

The interests of small- and medium-sized enterprises (SMEs) actor in using mobile commerce in effort to expand business network

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Abstract

Purpose – This paper aims to know the interest of leading small- and medium-sized enterprises (SMEs) of Y generation in Surabaya City using mobile commerce, identify the effort that has been done by the leading SMEs actors of Y generation in Surabaya City to expand its business network by using mobile commerce, and analyze the success rate of the use of mobile commerce to expand the business network of leading SMEs of Y generation in Surabaya City.

Design/methodology/approach – This research is designed using qualitative method. The research is directed more toward a research with phenomenological approach because the research also gives the description related to the phenomena in the field to the actor of SMEs and Disperdagin of Surabaya City. The researcher picks Surabaya City as the location by considering the following: the number of SMEs in the Surabaya city is greater than any other cities in East Java considering that Surabaya is the capital of East Java. The number of SMEs is 37,906 units; it means that Surabaya is a city with high economic activity and this place is also the largest trading city after Jakarta. Based on the number of SMEs mentioned above, in this research, only leading SMEs are taken amounted to 161 leading SMEs in the Surabaya City. Information or technological exchange and development are faster compared to other cities because most of the community living in this city uses information technology in running their business.

Findings – SME actors in Surabaya city have high interest in using m-commerce. In expanding the network, the SME actors use online media. The SME actors in Surabaya have successfully expanded the business network through online marketing by using m-commerce to overseas including Germany, France, South Korea and the UK. Effective model is needed for the policy in Surabaya city is Disperdagin has its own website to overshadow all SMEs in Surabaya City, and identify the role of Disperdagin to SME or vice versa, and clustering SMEs in Surabaya such as cluster of handicraft and Food and Beverage (MAMIN). Factors that are the advantages of using m-commerce are wider business network; increasing sales; adding resellers and buyers; smooth business transaction; development of product innovation, process and marketing; the facilities provided by the government; and easy to use m-commerce application.

Originality/value – This is one of few papers that study the interest of SMEs actor in using mobile commerce in effort to expand business network. The use of m-commerce will grow the business capability of SMEs, thus increasing the role of SMEs as the counterweight to the structure of the national economy. Therefore, the government policy related to the use of e-commerce and m-commerce is very important to be socialized to business actors, especially the SMEs.

Keywords Mobile commerce, Expand business network, Interest of SMEs actor

Paper type Research paper



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1. Introduction

Interest in the use of information technology is very large from businessmen, especially small- and medium-sized enterprises (SMEs) actors who have an interest in the use of mobile-commerce. This is due to the rapid development of information technology that encourages the SMEs actors to use it. Mobile commerce gives hope to the SMEs actors to expand the business network. Mobile commerce is part of the development of e-commerce making it very easy for the SMEs actors in expanding the market through online sales. The main benefits of e-commerce and mobile commerce can conduct the business transaction through the network that includes online advertising, ordering, payment, and distribution of goods in an effort to improve customer service. Some of the benefits of e-commerce are helping to simplify the process of business-to-business, business-to-customer, customer-to-customer and government-to-business. The above description is supported by [Zhu \(2014\)](#), who suggests that the core of e-commerce is the electronic transaction.

The use of e-commerce and m-commerce is related to the internet usage. It means that the higher the use of the internet the higher the use of e-commerce and m-commerce, especially in business and trading sectors. This has been proven by the results of Waseda University's survey indicating that Indonesia ranked in 29th out of 63 countries that use the internet ([APJII, 2018](#)), along with data showing the increasing trend of Internet users in Indonesia in 2005-2017 and the age of internet users in Indonesia 2017.

Based on the above data trend of internet users in Indonesia and the age of users indicate that the largest number of users in the age range of 19-34 years (49.52 per cent) and 35-54 years (29.55 per cent) ([APJII, 2018](#)). The age is located in the majority of the Y generation (digital native), which is the main segment of internet users in Indonesia. Data on the number and age of internet users above are indication that there is the positive impact on the way of trading in recent days. It has been proven by the growing development of trading businesses that use e-commerce in doing the business. For example, the impact on stores that use the online application, the companies that have long been in the field business and startup companies.

The online trading process requires appropriate media so that the users will be able to access it more comfortably and securely. Based on the research results of APJII (Association of Indonesian Internet Service Providers) (2018) show that 44.16 per cent of internet users access the internet by using mobile phone devices. In the long run, it is predicted that there will be a shift. Where trading is originally done through PC/Computer and laptop, it will switch to a mobile phone. It has been proven by the number of trading applications that can be accessed through mobile phone as seen in the following table.

Mobile phones being used in online trading is referred to as mobile commerce/m-commerce. This term explains that electronic business transaction, such as ordering products and services, transferring funds, and stock payment, uses wireless devices (especially mobile phones). Continuous improvement and expansion of wireless networks drive the growing popularity of mobile devices and applications in the business environment. It turns into the new trend in the business environment and it is predicted to keep growing in the future.

This trend attracts large and small-scale entrepreneurs that they now tend to use two systems in its business activity namely traditional and online. Small-scale enterprises are generally referred to as SMEs, this business is invulnerable to the economic crisis. SMEs are the driving actor with an important role in the Indonesian economy. SMEs have strong business resilience when compared with large-scale enterprises actors. The Ministry of Cooperatives and SMEs (2013) argue that in 2012-2013 the SMEs have increased the business unit by 10.29 per cent, while Business Entities (BU) only increased by 1.97 per cent of the total number of business actors. Employment by the SMEs amounted to 43.87 per

cent, while the BU is only able to absorb 12.27 per cent of total workforce in 2012-2013. Based on the previous description, it shows that SMEs are able to participate in developing the economy and reduce the unemployment rate in Indonesia.

In 2013, gross domestic product (GDP) of SMEs only amounted to 23.44 per cent and BU of 39.44 per cent. However, seeing from the improvement from 2012 to 2013, SMEs have the higher percentage of development amounted to 20.23 per cent while BU only 6.01 per cent. Based on the previous description, it can be seen that SMEs cannot provide goods and services in the market with the larger number when compared with BU. However, SMEs have increased the GDP each year. It can be said that SMEs have a great potential to continue to grow, able to improve goods and services according to market needs with controlled and guaranteed quality.

Indonesia's economic development promotes the SMEs sector as the main agenda because the SMEs have proved it through the issue in the economic crisis of 1998. At that time, SMEs were the sector that survived the collapse of the economy when larger BU was collapsing due to the economic crisis. Some of the reasons why SMEs are very resistant to the economic crisis and able to survive are because they do not have foreign debt, they are not allowing a huge amount of debt due to small amount of capital and they tend to use local input and they are export-oriented (Kuncoro, 2008). The urgent role of SMEs in the economy forces all parties to further develop the sales of products and services produced. One of the concerns is the use of m-commerce.

In using m-commerce, SMEs sector show a result that is easy to process the trade to compete. In this MEA era, SMEs have to face the competitor from national and international business entities. In addition, the use of m-commerce also expands the trade area, because it can connect the SMEs with customers, suppliers, owners of capital and owners of SMEs quickly without the limited space and time in an effort to meet their needs.

Given the importance of the SMEs role in contributing to the economy, related to the condition of m-commerce in Indonesia, so many researchers are interested in researching the use of m-commerce related to bank relationship with clients. In addition, the reality of the model and form of m-commerce is used widely. Therefore, it requires socialization related to the function, form, and role of m-commerce to business actors in Indonesia. The expected outcome of the socialization is the increasing interest of business actors, especially the SMEs to use m-commerce. One of the efforts to increase the interest can be done by convincing the SMEs about the benefits of m-commerce. Thus, the SMEs will be more confident in their ability to operate m-commerce and it will be easier for them to use it.

The above description is in line with the SMEs development policy framework regulated in the Law Number 20 of 2008 regarding SMEs that aims to realize a balanced, developing and equitable national economic structure; grow and develop the capabilities of micro, small and medium enterprises to be strong and independent business and increase the role of micro, small and medium enterprises in regional development, job creation, income distribution, economic growth and poverty alleviation of the people. The use of m-commerce will grow the business capability of SMEs, thus increasing the role of SMEs as the counterweight to the structure of the national economy. Therefore, the government policy related to the use of e-commerce and m-commerce is very important to be socialized to business actors, especially the SMEs.

The largest internet users in Indonesia are in the age range of 19-34 years. It is also expected that most of the SMEs are at that age range which belongs to Y generation category. Kim and Holdsworth (2012) explain that Y generation is the generation born from 1981 to 1994. The age range of Y generation between 19-34 years is suitable with the survey result conducted by APJII (2018), including in digital native age category which is the

biggest segment of internet users in Indonesia. The Y Generation is the generation that is not resistant to technology. This generation tends to use wireless network as services and entertainment. The age range of this group is quite wide; they tend to have new trends and lifestyles. According to Mobile Direct research (2010), Y generation mobile users prefer web mobile for internet access compared to desktop/laptop. This group is an ideal group to conduct internet research using new technology such as m-commerce.

The spread of SMEs is concentrated in the Java Island (West Java, Central Java, and East Java) of approximately 60 per cent. The island of Sumatra is approximately 15 per cent; the island of Borneo and Sulawesi are just under 10 per cent each. The remaining 15 per cent is spread on islands other than the abovementioned. This percentage is generated from total SMEs in Indonesia. It is expected that the unevenness of SMEs in Indonesia can be overcome with the use of m-commerce. However, this depends on the government policy and the interest of SMEs themselves in using m-commerce technology system.

Thus, the concentration of SMEs that is spatially unfavorable in terms of the constellation of national economic development-oriented equity can be overcome. It includes the inter-provincial SMEs gap that undermines the industrialization process, where Indonesia has industrial structure dominated by the presence of SMEs. Therefore, it is necessary to develop the SMEs for regional development especially after the enactment of regional autonomy related to the advantages possessed by SMEs.

East Java as a province with the good SMEs development of 12.5 per cent units is the second largest after Jakarta which is 13.7 per cent units. As a province with the development in the second place, East Java has 6,825,931 of SMEs. Because the use of m-commerce has something to do with the use of mobile phones, the following is the data on the number of active mobile phone users in East Java. Central Bureau of Statistics (BPS) 2014 in East Java, the owner of 1 mobile phone as many as 38 per cent, the owner of 2 phones as many as 34.91 per cent, the owner of 3 phones as many as 15.34 per cent, and the owner of ≥ 4 phones is 11.76 per cent.

Based on the data of mobile users, it is known that most internet user work as entrepreneurs amounted to 82.2 million people (62 per cent), the second position is housewife amounted to 22 million people (16.6 per cent). The remaining is university students amounted to 10.3 million people (7.8 per cent), students amounted to 8.3 million (6.3 per cent) and others amounted to 796 thousand (0.6 per cent). However, when viewed from the behavior of Internet users based on frequently visited content, online web visitor is 82.2 million (62 per cent), personal business is 45.3 million people (34.2 per cent) and the remaining is 5 million people (3.8 per cent) visiting another Web (APJII, April 2016), then the data on the number of users who have accessed the internet by type of business sector as follows.

Based on the data in the above table, it can be seen that most internet users based on the first sector of business, community services amounted to 39.22 per cent in 2014, the second is trade, hotels and restaurants amounted to 23.38 per cent, and the third is Processing Industry amounted to 16.49 per cent. From the three business sectors that dominate the use of the internet, it can be said that the indication of the use of mobile commerce shows the high interest of SMEs.

The number of SMEs in East Java province spread over 38 Districts and Cities. From this number, the total of SMEs based on the number when classified, the highest is Jember amounted to 424,151 units and Malang amounted to 414,516 units. Followed by the number below 300,000 and above 200,000 units are Banyuwangi, Bojonegoro, Sumenep, Surabaya, Blitar, Lamongan, Kediri, Pasuruan, Probolinggo, Tuban and Ponorogo. The rest of 25 Districts and cities have the number of SMEs under 200,000 units.

Although the number of SMEs in Surabaya City is less than in Jember and Malang, the researcher decides to pick the location in Surabaya City with the consideration that the number of SMEs in Surabaya City is greater than any other city in East Java considering that Surabaya is the capital of East Java. With a total of 37,906 units of SMEs, it shows that Surabaya is a city with high economic activity, as well as the second largest trading city after Jakarta. Thus, the exchange and development of information and technology are faster.

To facilitate the development of SMEs, the government of East Java has provided special application information technology-based to promote the products by SMEs. The goal is that SMEs in East Java will be able to compete with foreign products. Considering that Indonesia is the member of the ASEAN Economic Community (MEA). In the effort of superior competition, the government of East Java facilitates the actors of SMEs through android-based mobile application developer by Klinik Koperasi and SMEs of East Java. The application is called E-KUMKM and it is welcomed well by the Government of Surabaya City. However, it should be known whether the SMEs actor is interested in using the application or not. Thus, a research related to the interest of SMEs actor in using the mobile commerce to expand the business network should be done.

The use of m-commerce will foster the business potential of SMEs in an effort to expand business networks, thereby increasing the role of SMEs as a counterweight to the structure of national economy. Therefore, government policies related to the use of e-commerce and m-commerce are very important to be socialized to business actors, especially in the scope of SMEs.

Based on the above description, this research aims to know the interest of Leading SMEs of Y generation in Surabaya City using mobile commerce, identify the effort that has been done by the Leading SMEs actors of Y generation in Surabaya City to expand its business network by using mobile commerce, and analyze the success rate of the use of mobile commerce to expand the business network of Leading SMEs of Y generation in Surabaya City.

Several previous studies were used as references in this research separately, such as the interests of SMEs by McCann and Barlow (2015); Psomas *et al.* (2018), Sutton (2015), Sultan (2014); mobile commerce by June (2014), Magrath and McCormick (2013), Marinkovic and Kalinic (2017), Thakur and Srivastava (2013), Yadav *et al.* (2016); business network by Gretzinger and Leick (2017), Kambil (2008), Owusu and I-Vaaland (2016) and Xu *et al.* (2016). The originality for this paper shows the comprehensively the theme of Interests of SMEs, mobile commerce and business network.

2. Literature review

2.1 Small-/medium-scale enterprise

According to the Ministry of Cooperatives and Small/Medium Scale Enterprise (Menekop and UKM):

- Small-scale enterprise (SE) including micro-scale enterprise (ME) are the business entity with the net worth at most IDR 200,000,000 excluding the land and building for business, with the annual sales at most IDR 1,000,000,000.
- Medium-scale enterprise (ME) is a business entity owned by an Indonesian citizen with net worth larger than IDR 200,000,000 up to IDR 10,000,000,000 excluding land and building (www.depkop.go.id).

Central Bureau of Statistics (BPS) defines SMEs based on the labor quantity. Small-scale enterprise is a business entity that has a workforce of 5 up to 19 people, while medium-scale enterprise is a business entity that has a workforce of 20 up to 99 people (www.bps.go.id).

Based on the Law No. 20 of 2008, small-scale enterprise is an entity with criteria covering the net worth of IDR 50,000,000.00 to IDR 500,000,000.00 excluding land and building for business with annual sales of between IDR 300,000,000.00 to IDR 2,500,000,000.00. While medium enterprise is a business entity with net worth of more than IDR 500,000,000.00 (500m rupiah) up to a maximum of IDR 10,000,000,000.00 (10bn rupiah) excluding land and building for business with annual sales of more than IDR 2,500,000,000.00 (2,500,000,000.00 rupiah) up to a maximum of IDR 50,000,000,000.00 (50bn rupiahs).

2.2 Mobile commerce

Mobile commerce is part of the development of e-commerce using wireless connection or mobile telecommunication. Electronic commerce itself means the use of communication and computer network to carry out business process. The popular view of e-commerce is that using the internet and computer through browser Web to purchase and sell product. McLeod (2008, p. 59). Meanwhile, according to Jony (2010, p. 33), e-commerce means purchasing, selling and marketing the goods and service through electronic system. In the context of m-commerce, perceived usefulness and perceived ease of use have a positive influence on intention to use (Chong, 2013; Faqih and Jaradat, 2015). For example, radio, television and computer or internet network. The definition of e-commerce can be the buy and sell transaction process through internet where the website is used as the media to carry out the process. According to Ericsson (2010), m-commerce is a trusted transaction service through mobile devices for goods and services exchange between the consumer, seller and financial institutions.

The implementation in the business field, m-commerce has its own advantage and disadvantage. Here are several advantages and disadvantages of the m-commerce implementation:

(1) Advantages of m-commerce:

- *Ubiquity*: the users can access from anywhere and anytime.
- *Security*: in general, the handset is equipped with smart card reader and its own smart card. Hence, it can be used as a secret authentication key.
- *Localization*: enable the implementation of location services.
- *Convenience*: the size and weight of the handset make the user to feel more comfortable in transacting.
- *Personalization*: mobile phone is a personal device that allows to offer more personal service/product.

(2) Disadvantages of m-commerce:

- Device limitations.
- The level of diversity of devices, networks and operating system is very high which requires the platform standardization between vendors.
- The high rate of loss/theft of mobile phone.
- Increased level of vulnerability to security when data are transferred through the air interface.

2.3 The Y generation

The Y generation is a generation born from 1982–2000. The characteristics of Y Generation are different from one country to the other. These different characteristics of Y generation depend on the background where he was raised, economic strata and social life of the family.

However, Y Generation is very open to the communication pattern comparing to the previous generation. This generation is a fanatic of social media and their life is affected by the technological development.

The Y Generation is a generation that tends to apply creativity in work and find relaxing working environment. They are not really serious about work. In their opinion, work is not the most important thing in life and they are not working to feed a family like in the previous generation. They are very techno-minded and interact more using gadgets (Skype, WhatsApp, Twitter and Facebook) even with the coworker. They also want to appear differently and dominate the working field.

This research focuses on the category of Y Generation which is different in the age range of 22-35 years old. The characteristics of Y Generation among others:

- The characteristics of each individual are different depending on where he/she grew up, economic strata and family's social life.
- The pattern of communication is very open compared to previous generations.
- Fanatic social media user and their life is heavily influenced by technological development.
- More open to political and economic views, they are very reactive to the environmental changes around them.
- Paying more attention to "wealth".

2.4 Intention to use

Intention to Use is one of factors of technology acceptance model (Davis and Newstrom, 1989) consisting of five factors covering perceived usefulness, perceived ease of use, attitude, behavior intention to use and actual use. This research discusses the interest of SMEs actor in using m-commerce technology to carry out its business to expand business network and Innovation, which is part of the use of information technology. The interest to use can be implemented to the early user or the interest of the user with continuous use.

Bandura (1986) explains that interest is included in the theory of Social learning that studies how human behavior is affected by surrounding environment. In this research, the interest of the SMEs actor in using m-commerce is affected by surrounding environment namely the external environment in the form of governmental policy. Ghobakhloo and Tang (2013) studied the role of owner managers in the adoption of e-commerce among SMEs. Perceived benefits, perceived compatibility, perceived risks, perceived costs and innovativeness were found to be the significant determinants of decisions to adopt e-commerce (Ghobakhloo and Tang, 2013) aligning with earlier studies by Ghobakhloo *et al.* (2011). Furthermore, in the study conducted by Prasarry (2014), finds that behavioral intention affects the m-commerce adoption. The research conducted by Prasarry supports the concept of this research.

2.5 Business network

Business network is economic social activity where group of business actor think, recognize, create, or act according to business opportunity. There are several popular business network organizations that create network activity model, if followed, will enable the business actor to build new business relationship and create a business opportunity at the same time. A professional network service is an implementation of information technology to support business network.

Business network can be done in a local business community or in the larger scale through the Internet. Business network site has developed for the past few years due to the internet ability to connect people around the world. Business network also has a definition in the domain, namely, in providing the operational support to the company and organization, and related chain value related and network value. Referring to the activity coordination with the wider scope and simple implementation of the working channel of pre-organized or web-based impromptu searching for transaction partner.

Business network that is developing well, for example, [Dean's \(2001\)](#) statement that business network should not be forced but the government should keep providing guidance and the business actors should be given the chance to do business partnership on its own initiative. By using several development concepts of the existing business network and by connecting the use of m-commerce, this research will try to create a model appropriate to be applied in the SMEs of Indonesia.

3. Research method

This research is designed using qualitative method. The research is directed more toward a research with phenomenological approach because the research also gives the description related to the phenomena in the field to the actor of SMEs and Disperdagin of Surabaya City. The researcher picks Surabaya City as the location by considering the following: the number of SMEs in the Surabaya city is greater than any other cities in East Java considering that Surabaya is the capital of East Java. The number of SMEs is 37,906 units, it means that Surabaya is a city with high economic activity and this place is also the largest trading city after Jakarta. Based on the number of SMEs mentioned above, in this research, only Leading SMEs are taken amounted to 161 leading SMEs in the Surabaya City. Information or technological exchange and development are faster comparing to other cities because most of the community living in this city use information technology in running their business.

The focus of the research is to explore and identify the use interest of m-commerce of Leading SMEs in Surabaya City and to create a model policy model of the Surabaya City Government related to the utilization of m-commerce. Data in this research are obtained from the results of direct interview, observation, and documentation. Then, the obtained data are distinguished based on the data type as follows: primary data: data obtained directly from informants as information sources. The informant consisted of the actor of leading SMEs of Y generation in Surabaya City as the main informant. The next informant is the Head of Department of Trade and Industry of Surabaya City. The total number of informants is six people consisting of five actors of leading SMEs in Surabaya City and one person from the Department of Trade and Industry of Surabaya. The technique used to determine the sample is purposive sampling. Secondary data: the secondary data are obtained from published or unpublished historical record or report. In addition, data obtained from the website of the Office of Cooperatives and Industry of Surabaya City associated with Leading SMEs. There are several stages in the process of data analysis, processing, and preparation to be reviewed. A deeper reading and detailed analysis are done by data coding.

Data validity in the qualitative research can be obtained through triangulation, covering source triangulation, technical triangulation and time triangulation ([Creswell, 2009](#)). In qualitative research, there are no assumptions. It is used to test the research validity and reliability. The meaning of validity and reliability in qualitative research does not have the same meaning as in quantitative research. There are eight procedures that are often applied in qualitative research, namely: triangulation, *member checking*, making concise descriptions, clarifying bias, presenting different information (negative), using a long time of research, conducting a question and answer with colleagues, as well as inviting external

auditors. Data triangulation is interpreted as checking data from various sources in various ways and at various times. However, only source triangulation is used namely testing the credibility of the data by checking the obtained data through various resources, conducted at the Department of Trade and Industry of Surabaya and the Leading SMEs of Surabaya.

4. Results and discussion

Based on the results of interview with five actors of SMEs and Disperdagang, it can be elaborated as follows. The five interviewed actors of SMEs had sold goods online through website and mobile-based application. However, there are several similarities and differences between these informants. For example, the similarity, the informants 1, 2 and 4 explain that in the operation and management of online sales submitted to another party, namely family member is more precisely the children and cousins. While the difference is on the media use of online providers, the informant 1 uses unpaid web blogs and the informant 2, 3, 4 and 5 use the paid service providers although the informant 2 and 3 the payment is deducted per transaction while the informant 4 and 5 the payment is made on annual basis. Other difference is the operation and management, for the informant 3 and 4 are conducted the operation and management by him/herself through the media of provider smartbisnis.co.id. Based on the differences of answer from the informants indicate that Disperdagang needs to play better role, not only as supervisor, maker of rules and policies but also acting as manager. In this case, Disperdagang can cooperate with media of online provider, so that all SME in Surabaya City is in one same service provider.

The five SME actors use relatively similar mobile application namely Facebook, twitter, Instagram, and WhatsApp. However, the most dominant mobile application being used is WhatsApp; by using those applications, the SMEs actors can expand their business network. The first informant explains that the expansion of business network can be known from the increasing number of sales and profits derived from his/her business. The second informant explains that his/her business becomes more popular in the wider community, which is an indicator of network expansion. The third informant explains that it is true that the use of online-based application can increase the expansion of business network that can be known from the increased sales of its business. The fourth informant explains that by using online application, his/her business network extends overseas to Germany, France, South Korea and the UK. The fifth informant also explains that by using online application, the business network increasingly widespread, it can be known the addition of resellers and buyers. Based on the answers of the five actors of SME show that all SMEs actors are interested to use m-commerce application because they already feel the usefulness of m-commerce. Although there is no program from Disperdagang for the use of m-commerce managed by Disperdagang, because so far the SME's actors are free to use any online application, anything, and anywhere. Moreover, Diskominfo (Department of Communications and Informatics) has provided facilities covering, offline and online advertising, TV shows, videos distributed in cinemas, SME's profile displayed in newspapers, billboards, pamphlets, radio, and so on.

SME's actors and Disperdagang do not know that the Department of EAST JAVA Province has launched an application called E-KUMKM without any socialization from the Department of EAST JAVA Province. According to the answers of all informants if they know that the government of East Java province has launched the E-KUMKM application then they are interested to use it, but because of their ignorance, they use the free application on the market. Based on the above answers, those show that the SME's actors hope to not only coordinate, supervise, or give the rules but also the government to manage in the use of m-commerce applications.

SME's actors are well aware that the use of information technology, especially m-commerce not only extends the business network and facilitates business transactions but also triggers the innovation, such as process, product and marketing innovation. In accordance with all answers about the interests of utilizing m-commerce technology to develop the business that further can innovate in meeting the demands of the market and face business competition.

The policy plan of the use of m-commerce that will be implemented by the government of Surabaya City is massive because in an effort to help SME's actors to develop their business to sell their products and this is the needs of the present era. The impacts caused by the use of m-commerce, all informants answer the same, for example, the wider network, increased sales, known more by the community, even the network has come to foreign countries, namely Germany, France, South Korea, and England and the addition resellers and buyers.

However, there are weaknesses that hinder the successful use of m-commerce, such as WA view cannot identify the complete identity of the buyer; often when consumer negotiate to propose a price that is too cheap and incompatible with the motives provided; the sending cost factor is still an obstacle for SME's actors, the presence of negative stigma from purchasing through m-commerce application such as product is not in accordance with the picture; comments from competitors who drop the products of SME's actors.

One of the characteristics of the entrepreneur is the risk taker or dare to face risk. Similarly, SMEs actors in this research are willing to take risks because they are aware of the development of information technology as well as the usefulness gained from the use of the mobile application to the development of their business. It is proven that the network is widespread, increasing sales and market share to the Foreign.

The results of the interview show that all informants have the confidence to use m-commerce continuously because the use of smartphones and new applications will keep growing and people have adjusted to the development. The result of this research is in accordance with [Chaung et al. \(2003\)](#) who explain that one's belief in information technology is related to expediency and easiness influenced by 3 factors namely institution, social and individual. In addition to have confidence, all informants are confident that they will be successful if they use m-commerce applications continually because they believe the current learning media continues to grow not only through formal education but also government support, universities and companies. Furthermore, with the assistance they become more disciplined, independent and get a lot of experiences from the experts both in overseas and abroad. The result shows the new approach of social media implementation which brought by [Culnan et al. \(2010\)](#) can help the researchers to identify and evaluate the aspects that SMEs are incorporating to implement social media, and chose to acquire knowledge that they can take advantage of from those aspects to incorporate and reinforce their social media implementation.

All SME actors have high willingness in using (intention to use) m-commerce. The results of this research are in accordance with the intention to use according to [Lee and Wan \(2010\)](#) who explain that intention to use can be measured by Compatibility and ease of use. Compatibility, where the user perceives that innovation on a particular subject matches the existing value, past experience, and potential needs. While Ease of use is the level to which the user perceives the use or operation of the particular subject is easy. Compatibility can be seen from all informants who believe that innovation is an unavoidable potential requirement. While Ease of use can be seen from the absence of difficulties in the use of online-based media such as WhatsApp, Facebook, Twitter, and Instagram.

4.1 Designing a model of m-commerce use policy for small- and medium-sized enterprises

The study found that among well-educated m-commerce users, user personal innovativeness as measured by PIIT and perceived usefulness, the determinants of initial adoption, remain as strong determinants of user continuance intention. PIIT also remains as the antecedent of perceived ease of use. Social influence has changed the pattern of influence on continuance intention. The study found that among well-educated m-commerce users, user personal innovativeness as measured by PIIT and perceived usefulness, the determinants of initial adoption, remain as strong determinants of user continuance intention. PIIT also remains as the antecedent of perceived ease of use. Social influence has changed the pattern of influence on continuance intention. The study found that among well-educated m-commerce users, user personal innovativeness as measured by PIIT and perceived usefulness, the determinants of initial adoption, remain as strong determinants of user continuance intention. PIIT also remains as the antecedent of perceived ease of use. Social influence has changed the pattern of influence on continuance intention.

The results of [June's \(2014\)](#) study found that among well-educated m-commerce users, user personal innovativeness as measured by PIIT and perceived usefulness, the determinants of initial adoption, remain as strong determinants of user continuance intention. Social influence has changed the pattern of influence on continuance intention. Based on the discussion of the above interview, although Disperdagin does not yet have program to direct the owners of SMEs in using m-commerce but Disperdagin explains that Diskominfo has provided facilities including, offline and online advertising, talk show on TV, distributed video in cinemas, SME profile which is displayed in newspapers, billboards, pamphlets, radio, and so on that can be used by SME's actors. So far, the SMEs actors are free to use m-commerce without the direction of Disperdagin, because Surabaya City has not designed the policy of m-commerce use by Leading SMEs.

EAST JAVA Province has launched the E-KUMKM application but the Disperdagin feels not received any socialization about the use of it so there is no facility provided by the Disperdagin about online application, this is in accordance with the explanation that SME's actors are free to choose online media used in running their business. If any guest of the Disperdagin they will direct the guest to SME's showroom, including SKPD guest and the guest at international event.

Based on the interview result with the Disperdagin related to the program, the Disperdagin plans to motivate the SME's actors so that they prefer to sell online, it is needed inter-agency cooperation to encourage the interest of SME's actors and buyers, thus it requires the use of e-commerce and m-commerce. The plan is in 2017-2021, one of them is held training on the SME's actors about the use of information technology and who pass must commit to implement the website to expand its business network.

Internet users in Indonesia are predominantly dominated by the age of 18-35 years (82.8 per cent). This shows that the most of internet users are Y generation, according to the explanation of all informants, three of them manage and operate online-based sales is the party designated by the SME's owners. The remaining two informants use their own, although they belong to X generation (14.6 per cent). From the data, it shows that the interest of SMEs is not only Y generation but X generation also has high interest in using online media for business. This is an indicator that should be responded positively by the government. How the government plays a role in improving the interest of SME's actors to use m-commerce to be able to expand their business network, marketing and increasing government revenue so that those help to sustain the country's economy.

Based on the result of discussion above, then it is prepared effective policy model that can be used, the model is as follows:

The model of m-commerce uses policy by Disperdagin as mentioned above; it can be explained as follows.

- At this stage, Disperdagin makes m-commerce Application Development program that can be used by all SMEs in Surabaya so that Disperdagin is not only involved in supervising and making rules but also acting as the manager of all SMEs to identify SMEs that need help to overcome the suffered problems as well as for the development of SMEs themselves. In addition to support, the smoothness of the role of Disperdagin to SMEs is very important the Disperdagin creates the special website for SMEs actors operated by Disperdagin.
- In the second stage, Disperdagin conducts classifying SMEs based on Classification for example from the Five Informants can be clustered into two that is cluster of handicraft and MAMIN (Food and Beverage).
- After the classification that has been using or not yet using m-commerce; then furthermore for those who have not used, it needs to training to have skill to use m-commerce.
- In this fourth stage, SME's actors who have conducted training together with those who have used m-commerce, apply m-commerce applications that is launched by Disperdagin as well as use the website.
- Furthermore, in the fifth stage, periodic assistance is needed to maintain the use of Disperdagin applications and websites continuously to facilitate the identification of problems and observe the progressiveness of each SME.
- At this stage, an evaluation of the innovation undertaken by SMEs during the use of m-commerce from process innovation, product and marketing. When Disperdagin is interviewed it explains that the program will be run it is planned within the next 5 years annually is expected to increase sales by 10 per cent until 2021. The result of the evaluation is an input to the development or maintaining the m-commerce application program that has been used. In addition, it is also done website maintenance.

5. Research limitation

This research is aimed at Y generation, actually the whole informant is X generation but the most of them hand over the management of online marketing to other party namely family which belongs to Y generation.

6. Conclusion and suggestion

From the result and discussion above, some of the research conclusions are as follows:

- SMEs actors in Surabaya city have high interest in using m-commerce.
- In expanding the network, the SME actors use online media such as WhatsApp, Instagram, Facebook and Twitter, and they use media provided by provider such as smartbisnis, PT Unilever, Belanja.com, Tokopedia and Bukalapak.
- The SMEs actors Surabaya have successfully expanded the business network through online marketing by using m-commerce to overseas including Germany, France, South Korea and the UK. Effective model is needed for the policy in Surabaya city is Disperdagin has its own website to overshadow all SMEs in Surabaya City, and identify the role of Disperdagin to SME or vice versa and

clustering SMEs in Surabaya such as cluster of handicraft and Food and Beverage (MAMIN). Factors that are the advantages of using m-commerce are wider business network; increasing sales; adding resellers and buyers smooth business transaction; development of product innovation, process and marketing; the facilities provided by the government; and easy to use m-commerce application.

Effort to
expand
business
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Factors that are the weakness of the use of m-commerce are: Most of informants do not use their own, the identity of the buyer shall be also watched out so that it needs the mechanism to anticipate the possibility that happen, for example, the buyer deceives the seller, Most of SME's products are handmade especially in the form of craft so that the goods can be limited, frequently the SME is not able to meet the market needs, Not all who visit the website are potential buyer, SME feels a little objection related to operational costs to manage marketing information technology that they use, The shipping cost is expensive sometimes it exceeds the price of goods purchased, Negative perception of buyer about the quality of goods that is only visible from the image because he/she does not look at the goods directly.

Age	(%)
13-18 years	16.68
19-34 years	49.52
35-54 years	29.55
>54 years	4.24

Table I.
The age of internet
user in Indonesia
2017

Source: APJII, 2018

Tools used to access the internet	(%)
PC/Computer and laptop	4.49
Mobile phones	44.16
Computer and mobile phones	39.28
Others	12.07

Table II.
Devices for internet
application

Source: APJII, 2018

No.	Type of business sector	(%)	
		2013	2014
1	Agriculture, Forestry and Fishery	6.62	6.84
2	Mining and excavation	0.48	0.38
3	Processing industry	15.88	16.49
4	Electricity, Water and Gas	0.54	0.50
5	Construction	3.93	4.98
6	Trade, Hotel and Restaurant	23.08	23.38
7	Transportation, Warehousing, and Communication	5.45	4.89
8	Finance and Insurance	4.17	3.92
9	Community services	39.86	39.22
Total		100	100

Table III.
Number of internet
users by business
sector

Source: APJII, 2016

The implications for the Government of Surabaya City are the policy model of network expansion with mobile commerce from the advanced SMEs of Generation Y in Surabaya. Given the rapid development of information technology, the Government of Surabaya City will always get information related to the development of those SMEs actors through mobile commerce so that it facilitates the government to manage them in the future. While on the other hand, the implications for SMEs actors in Surabaya are the wider business network of Generation Y (SMEs actors) which uses m-commerce. More Generation Y is interested in entrepreneurship because of the convenience provided by m-commerce. This will enhance the number of advanced SMEs in Surabaya thus will also increase the results from the efforts made by those SMEs due to the use of mobile commerce.

Some suggestions may be made in this research. Disperdagin is expected to have its own website to overshadow all SMEs in Surabaya so it is easy to monitor. Disperdagin facilitates and coordinates SMEs actors about relationship with Diskominfo-related promotional

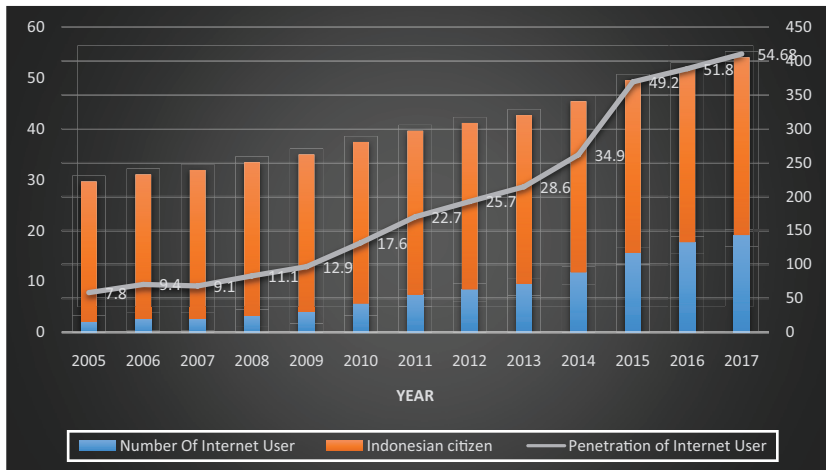


Figure 1.
Penetration of internet user in Indonesia 2005-2017

Source: APJII,2018

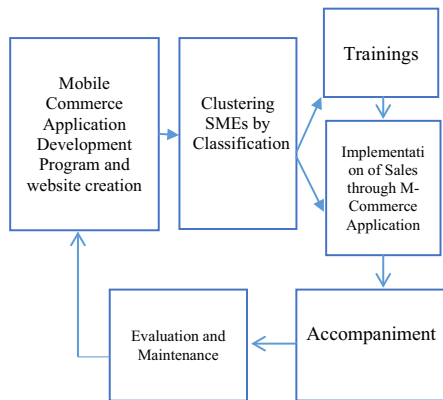


Figure 2.
M-commerce usage policy model

activity. Disperdagin conducts periodic training program on online marketing, especially m-commerce use. Disperdagin must be brave to make application programs specifically used by SMEs Surabaya, such as E-KUMKM launched by the Department of EAST JAVA Province although there is no continuation because of Disperdagin or the SMEs actors of Surabaya City have never received any socialization.

References

- [APJII] Asosiasi Penyelenggara Jasa Internet Indonesia (2016), "Survey penetrasi and perilaku pengguna internet Indonesia 2016", available at: www.apjii.or.id
- [APJII] Asosiasi Penyelenggara Jasa Internet Indonesia (2018), "Potret zaman now pengguna and perilaku internet Indonesia", Buletin APJII, Edisi 23, available at: www.apjii.or.id
- Bandura, A. (1986), *Social Foundations of Thought and Action*, Prentice Hall, Englewood Cliffs, NJ.
- Chaug, S.H., Rainer, R.K. and Levis, B.R. (2003), "The impact of information technology infrastructure flexibility on strategic alignment and application implementations", *Communications of the Association for Information System*, Vol. 11 No. 11, pp. 25-30.
- Chong, A.Y.L. (2013), "Understanding mobile commerce continuance intentions: an empirical analysis of Chinese consumers", *The Journal of Computer Information Systems*, Vol. 53 No. 4, pp. 22-30.
- Creswell, J.W. (2009), *Research Design Pendekatan Penelitian Kualitatif, Kuantitatif, Dan Mixed*, Translated by Achmad Fawaid, Pustaka Pelajar, Yogyakarta.
- Culnan, M.J., McHugh, P.J. and Zubillaga, J.I. (2010), "How large US companies can use twitter and other social media to gain business value", *MIS Quarterly Executive*, Vol. 9 No. 4, p. 243.
- Davis, K. and Newstrom, J. (1989), *Human Behavior at Work. Organization Behavior 8th Edition*, Mc. Graw-Hill. International, Singapore.
- Dean, J.W. (2001), *The Rehnquist Choice: The Untold Story of the Nixon Appointment That Redefined the Supreme Court*, Free Press, New York, NY.
- Ericsson (2010), *Annual Report 2010*, available at: www.ericsson.com/assets/local/investors/documents/financial-reports-and-filings/annual-reports/ericsson_ar_2010_en.pdf
- Faqih, K.M.S. and Jaradat, M.-I.R.M. (2015), "Assessing the moderating effect of gender differences and individualism-collectivism at individual-level on the adoption of mobile commerce technology: TAM3 perspective", *Journal of Retailing and Consumer Services, Elsevier*, Vol. 22, pp. 37-52.
- Ghobakhloo, M. and Tang, S.H. (2013), "The role of owner/manager in adoption of electronic commerce in small businesses: the case of developing countries", *Journal of Small Business and Enterprise Development*, Vol. 20 No. 4, pp. 754-787.
- Ghobakhloo, M., Arias-Aranda, D. and Benitez-Amado, J. (2011), "Adoption of e-commerce applications in SMEs", *Industrial Management and Data Systems*, Vol. 111 No. 8, pp. 1238-1269.
- Gretzinger, S. and Leick, B. (2017), "Brokerage-based value creation: the case of a Danish offshore business network", *IMP Journal*, Vol. 11 No. 3, pp. 353-375.
- Jony, W. (2010), *Internet Marketing for Beginners*, PT Elex Media Komputindo, Jakarta.
- June, L. (2014), "Are personal innovativeness and social influence critical to continue with mobile commerce?", *Internet Research*, Vol. 24 No. 2, pp. 134-159.
- Kambil, A. (2008), "Purposeful abstractions: thoughts on creating business network models", *Journal of Business Strategy*, Vol. 29 No. 1, pp. 52-54.
- Kim, C.C. and Holdsworth, D.K. (2012), "Culture and behavioural intent to adopt mobile commerce among the Y generation: comparative analyses between Kazakhstan, Morocco and Singapore", *Emerald Publishing Limited*, Vol. 13 No. 3, pp. 224-241.

- Kuncoro, M. (2008), "Tujuh tantangan UKM di tengah krisis global", *Harian Bisnis Indonesia*, 21 Oktober 2008, available at: www.mudrajad.com/upload/Tujuh%20Tantangan%20UKM%20di%20Tengah%20Krisis%20Global.pdf (accessed 9 August 2016).
- Lee, C.B.P. and Wan, G. (2010), "Including subjective norm and technology trust in the technology acceptance model: a case of e-ticketing in China", *ACM SIGMIS Database*, Vol. 41 No. 4, pp. 40-51.
- McCann, M. and Barlow, A. (2015), "Use and measurement of social media for SMEs", *Journal of Small Business and Enterprise Development*, Vol. 22 No. 2, pp. 273-287.
- McLeod, P. (2008), *Sistem Informasi Manajemen*, Salemba, Jakarta.
- Magrath, V. and McCormick, H. (2013), "Marketing design elements of mobile fashion retail apps", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 17 No. 1, pp. 115-134.
- Marinkovic, V. and Kalinic, Z. (2017), "Antecedents of customer satisfaction in mobile commerce: exploring the moderating effect of customization", *Online Information Review*, Vol. 41 No. 2, pp. 138-154.
- Owusu, R.A. and I-Vaaland, T. (2016), "A business network perspective on local content in emerging African petroleum nations", *International Journal of Energy Sector Management*, Vol. 10 No. 4, pp. 594-616.
- Prasarry, Y.V. (2014), *Faktor-Faktor Yang Mempengaruhi Adopsi Mobile Commerce (Studi Pada UKM di Kota Malang)*, Universitas Brawijaya, Malang.
- Psomas, E., Antony, J. and Bouranta, N. (2018), "Assessing lean adoption in food SMEs: evidence from Greece", *International Journal of Quality and Reliability Management*, Vol. 35 No. 1, pp. 64-81.
- Sultan, S.S. (2014), "Enhancing the competitiveness of Palestinian SMEs through clustering", *EuroMed Journal of Business*, Vol. 9 No. 2, pp. 164-174.
- Sutton, C. (2015), "The human sigma approach to business improvement in tourism SMEs", *Journal of Small Business and Enterprise Development*, Vol. 22 No. 2, pp. 302-319.
- Thakur, R. and Srivastava, M. (2013), "Customer usage intention of mobile commerce in India: an empirical study", *Journal of Indian Business Research*, Vol. 5 No. 1, pp. 52-72.
- Xu, X., He, W., Yin, P., Xu, X., Wang, Y. and Zhang, H. (2016), "Business network information ecological chain: a new tool for building ecological business environment in IoT era", *Internet Research*, Vol. 26 No. 2, pp. 446-459.
- Yadav, R., Sharma, S.K. and Tarhini, A. (2016), "A multi-analytical approach to understand and predict the mobile commerce adoption", *Journal of Enterprise Information Management*, Vol. 29 No. 2, pp. 222-237.
- Zhu, L. (2014), "Research on the e-commerce model based on the value chain", *Applied Mechanics and Materials Vols*, Trans Tech Publications, Switzerland, pp. 4462-4465, available at: www.scientific.net

Further reading

[BPS] Badan Pusat Statistik (2017), available at: <https://surabayakota.bps.go.id/>. (accessed 15 February 2017).

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