Utilization of Electronic Money

Surikanti1, R H Mustofa2
1Departemen Akuntansi, Universitas Komputer Indonesia, Indonesia
2Departemen Manajemen, Universitas Komputer Indonesia, Indonesia

Email: rizki.herviana@email.unikom.ac.id

Abstract. The purpose of this study is to determine the impact of electronic money (E-money) on financial transactions and economic growth in the community. This research used a descriptive longitudinal method by interviewing several users of E-money as the data collection techniques. The result of this research shows that E-money users prefer non-cash transactions, we also got a new fact that the majority of middle- and upper-class people prefer non-cash transactions because it is more effective and efficient in making transactions. From this research, it can be obtained that E-money can be a legitimate payment system that facilitate the upper-middle and lower-middle class. The existence of E-money will help the user, so they do not need to pay directly.

1. Introduction

E-money is a tool that used for transactions using an electronic system as a non-cash transaction. These transactions usually require the help of special tools using computer networks as well as internet networks such as digital price storage systems and the internet. E-money has advantages including ease of use, from the benefits to the ease of using e-money in sales and purchase transactions [1].

According to the Bank Indonesia Regulation Number: 16/8 / PBI / 2014, Electronic Money is a payment instrument that has elements including the use as a payment to traders [2]. In recent years, a number of retail payment innovations, known as electronic money, have taken place in many countries. The development of new e-money products not only facilitates retail transactions for consumers and traders, but also raises concerns for policymakers about the implications of economic efficiency and financial stability as well as challenges for the main role of cash to make retail payment [3]. According to Sofyan Abidin and Ramadani Laila, the payment system using an electronic method or non-cash transactions is influenced by technological advances and changes in society’s lifestyle [4,5]. Assuming Indonesia as a closed economy country, the impact of increasing use of non-cash payment instruments can be analyzed and will have an impact on decreasing demand for money in the community. Mankiw stated in his book that credit cards can affect the demand for money [6]. This is in line with the research conducted by Bambang where the payment using cards can reduce the demand for currency that held by the public [7]. In addition, the use of e-money as an alternative to non-cash payment instruments in several countries shows that there is a considerable potential to reduce the rate of growth in the use of cash, especially for payments that are micro to the retail and facilitate tracking of transactions to obtain accuracy [8]. According to Jati and Wasisto Raharjo, there are goals that must be pursued towards lifestyle and identity that influence the consumption of the middle class. The use of electronic money itself will indirectly affect the consumption's transition pattern of the community itself [9].

According to the available data, e-money is a very potential alternative in increasing financial inclusion. Telecommunications and banking companies are also competing to issue e-money services and products. A payment system that has been developed by banks in line with the technological advances. Almost all major banks in Indonesia currently have e-money services, electronic money can be a legal payment system that facilitates upper and lower middle class communities, as well as payment systems and human resources. It can support them to make non-cash transactions more often.
2. Method
According to the existing data, e-money is one of the potential alternatives in increasing financial inclusion. Telecommunications and banking companies are also competing to issue e-money services and products. A payment system that has been developed by banks in line with technological advancements Almost all major banks in Indonesia currently have e-money services. E-money can be a legitimate payment system that facilitates the upper-middle class and the lower-middle class, as well as the payment system and existing human resources can support them to make non-cash transactions more often.

3. Results and Discussion
In this study, the subject of the research is people who are in the category of early adulthood. Early adult age is at a stage which a person has adjusted his growth and is ready to accept a position in society along with other adult individuals (Hurlock: 1990). Papalia et al. (2009), revealed that early adult groups ranged from 20-40 years [10]. This group is a group that usually has reached physical maturity so it is very different from the teenage stage.

The results of this research show that electronic money users prefer non-cash transactions and we get a new fact that the majority of upper-middle class people prefer non-cash transactions because it is more effective and efficient in transactions. The number of applications that support electronic payment systems has been broadly used so that Indonesian people can access it more easily as well as selecting applications that are suitable in accordance with the required functions, along with one transaction card using an e-money card as shown in Figure 1.

(Source: Bank Mandiri)  
Figure 1. E-money card

As the development of e-money usage has spread to various regions in Indonesia, there are many types of E-money, starting with E-money for sales and purchase transactions until the freeway access has used electronic payment systems using E-Toll, as shown in Figure 2. It is one of the applications that used for electronic transactions.
Figure 2. Application menu for using PAYFAZZ

It shows one of the payment applications using electronic money, that application offers many payments including payment of electricity and water using the balance of electronic money. In the application's display, users can choose which part or type of payment to do. Aside from Payfazz, there is also Mandiri e-cash application as shown in Figure 3.

Figure 3. Application menu for using mandiri e-cash
This application is almost the same as the Payfazz application, the only difference in this system is that we have to recharge our balance before we use it. Mandiri e-cash is specifically used for direct purchases to the store, however in Payfazz users do not need to approach the transaction directly. Paypazz application and Mandiri e-cash have the same function, which makes it easy for users to make transactions.

If we look from another side, this card is also very effective to help the surrounding community. The application makes the community can get to know more of the technology, because in this modern era we must be able to adjust the technology so that it will be easier for us to get useful information. The example of one of the tools used for payment is shown in Figure 4.

![Payment using a card.](image1)

**Figure 4.** Payment using a card.

In this modern era, people do not need to carry cash to go shopping because by bringing one card they can still make a peaceful and safer shopping. This payment system can also reduce the risk of crime. This tool is also easy to install anywhere because it is small and not consuming too much storage space. Transactions using electronic money have been growing broadly. For example, this parking engine makes it easier for people to park their vehicles. One of the examples of using electronic money in public places shown in Figure 5.

![Parking system in Jakarta](image2)

(Source: Parking system in Jakarta)

**Figure 5.** Parking System
The replacement of the parking system by installing card-based payment devices is more practical and safer to park vehicles in the area. This parking system has been designed according to necessities and installed in the users' phone, so that they can often use this machine anywhere. The amount of electronic money transaction data for 2010 - 2017 shown in Figure 6.

![Diagram of electronic money users](image)

**Figure 6.** Diagram of electronic money users.

It can be seen from the diagram that electronic money makers continue to rise every year, as seen from the results of this research that Indonesian people prefer the transactions using electronic money because they are more effective and efficient. Some users have some motivation in making electronic money, user motivation diagram them are shown in the Figure 7.

![Percentage diagram of motivation using electronic money](image)

**Figure 7.** Percentage diagram of motivation using electronic money.

The diagram above explains some of the motivations of people using electronic money as a payment instrument in every economic transaction, based on the percentage above it can be seen that the reason
of using the highest electronic money is in the easy to use category and the lowest presentation is in the lifestyle category. The result of the diagram are taken from several answers submitted to users of electronic money.

4. Conclusion

Technological developments is easier for people, especially in business, and more convenient for people to do online shopping as they do not need to leave their home. They just need a cellphone and an internet, all can be done quickly and efficiently. With e-money, consumers have the convenience of making transactions online because consumers can consider the ranking system for the sellers regarding the quality of online business seller services, and consumers are not worried about transfer payments. Initially the payment method in financial and trade transactions used a cash payment facility, then it was developed using a non-cash payment facility (less cash), which was much easier, safer and more efficient and innovative.

References

[1] Agrawal, R. (2016). Mobile Money Empowering People Living at Bottom of Pyramid and Boosting Socio-Economic Development in a Big Way. Economic Analysis, 49(1-2), 15-23.
[2] Pramono, B., Yanuarti, T., & Purusitawati, P. D. (2006). Dampak Pembayaran Non Tunai Terhadap Perekonomian Perekonomian Dan Kebijakan Moneter an Kebijakan Moneter.
[3] Fung, B., Molico, M., & Stuber, G. (2014). Electronic money and payments: Recent developments and issues (No. 2014-2). Bank of Canada Discussion Paper.
[4] Khatimah, H., & Halim, F. (2014). Consumers’ intention to use e-money in Indonesia based on Unified Theory of Acceptance and Use of Technology (UTAUT). American-Eurasian Journal of Sustainable Agriculture, 8(12), 34-40.
[5] Runnemark, E., Hedman, J., & Xiao, X. (2015). Do consumers pay more using debit cards than cash?. Electronic Commerce Research and Applications, 14(5), 285-291.
[6] Mankiw, N.Gregory. 2009. Macroeconomics 7th Edition.Worth Publisher: New York.
[7] Arnone, M. M., & Bandiera, M. L. (2004). Monetary policy, monetary areas, and financial development with electronic money (No. 4-122). International Monetary Fund.
[8] Miliani, L., Purwanegara, M. S., & Indriani, M. T. D. (2013). Adoption Behavior of E Money Usage. Information Management and Business Review, 5(7), 369.
[9] Jati, Wasisto Raharjo. "Less Cash Society: Menakar Mode Konsumerisme Baru Kelas Menengah Indonesia." Jurnal Sosioteknologi 14.2 (2015): 102-112
[10] Hurlock, E. B. 1990. Evolutionary psychology: covers the entire life span. Transfer language: soedjarwo and iswidayanti. Jakarta: Erlangga