



The Impact of Digital Money on Business Dynamics: The Main Role of Information Systems Technology

M.Sahlan

Program studi Manajemen Fakultas Ekonomi Dan Bisnis Islam
Universitas Islam Negeri Sumatera Utara Medan

Muhammad Irwan Padli Nasution

Program studi Manajemen Fakultas Ekonomi Dan Bisnis Islam
Universitas Islam Negeri Sumatera Utara Medan

Correspondent Email: msahlan419@gmail.com

Abstract. *Economic development in the world sector, especially in Indonesia, cannot be separated from information systems. Digital money changes the way financial transactions are issued, improving business processes, increasing market security, and reducing the burden of international trade. Digital currencies also enable business model innovations such as subscription payments, ecosystem platforms, and the sharing economy, which are changing the way companies communicate with consumers and partners. Not only support secure financial transactions, but also enable in-depth data analysis. This triggers the creation of valuable insights for companies in understanding consumer behavior, market trends and new growth opportunities. Apart from that, the existence of a reliable information system also expands financial accessibility, especially for those who previously did not have access to formal banking services. This kind of financial inclusion can empower society and open up wider economic opportunities, creating a more equitable impact on economic growth supported by digital money. The main task of information technology systems in this case is to provide safe, reliable and efficient infrastructure to support digital currency-based business activities.*

Keywords: *Digital money, currency value, Money Civilization*

INTRODUCTION

According to history, the creation of money has three fundamental objectives: as a measure of the value of goods and services, as a store of value, and as a medium of exchange in economic transactions. Money does not depend on the value of goods produced as before, but depends on people's trust in the authorities who provide it. Money is an instrument that allows exchange and value of goods. Each country creates its own currency, such as the rupiah in Indonesia based on legal regulations. In modern developments, the value of money is not determined by the goods from which it is made, as was done in the Middle Ages until the First World War, but by its value, so that is the value of money. The currency is very dependent on the level of public trust in the issuing institution. According to *Solikin*, money is something that can be exchanged for other goods, used for the value of other goods, and stored. Each country creates money as a legal medium of exchange in other countries to meet the economic needs of its citizens. In Indonesia, the currency recognized under tax law is the rupiah. Law Number 7 of 2011 concerning Money in article 2 paragraph 2 explains that Rupiah money consists of paper Rupiah and metal Rupiah.

Advances in information technology and modern communication tools have produced computerized systems in various areas of life, including economic and financial transactions.

Today's business world is becoming more efficient with online payments, namely the ease of transferring money from buyers to sellers. There are two types of transactions that are commonly used, namely cash and non-cash (without using physical cash). Cash transactions involve coins and banknotes to make payments, while non-cash transactions use technology to carry out financial transactions. Technological developments continue to encourage innovation to meet market needs and demands. After the information revolution, cashless transactions became heavily dependent on payment technology and have dominated since then. According to Bank Indonesia, around 95% of large and significant financial transactions are carried out non-cash. In 2010, at least IDR 174.3 trillion was bought and sold every day. Bank Indonesia classifies non-cash transactions into five types of instruments: checks, payment orders, credit cards, debit cards and electronic money (Emoney).

Electronic money, especially via cards or apps, is easy to use. The process of registering, adding balance and using the in-app services is very simple. The advantages of using e-money include simple registration procedures, topping up your balance, and learning how to manage and use application services. Electronic money users can make transactions without direct contact with other parties and without manual calculations, because the application does the calculations automatically. Electronic money can be used for different purposes or for different types of transactions. In Indonesia, electronic money was the first form of non-cash money to be introduced. Electronic money is versatile and can be used in various kinds of transactions, namely in the form of paper or metal in rupiah currency. Previously, emoney was a type of non-cash money that was popular in Indonesia. Electronic money (emoney) can be used in the form of a certain amount downloaded via a mobile application from a certain financial institution (with a balance or via transfer from a bank account), and can be used to make electronic payments.

LITERATURE REVIEW

The amount of electronic money in circulation

The emergence of online marketplaces or shopping places that allow digital payments has led to an increase in the use of electronic money. Based on Bank Indonesia data, there will be 772.57 million electronic money in circulation in November 2022. This value increased by 34.28% compared to the position at the end of 2021. Based on data available from the *Badan Pusat Statistik* (BPS), the population of Indonesia in June 2022 reached 275.77 million people. Last year, on average each citizen owned 2.8 units of electronic money. Based on the graph, electronic money in circulation shows a trend in circulation that has increased money since 2010. The amount of electronic money only reached 7.9 million pieces in 2010. This number increased by more than 9,100% in November 2021.

Based on how it is stored, electronic money is divided into two categories. First, electronic money which is based on 89.09 million tokens. Second, there are 683.47 million units based on servers. The number of registered electronic money reached 188.9 million units, while unregistered money reached 583.66 million units.

Even though they have switched to digital transactions, Indonesian people still often carry out transactions manually or using cash. The use of electronic money has not yet become a mainstream habit for society. The government is trying to reduce the use of cash in society to

The Impact of Digital Money on Business Dynamics: The Main Role of Information Systems Technology

encourage the adoption of electronic money, especially through Bank Indonesia, in accordance with the regulations contained in the State Gazette of the Republic of Indonesia Number 65 of 2009 and the State Gazette of the Republic of Indonesia Number 5001. Supplement. Bank Indonesia Decision. 18/17/PBI/2016 Bank Indonesia Decree No. The use of electronic money has become a more modern and efficient payment system, an effective and safe means of payment, so that people will make electronic money their main choice. It is hoped that there will be a modern, efficient and safe payment system, and that people will consider electronic money as a good choice.

Digital money in Indonesia is becoming the main choice for transactions in the current digital era. Even though it makes transactions easier and faster, the use of digital money also poses risks that need to be considered. Therefore, it is wise to use digital money with caution. The following are several types of digital money in Indonesia:

1. E-Wallet, It is the most popular digital money in Indonesia. Several well-known e-wallet service providers in Indonesia include Bayarind, OVO, GoPay, Dana, and LinkAja.
2. Cryptocurrencies, A form of digital money that uses blockchain technology.
3. Payment by QR Code, A payment method that utilizes QR codes to carry out transactions. The method is to scan the QR code at a merchant or online shop, then payment is made via an e-wallet or mobile banking application.
4. Mobile Banking, Banking services via mobile applications that allow users to carry out transactions.
5. Prepaid Card, Cards that can be topped up before being used for transactions at merchants or online stores, such as Flazz Card and BRI e-Pay.
6. Mobile Money, Transaction services via cell phone for money transfers, credit purchases and bill payments.
7. Internet Banking, Banking services via the bank website for money transfers, credit purchases and bill payments.
8. Digital Gold, A form of digital money whose value is linked to gold assets, such as Pegadaian Emas and Tokopedia Emas, for digital gold investment.

According to *Warjiyo*, digitizing the contribution of financial services can also stimulate economic growth and maintain financial system stability in Indonesia. in accordance with the vision expressed by the Governor of BI. Consists of five vision points that examine digitalization developments that have changed the risk environment.

1. Supporting the digital economy and national financial integration
2. Support banking digitalization for key economic financial institutions
3. Ensure connectivity between fintech and banking services.
4. To maintain a balance between innovation and consumer protection, and maintain integrity and stability.
5. To guarantee national interests in terms of the digital financial economy between countries.

There are also risks to using digital money that need to be considered. Risks include the security of users' personal information, fraud, and digital currency fluctuations which can affect

the value of the user's balance. Digital financial services not only support Indonesia's economic growth, but are also expected to maintain financial system stability

Impact of digital money

Digital currency, with its ability to expedite and streamline financial transactions, presents a plethora of advantages; however, it is imperative to address and surmount security challenges. Herein lies an exploration of the positive and negative repercussions accompanying the advent of emoney

On the affirmative spectrum, digital wallets yield a myriad of benefits. They serve as versatile instruments for an array of purposes such as online retail therapy, settling bills, securing tickets, culinary indulgences, and covering transportation costs, among others. The sheer convenience of digital wallets is epitomized by their seamless use—QR Code scanning eliminates the need for cumbersome cash handling, with certain transactions even orchestrated automatically, amplifying the practicality and efficiency of the entire process. Moreover, the safety aspect is underscored, as the need to carry substantial amounts of cash is obviated, mitigating concerns related to theft or inadvertent loss. An additional positive facet emerges in the meticulous recording and secure storage of transactional details facilitated by digital wallets. Users benefit from facile access to comprehensive balance and expense information, thereby streamlining budget management and transaction oversight. This not only enhances financial acumen but also fortifies control over transactions. Another positive stride is the intense competition among digital wallet services, fostering an environment replete with attractive promotions for clientele. Lastly, against the backdrop of prevailing pandemic conditions, digital wallets exhibit their efficiency by circumventing the need for physical currency, with transactions consummated effortlessly through QR Code scans. This not only curtails the use of potentially virus-laden cash but also minimizes physical contact, mitigating the risk of viral transmission during a pandemic.

Beyond the favorable aspects, digital wallets harbor adverse consequences, notably their reliance on device accessibility and the necessity for an internet connection to initiate the application. In instances where a device faces power depletion or encounters a blackout, rendering an absence of internet connectivity, the execution of payment transactions becomes unfeasible. Consequently, the reliance on electricity and internet networks becomes inherent to digital wallet transactions. A second detrimental impact manifests in the potential escalation of consumer lifestyles. The seamless nature of transactions, coupled with enticing promotional offers, poses a risk of ensnaring individuals in an opulent lifestyle that perpetuates consumerism. To circumvent this, it is prudent to employ digital wallets with a judicious and self-disciplined approach. The third drawback lies in the susceptibility of digital wallets to data theft. This inherent risk stems from the potential exploitation of vulnerabilities, making personal data susceptible to misuse in the event of a security breach. The fallout of a hack could result in irreparable damage to personal data stored within the digital wallet. A fourth adverse consequence is the burgeoning dependence on gadgets. The utilization of gadgets as a medium for financial transactions engenders a reliance that permeates various aspects of life, creating an intricate web of dependence on electronic devices. The final unfavorable impact pertains to the heightened risk of fraud. The accessibility of digital wallets across multiple devices paves the way for diverse fraudulent activities aimed at depleting the user's digital wallet balance. It underscores the need for robust security measures to

The Impact of Digital Money on Business Dynamics: The Main Role of Information Systems Technology

mitigate the risk of fraudulent incursions. In summation, while digital wallets offer undeniable conveniences, a discerning awareness of the potential downsides is paramount. The onus lies on users to adopt a prudent, disciplined approach, and employ secure practices to navigate the nuanced landscape of digital wallet usage.

The impacts of electronic money versus cash on the economy are diverse and warrant examination:

1. **Inflationary Potential of E-Money:** Electronic money has the potential to induce inflation, which serves as a crucial barometer reflecting changes in the pricing of goods or a decline in the value of currency. The control of inflation is imperative for maintaining economic equilibrium, as unbridled inflation poses a threat to the stability of a country.
2. **Electronic Money's Influence on Monetary Circulation:** Electronic money falls within the realm of demand deposits. The extent of its impact on the overall money circulation in society hinges upon effective governmental regulations. Robust regulations act as a bulwark against fluctuations in the value of commodities purchased with electronic money, ensuring stability in the economic landscape.
3. **Effect of Electronic Money on Monetary Flux:** Despite initial appearances resembling traditional cash, electronic money introduces a heightened ease in conducting transactions. The absence of the need to carry substantial amounts of physical currency mitigates concerns about running out of cash. Consequently, individuals can seamlessly engage in shopping through e-wallets, catalyzing an acceleration in the speed of money circulation.
4. **Impact of Electronic Money on Cash Demand:** The widespread adoption of non-cash forms of money in society exerts a tangible influence on diminishing the demand for physical cash. This transition, however, fosters improved economic growth and facilitates smoother consumption patterns, signifying a progressive shift toward non-cash financial transactions.

Into the economic landscape presents a nuanced interplay of factors, ranging from potential inflationary pressures to the transformative effects on monetary circulation and cash demand. Effective governance and adept adaptation to these shifts are pivotal for harnessing the benefits while mitigating potential risks.

METHOD

The method used in this research paper is descriptive research, which is a type of research that describes or explains in detail the condition of the object and the appropriate data collection techniques. Its use in Indonesia and what impact it has on the economy and financial system stability. The use of digital money has a significant impact on the economy and financial system stability. First, it changes transaction patterns by facilitating wider accessibility to financial services. This can increase financial inclusion by providing access to those previously marginalized from formal financial services, which in turn can encourage more equitable economic growth. However, the use of digital money also raises challenges related to the stability of the financial system. Increased reliance on technology and digital infrastructure increases the risk of cyber security and personal data leaks. In addition, fluctuations in the value of digital currencies can also affect the stability of exchange rates and overall asset values in the economy.

Data collection technique :

1. Survey: survey related to transaction habits, use of electronic money and factors that influence the choice of using digital money. This makes it possible to obtain information about how people actually use digital money in everyday transactions, as well as what factors influence their choice in adopting this financial system.
2. Document Analysis The purpose of document analysis is to collect data from regulations related to electronic money by Bank Indonesia. This document is intended to help you understand the regulatory framework and government objectives for encouraging the use of digital money. descriptive research. provides an in-depth understanding of the regulatory framework governing the use of digital money. This document can provide a detailed view of the government's objectives in encouraging the adoption of digital money, the security requirements that are regulated, as well as the responsibilities of related parties in maintaining financial system stability.

These two techniques make it possible to understand not only digital money usage patterns, but also the regulatory context governing electronic money. This provides a more complete picture of the impact on the economy, financial stability, and the policy directions that can be taken to manage the implications of digital money use within a country or region.

RESULT AND DISCUSSION

Introduction of Electronic Money, Security, Privacy and Bank Indonesia Regulations and the Effect of Digitalization of Financial Services on Economic Growth

The rapid development of information technology and increasingly sophisticated communication tools have encouraged the digitalization process in various aspects of human life, including economic and financial transactions. Ease of use has a significant positive impact on interest in using emoney. This means that if the perception of ease of use increases, interest in using Emoney will also increase. Therefore, electronic money issuers need to continue to carry out technological innovations that focus on ease of use of e-money. The goal is that interest in using electronic money continues to grow and increase. The process of completing trade transactions is now easier with online payments, which is basically the process of transferring funds (currency) from the buyer's account to the seller's account. Transactions can be done in two ways, cash (money) and non-cash such as emoney.

In Indonesia, digital currency affairs are managed by the government through the central bank, namely Bank Indonesia. Bank Indonesia is responsible for determining legal means of payment in the Indonesian currency, namely the Rupiah. This action was carried out in accordance with Bank Indonesia's authority as regulated in Law no. 23 of 1994 concerning Bank Indonesia, especially in article 15 paragraph (1) letter c which explains that Bank Indonesia has the right to regulate payment instruments. It is important to understand the vision given by the Governor of Bank Indonesia in the context of financial digitalization. This vision includes several important points, including support for national digital economic-financial integration, banking digitalization, and interconnection between fintech and banking. In addition, this vision also

The Impact of Digital Money on Business Dynamics: The Main Role of Information Systems Technology

emphasizes the importance of balancing innovation and consumer protection, integrity and stability in the digital financial economy. This vision is an important guideline to guide the development of the digital financial economy in Indonesia. The government, especially Bank Indonesia, has taken steps to reduce the amount of physical money circulating in society. Regulations such as Bank Indonesia Regulation no. 11/12/PBI/2009 concerning Electronic Money and its amendments (Bank Indonesia Regulation No. 18/17/PBI/2016) has been issued to regulate the use of electronic money. The aim is to create a more modern and efficient payment system, as well as guarantee the security of funds when making transactions.

This research refers to the Technology Acceptance Theory (Technology Acceptance Model) proposed by Davis (1989). This theory emphasizes that the main factors that influence user behavior and the level of acceptance of information technology systems are perceptions of usefulness and ease of use. The findings of this research are consistent with the results of research by Adhinagari (2018), which states that the use of electronic money is positively influenced by perceptions of benefits and ease of use. Research results from Listianti (2018) also confirm that perceptions of convenience and benefits significantly contribute positively to perceptions of electronic money use. In line with the views of Wibowo (2015), this research suggests that e-money publishers need to increase user awareness about the advantages of using e-money so that users have a better understanding of this.

Although digital money offers advantages, there are also security and privacy challenges. Digital security is an increasingly important issue, and companies need to carefully protect their financial data and customer information. Therefore, digital money has changed the way businesses operate across the world. While this presents great opportunities, it also presents challenges that must be overcome. For business people, it is important to understand this impact and take appropriate action to use digital money wisely. Finally, in the introduction it was stated that the digitalization of financial services is not only related to economic growth, but also maintaining financial system stability. This shows how important the role of Bank Indonesia is in maintaining a safe and stable financial system in the digital era.

CONCLUSION

Digital money has changed the paradigm in the business world with significant impacts: Increased efficiency, Driven innovation, Increased security, Changes in international trade. In all, digital money has changed the way businesses operate and interact with markets. Businesses that are able to follow these trends and utilize them effectively will have a competitive advantage in this digital era. The use of digital money also has a significant impact on the economy. Potentially, the use of digital money could trigger inflation, where an increase in the price of goods or a decrease in the value of the currency could result in an economic imbalance that threatens the stability of the country. Therefore, careful regulation is needed to control these impacts and maintain economic balance. Additionally, the adoption of digital money can affect the demand for cash. Increased use of non-cash money in society can cause a decrease in demand for cash. Nevertheless, this can contribute to better economic growth and help people manage their finances more smoothly.

Security and privacy are important aspects of using electronic money. Bank Indonesia has issued regulations governing electronic money to protect consumers and protect transaction security. This regulation also encourages economic growth by regulating the increasingly developing fintech ecosystem. In the context of digital money, information system technology infrastructure is an important pillar that must be managed well to maintain security and efficiency in digital financial transactions. This helps ensure that digital money can thrive. While digital money wants to offer profits, there are also security and privacy challenges, Digital security is an increasingly important issue, and companies need to carefully protect their financial data and customer information. Bank Indonesia classifies non-cash transactions into five types of instruments: checks, payment orders, credit cards, debit cards, and electronic money.

REFERENCES

- Adiyanti, A.I. (2015). Pengaruh Manfaat, Kemudahan Penggunaan, Kepercayaan Dan Daya Promosi Terhadap Minat Menggunakan E-Money. Jurnal Ilmiah Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Brawijaya,
- Alvin Baharudin Vanani 2021. Analisis Legal Tender Uang Digital Bank Sentral Indonesia
- Djiwandono, J. Soedradjad. (2009). Bank Indonesia dalam Perjalanan Pembangunan Ekonomi Indonesia 1953-2003. Jakarta. Penerbit Bank Indonesia
- H Afrisa, MIF Nasution. (2020). Pengaruh Fitur Tabungan Mabrur Junior Terhadap Nasabah Di Bawah Usia 17 Tahun. Jurnal Ilmiah Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Islam Sumatera Utara,
- H Prasetya, Se Putra, (2020). Pengaruh Persepsi Kemudahan, Manfaat Dan Risiko Pada Minat Penggunaan E-Money Di Surabaya Fakultas Ekonomi dan Bisnis, Universitas Wijaya Kusuma Surabaya
- Hendra Prasetya Dan Scenda Erka Putra 2020. Pengaruh Persepsi Kemudahan, Manfaat Dan Risiko Pada Minat Penggunaan E-Money Di Surabaya
- Jones C. ,(2018), Digital currencies and organised crime update. Financial Regulation International (Bitsol:University of The West England)
- Listianti, U.Y. (2018). Pengaruh Kepercayaan, Persepsi Kemudahan dan Persepsi Manfaat Terhadap Minat Penggunaan E-Money. Skripsi. Surakarta. Universitas Muhammadiyah.
- Lukasz Cywinski, , (2018), Digital Money: Dangers and Opportunities (Rzeszow : University of Information Technology and Management Rzeszow)
- Novia Harefa, (2022). Dampak Uang Elektronik terhadap Uang Tunai
- Purwiati, E. (2013). Faktor-Faktor Yang Mempengaruhi Adopsi E-Money. Tesis. Yogyakarta. Universitas Gadjah Mada
- Sanches, D (2020). Central Bank Digital Currency: Is It a Good Idea? Fed. Reserve Bank Phila. Res.
- Sanofata, D. (2014). Analisis Faktor-Faktor yang Mempengaruhi Intensi Penggunaan Electronic Money. Skripsi. Yogyakarta. Universitas Gadjah Mada.
- SI Gunawan, C Natalia, DKK. (2021). Analisa Timbangan Data Dampak Positif Dan

The Impact of Digital Money on Business Dynamics: The Main Role of Information Systems Technology

- Negatif Dompot Digital. . Jurnal Ilmiah Mahasiswa Teknik Industri, Teknik, UNIKA ATMA JAYA,
- Solikin dan Suseno, Uang, (Jakarta:Pusat Pendidikan dan Studi Kebanksentralan BankIndonesia,2002)
- Subari, Sri Mulyati Tri. (2003). Kebijakan Sistem Pembayaran di Indonesia. Jakarta Penerbit Bank Indonesia
- Sugiyanto dan Etty Puji Lestari (2014). Peranan Uang Dalam Perekonomian. Jakarta
- Sutianto, Agus. (2004). Acuan Pokok Sistem Pembayaran Nasional. Jakarta Penerbit Bank Indonesia
- Wibowo, S.F., Rosmauli, D. dan Suhud, U. (2015). Pengaruh Persepsi Manfaat, Persepsi Kemudahan, Fitur Layanan dan Kepercayaan terhadap Minat Menggunakan E-Money Card: Studi Pada Pengguna Jasa Computerline di Jakarta. Jurnal Riset Manajemen Sain Indonesia
- yuso, J., Conesa, C., (2020). An introduction to the current debate on central bank digital currency (CBDC). Banco Esp., Occasional Papers 2005 32. <http://dx.doi.org/10.2139/ssrn.3617558> Bank Indonesia, 2020. Jumlah Uang Elektronik Beredar.