

Mobile Payment as Business Transaction

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Abstract. The development of the Internet and the arrival of e-commerce are driving digitalization in the payment process. This study aims to see the efficiency and effectiveness of the use of mobile payment in all-digital era with rapidly evolving and increasingly sophisticated technology. Financial technology is an innovation in financial services. The method used in this article was a literature study method. The results of this article were that the use of mobile payment was very effective because it was through the touch of finger to make any transaction practically, quickly, and flexibly from a smartphone. The mobile payment method makes it easier to trade electronically. In this case, whether we realize it or not, the payment system with physical money has slowly begun to be abandoned and has generally been switched to mobile payment and electronic cards issued by banks. Mobile payment technology has helped people to pay for anything only through smartphones. This payment method is a step that must be taken to deliver a promising industry in the future.

1. Introduction

The development of information technology is developing diversely in society such as in economics, trade or business, social, health, education, transportation, banking, and other fields. The financial sector is one area that requires the development of information technology. The development of it is absorbed and responded by organizations to achieve the goal of the increased resources needed. Technological developments affect the payment system in Indonesia, which uses a non-cash payment system. However, with this technology, everyone only needs to use a smartphone to make transactions. Information technology innovation has enabled us to carry out financial activities anywhere and anytime quickly, easily, and safely [1-3]. The influence of technology, especially IT, indirectly provides many solutions that can help various business matters more quickly and at a small cost. Previous research stated that to become successful entrepreneurs, we must appreciate and hope to gain broader insight and understanding of entrepreneurship in the world [4,5]. The previous research used cross-sectional data with the number of samples is 80 companies [6].

From the research above, it can be concluded that the information technology innovation that emerged in the field of financial services is FinTech. FinTech comes from the abbreviation of Financial Technology, which means innovation in financial services. Financial Technology helps people make it easier to access financial products and literacy. The term Financial Technology is described to be used by various innovative business models and new technologies that have the potential to change the financial services industry. The mobile payment method also makes it easier to trade electronically. In this case,

whether a payment system with physical money is realized or not, it is slowly being abandoned, it has generally been switched to mobile payment and electronic cards issued by banks. Mobile payment technology has helped people to pay for anything only through smartphones [7-10].

The purpose of this study is to determine the efficiency and effectiveness of the use of mobile payment in an all-digital era with rapidly developing and sophisticated technology. The method used in this article was the literature study method.

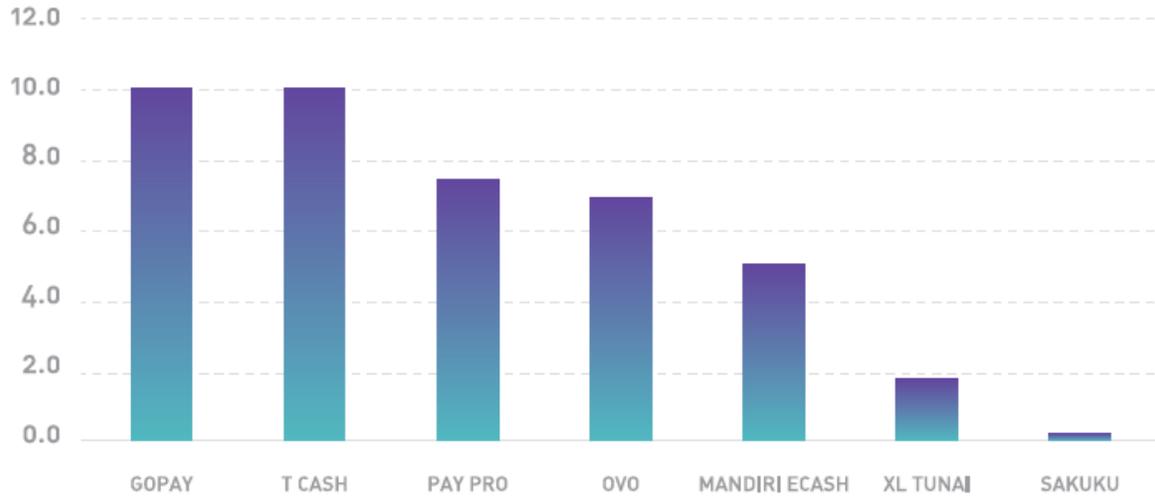
2. Method

This research used a literature study method which had an understanding of finding writings that had never been made before. We used this method by using literature studies that were expected to obtain accurate texts and data following conditions in the field and data from the results of previous studies. The stages in completing writing this article were conducting a study of the chosen, conducting analysis, and making conclusions.

3. Results and Discussion

Financial technology is an innovation in financial services. Mobile payment is a payment instrument that uses digital devices as one of the business innovations. The development of communication technology, mostly in the financial sector, depends on how to use the means of carrying out activities for purchases, which is the mobile payment method. Financial technology helps people make it easier to access financial products and financial literacy. The results of the use of mobile payment were effective because by the touch of a finger make any transaction practically and quickly and flexibly from a telephone or cellphone. At present, the cash payment had slowly begun to be abandoned and switched to mobile payment and electronic cards issued by banks. Mobile payment technology had helped people to pay for anything only through smartphones. This payment method was a step that must be taken to deliver a promising industry in the future. The use of information systems in the financial sector could be found in business transactions. Through this system, business processes was executed easily, quickly, effectively, and efficiently. Effectiveness was one measure that was used to determine the performance of an information system.

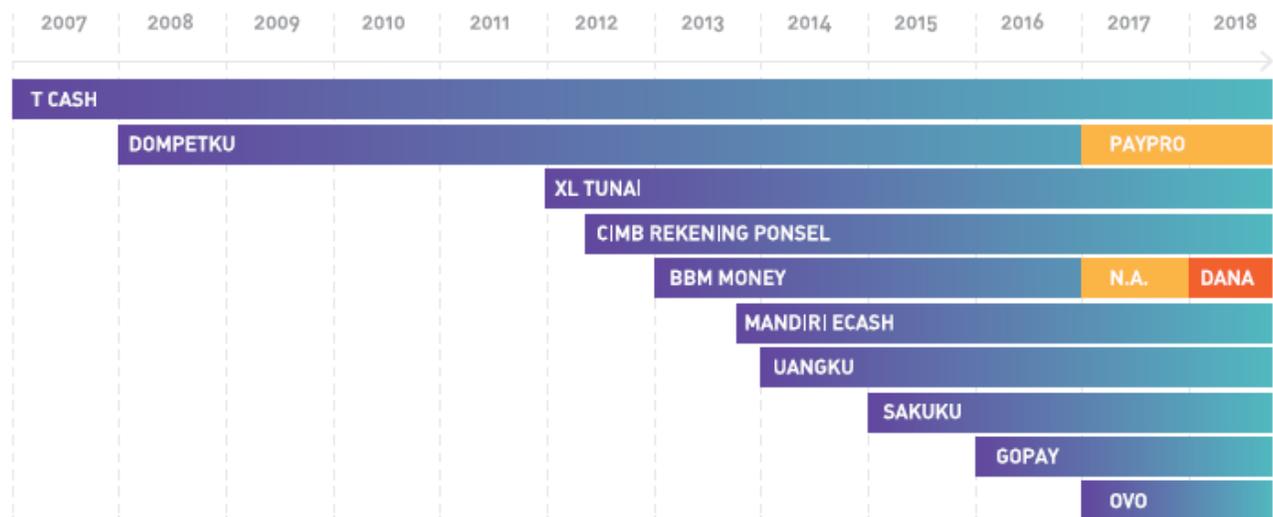
There was a significant development where 80% of Indonesians prefer to use non-cash payments compared to cash. This number was higher compared to 2015, which only reached 69%. The change in preference for the use of non-cash payment services was mainly found in millennials who could not be separated from gadgets. MDI Ventures released a report that outlined the latest picture of the mobile payment landscape in Indonesia, complemented by a case study of the adoption's success. Starting the report, it was told about the beginning of the mobile payment services growth in Indonesia. In 2007, Telkomsel started releasing the T-Cash service, then Indosat, and XL Axiata. In 2012, mobile payment services began to vary by the entrance of the banking industry and application developers into it (see Figure 1).



Source: MDI Ventures & Mandiri Sekuritas Research

Figure 1. Mobile Payments in Indonesia

Through the GO-JEK application, consumers was able to do various activities, from booking transportation to ordering food. With valuations estimated at \$5 billion, various promotional and expansion activities continued to be intensified. Subsequently, GO-JEK reportedly prepared to expand into the regional market. Even so T-Cash who wanted to be an agnostic platform that was free from the shadows of Telkomsel (see Figure 2).



Source: MDI Ventures & Mandiri Sekuritas Research

Figure 2. Mobile Payments Launch Timeline

The two services with the highest users, around 10 million users, are GO-PAY and TCash. Both services were the earliest and the latest applications. Other services that were starting to gain significant user growth were PayPro and OVO. If you looked deeper into why these applications had many users, it

was because of the broader service coverage. As part of the solution that the fintech industry was trying to accommodate, the mobile payment service would be one of the influential factors, specifically in the vertical fintech and in general in the financial landscape. This was based on a statistic that showed smartphone growth had exceeded the ownership of bank accounts by the public. Meanwhile, if you looked at the conditions in Indonesia, the inclusive financial system could be applied as a whole (see Figure 3).

FIGURE 5 | Smartphone Subscription Penetration Versus Electronic Banking Platforms Penetration

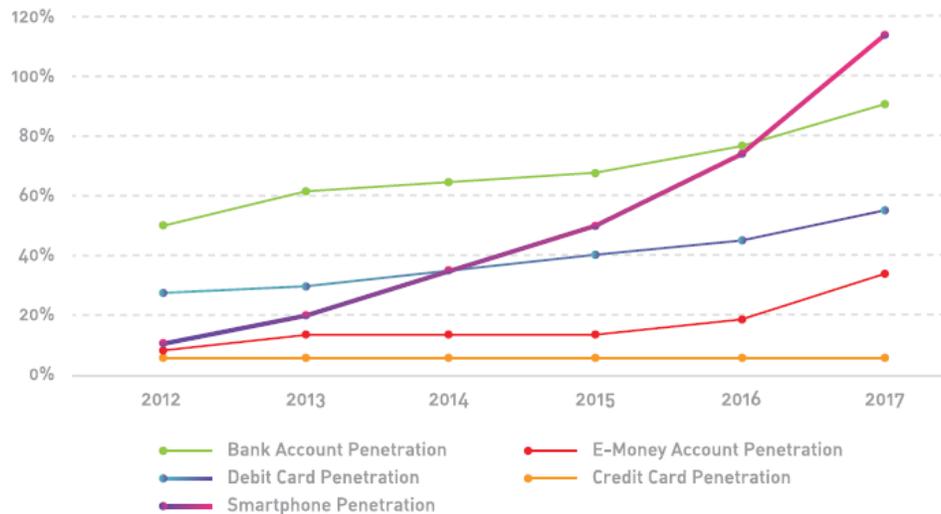


Figure 3. Smartphone Subscription Penetration

The challenge that existed was educating the public to optimize banking-based financial services. However, what the application offers was a special user experience to solve certain problems. For example, GO-PAY as mobile payment was integrated with their main service on GO-JEK (see Figure 4).

On-site Dining	●		●	●			
Offline Retail							
Offline Groceries	●		●				
Online Marketplace	●			●	●		
Food Delivery Services		●					
Ride-hailing Services (Car/Bike?Taxi)		●					
Telecom Top-ups	●	●	●	●	●	●	●
Utilities	●	●	●	●	●	●	●
Public Transport (Bus/Train/Toll Roads)	●	●					
Savings/Investment/Multifinance			●	●		●	
Remittance	●	●	●	●	●	●	●

Source: MDI Ventures & Mandiri Sekuritas Research

Figure 4. Mapping the Use Cases

Mobile payments could no stop evolving because of the technology-fast segments. However, technology continued to move forward. At present, payment services were also more diverse. Starting from e-money, e-wallet, until payment via QR code (Quick Response) were available in public. In more advanced markets, payment innovations had been developed for face recognition technology (facial recognition systems) that enabled one to make payment transactions via face scan.

Payment technology variants also penetrated the capital market through applications. While investing in money market mutual funds, the public could also use the funds in the mutual fund for non-cash payments such as e-commerce and other payments. We could not deny that non-cash payments had succeeded in capturing the public through all the conveniences and conveniences offered. Purchases and payments could be done anytime and anywhere. Supported by real-time mutation and reporting systems, this technology could also help users to directly monitor their expenses and manage expenses more wisely. On the other hand, non-cash payments could also minimize losses of losing money while avoiding crime. With 339 million residents who had registered their KTP and KK numbers through cell phone numbers, the potential for developing mobile payments was wide open and more people could get involve in digital financial services. The use of electronic money for smartphone-based payments could boost everyday transactions, not only in the formal retail sector but also to encourage the informal trade sector.

4. Conclusion

In conclusion, communication technology advancements, especially in the economic sector, tend to influence behavior such as the dependence of the human behavior in conducting transactions for purchases made, because the mobile payment makes it easier for users to transact electronically. The use of mobile payment is very effective because it is through the touch of a finger to make any transaction practically, quickly and flexibly from a smartphone.

References

- [1] Soegoto, E. S. 2014. Entrepreneurship Becomes a Revised Edition Businessman. Elex Media Komputindo. **45**(3), pp. 80- 98.
- [2] Hack, U. 2016. The Determinants of Mobile Payment Adoption: An Intercultural Study. In *The Book of Payments*, pp. 283-295. Palgrave Macmillan, London.
- [3] Dahlberg, T., Guo, J., & Ondrus, J. 2015. A critical review of mobile payment research. *Electronic Commerce Research and Applications*, **14**(5), pp.265-284.
- [4] Oliveira, T., Thomas, M., Baptista, G., & Campos, F. 2016. Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, **61**, pp. 404-414.
- [5] Bouwman, H., de Reuver, M., Cavallini, A., Lourens, J., Manocha, S., Vaessen, M., & Dahlberg, T. 2015. Mobile payment: a multi-perspective, multi-method research project, **14**(5), pp. 331-334.
- [6] Kavuri, A. S., & Milne, A. 2019. FinTech and the future of financial services: What are the research gaps?, **35**(1), pp. 180-219.
- [7] Kim, J. B., Song, B. Y., & Stratopoulos, T. C. 2017. Does Information Technology Reputation Affect Bank Loan Terms?. *The Accounting Review*, **93**(3), pp. 185-211.
- [8] Qasim, H., & Abu-Shanab, E. 2016. Drivers of mobile payment acceptance: The impact of network externalities. *Information Systems Frontiers*, **18**(5), pp.1021-1034.
- [9] Taylor, E. 2016. Mobile payment technologies in retail: a review of potential benefits and risks. *International Journal of Retail & Distribution Management*, **44**(2), pp.159-177.
- [10] Michael Agustio Gosal, Nanik Linawati. 2017. Pengaruh Intensitas Penggunaan Layanan Mobile Payment terhadap Spending Behavior pp. 455-461