

Transformation of the Payment System Towards a Cashless Society: Definition, Benefits, and Challenges

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ABSTRACT

The shift toward a cashless society has become a global trend, particularly in Indonesia, accelerated by the impact of the Covid-19 pandemic. Cashless payment systems offer numerous benefits, including convenience, efficiency, improved financial control, and support for digital economic growth. However, challenges such as low digital and financial literacy, cybersecurity risks, and the need for adequate technological infrastructure hinder their widespread adoption. This study employs a descriptive qualitative method through a literature review to explore the concept, development, types, benefits, and challenges of cashless payments in Indonesia. With improvements in digital literacy, regulation, and infrastructure, Indonesian society can transition more easily to a cashless payment system and become part of an inclusive and modern digital economy.

INTRODUCTION

The Covid-19 pandemic has prompted the government to continue efforts to develop a cashless payment system. Since 2019, the government has piloted the use of imprest funds through digital payments in marketplaces within work units. The aim of this initiative is to leverage advances in information technology to develop a payment system so that all processes for APBN revenue and expenditure payments can be carried out more quickly, accurately, transparently, and accountably. This step is taken to implement a digital system in payments and transactions, enabling payments to be made through digital applications.(Mubarak & Akhmadi, 2022).

The payment system in the economic world has experienced rapid progress in line with the advancement of sophisticated technology. Cashless payment is an alternative payment method to cash used in transactions for goods or services. In this system, the transfer or exchange of money between parties involved in a transaction is carried out through electronic systems, such as electronic payments, credit cards, and other electronic payment models. Bank Indonesia began paying attention to non-cash payment systems by launching the "National Non-Cash Movement" (GNNT) in 2014 to raise public awareness regarding the use of electronic money in all their transactions, thus fostering a community or society that is not reliant on cash.

In addition, Bank Indonesia Regulation Number 16/8/PBI/2014, which amends Bank Indonesia Regulation Number 11/12/PBI/2009 on Electronic Money, shows that Bank Indonesia pays close attention to the development of non-cash payment systems in Indonesia.(Niswa, 2021).

In the era of Society 5.0, where humans become the main element capable of creating new value through technological advancements, social gaps and future economic problems can be minimized. Although it may seem difficult to implement in developing countries such as Indonesia, it is not impossible, as Japan has proven itself as a nation with the most advanced technology. In the era of Society 5.0, the use of cashless and cardless transactions is increasing. People who switch to non-cash transactions and technological innovations have become increasingly popular worldwide. Non-cash payments refer to financial transactions in which consumers complete transactions without using physical cash but instead use cards or electronic methods. Non-cash payment systems have been implemented more intensively in several countries such as the Netherlands, Germany, and especially in Scandinavian countries.(Ompusungu & Poniman, 2024).



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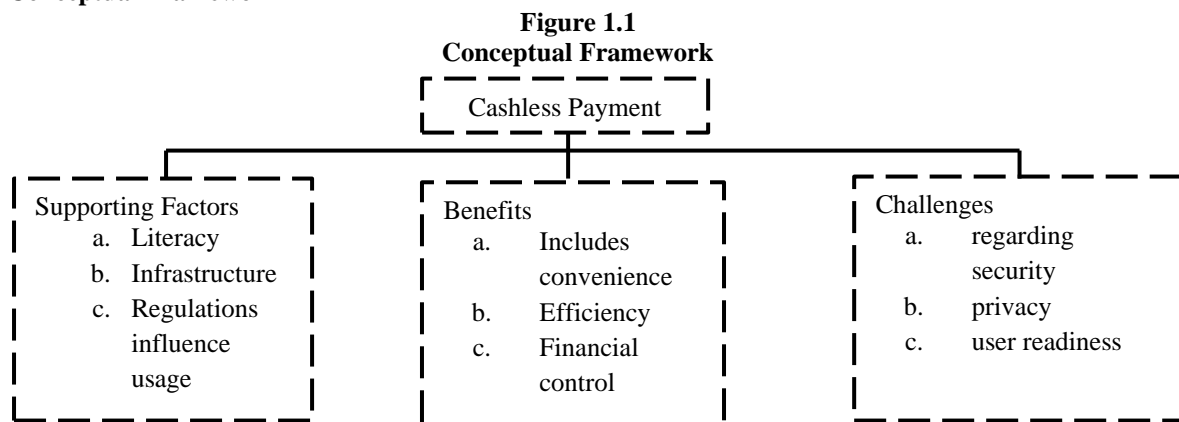
LITERATURE REVIEW

A. Theory

Cashless payment is a non-cash payment method in the form of electronic money, which can take the form of a card (chip-based) or an application (server-based). Examples of chip-based options include Flazz, Brizzi, Nobu e-money, Mega cash, skyecard, jakcard, and Mandiri e-money. Server-based payment methods, also known as digital payments, include Sakuku, Mandiri e-cash, Mega virtual, Dana, Link Aja, and Link Aja Syariah. The efficiency of a payment system can be measured by its ability to minimize costs in facilitating transaction activities. Payment service users tend to choose more economical payment instruments, resulting in lower transaction costs. Innovation in electronic payments increases payment system efficiency by reducing transaction costs and speeding up transaction processes.(Putri & Muizzudin, 2022).

According to research by Info Gerai in the journal "Map of Electronic Money Positioning Based on Public Perception in Indonesia in 2017," 99.4% of Indonesians were enthusiastic about making cash transactions using electronic cards, which means only 0.6% were interested in non-cash payment systems. However, non-cash payment systems have undergone rapid development. In 2014, Bank Indonesia reported that the use of non-cash payment systems increased to 16.3%, indicating that Indonesians began to favor this method. Data from Bank Indonesia as of November 2017 indicate that non-cash transactions grew by 98% compared to the previous year. Meanwhile, in developed countries with fast technology access and extensive networks, such as the United States, France, and the United Kingdom, e-money applications have already become a part of everyday life for basic needs, such as payments at supermarkets, trains, buses, and others.

B. Conceptual Framework



METHOD

This study employed a descriptive qualitative approach using the literature study (library research) method. This literature study was chosen because the main focus of this research is to analyze and understand the phenomenon of cashless payments based on previous research findings and relevant scientific sources. Through this method, the researcher systematically examines various journals, scientific articles, books, and official documents discussing related topics to gain a deep understanding and to construct logical and structured arguments.

According to Zed, a literature study is a data collection technique carried out by reviewing various literature relevant to the topic being studied, whether theoretical or empirical in nature. This technique allows researchers to identify research gaps, develop a theoretical framework, and establish a strong conceptual foundation prior to conducting further analysis.(Zed 2008). The analytical steps in this study are as follows:

1. Identification of sources: Collecting scientific documents from journal databases such as Garuda, Google Scholar, DOAJ, and university digital libraries.
2. Evaluation and selection: Assessing the quality, relevance, and validity of sources using academic criteria.
3. Information synthesis: Combining and comparing findings from various sources to identify patterns, similarities, and differences in perspectives.

4. Critical analysis: Constructing arguments based on existing theories, highlighting the contributions and limitations of each piece of the literature.
5. Drafting the narrative: Presenting the results of the analysis in the form of a structured scientific explanation.

With this approach, the research seeks to answer key questions related to the development of cashless payments, the factors influencing their adoption, and their implications for transaction habits in society, especially during and after the pandemic.

RESULTS AND DISCUSSION

a. Definition of Non-Cash Payment(Cashless Payment)

Cashless Payment is an innovative breakthrough in digital services that simplifies transactions. The benefits users experience from digital payments include ease of system use, obtaining proof of transactions, convenience in conducting transactions, as well as a high level of system security related to the transaction process.(Pratama et al., 2022).

According to the Oxford Dictionary, non-cash payments are a phenomenon of money exchange characterized by the use of checks, debit cards, credit cards, and other electronic methods instead of cash. Non-cash payments refer to conducting financial transactions without using physical money. Based on the Bank for International Settlements, non-cash payment is a financial transaction carried out by electronic means without involving physical currency, such as giro or checks, but using technology-based payment instruments, such as e-banking, e-commerce, or e-payment. (Tazkia & Ardi, 2024).

b. The Development of Non-Cash Payments in Indonesia

The development of cashless systems worldwide and in Indonesia demonstrates how digital technology has transformed the way people conduct financial transactions. Starting with credit cards globally and debit cards in Indonesia, cashless payment systems have evolved through digital wallets, mobile applications, and even cryptocurrencies. In the future, digital payments are expected to become even more dominant, driven by technological advancements, government policies, and changing societal habits, which increasingly rely on the convenience and practicality of digital payments. Development of cashless systems in Indonesia.

1) The Beginning of Cashless Payments (The 2000s Era)

In the early 2000s, digital payment systems in Indonesia were still in the early stages of development. Credit cards and debit cards had begun to be introduced as non-cash payment methods, but their usage was not yet widespread and remained limited to certain groups.(Kusuma & Christiananta, 2020). At that time, cash transactions remained the primary choice for people to meet their daily economic needs in both formal and informal sectors. Nevertheless, efforts to modernize the payment system began to emerge when, in 2007, Bank Indonesia launched the Indonesia Payment Gateway (IPG) as part of an interbank integration initiative within the national payment system. This innovation laid the initial foundation for the creation of a more inclusive and efficient digital payment ecosystem in the future (Bank Indonesia, 2020).

2) The Era of Digital Wallets and Mobile Payments (2010s)

In the 2010s, advances in digital technology and the increasingly widespread use of smartphones created significant opportunities to transform Indonesia's payment system. The growing number of internet and mobile device users encouraged the emergence of various digital wallet applications such as GoPay (2015), OVO (2017), DANA (2018), and LinkAja (2018).(Suryani, 2020). The presence of this platform makes it easier to conduct cashless transactions, from everyday shopping and bill payments to purchasing digital services. For example, GoPay, introduced by the ride-hailing company Gojek, pioneered the implementation of an integrated digital payment system, especially in the transportation and lifestyle sectors. Since its launch in 2014, GoPay has encouraged Indonesians to get accustomed to

non-cash payment systems, while also accelerating the adoption of digital financial services at the grassroots level..(Savitri & Prasetyo, 2022).

3) Government Regulations and Support (2015 – Present)

Seeing the continually growing trend of digitalization, the Indonesian government, through Bank Indonesia, responded to this shift by launching the National Non-Cash Movement (GNNT) in 2014. This initiative aims to encourage the public to become more accustomed to using non-cash payment instruments and to reduce dependence on cash.(Bank Indonesia, 2014).

In 2019, Bank Indonesia introduced another significant innovation, the Quick Response Code Indonesian Standard (QRIS). A QRIS is a payment system that uses QR codes and has been nationally standardized, enabling its use across various digital payment applications. (Utami, 2020). With the introduction of QRIS, cashless transactions have become easier and more accessible to everyone, especially for small and medium enterprises (SMEs). This step also accelerated the development of a digital transaction culture among various segments of Indonesian society.

In the 2020-2021 period, the COVID-19 pandemic became the main driver behind the adoption of cashless payments. Social restrictions and the need to minimize physical contact have encouraged more people in Indonesia to switch to digital payment. The increase in transactions through platforms such as GoPay, OVO, DANA, and ShopeePay further reflects the rapid growth of the cashless payment system in Indonesia.(Anjeli et al., 2020).

c. Types of Non-Cash Card and Digital Payments

1. Card-Based

a. Debit Card (Kartu Debit) and Credit Card (Kartu Kredit)

Debit Card is a plastic card that serves as a non-cash payment tool, where the balance in the cardholder's account will be automatically deducted when the card is used for shopping. On the other hand, a Credit Card is a payment tool issued by certain banks, also made of plastic, and functions as a credit payment tool that allows the cardholder, as stated on the card, to purchase goods or services. This credit card can also be used to withdraw cash independently at ATMs up to the credit limit set by the issuer.

2. Digital-Based

Digital-based non-cash payments are payments that use mobile phones and the Internet as their payment media. The following are several types of digital-based non-cash payments:

a. E-wallet

An e-wallet or digital wallet is an electronic service that stores data of payment instruments such as card-based payment tools and/or electronic money, which can also hold funds, in order to carry out payment transactions.

b. Mobile banking

M-banking, or mobile banking, is a service system provided by financial institutions, such as banks, that enables customers to carry out various financial transactions directly through mobile devices, such as cell phones or smartphones.

c. Internet banking Online banking

Internet banking is a service that allows customers to conduct banking transactions from home, their place of business, or other locations outside the bank's branch office by utilizing.(Rositasari, 2022).

d. Benefits of Non-Cash Payments

The use of non-cash payment instruments offers various benefits, particularly in terms of practicality and efficiency. Some of the advantages that can be gained from using non-cash payment instruments are as follows:

- a. The practical use of non-cash payment instruments allows users to conduct transactions without carrying large amounts of cash.

- b. Efficiency: Cashless transactions can be conducted anywhere and at any time, making it easier for users to conduct transactions. Security: Cashless payment instruments are often equipped with well-tested security systems, such as PINs, OTP numbers, or serial numbers, which are only known to the current user.
- c. Controlled Spending, Users can effectively evaluate their finances on a daily, weekly, or monthly basis.
- d. Discounts and Promotions: Sellers and buyers can enjoy discounts and promotions from the cashless payment platform.
- e. By using non-cash payment instruments, users can simplify transactions, speed up the payment process, and facilitate economic activity in Indonesia.

These advantages are not yet widely known by the public; therefore, people still hesitate to switch to non-cash payments. This makes it difficult for the government to encourage Indonesians to use non-cash payment methods, unlike other countries that continuously advance their non-cash payment systems, allowing their MSMEs to grow rapidly. Using non-cash payment methods, such as debit cards, credit cards, electronic money, mobile banking, and digital wallets, offers several advantages over cash payments.

e. Weaknesses of Non-Cash Payments

In addition to the benefits gained from cashless payments, users experience some drawbacks when using them. The use of cashless payment methods has several disadvantages that need to be considered. The following are some of the drawbacks encountered when using cashless payment instruments:

- a. Internet Requirements for Payment Tool Usage
Cashless payments require a stable and fast Internet connection, which is not always available everywhere.
- b. Electricity Needs and Equipment Usage
Non-cash payments require devices such as smartphones, laptops, and computers, which require electricity and equipment to function.
- c. Software Requirements: Use of tools
Non-cash payments require software that can be used to conduct transactions, which necessitates continuous installation and updates.
- d. Security Requirements for the Use of Payment Instruments
Non-cash transactions require a fairly high level of security, such as the use of a PIN, OTP number, or serial number, which are only known to the current user.
- e. Funding Needs for the Use of Payment Instruments
Non-cash transactions require sufficient funding to carry out transactions, which necessitates account management and electronic money management.

This weakness is often highlighted by the public when they want to use non-cash payments. In fact, if people use non-cash payments frequently or for every transaction, this would certainly accelerate a country's economic growth. (Pradesyah and Ismail, 2024).

CONCLUSION

This cashless payment system offers several significant advantages, such as ease and speed of transactions, enhanced security through digital authentication features, and time and effort efficiency. In addition, this system enables more accurate financial monitoring and management. Cashless payments also support financial inclusion and reduce the state's costs of managing physical currency. However, the implementation of this system faces challenges such as low digital literacy in some communities, cybersecurity risks, and the need for evenly distributed technological infrastructure. With regulatory support, education, and technological development, cashless payments have the potential to drive digital economic transformation toward a more modern, efficient, and inclusive society.

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