

# Important Points for Developing SMEs E-Commerce Towards Indonesia 4.0

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## ABSTRACT

Empowering SMEs is one of the national priorities in "Making Indonesia 4.0". One way to empower SMEs towards Indonesia 4.0 is by developing an e-commerce platform for SMEs or SMEs e-commerce. Despite the large potential of SMEs in Indonesia, there are still very few of those utilizing e-commerce. Especially in the current era of globalization, SMEs need to keep up with technology to be able to compete with other businesses. Establishing SMEs' e-commerce is not easy, given that the SMEs' characteristics are different from other businesses. Therefore, several things need to be considered in developing SMEs' e-commerce. Using a qualitative descriptive analysis approach, those to be accounted as consideration include clear legal protection, reliable workforce, adequate infrastructure, banking support, and government support. It is expected that by considering the number of important points, SMEs' e-commerce will be increasingly formed so that Indonesia 4.0 can be achieved.

**Keywords:** *SMEs, E-commerce, Indonesia 4.0.*

## 1. INTRODUCTION

The Ministry of Industry announced the "Making Indonesia 4.0" initiative to implement the strategy and Roadmap for Industrial Revolution 4.0 in Indonesia. Making Indonesia 4.0 Roadmaps are directions and strategies for future industry movements, as an effort to strengthen Indonesia's industrial structure. Making Indonesia 4.0 is a manifestation of Indonesia's commitment to build solid manufacturing industry. The big potential of Making Indonesia 4.0 is increasing labor productivity so that it can increase global competitiveness and drive global export market share. Increasing exports will open more jobs which in turn will increase domestic consumption and consequently Indonesia can become one of the top 10 economies in the world.

The focus of Making Indonesia 4.0 comprises five sectors and 10 national priorities. One of the national priorities that are the focus of Making Indonesia 4.0 is empowering Small Micro Enterprise (SMEs). As we know, the potential of SMEs in Indonesia is very large. Ministry of Cooperatives and SMEs noted, currently, the number of SMEs in Indonesia reached 62.92 million business units or 99.92 percent of the total business units in the country. The contribution of SMEs to Gross Domestic Product (GDP) reached 60 percent, and

employment of 116.73 million people or 97.02 percent of the total workforce [1].

However, there are only few SMEs that utilize e-commerce. Data from the McKinsey Global Institute shows that only 5 percent of SMEs are able to transact online, while Delloitte Access Economics shows that 36 percent of SMEs in Indonesia are still offline and 37 percent only have basic online competence such as computers or broadband access. About 18 percent of SMEs have intermediate online competence, namely using the web or social media. Whereas 9 percent is the advanced online business with e-commerce competence [1]. Provided that SMEs have used digital technology, economic growth is predicted to increase by 2 percent while revenue growth to be between 23-80 percent.

In the current era of globalization, SMEs need to keep up with technology to compete with other businesses. To increase access of SMEs to technology and encourage innovation, one of the Indonesian Government's efforts to support SMEs entrepreneurs is to build an e-commerce platform for SMEs or SMEs e-commerce. According to the Coordinating Minister for the Economy of Indonesia, Darmin Nasution, there are three benefits of the digital platform. The first benefit is innovation; the existence of new business models can't be separated from the ability of innovators to design strategies through digital

platforms. The second benefit is inclusiveness; through digital platforms, all kinds of services can easily reach many people in various regions, resulting in inclusiveness that benefits people who live far from the metropolitan area so that they also enjoy digital services. And third benefit is efficiency; with the development of digital platform innovations, efficiency will automatically occur in manufacturing and marketing [2].

The main problems faced by SMEs are limited access to domestic and global markets, access to funding, and access to skills. E-commerce is considered to be the solution to these three problems. E-commerce will reduce costs and barriers to accessing markets which will then increase SMEs' sales and exports. E-commerce will also provide new funding models such as crowdfunding and peer to peer lending, which provides easy funding for SMEs. Additionally, e-commerce is also believed to provide new solutions to overcome the limited skills of SME workers regarding online transactions and online platforms [3].

Establishing e-commerce SMEs is indeed not easy, given the characteristics of SMEs that are different from other businesses. Therefore, several things need to be considered in developing SMEs' e-commerce. Using qualitative descriptive analysis, some important points that need to be considered in developing SMEs e-commerce will be described. The qualitative descriptive analysis provides an overview and analysis of facts, circumstances, and phenomena that occur.

## 2. LITERATURE REVIEW

Research carried out by AKATIGA, the Center for Micro and Small Enterprise Dynamic (CEMSED), and the Center for Economic and Social Studies (CESS) in 2000 explained the unique characteristics of SMEs in Indonesia for having the competence to survive and to boost their performance during the economic crisis. This is due to the flexibility of the SMEs themselves in adjusting their production process, being able to grow with their own capital, being able to repay a loan at high interest, and not being too involved in bureaucratic matters [4].

Based on the commodity aspects produced, SMEs have their own characteristics. The first characteristic is the quality of SME products is not standardized. Most SMEs do not have adequate technological capabilities. SME product quality standards are still diverse; this is because the products are usually handmade. The second characteristic is limited design of SME products. This is triggered by the limited knowledge and experience possessed by SMEs regarding the products. So far, SMEs work on orders, there are still many SMEs that have not dared to try to create new product designs. The third characteristic is limited types of SMEs' products. So far, SMEs have only produced several types of products.

SMEs still have difficulty fulfilling new model demand orders. The fourth characteristic is limited capacity and price list of SMEs' products. SMEs have difficulty establishing product capacity and prices; this is certainly a problem for consumers when ordering SME products. The fifth characteristic is raw materials are still not standardized. This is because the raw materials obtained come from various sources. And the sixth characteristic is product continuity is not guaranteed and is imperfect. The SMEs' production process is still not organized, so the products they made are still not optimal [5].

## 3. METHODOLOGY

This research is based on a literature search and review of the results of research, legislation, and literature studies of books, newspapers, articles on websites, and documents related to SMEs' e-commerce.

## 4. RESULTS AND ANALYSIS

Based on the literature search and review of the results of research, legislation, and literature studies of books, newspapers, articles on websites, and documents related to SMEs' e-commerce, several things need to be considered in shaping SMEs e-commerce.

The first prominent to consider is a clear legal umbrella. Until now, there has been no legal basis for SMEs e-commerce. Even the regulations regarding trade transactions through e-commerce itself do not yet exist either. Before developing SMEs e-commerce, rules should be made about e-commerce including SMEs e-commerce. This is so that SMEs as sellers and communities as buyers or consumers feel safe and comfortable when using e-commerce platforms. The following are some of the problems that arise concerning e-commerce. The first problem is privacy; privacy issues need considerable attention in e-commerce transactions. In an electronic payment system, the buyer can easily be identified. For example, if payment is made using a credit card, the buyer's identity can be easily traced or even tapped. Therefore, protection of the buyer's identity is necessary. Second problem is web tracking; whereby just installing software only, the activity of an individual in cyberspace can easily be known. And third problem is fraud (crime); crimes in cyberspace (cybercrime) began to flourish lately. Exposing personal data, falsifying identity, falsifying data-both personal data and company data- in cyberspace are carried out without being known by the person or company concerned. Taking personal or corporate identity and tapping personal or company data can be easily done. From time to time, crime in cyberspace (cybercrime) shows an increasing trend [6].

According to UNCTAD, regarding regulations, two things must be considered; namely digital regulation and regulation of payment transactions. Digital regulations include safe harbor laws for internet intermediaries,

cross-border data transfer allowed, Online Dispute Resolution (ODR) of consumer complaints, Over the Top (OTT) rules that are not nearly internet services, and fully online business registration possible. Whereas the transaction payment regulations include digital cash initiatives, incentives for interoperability of payment providers, e-payment laws in place, payment licensing defined, and Risk-Based Approach (RBA) to Anti Money Laundering (AML) [7].

The second prominent consideration when shaping SMEs e-commerce is a reliable workforce. Industry 4.0, which relies on technological developments, requires Indonesia to prepare for the development of reliable human resources. All stakeholders, from business actors, academics, workers' associations, governments, to communities, agree that the threat of machinery and technology to replace the world of work will become meaningless if a country can to build reliable human resources. Reliable human resources are key before entering the SMEs' e-commerce. Reliable human resources in this scope are defined as human resources that are capable of mastering technology as well as being creative and innovative [8].

According to Sudarwati, to fulfill qualified human resources in e-commerce business, some improvements in education, training, and mentoring systems are needed. One option for creating human resources in e-commerce business is through improving the education system focusing on vocational or skill. The government can also work with other parties in conducting training to improve the quality of human resources in e-commerce business [9]. Learning from Sri Lanka whose government has issued a National Policy Framework for the Development of SMEs is also insightful. In this framework, the policy perspective is related to the development of entrepreneurial spirit and workforce skills. The government thereafter promotes, facilitates, and supports entrepreneurship development and builds capacities from the school and university level, vocational education, and focuses on young people and women [10].

In Indonesia, one of the efforts to create a reliable workforce has been carried out by Surabaya City Government. Surabaya City Government is in the process of developing Surabaya City as a digital startup center. As the first step, Surabaya City Government has built a co-working space called "KORIDOR". "KORIDOR" is a form of a commitment by Surabaya City Government to create an ecosystem that empowers creators, innovators, and local entrepreneurs to create innovation to be able to compete at the global level. The government and Department of Co-operatives and SME in Surabaya have also conducted training on online marketing to SMEs in the city of Surabaya. Yogyakarta City Trade Office also has e-commerce that holds around 80 SMEs. However, the e-commerce is still in the marketing phase, not yet reaching the online transaction stage. This needs

to be a pilot project for other regions in Indonesia to participate in improving the skills of SME workers.

The third prominent consideration when shaping SMEs e-commerce is adequate infrastructure. According to researcher from the Institute for Development of Economics and Finance (INDEF), Bhima Yudhistira Adhinegara, in the face of the ongoing changes, innovation has become a specific concern. Without innovation, Indonesia will be unable to compete with other countries. Several strategies can be used to win the digital era, one of which is to focus on building digital infrastructure [8]. One of the causes of the low participation of Indonesian SMEs for global and regional production and the contribution to added value is the lack of optimal infrastructure and the use of information communication technology [11].

According to Das, et.al., to accelerate the digital revolution in Indonesia, the country's public and private sectors must focus on digital technology investments to enhance infrastructure, increase penetration, and boost productivity. To win in the digital revolution and boost Indonesia's economic growth, Indonesian companies should implement a holistic digital strategy [12]. While, based on Deloitte Access Economics, to motivate alternative technologies in Indonesia, technological infrastructure developments need to be equal and transparent. Therefore, the government should confirm that regulatory frameworks are flexible and transparent to these technologies. Other, the regulatory should also support efficient and competitive circumstances [13]. As learning from China for having the largest e-commerce in the world, its e-commerce industry has motivated the development of logistics and mobile payments infrastructures. The e-commerce infrastructure has played a crucial role in promoting Chinese businesses, employment, and poverty alleviation [14].

The fourth prominent consideration when shaping SMEs e-commerce is banking support. As mentioned earlier, funding is one of the main problems faced by SMEs. This is reinforced based on several research results, one of which is the survey conducted by the Asia Pacific Foundation of Canada. The survey concluded that finance is the biggest obstacle faced by Micro, Small, and Medium Enterprises (MSMEs) to grow. The survey results showed 70 percent of respondents consider finance to be an obstacle in developing MSMEs. This survey was conducted on 448 entrepreneurs involved in MSMEs in Indonesia [15].

By the existence of e-commerce, it is hoped that it will further facilitate access of SMEs to banking. Therefore, banking support is needed to form SMEs e-commerce. According to UNCTAD, several policies are needed related to finance to encourage so that SMEs use e-commerce platforms; namely government loans and equity programs for technology companies, guarantee of e-commerce transactions, funding for women-led

companies; open banking practices, and financial technology sandboxes [7]. Citing the study by Astuti and Nasution, only 36.3 percent of SMEs entrepreneurs used the internet. There is limited knowledge of banking products. SMEs entrepreneurs who used the internet believed that online activities cause discomfort and insecurity. They perceived that online transactions won't be safe. Therefore, banks should help SMEs entrepreneurs to use the internet or technology adoption [16].

The fifth prominent consideration when shaping SMEs e-commerce is government support. Developing SMEs e-commerce is undeniably inseparable from the support of the government itself. The four aforementioned points i.e., clear legal umbrella, reliable workforce, adequate infrastructure, and banking support require government support. The government needs to create a program or policy that can support those four points as mentioned before.

To find out the government's role in introducing e-commerce to SMEs, Scupola conducted research in 2003 for the case in Southern Italy. The results of the research conducted by Scupola showed that the role of the government in the implementation of SMEs e-commerce is carried out through increasing the skills of labor, subsidies, and mobilization [17].

Several countries have implemented programs or policies to support SMEs e-commerce. In India, for example, the Government forms the technology center framework initiative aiming at facilitating various accesses to technology for SMEs. Another initiative is the digital India which aims to increase internet access in India [18]. In addition to India, the Chinese Government also participates in encouraging SMEs e-commerce by establishing an Innovation Fund for Small Technology-based Firms (INNOFUND) that facilitates and encourages technological innovation through funding assistance [19].

## 5. CONCLUSION & RECOMMENDATION

The industrial revolution 4.0 is characterized by the application of modern technology that works in every economic activity from the level of production to consumption. SMEs must prepare themselves to face this industrial revolution 4.0. Developing SMEs e-commerce is one of the manifestations of SMEs empowerment towards Indonesia 4.0.

Establishing SMEs e-commerce is indeed not easy, given the characteristics of SMEs that are different from other businesses. Therefore, several things need to be considered in developing SMEs e-commerce. The important point in making SMEs e-commerce depends on having or providing the right regulations, good skill, infrastructure, financial support, and government support.

This is inseparable from the role of the government in providing facilities and infrastructure that can help supporting the competitiveness of SMEs. Therefore, the government has vital roles in adopting SMEs e-commerce. The role should not only be restricted to allowing e-commerce to take place but should also include ensuring the growth of SMEs as well as the benefits gained by consumers.

## AUTHORS' CONTRIBUTIONS

Eka Budiyantri, Sony Hendra Permana, and Edmira Rivani contributed to the design and implementation of the research, the analysis of the results, and the writing of the manuscript.

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