

The Development of the Digital Economy in Micro, Small and Medium Enterprises Business in the Regional Economy

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Abstract : This study aims to describe the development of Micro, Small and Medium Enterprises (MSMEs) business based on the digital economy in the regional economy. The object of this study is the business sector of MSMEs. Meanwhile, the research location includes; Kediri City, Ponorogo Regency, Malang City, and Batu City East Java Province, Indonesia. The research sample was taken in March-July 2018. The sampling method was carried out by using a purposive random sampling method. The analytical method used is descriptive. The results of the study conclude that the media used in the utilization of information technology are: SMS, WA, Facebook, Internet, Twitter, and Instagram. The type of business carried out includes fields; fashion, food, beverages, crafts, agribusiness, cosmetics, health and beauty equipment, online motorcycle taxi, tour and travel, electronic repair, and electronic equipment. Digital economy-based MSME businesses have been able to create new types of businesses that are able to encourage the development of regional economic activities more dynamically. In relation to the development of MSME business based on digital economy in the region, a policy is needed in strengthening business competitiveness, providing infrastructure, business capital assistance and improving the quality of human resources.

1 INTRODUCTION

The growing development of the digital economy can encourage the efficiency and productivity of economic activities. This certainly can encourage the expansion of economic activities and economic performance in the aggregate. The advancement of internet-based digital technology can be applied more broadly to economic activities. The application can occur in economic transactions through the payment system, ordering, and shipping of goods. Digital economic activity extends from the concept of business-to-business (B2B) to business-to-consumer (B2C). Digital economic instruments in national payment systems can be in the form of e-money and e-commerce. Based on the available data, there are significant developments in the use of e-money and e-commerce in community economic activities.

In the context of regional economic development, developments in the digital economy can provide acceleration in achieving regional economic

performance. The era of implementing the Law on Regional Autonomy since 2000 has implications for regional independence in carrying out various breakthroughs in improving regional economic performance. However, because it is faced with the external conditions of the global economy that are increasingly transparent and limited regional financial capacity, not all development programs can be implemented properly. In this case, the regional government is required to be able to develop its local economic potential in improving its economic performance. In relation to the use of IT in economic activities, the regional government together with economic actors can work together in their activities. The existence of a digital economy can provide a multiplier effect and also a spillover effect in regional economic development.

The development of human civilization is marked by the use of technology in meeting the needs of the community. Globalization becomes a new civilization that demands adjustments in the system of public relations both individually and

nationally and stately. The community produced from the globalization era is a society with a rational consumptive type.

In the development of the national economy, there has been a significant development in anticipating global developments. In this case, the growing business sector shifts to a type of creative economic business based on the use of information technology. The digital economy phenomenon has been well implemented in the creative industry, which can be seen from the number of entrepreneurs who have used computers and the internet. Based on the available data, it shows that in 2015 in Indonesia, the Creative Economy business (*Ekraf*) which uses computers (devices) was 64.24%. The *Ekraf* business that owns (website) 30.39% and *Ekraf* Enterprises that use the internet (network) 68.83% (www.bekraf.go.id).

East Java Province of Indonesia, is one of the provinces with increasingly dynamic economic activities. Regional economic development in East Java Province is driven by the manufacturing sector, trade, services, construction, transportation, and the agricultural sector. The economy of East Java based on the amount of Gross Regional Domestic Product (GDP) at current prices in 2017 reached Rp 2,019.2 trillion and on the basis of constant 2010 prices reached Rp 1,482.15 trillion. The economic structure of East Java, according to the business field in 2017, is dominated by three main business fields that are the processing industry with a contribution of 29.03 percent followed by the agriculture, forestry and fisheries sector at 12.80 percent and wholesale-retail and car-motorcycle repair 18.18 percent. Cumulatively in 2017, East Java's economy grew by 5.45 percent higher than the national growth of 5.07 percent. Positive growth occurs in all business fields (www.bps.jatim.go).

Regional economic development in the province of East Java cannot be separated from the role of the Micro, Small and Medium Enterprises Sector (MSMEs). This sector is able to provide employment and new types of businesses that are developing in various regions. Quantitatively, the contribution of MSMEs to the economy of East Java has increased. As stated by the Governor of East Java Province, in 2012 MSMEs contributed to the Gross Regional Domestic Product (GRDP) of 54.98%. With the assumption of *ceteris paribus*, the contribution of MSMEs to East Java GRDP in 2016 rose to 57.52% (<https://ekbis.sindonews.com>).

The development of the digital economy in relation to MSME business in various regions in East Java Province has considerable potential. This

is because regions that have prominent economic potential such as Malang City, Batu City, Kediri City, and Ponorogo Regency. Economic potential in these areas such as agriculture, tourism, marine, manufacturing industries and service industries that can play a role in supporting regional economies in the ongoing construction process. The development of the regional economic potential provides considerable opportunities in the development of MSME business based on the digital economy. Based on this background, this study aims to describe digital economic development in supporting regional development.

2 LITERATURE REVIEW

Development is basically a multidimensional process that includes various policies both economic policies and non-economic policies. In this case, economic policy has a very broad space in relation to the achievement of a country's development goals. According to Todaro and Smith (2009:28) development targets basically include: increased availability and expansion of the distribution of various basic necessities of life - such as food, clothing, shelter, health, security protection; improvement of living standards not only in the form of increasing income, but also includes increasing employment, improving the quality of education, and increasing attention to cultural and humanitarian values, all of which are only to improve material welfare, but also to foster self-esteem and the nation concerned; the expansion of economic and social choices for each individual and nation as a whole, namely by freeing them from entanglement of servitude and dependence not only on people or other nation-states, but also on every force that has the potential to humble their human values.

In relation to improving living standards and expanding economic/social choices, the existence of a digital economy is the answer to the dynamics that occur in the development process. In this case, according to Goldfarb and Tucker (2017), the digital economy can develop massively because it is supported by the presence of digital technology. Therefore, digital technology represents the information in bits. According to him, understanding the effects of digital technology does not require a fundamentally new economic theory. Nevertheless, it still requires different emphases. Studying the digital economy starts with what questions are different? Which one is easier to do when

information is represented in the form of bits or atoms? Digital technology is related to costs that limit economic activity. Therefore, basically, the digital economy explores how the standard economic model changes the economic costs can be substantially decreased and even close to zero. Relevant economic costs are; search costs, replication costs, transportation costs, tracking costs, and verification costs. Thus, according to Kray (2002); MacKie-Mason and Varian (1994); Mukhlis (2015) the development of globalization has led to fundamental changes in the development process of the State.

Another view is expressed by Sharma (2005) mentioned that digital economics is a process of convergence of communication, computerization, and information. Then, the new economy is basically coordination, innovation, selection and learning (Gardin, 2002). In this case, a combination of computer networks and new business models creates new markets, industries, businesses, and work practices today into a form of digital economy. According to Rogers (1995), the existence of Diffusion of Innovation (DOI) can explain the role of technological progress in encouraging the expansion of economic activities. Through his theory, Rogers emphasized that technology diffusion can facilitate public access in utilizing existing IT developments. While Brynjolfsson and McAfee (2011) explicitly underlined that the digital economy with various IT uses in economic activities will be able to boost the economic performance of a country.

Furthermore, according to Gardin (2002), there are essential elements in the digital economy that is;

- a. digitalization and intensive use of information and communication technologies (ICT);
- b. codification of knowledge;
- c. transformation of information into commodities; and;
- d. new ways of organizing work and production.

In this case according to Mossberger, et al., (2008); Weill and Woerner, (2013) the transformation of business activities, government services, and mass communication in the global economy. Digital economy data contributes to economic growth (Brynjolfsson and McAfee, 2011). While Anvari and Norouzi (2016) in their research concluded that the use of e-commerce and Research and Development activities (R and D) had a positive effect on GDP per capita and at the same time could encourage the development of economic activities. The results of research by Sharma (2005) also yield the conclusion that transactions through e-commerce can increase wider opportunities in business

activities and ultimately can affect the social conditions and economic growth of a nation.

3 METHODS

In accordance with the scope of the study, this type of research is quantitative. The purpose of quantitative research is to develop and use mathematical models, theories and/or hypotheses relating to various phenomena (Goertzen, 2017). While the approach taken is explorative. This approach is carried out in order to obtain as much information as possible on objects that are unique and not yet much information about the developing phenomenon. The research location includes the area of Malang City, Batu City, Kediri City, and Ponorogo Regency East Java Province. The location selection was based on consideration of the diversity of economic activities and regional representation in the southern part of East Java Propinsi. Research activities will be carried out in the period March-June 2018. While the objects in this study are business actors engaged in the digital economy.

The population used in this study are economic actors in 4 districts/cities in East Java Province and samples taken using purposive random sampling technique. This technique is done by identifying samples based on certain criteria set by the researchers. These criteria are like; type of business, business turnover, business form, and business location. In relation to this research, relevant area-based sampling techniques for use in sampling. This is because the object to be studied is very broad which involves the population of a district. To determine which population will be used as a data source, the sampling is based on the predetermined population area. Data obtained through; questionnaire distribution, Focus Group Discussion (FGD), observation, survey, independent interview and document analysis. While the data analysis method used in this research is descriptive. This method is carried out by presenting data and facts based on certain characters. The data presented is then illustrated and developed in more detail in order to obtain more valid information regarding digital economic conditions and regional economic performance.

4 RESULTS

MSME business development based on digital economy in various regions shows the diversification of the types of products produced. In addition, it also shows the use of information and communication technology media in various forms. Various businesses are developed using the existing main platform, such as; e-commerce, m-commerce, and social commerce. The three main platforms play an important role in the communication carried out among economic actors. The complete picture of the type of MSME business based on digital economy in various districts/cities in East Java Province is as follows on the table 1.

Table 1: Types of MSME Businesses Based on Digital Economy in Regions

No	Regency/ City	Number of Business Actors	Business Type	Communication Media
1	Ponorogo Regency	5	Boutique, Health and Beauty Products, Fashion	WA, FB, Instagram, Twitter, Telegram, Online
2	Kediri City	50	Worship Paraphernalia (prayer), hijab, makeup, cosmetics, watches, Tupperware, clothing, contact lenses, bag accessories, party planner, food, and drinks	WA, FB, Instagram, Twitter, Telegram, Online
3	Malang City	197	Online motorcycle taxi, mobile repair, internet cafe, motorcycle accessories, hoods, headscarves, fashion, bags, shoes, sandals, travel, tours and travel, food, and drinks	WA, FB, Instagram, Twitter, Telegram, Online
4	Batu City	20	Hijab, Cosmetics, Cut Flowers, Plant Seeds, Agribusiness, Videography, Bag Wallets, Crafts, Cactus Plants, Food and Drink, Tour and Travel,	WA, FB, Instagram, Twitter, Telegram, Online

		Tourism	
Total	272		

Source: Observation of MSME Business Actors, July 2018

The results showed that the four regions in East Java which were the research locations that are Ponorogo Regency, Kediri City, Malang City, and Batu City had several differences related to digital economic forms which included the potential of IT-based businesses in their respective regions. The following is a description of the business condition of MSMEs based on digital economy in various regions:

4.1 Ponorogo Regency

The digital economy brings fresh air to the regional economy. Through IT-based businesses, the digital economy is expected to continue to grow. First is the location of the business. The majority of IT-based businesses in Ponorogo Regency choose business locations in their own homes. However, business turnover has increased by 30% from the previous one that did not utilize IT. This happened because of the increasing number of media used to market their products through the web, facebook, WA, twitter, Instagram, and in reality they were seen opening a business at home. Whereas if we examine from some respondents their business age is still relatively early, namely 1-3 years, but the digital economy can be explored well so that their business can grow faster. The most widely traded product type is about fashion. These entrepreneurs use more IT to market their products and by using IT management their business management is more efficient. One of the main goals of using IT is to get more consumers because they can make transactions easier. Some of the obstacles faced by one of the most prominent are consumers who still have difficulty using IT and lack of trust in the goods or services sold. Unfortunately, the development of the digital economy era in Ponorogo Regency is not balanced with the support of several related parties, namely the regional government and banks, so that the development is not sufficiently capable. But on the other hand, this certainly has a positive impact, consumers feel they can ease their work when doing transactions and get the ease of service with the presence of IT in the digital economy era.

4.2 Kediri City

The same thing happens with Ponorogo Regency, in Kediri City, the majority of business people choose

business locations such as their own homes. While for business turnover, there is still a 20% increase from before using IT even though their business age is still young. The media used to market their products are web and Instagram. The reason for using IT in addition to marketing is to build a business network and also facilitate business management. One of the benefits obtained by business people is that they do not need an offline store because they have enough time to scroll the handphone. All transaction activities can run smoothly. In addition to the benefits, there are several obstacles faced by IT-based businesses in the city of Kediri because more and more are using IT, competitors are also increasing, and tend to be prone to fake accounts. So far, these constraints are still able to be overcome independently by these business actors because until now the support from the local government, as well as material moral assistance they have not received. At least between sellers and buyers, a harmonious relationship is established because with this transaction using IT, time efficiency can be obtained both sellers and buyers and prices tend to be cheaper if sold through an online shop.

4.3 Malang City

On average, IT-based businesses in Malang are migrants, so the business locations they choose are boarding houses or rented houses. The use of IT makes their turnover increase by 50%. Most consumers are students along with the many migrants to study in Malang City. Even though they are boarding or rented, they do not have offline stores because all of their business management through IT, marketing is also the same, through WA, Instagram, FB, web. Products sold are very diverse and all sectors exist so that the profits obtained are very large and evenly distributed. Most of these businesses use IT as a promotional medium. IT makes them able to minimize rental costs for offline stores, even promotions can be right on target. Some of the obstacles faced by businesses in Malang City are frequent hit and run cases by customers, this can increase losses for businesses. Sometimes consumers also don't explore social media and ultimately the products they want to introduce are not delivered. In Malang City, support for developing the potential of the existing digital economy such as training or ease of credit assistance from the Bank. Yet, this training tends to be still basic only in relation to "What" and hasn't led to "How". Therefore, it must be further improved, and

if necessary bring in more competent speakers regarding IT from all fields because this digital economy gets a very good response from the community, it's good to continue to be developed.

4.4 Batu City

Batu City that is known as tourism city has an important contribution to the development of the digital economy. Among the four locations in this study, Batu tends to be more potential to be developed. The reason is, Batu has guaranteed access that is very easy especially if it is reviewed more deeply the perpetrators of economic activities not only in the city, and even penetrated abroad. Indeed, the type of business pursued in Batu City is not as diverse as in Malang City, from manual systems to using IT still survive on gifts and plants, there are also travel, but only still in a pioneering stage. Research shows that businesses in Batu City choose business locations at home because they are fixated on the products produced by them. These products are better processed at home and to get consumers is very easy with IT. They simply operate IT from home while taking care of business. Arguably, the products are less diverse but the turnover obtained is far greater than the three areas discussed earlier. It can even reach 300% of those who previously did not use IT. Consumers come from the general population ranging from young to elderly. Most marketings are done through FB and Instagram. They use IT as a promotional medium and build networks. In addition, the reason they use IT is to expand the market, simplify business management, and keep up with the increasingly advanced times with IT so they can continue to compete while increasing profits. While there is no support from the regional government in terms of materiality, but for SME counseling and training on existing crops, although still minimal. A digital economy with the development of IT-based businesses provides benefits for consumers who are always facilitated in the matter of buying and selling goods or services anytime and anywhere.

5 DISCUSSION

Various types of digital economic businesses carried out by MSME entrepreneurs in various regions in East Java have their own uniqueness and strength. The uniqueness and strength are generated from the influence of culture, local wisdom, the structure of economic activities, income levels and also local

government policies. The spread of economic activities in regions with various types of products produced shows that the potential for business development of MSMEs based on the digital economy is growing well. This is certainly a business opportunity that can be developed in a more systematic manner regarding the policy and the provision of supporting infrastructure.

This is as stated by Mossberger, et al., (2008); Weill and Woerner, (2013) transformation in business activities, government services, and mass communication needs to be done in the global economy. This is necessary so that existing business entities and businesses can find innovative ideas that can encourage the diffusion of innovations to various regions. According to Rogers (1995), the process of diffusion of innovation that occurs must be precisely commenced from time to time through networks among members of existing social systems. Because of the development of information and communication technology, there needs to be full support from stakeholders in the region. This is important because according to Terzi (2011) the existence of the internet and e-commerce can encourage better efficiency, asset utilization, better and faster in the market, reduction in total order fulfillment times, and improved customer service.

East Java Province is known for all its economic potential, both in a macro conducive manner in the development of MSME business based on the digital economy. The average level of economic growth above national economic growth has become a major force in the flow of digital economic development in various districts/cities in East Java. This is also supported by the existence of a very large population and location of the area which is supported by the existence of port facilities, airports, terminals, and transportation systems that have been integrated between regions and between modes of transportation to support regional economic development. In this case, the digital economy as a new trend in regional development requires a lot of infrastructures and large capital availability. Integration of infrastructure and the development of quality human resources is the key to success in the development of MSME-based digital economy businesses. In Sharma's view (2005) digital economics is basically a process of convergence of communication, computerization, and information. In this case, the new economy created is the result of coordination, innovation, selection and learning (Gärdin, 2002). Economic actors carry out these functions to find installed capacity and satisfaction maximization combined with profit maximization in

economic interaction. In relation to the development of digital economic enterprises in the region, a combination of computer networks and new business models is needed that can create new markets, industries, businesses, types of businesses and work practices based on the digital economy. The regional economic development of East Java which is supported by the processing industry sector with a contribution of 29.03 percent of GRDP can create even greater market share when supported by the existence of MSMEs based on digital economy.time

6 CONCLUSION AND RECOMMENDATION

The digital economy based MSME sector business activities in Ponorogo Regency, Kediri City, Malang City, and Batu City of East Java Province in Indonesia consist of food, beverages, and fashion business. The use of the internet is done through Android phones, PC and laptop computers through various applications such as WA, FB, Instagram, Twitter, and the Web. Various existing social and web media are used to facilitate business transaction processes in e-commerce activities. MSME business actors based on the digital economy are mostly done by housewives and also teenagers (students and high school age) with a different business turnover. The market scope itself has reached local, regional and national. Government support is still limited to training and there is not enough capital support for MSME business development. In developing its business, business actors are faced with the constraints of limited capital for business development and internet network management both for the supply of raw materials, market expansion, and financial transactions.

Based on the results of this study, it is necessary to have a sustainable policy design in various regions so that the development of MSME business based on the digital economy can be competitive in the global era. This can be initiated by the government by cooperating with third parties in the formulation of the design of digital economic development policies for MSME entrepreneurs in the regions. Besides that, in order to overcome the limitations of human resources in business management, training and business assistance based on the digital economy are needed. This can be done by forming an MSME business forum based on digital economy in various regions. The banking

sector also needs to provide support in financing the MSME business based on the digital economy, especially in terms of easier business loan application requirements.

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