

**Analysis Factors Using Financial Technology of Traditional Market Traders
(Empirical studies on the traditional market in Dinoyo and Guyub Rukun
Market, Malang - East Java)**

Ahmad Raihan Hakim¹, Mochamad Agung Prawiro², Ririn Novianti³
Universitas Brawijaya Malang^{1,2,3}

Email: ahmadraihanhaki@student.ub.ac.id, moch_agungpra@student.ub.ac.id, ririnnovianti@student.ub.ac.id

Abstract: This paper aims to analyze the use of information technology in mobile phone platforms (smartphones) at market traders in Malang which represents the Small and Medium Enterprises (SMEs) sector and determine the factors causing the use of financial services on smartphones. The analysis in this paper uses survey research methods with descriptive-statistical analysis and desk study, which takes survey data on 45 (forty-five) market traders in Dinoyo Market and Guyub Rukun Market in Malang, East Java, then the survey results are analyzed to find out the results of how the use of cellular phones in respondents and the factors causing the use of financial services. Based on the results of the analysis, it was found that the simplicity of registration and daily operation are the key factors of respondent decision. Policymakers need to pay attention to the simplicity factor in regulating information technology-based financial services and should be sufficient to conduct socialization so that the intended financial services can be optimized for the community, especially small communities (SMEs).

Keywords: *financial services, SMEs information technology, smartphones*

Submitted: 2024-06-19; Revised: 2024-06-25; Accepted: 2024-06-26

1. Introduction

Indonesia is one of the largest archipelagic countries in the world, which can utilize its existence to become a large, strong, and prosperous country. Various infrastructure development both economic, political, economic, socio-cultural, legal, and security must be adequate. One of the government programs is accelerating the development of infrastructure more evenly across the land to be able to create strong connectivity between regions, lowering the cost of logistics, minimize inequality, improve the quality of life of the community, and reduce inter-region economic gap in Indonesia, which will eventually increase the competitiveness and stimulus of economic growth to reach the developed World. However, it is necessary to be aware of the conducive economic growth to support development needs. In the last 7 (Seven) years of growth, the economy showed a downward trend of 6.81% in 2010 to be the lowest in 2015 by 4.79%. Various economic stimuli have been conducted since 2015 among others:

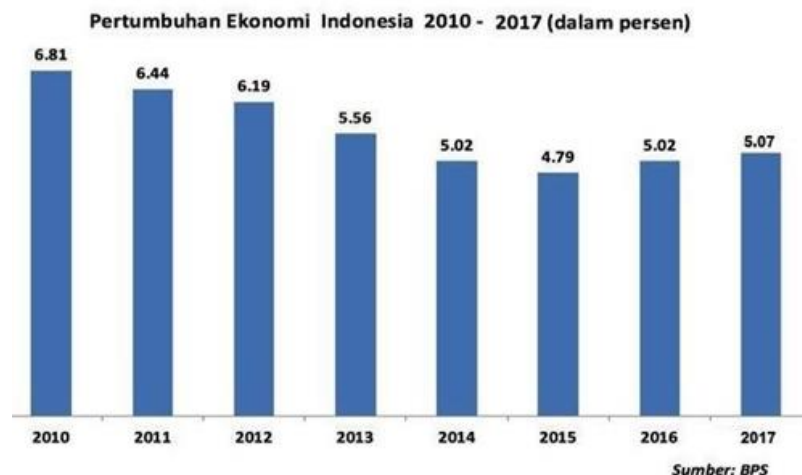


Figure 2. Indonesian Economy growth

first, government policy launches fiscal stimulus with a more productive budget. Second, structural reform by eliminating oil fuel price subsidies. Third, Bank Indonesia's macroprudential policy, such as easing Mandatory Giro calculation Minimum of savings to loans or loans to Deposit Ratio (GWM-LDR). So, in the last three years, Indonesia's economic growth has been stable in the range of 5 percent, as well as the projected growth rate for the year 2019 is also about 5%.



Figure 2. Economy growth according to BPS
Source: (BPS)

According to BPS, Indonesian economic growth in 2019 is expected to be within the range of 5% (Picture 2). Banking credit distribution is experiencing growth despite slowing down in 2018. Banking credit grew by 12.9 percent, compared to the achievement in 2017 grew by 8.24 percent according to the Bank Indonesia (BI). The distribution of banking credit reached Rp 5,489.6 trillion in August 2019. This figure grows 8.6 percent annually (year on year), Slowing credit growth occurs on all types of use, namely working capital, investment, and consumption. According to the National Economic and Social Development Council (NESD) 2019 report, economic growth in ASEAN slowed but was still in good grade. Indonesia's economic growth in semester I-2019 was 5.06 percent (third in Southeast Asia). The highest economic growth was achieved by the state of Vietnam which in the semester 2019 grew by 6.76 percent. The economic growth of 4 other ASEAN countries also experienced an economic slowdown. One

of the causes was the U.S.-China trade war which broke the global supply chain and hindered global economic growth.

According to Asian Development Bank (ADB) forecast Indonesia's economic growth in 2020 will still largely be contributed by consumption. The statement was strengthened as the BPS also released Indonesian economic growth throughout the year 2018, which amounted to 5.17% of national economic growth, household consumption accounted for 2.74% or more than half of them. A quarterly GDP growth structure chart IV-2018, as in picture 3 on the side.



Figure 3. Structural growth PDB according to Triwulan IV-2018 (Y-on-Y) Source: (BPS,2018)

To anticipate the global economic slowdown, the government through Bank Indonesia (BI) responded by implementing the stimulus policy by loosening monetary policy, such as the decrease in interest rates followed by banking and easing the ratio of Loan To Value or Financing Value. The Financial Services Authority (OJK) has several strategies for maintaining the growth of banking credit, one of them with capping interest rate of deposits between + 75 up to + 100 book base 4 and book 3, directives for supporting the financing of export-oriented sectors that fit the government's focus, such as fish export activities, mining, and Crude Palm Oil (CPO), OJK also give guidelines to the sector that can expand the job field which is also the environmentally friendly sector of tourism.

In addition, the Small and Medium Enterprises (SMEs) sectors are not less important. The SMEs sector is tough in sustaining national economic growth. According to the Indonesia Chairman of micro small and medium Enterprises (AKUMINDO) the total SME contribution to the national gross domestic product (GDP) this year is expected to reach 65% or about Rp 2.394,5 trillion increase if compared with the realization of SME contribution to national GDP last year reached about 60.34%. The number of SMEs actors is also large enough, based on the data of the Ministry of Cooperatives, in 2018 the number of SMEs reached 58.97 million.

The Rapid development of technology comes with a wide range of solutions to make business activities much more efficient and profitable. One of the most important technologies for business utilization can reduce production costs with the use of machines. So that the resulting product can be more. For example, the use of Internet banking on transfer transactions, deposit making, or payment will result in more quantity than if the service is done through a bank counter. Utilizing technology can also maintain the stability of the quality of the products produced. Nowadays, the use of information technology also began to be in payment transactions and transfer of funds by banks/fintech. People can make transactions either through the bank/fintech platform directly or through the mobile phone provider platform

that has been in cooperation with the bank/fintech. To do this, research is needed to analyse the use of information technology contained in the mobile phone platform.

This research tries to explore the utilization of information technology contained in mobile phones to facilitate business transactions on SMES traders. The research is expected to expose the use of information technology that is easy for small communities to support their business activities.

2. Literature Review

Operating with a branch office and a limited number of employees. Product development and delivery channel is also known as electronic banking (E-banking). The term was first used by the Basel Committee on Banking Supervision (BCBS) in one of his paper books titled "Electronic Banking Group Initiatives and White Papers Basel Committee on Banking Supervision" published in October 2000.

Some countries have adopted the term, including Indonesia which has poured it into the provisions related to electronic banking in Indonesia, namely SEOJK No. 27/SEOJK. 03/2016 on the activities of commercial banks based on core capital. Some electronic banking activities that are allowed to operate in Indonesia, among others 1) the implementation of payment instruments using the card (APMK), 2) Electronic money provider (electronic money), 3) phone banking, 4) short messaging services (SMS), 5) mobile banking, and 6) internet banking. Internet banking services are increasing due to the growth of internet users in Indonesia, dominated by the young generation. Although most of the internet banking payment transaction is 7.39% (April 2017).

The rapid development of distribution channels from traditional to digital or known as electronic banking (E-banking). Banking services that belong to the category of electronic banking (e-banking) such as self-service teller (ATM), Short Message Service banking (SMS banking), Mobile banking, Electronic Data Capture (EDC), and internet banking (online banking) as in picture 5. However, until now no bank fully operates using internet media and does not have a network of branch offices (virtual bank).



Figure 4. Electronic Development Delivery Channel Bank

Source: OJK Study in the workshop: "Bank Cooperation and Fintech in the Digitalization Era", 2 August in Manado

The development of information technology in addition to bringing changes to the banking business process also raises a new phenomenon in the financial services industry, namely the emergence of digital financial platforms. The latest financial Platform currently known as Fintech, has a great potential to change the structure of financial services. Fintech offers innovations in financial services by offering new products that the community needs in line with the digital lifestyle.

In addition to the digital financial platform which generally serves as an intermediary for electronic transactions, today has developed an open-source digital platform so it does not require a middleman (third party) to verify and record transactions into the system instead of directly distributing them through an encrypted system to guarantee its security. These

platforms are known as Blockchains. Due to its open-source nature, this Blockchain platform has finally been developed by many Parties to bring up various cryptocurrencies (such as Bitcoin and Ethereum). Blockchain is one of the technologies in the process of exchanging data directly without using a third party in a transaction process (Bahga and Madiseti, 2016). According to Don and Alex Tapscott, (2016), blockchain writer revolution explained that "blockchain is a digital ledger of economic transactions that cannot be broken that could be diode to record not only financial transactions but almost all of them are worth".

In addition, it is not less important to know the level of security of the blockchain because the data stored will not disappear. After all, it has been distributed to all its users (Financial Service Commission, 2016). It is believed if blockchain technology can be utilized by the financial industry, especially the payment system, then the transaction process can be faster, more efficient, and safer for all parties involved in the use of this technology. Some industries that can utilize blockchain technology in the pipeline.

Business process

They are trading of futures exchanges, and financial technology companies, especially those engaged in the payment system. The financial sector is one of the most potentially beneficial sectors of the implementation of Blockchain technology, especially for cutting costs and time in the transaction process, because it can take place quickly, efficiently, and transparently by eliminating third-party intermediary transactions.

Conventional financial system in the recording of transactions in the form of a ledger or general Ledger. The function of this general Ledger as the guarantee of financial transaction is recorded correctly, in which case the digital payment is used as a trusted party as an intermediary (third party) by both parties to verify the transaction so that the Inter responsible for any recording of the missed transaction, in this case, there is certainly only "one" general book or Common Ledge as the sole referral of the transaction parties, but there is a fairly fatal drawback that if any hacker or hacker has managed to get into Single System General Ledger, the contents of the General Ledger program can be changed.

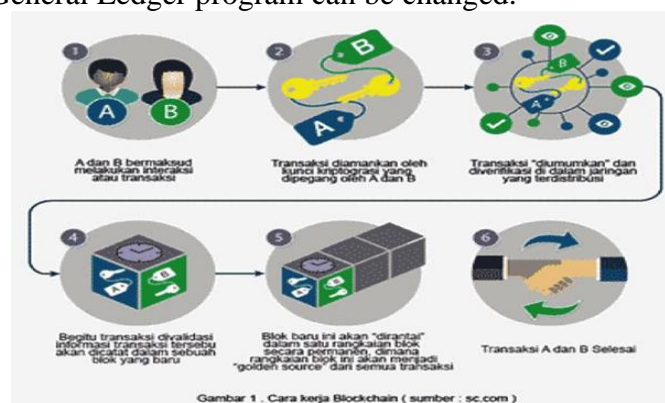


Figure 5. How Blockchain works.

Source: detikinet, 2017 with main source BC.com

In Blockchain technology, a Ledger or General Ledger will be distributed to a computer network and verify transactions, then put into blocks the encrypted, hereinafter installed "chains" permanently with transactions occurring before and after.

Financial Services to support Small and Medium Enterprises (SMEs)

There are three sectors of economic growth, namely Agriculture, Manufacturing (industrial), and Trade. Large, Small, and Medium Enterprises. These three sectors are the largest credit absorbent in a country even Indonesia's own country. SMES including the medium Supply Chain in Indonesia should get the main attention from the government because according to the coordinating Ministry of Economic Affairs (2018) explained that the SME growth in GDP grew to 60.34 percent. In total, small businesses in Indonesia accounted for greater GDP of 93.4 percent, then medium enterprises of 5.1 percent, and large businesses of only 1 percent. Based on the statement that SMES Indonesia has a significant role and contributes greatly to the economy of Indonesia, the current SMES still has shortcomings and weaknesses in operation namely the difficulties of access to both licensing and marketing, limited innovation and technology, to the difficulty of access to a source of financing is quite limited. Knowing some of the problems of the SMES, it must be the role of banking in its intermediation function by growing entrepreneurs through the support of capital access for new entrepreneurial development.

According to the chairman of Indonesia Small and Medium Enterprises Association (AKUMINDO) The total SME contribution to the national Gross Domestic Product (GDP) this year is expected to reach 65% or about Rp 2.394,5 trillion increase if compared with the realization of SMEs contribution to national GDP last year reached about 60.34%. The number of MSME actors is also large enough, based on the data of the Ministry of Cooperatives, in 2018 the number of SMEs reached 58.97 million. The large potential of the SME sector is reflected in increasing contributions in times of declining economies. About half of Indonesia's economy is not supported by large business conglomerate sectors but by the small and medium sectors. In terms of the number of 23% more Indonesians engaged in the SMEs sector, this is just the official data which only integrated SMEs records, It is believed that the number is multiplied if it is not registered like a street merchant.

The empowerment of the SME sector is the empowerment of the Indonesian nation. Therefore, this sector should not be left in the formulation of policies related to financial services, including in terms of the utilization of information technology. This sector should get a place to be a part of an acceleration agenda for business processes using technological advances. This means that advances in technology must support, small and medium sectors that are supporting economic growth and where millions of Indonesians get prosperity.

3. Research Method

The research methodology used is a combination of quantitative analysis and qualitative analysis. This research is quantitative. According to Zikmund (1997, Page. 45), " the survey research method is a method by which the information is collected from several samples by giving the question that person is directly answered." Quantitative analysis was hit by descriptive statistics, while qualitative analysis was with desk study.

Research Location

1. Dinoyo Traditional Market, located on the street of Dinoyo Komplek Market. Dinoyo Market, Lowokwaru Sub-district, Malang City, East Java 65144.
2. Guyub Rukun Traditional Market located on Jalan Soekarno Hatta No. 9-B, Jatimulyo, Lowokwaru Sub-district, Malang City, East Java 65141.

The reason for the traditional market selection of Dinoyo and traditional market Guyub Rukun, is that first, the researcher wanted to know the use of cell phone information technology

by traditional market traders who also represent SMEs, second, both of them are old traditional markets which famous in Malang.

Population

The population in the study is a resident of Indonesia who has the criteria:

1. 17 years old and above (adult).
2. Is the original trader of the traditional market Dinoyo or traditional market Guyub Rukun.

Sample

The number of samples we spread is 45 (forty-five) respondents consisting of 20 (twenty) respondents to the traditional market trader Dinoyo and 25 (twenty-five) traditional markets of Guyub Rukun. The sample method used is a non-probability sampling via the sampling quota technique.

Data Collection Techniques

The research uses 2 (two) types of quantitative research data collection techniques:

1. Interview
This technique is done because it wants to find a deeper response and number of respondents little/Small (Sugiyono, 2012:138).
2. Questionnaire
The questionnaire study technique is written questions to the respondents structured and closed, although some questions are open.

Data Source

The primary data obtained directly in the research process are respondents from 2 (two) markets namely traditional market Dinoyo 20 (twenty) respondents and traditional market Guyub Rukun as much as 25 (twenty-five) respondents.

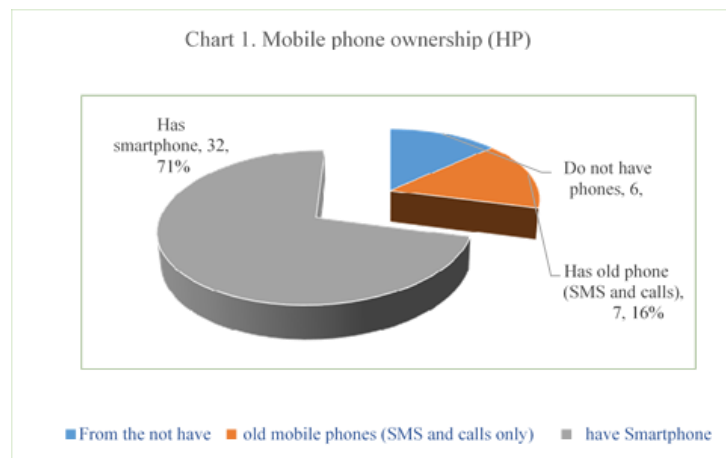
Secondary data is data obtained through written sources published by third parties, such as related literature and journals.

Data analysis techniques using statistics. There are two kinds of statistics used for data analysis in the study descriptive statistics and inferential statistics (Sugiyono, 2012:147). This study used descriptive analysis techniques.

4. Results and Discussion

Typical Service in a Widely Used Mobile Phone

Forty-five questionnaires were distributed to get 45 (forty-five) information or a response rate of 100%. The return rate is 100% because the questionnaire spread is equipped with interviews so that respondents can answer and return questionnaires. Ownership of the mobile phone by the market in Dinoyo and Guyub Rukun is as follows: 6 (six) people or 13% do not have a mobile phone, 7 (Seven) people (16%) have an old mobile phone (which can only call and SMS), and 32 (thirty-two) people have a mobile phone.



Furthermore, of 32 (thirty-two) people who have smartphones, all (100%) use them for social media. While 0% are using it for online payment or fund transfer. The use of social media is not for Facebook (FB), Instagram (IG), or Twitter, but it is entirely used for WhatsApp (WA). It is interesting because 30 (thirty) of 32 (thirty-two) respondents or 93.75% who use WA also said that WA is used to accept orders from customers and to order goods from suppliers.

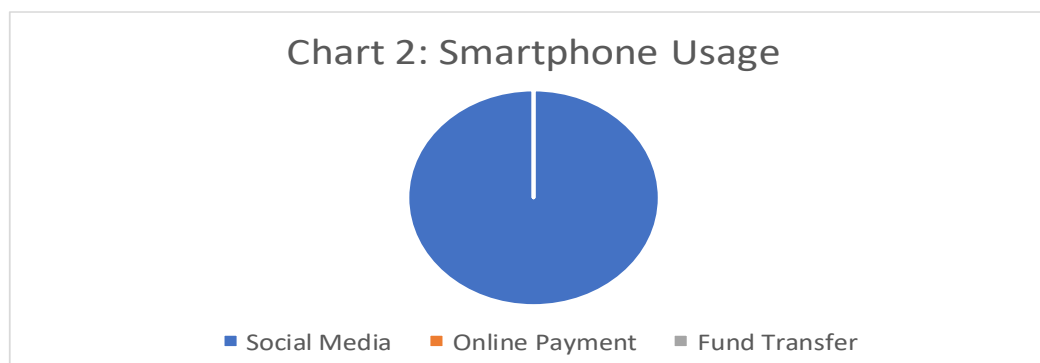


Figure 6. Chart Smartphone Usage

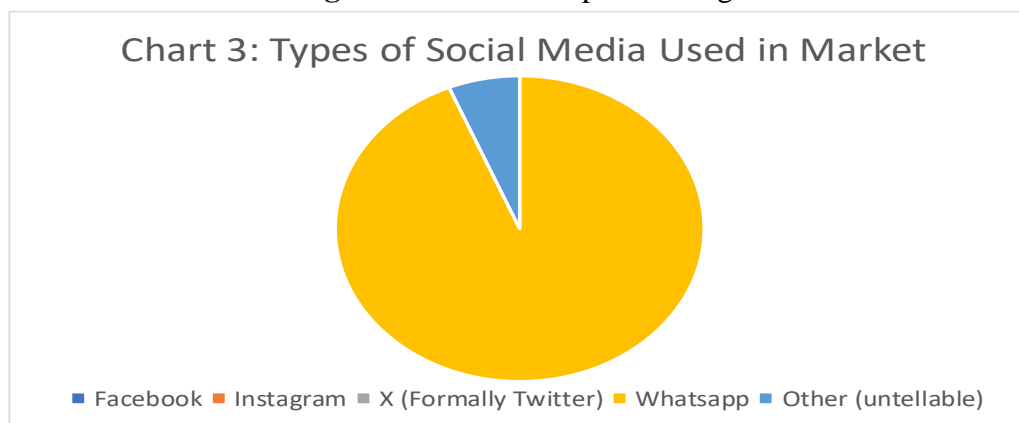


Figure 7. Chart Social Media Usage in the Market

As for 45 respondents, the knowledge of digital financial products varies, 13 respondents (28.88%) knowing or ever heard of Internet banking bank products, and only 3 (three) of 13 respondents (23.07%) internet banking BRI (2 respondents) and BCA (1 respondent). 15

persons (33.33%) never heard of GOPAY and 15 people (33.33%) never heard/knew about OVO. Interestingly, all the respondents who know about GOPAY and OVO answered using GOPAY and OVO for credit purchases, “ojek” online, and ordering food.

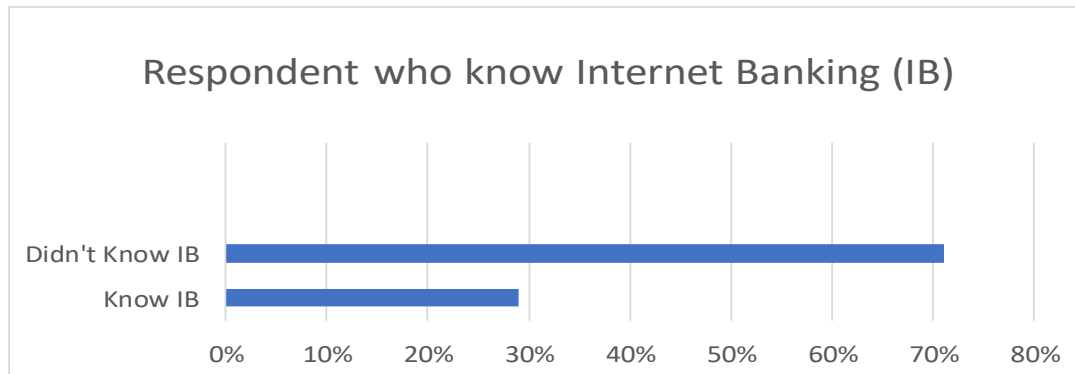


Figure 8. Respondent Who Know Internet Banking

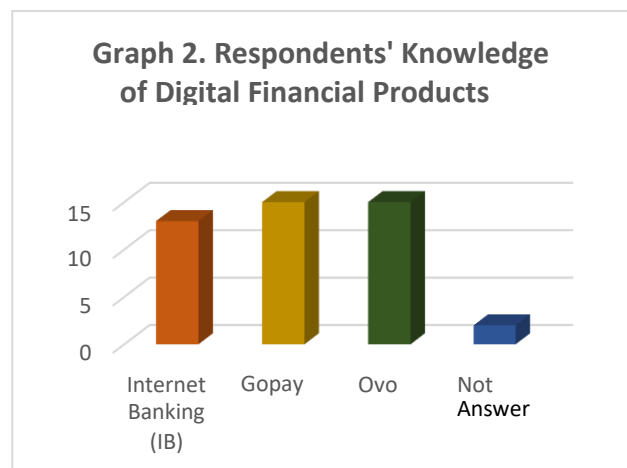


Figure 9. Respondent Knowledge of Digital Financial Products

Based on the empirical data above, the use of technology embedded in smartphones that are too sophisticated is less desirable by market traders in selling. Advanced technological interventions such as the Internet.

Internet banking is very rarely used, only 13 respondents (28.88%) know about Internet banking, even though only 3 (three) respondents use internet banking.

Graph 3: Respdent Who Know GoPay

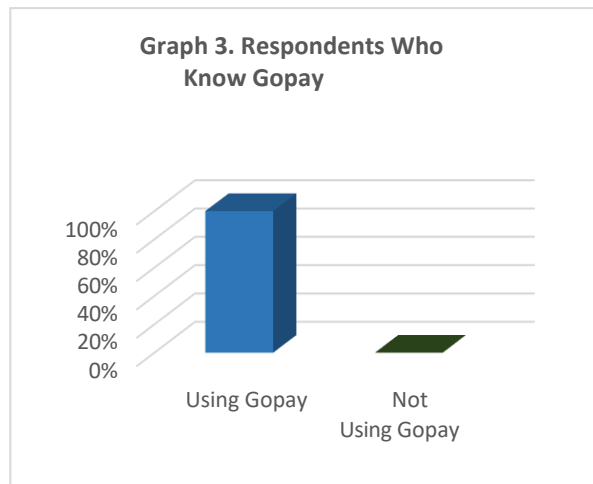


Figure 10. Respdent Who Know GoPay

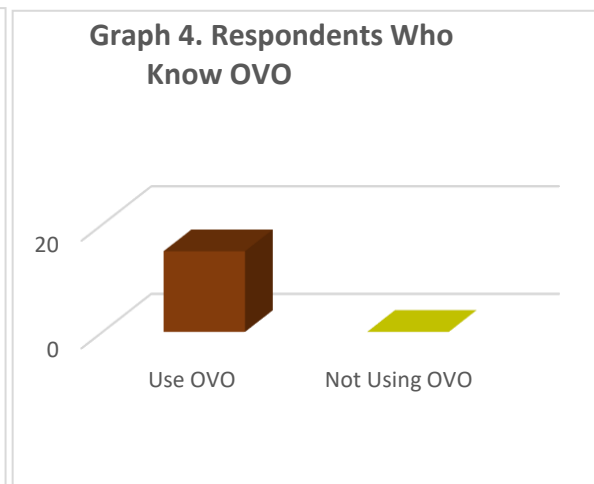


Figure 11. Respdent Who Know OVO

The technology carried by financial technology companies such as GOPAY and OVO is more popular in both traditional markets. All respondents who know GOPAY are respondents who know OVO, but also know them all using GOPAY/OVO. Interestingly, GOPAY users are also OVO users. A total of 15 respondents (33.33%) is a respondent who knows at once using GOPAY and OVO. The most interesting of all is the fact that the penetration of WhatsApp is very popular among traders of both markets. As much as 32 (thirty-two) or 71.11% of respondents who use WhatsApp, use it in addition to communication, amounting to 93.75% of WhatsApp users using it to accept orders from customers and to order goods from suppliers.

Cause of Service Factor in Mobile Phone Use

The overall financial products embedded in mobile technology indicate that the product is an easy application, and its use is more liked for use by respondents. Further sophisticated products such as internet banking that require registration are quite complicated and should come face to face/coming to the bank becomes less desirable. Some products become popular and interesting because registration using the fully online way such as WhatsApp, GOPAY, and OVO is simply by downloading the app from the play store which is generally available on every smartphone.

The behaviour of market traders representing the SME sector in utilizing technology may need to be considered by the financial system authorities in Indonesia good technology that can drive increased product quantity and industrial capacity needs to pay attention to ease in various processes including the registration process. A sample market trader can give you an idea that is as good or as sophisticated as any kind of technology if the acquisition of the benefits is complicated, it will not be a community choice. Go ahead to be considered to facilitate the use of internet banking among others in the registration process that can be fully online or the access process of this product by the community.

5. Conclusion

The results of the research done to SMES business are traders in 2 (two) markets in Malang East Java namely traditional market Dinoyo and Guyub Rukun show that the sophisticated technology is precisely a technology that is rarely used because to operate constrained by registration that must come to the bank/financial institutions and features are not simple.

Information technology in a smartphone that is simple both in registration and product features will be more popular. The ease in how to get like just by downloading it on their smartphone and its simple features is an advantage to be used by respondents.

In addition, the proximity of daily life makes the service used daily. WhatsApp is a smart product of smartphone technology used by 93.75% of respondents, in Questionnaires, WhatsApp is an option in the category for social media, but, from the answers of the open questionnaire, there is information That respondents use WhatsApp as well as communication tools also as a business tool to get customers and order goods. Subsequently, GOPAY and OVO were used, by 33.33% of respondents. GOPAY users are also using OVO.

As for the factors that influence the selection of the use of financial services on smartphones by respondents: ease of obtaining, and simple features. The service is only sufficiently downloaded on the smartphone the respondent got a 93.75% place to use, while the simple feature caused 93.75% of the respondents to know and use (for WhatsApp) and 33,33% of respondents (for GOPAY and OVO), while the services that require the Registration and quite complicated features are only known by 28.88% of respondents and used by 6.67% of respondents (both for Internet banking).

Recommendations

Some policy-related recommendations:

1. Policy stakeholders need to pay attention to the practical factors in regulating provisions related to financial services based on information technology,
2. The financial services must also be socialization to be used widely by the community, especially for the SMEs sector

References

- The R. (2019, January 12). OJK applies five moves to support Government priority financing. SindoNews.com
- BCBS. (2000). Electronic Banking Group Initiatives and White Papers. Electronic Banking Group of the Basel Committee on Banking Supervision.
- Darmawan, I. (2001, December). Optimization of bank intermediation function. Picked November 10.2019, from the [HTTPS//library. Bappenas.go.id](https://library.bappenas.go.id)
- DeYoung, Robert. (2005). The Performance of Internet-Based Business Models: Evidence from the Banking Industry. *Journal of Business*, 2005, vol. 78, no. 3
- DPNP. (2019). "Banking regulation in the Digital Economy" display material delivered by the head of DPNP in the Workshop of Bank Cooperation and Fintech in the Economic Digitization Era in Manado, August 2, 2019.
- Kijm, I. (2019, August 3), Indonesia to the superior economy with MSME. Kompasiana.com.
- POJK No. 12/POJK. 03/2018 on Digital Banking services by Public Bank (POJK Digital Banking).
- Prof. Dr. Sugiyono. (2015). Quantitative, qualitative, and R & D (22ed.) Research methods. Bandung, West Java, Indonesia: ALFABETA, CV.
- Raflein, A. (2018, Sept. 16). A myriad of benefits behind Blockchaintechnology.Medium.com.
- Sugiarto, E. C. (2019). Continuing infrastructure development and Indonesia advanced. Ministry of State Secretariat, ASDEP pr. Jakarta: Ministry of State Secretariat.
- R. M. (2019, July 29). Implementation of Blockchain in Logistics in Indonesia. (M.T. Basari, penyunt.)
- SEOJK No. 27/SEOJK.03/2016 on public Bank business activities based on core capital.

- Ulya, F.N. (2019, September 28). BI optimistic banking credit thrives up to 2020. (S.R. Setiawan, Penyunt.) KOMPAS.com.
- Yeo, J. (2018, Oct. 19). Why marketing through a community is perfect for startups. (I. Kurniawan, penyunt.).
- Infosys. (2018). Digital Only Banking-Soaring Wave in Consumer Banking
- PwC. (2016). Blurred lines: How FinTech is shaping Financial Services. Retrieved from Global FinTech Report: [pwc.com/fintechreport](https://www.pwc.com/fintechreport) <https://www.dbs.com/indonesia-BH/Blog/live-smart/leverage-development-technology-to-Save-budget-business-this>. Page <https://idcloudhost.com/mengenal-apa-itu-teknologi-blockchain/>