the adoption the digital payments' role within developing nations?
4. What are the recommendations for promoting digital payment systems for sustainable economic development in developing nations?

1.6 Significance

This research is important because it demonstrates how significant digital payment systems can promote economic growth and financial inclusion in developing countries. By identifying challenges and offering policy recommendations that support sustainable development, its aim is to improve access to financial services for underserved groups.



Chapter 2: Literature Review

2.1 The impact of digital payment systems on the economic growth of developing countries

It has resulted in a decrease in the usage of cash, which has a number of positive outcomes, including a reduction in the cost of printing and transporting currency notes, a reduction in black money, an increase in tax compliance, and, of course, a reduction in the convenience of financial transactions and payments. According to Bhuiyan *et al.* (2024), technology and innovations propel the Global Business economy. The face of businesses and the methods by which they operate are frequently altered by technological innovations. As per Di Maggio *et al.* (2024), Payment systems now face new challenges as a result of technological innovations. Traditional cash-based payment systems have been replaced with more efficient and effective cashless payment systems due to modern technological advancements. Chinoda and Kapingura (2024), researched those Digital transactions were more profitable than traditional systems in the sector of payments due to their qualities such as ease of use, speed, safety, and convenience. Kanungo and Prasad (2024) present that, among consumers, digital payments are quickly becoming the norm, and India is no exception.

As per Kanungo and Prasad (2024), Economies all over the world can benefit from digitising how people handle transactions because it gives them the push they need to perform better in terms of efficiency, research and development, and economic growth. Bhuiyan *et al.* (2024) present those new theories of economic growth point to innovation and technological advancements as beneficial transference over the economy that may lead to economic growth, though it is still too early to say for sure if this theory is correct. As per Maggio *et al.* (2024), in a practical sense, countries like India, Sweden, Nigeria, and some other sidenote economies that are making progress in digitisation could serve. Chinoda and Kapingura (2024) showed examples of why digitisation could be the key to further growth and why it might be important on the sidenote to work with elements that support the digital economy and society.

2.2 The impact of digital payment systems on financial inclusion in developing countries

In order to achieve financial inclusion, these exceptional digital services are essential for facilitating rural connectivity. To further propel rural economic development and growth towards sustainable financial inclusion, these cutting-edge services improve access to, savings habits, investments in, and lending to rural areas. As per Hapsari and Puspitasari (2024), in order to assist in alleviating poverty in developing and emerging economies, the G-20 and the World Bank have spearheaded efforts to enhance financial inclusion in those countries since 2010. Agarwal and Assenova (2024) said the importance of digital finance and financial inclusion for poverty reduction and economic growth is currently being highlighted by policymakers and academics.

Moreover, Sajid *et al.* (2024) are present largely due to the existence of a number of issues that, if resolved, could improve the effectiveness of digital finance for individuals, businesses, governments, and the economy. Jejeniwa *et al.* (2024) showed more people in low-income areas will be able to afford financial services, banks and Fintech companies will be able to cut costs on financial intermediation, and governments will be able to spend more money

overall due to digital finance and financial inclusion. According to Hapsari and Puspitasari (2024), despite its advantages, digital finance and financial inclusion have not reached large enough portions of the population, indicating a gap between the availability, accessibility, and use of finance.

2.3 The challenges in the adoption of the digital payment's role within developing nations

The lack of interoperability across different payment systems is a key challenge with digital payments. Multiple payment platforms are required for organisations and customers, which results in delays and extra costs. Varalakshmi *et al.* (2024) have examined customer perception, usage pattern preferences, and customer satisfaction levels with digital wallets. The adoption of digital wallets is further hampered by the difficulties and challenges that are identified. According to Baheti *et al.* (2024), To achieve the aforementioned goal, respondents were asked several questions about the adoption of digital wallets in a well-structured questionnaire. Norbu *et al.* said there is a huge untapped market for digital wallets in terms of both awareness and usage growth. The most common justifications for adopting wallets were time savings and convenience.

However, as per Varalakshmi *et al.* (2024), their primary concern remained the safety of the money being exchanged. The main obstacles to its adoption are security issues, including concerns about cash loss and a lack of functionality for international transactions. Baheti *et al.* (2024) show, that by examining the relatively new idea of digital payment systems in India, the study provides a significant contribution to the field of finance research. As per Varalakshmi *et al.* (2024), Electronic payments are performed per transaction without the usage of paper documents like checks. Electronic payment methods include debit cards, credit cards, smart cards, e-wallets, and credit cards. Baheti *et al.* (2024) E-payment systems have experienced varying levels of adoption throughout the world, some are heavily popular, while others are not.

2.4 Literature Gap

Despite extensive research on the impact of digital payments on economic growth and financial inclusion, there is a notable gap in understanding the specific digital security risks, regulatory barriers, and infrastructure challenges faced by developing countries. In order to remove these barriers to inclusive and sustainable economic development in these regions, there isn't much research on the policy measures and strategies that are required.

Chapter 3: Methodology

3.1 Philosophy

This research method evaluated the Interpretivism philosophy in the context of analysing the impact of digital payments on economic growth and financial inclusion in developing countries (Alharahsheh and Pius, 2020). The study starts with well-established theories and tries to prove them through quantitative data analysis.

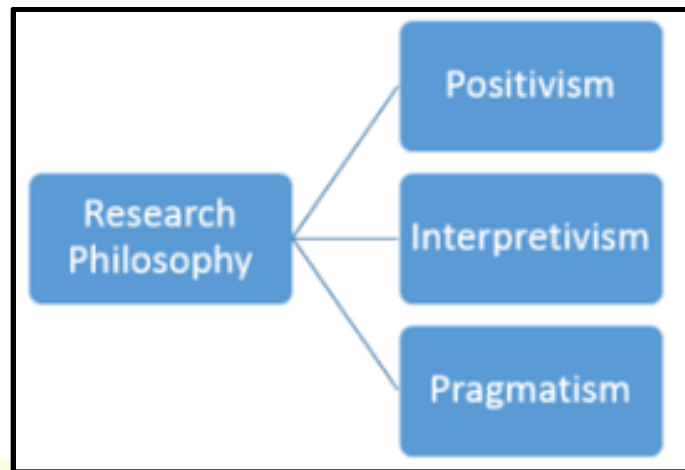


Figure 3.1: Research philosophies

(Source: Asmawi and Alam, 2024)

3.2 Approach

The research framework is a method or strategy for a research study. Overall, this is the direction with multiple processes using different methodologies (Thumvichit, 2024). The deductive method and inductive method are the two primary sorts of frequent strategies employed in empirical studies to generate findings. This research has conducted the inductive approach in the context of analysing the impact of digital payments on economic growth and financial inclusion in developing countries (Thumvichit, 2024). This has justified cause this study started with a well-established literature review and tried to prove them through quantitative data analysis.

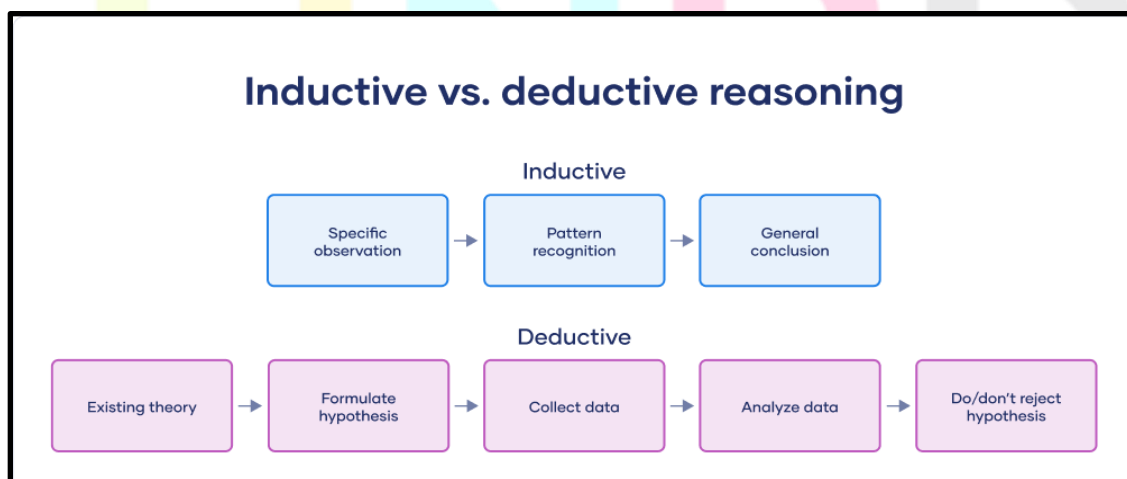


Figure 3.2: Inductive and Deductive approach

(Source: Thumvichit, 2024)

3.3 Design

In term of present how and why certain phenomena occur, explanatory Research Design investigates the causal relationships between variables (Bay Brix Nielsen *et al.* 2024). This choice has meant to determine how the utilise of digital payments affects financial inclusion in developing countries (Bay Brix Nielsen *et al.* 2024). Evaluating the ways that digital payments encourage inclusive economic growth has reflect focus to underlying economic dynamics.

3.4 Data Collection Method

Surveys, interviews, and interviews et al. are primary data collection tools. Secondary data collection methods, on the other hand, use known sources like academic literature and reports (Nexø, 2024). For this research on the effects of digital payments in developing countries, the secondary qualitative method worked best (Nex, 2024). It was necessary to examine the research and papers that had already been written on how digital payment systems support economic inclusion and financial growth.

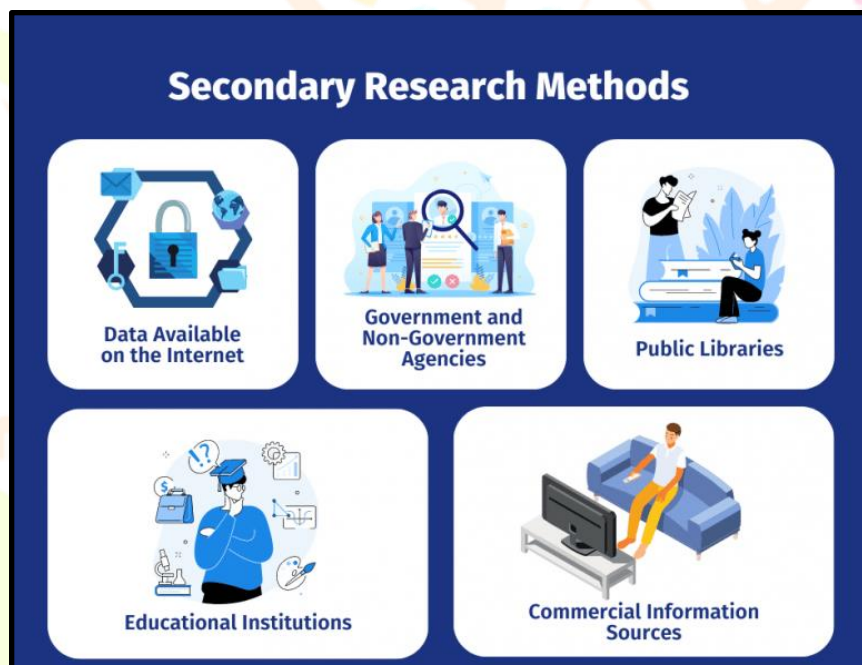


Figure 3.3: Secondary Research Method

(Source: Nexø, 2024)

3.5 Data Analysis

The data analysis in this study includes methodically examining case studies in order to learn more about how digital payment systems affect people in developing countries (Majemite *et al.* 2024). The case study provided a thorough understanding of the processes involved in economic growth and financial inclusion, allowing for in-depth analysis of actual situations. Majemite *et al.* (2024) can assist readers in understanding how digital payments

have changed economic and social payment situations by closely examining specific case studies. Readers can use the case studies to create future policy and application strategies by learning important lessons from them.

3.6 Ethics

After utilise the Data Protection Act of 2018 provides this research has to protect privacy and get educated consent (Kerber, 2023). Particular this stressed the importance of protecting participant privacy, handling private information carefully, and taking cultural contexts into account when data collection (Simm *et al.* 2024). Ion term of methodology the integrity throughout the analysis and reporting of results while assesing to legal frameworks to safeguard data and meet regulatory requirements.

Chapter 4: Findings & Discussion

4.1 Findings

In terms of findings, the following information is collected in respect of different countries.

India-

Bhuiyan *et al.* (2024) present that, due to the government's "Digital India" initiatives, widespread internet and smartphone penetration, and widespread technological adoption, digital payments in India have been growing quickly since 2014. With unflinching zeal, the Indian government pushes digitalisation forward. Maggio *et al.* (2024) said with "Digital India" and demonetisation, the government promoted digitisation.

Many in India had both positive and negative things to say about these programmes. However, people's confidence in the digitalisation endeavour is growing. Chinoda and Kapingura's (2024) research paper reflects the realm of payments and settlement has also been enveloped by digitalisation. In addition, as per Kanungo and Prasad (2024), the majority of payments and settlements in India are made by cash, but this dominance has been gradually eroded by digital payment methods like IMPS (Immediate Payment Service), RTGS (Real-Time Gross Settlement), NEFT (National Electronic Fund Transfer), and CTS (Unified Payment Interface).

Kenya-

The FinAccess Household Survey found that when it comes to access to financial services, Kenya is among the most inclusive countries. According to the document, financial services are available to almost 90 per cent of Kenya's adult population. Forecasts for 2021 indicate a 63.2% growth in the value of mobile money transactions (Ianja and Zain, 2024). Policies implemented by the government to encourage the usage of mobile money in the fight against the COVID-19 pandemic have contributed to this surge (Ianja and Zain, 2024). To spur economic growth, the government is devoting more and more resources to inclusive programmes. To a large extent, the rise in financial inclusion rates can be attributed to the M-Pesa platform's ability to bring banking services to the unbanked (Ianja and Zain, 2024).

In fact, a sizable segment of the Kenyan population without access to conventional financial services has been successfully reached via M-Pesa. As the most widely used mobile money service in Kenya, M-Pesa has seen

phenomenal growth in its user base across sub-Saharan Africa (Ianja and Zain, 2024). The platform, where "pesa" means "money," was launched by Safaricom in 2007 and is currently operational in ten countries, including Kenya, Tanzania, Lesotho, the Democratic Republic of the Congo, Ghana, and Tanzania. With a monthly volume of 614 million transactions, it serves over 30 million consumers (Ianja and Zain, 2024). It boasts 42,000 developers, 600,000 agents, 465 businesses, and 51 million subscribers (Ianja and Zain, 2024).

Brazil

With a projected GDP of US\$2.13 trillion in 2023, Brazil will be the ninth-largest economy in the world, and it will dominate Latin America's economy (Thunes, 2024). The growth of the middle class and the emergence of new opportunities are being propelled by digitalisation and economic diversification (Thunes, 2024). Faster, more convenient, and cheaper online and offline transactions are becoming the norm as more and more Brazilians forego using cash in favour of digital payments (Thunes, 2024). Newer digital payments are opening up huge chances for businesses to flourish online, expand abroad, diversify products, and boost revenue. With 165 million citizens connected to the internet, it's a perfect storm for growth (Thunes, 2024). Foreign businesses find Brazil irresistible (Thunes, 2024). The country's top two trading partners in 2022 were the US and China, with trade volumes of US\$88.7 billion and US\$150 billion, respectively (Thunes, 2024). Key exports from Brazil include soya beans, iron ore, crude petroleum, and agricultural products; these and other abundant natural resources contribute to the country's allure.

4.2 Discussion

The impact of digital payment systems on financial inclusion and economic growth in developing countries like India, Kenya, and Brazil shows significant trends and insights. People in India are using digital payments more because of the government's "Digital India" plan and demonetisation efforts (Bhuiyan *et al.* 2024; Di Maggio *et al.* 2024). Financial inclusion has grown as a result, and cash use has decreased. The widespread adoption of digital payment methods like IMPS, RTGS, NEFT, and UPI has gradually reduced the dominance of cash transactions, showing the positive impact of digitisation on the economy.

Kenya's economic growth and financial inclusion have benefited from M-Pesa. M-Pesa helps non-bankers access banking services, which Ianja and Zain (2024) thinks explains Kenya's high financial inclusion rate. The platform's widespread use and popularity in Sub Saharan Africa suggest that it promotes financial inclusion and economic growth. Digitalization has boosted economic growth, as Brazil's digital payment systems illustrate. Digital payments are the norm as more people go online and become middle class. Thunes (2024) says this streamline and simplifies operations. The rise of digital payments allows firms to prosper online, worldwide, and take payments, boosting economic growth. According to research, digital payment systems save cash costs, simplify tax payments, and speed up financial transactions. According to Hapsari, Puspitasari, and Agarwal and Assenova, digital payments are essential to financial inclusion because they make it easier for people in rural areas and those with lower incomes

to obtain financial services. Inability to use digital payments with other systems, security concerns, and transaction constraints with other nations (Varalakshmi et al. 2024; Baheti et al. 2024)

Chapter 5: Conclusion and Recommendations

5.1 Conclusion

In conclusion the Digital payment methods have effectively boosted economic growth and financial inclusion in developing countries like India, Kenya, and Brazil. This research present that better economic efficiency, less use of cash, and easier access to financial services are all made possible by government programmers and technological growth. More it enhances there are still challenges, such as security risks and regulatory barriers. In future it will be crucial to address these challenges through targeted digital policy development.

5.2 Recommendation

Base on this research report the digital payment systems for long-term economic development in developing countries, invest in strong internet and mobile network infrastructure to ensure reliable access (Mbaidin *et al.* 2023). In addition, Communities can learn about the *pros and cons* of digital payment systems and how to use them through targeted financial literacy programmes (Anakpo *et al.* 2023. Moreover, the country should establish *supportive regulatory frameworks* that encourage innovation and protect customers to make the world a safe and effective place for digital transactions.

The user countries need to promoting *public-private partnerships* between *governments, financial institutions, and tech companies*. It will increase the number of digital payment choices that people can use (Hussain *et al.* 2023). Moreover, the People and businesses that use digital payments should get grants and tax breaks as a prize. They need to take step to make security steps stricter to build a safe and reliable payment environment and get people to trust digital transactions.

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