

Technology Capacity Development Model as an Effort to Build a Conducive and Competitive Internal Environment of MSMEs in the Global Market

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ABSTRACT

The acceleration of digital transformation in Indonesia is growing faster and companies capable of transforming can survive in this competitive era. For Micro, Small and Medium Enterprises (MSMEs), this condition is certainly not only a challenge but also a great opportunity to remain competitive so that MSMEs must adapt as quickly as possible to developments that occur. The purpose of this research is to find a model of technological capacity development to build a conducive and competitive internal environment for MSMEs in the global market. The challenges of MSMEs in the global market such as low understanding of technology, limited internet access, transaction security are still obstacles for MSMEs in the digital ecosystem, as well as inadequate capital and infrastructure. Therefore, it is necessary to develop an IT-based MSME development model that can facilitate MSMEs in expanding markets both domestically and abroad with time and cost efficiency. This study uses a qualitative descriptive method through observation, interviews and Forum Group Discussion (FGD) techniques.

Keywords: *Technology; Capacity Building; MSMEs*

1. INTRODUCTION

The digitalization era is here to bring changes and have a significant impact in all aspects of life, including the economic sector, so that economic actors are required to have digital skills to support their business activities. [1] Micro, Small and Medium Enterprises (MSMEs) play a very large role in advancing the Indonesian economy. MSMEs are required to continue to adapt and transform according to the times, including digital transformation. The acceleration of digital transformation in Indonesia is getting faster and it is companies that are able to transform that can survive in this era of competition. Of the total 65 million MSMEs in Indonesia today, only 24.9% are on boarding to the digital ecosystem and the remaining 75.1% are still in the conventional marketing system. World Bank 2021 states that 80% of MSMEs connected to the digital ecosystem have better resilience, therefore MSMEs must immediately transform the digital economy.

The world is currently being hit by the Covid-19 pandemic, and Indonesia is no exception. This pandemic brought a severe contraction for 72.60% of MSMEs which caused an economic slowdown. The majority of

the affected MSMEs are those who have not yet transformed into digital technology. Based on the results of an ADB survey 2020 entitled "The Impact of Covid 19 on MSMEs," about 48.6% of MSMEs affected by Covid 19 were temporarily closed, around 30.5% of domestic demand experienced a decline, and 13.1% experienced product delivery barriers. During this pandemic, the acceleration of the transformation of MSMEs through digitalization is believed to be one of the keys to the country's economic recovery. The acceleration of digital transformation in Indonesia during the Covid-19 pandemic has indeed proven to experience such rapid growth. The results of a McKenzie survey in June 2020 proved that during this pandemic, MSME transactions in the e-Commerce sector grew 26% or reached 3.1 million transactions per day. However, it is unfortunate that this condition only occurs in a small number of MSME actors because the majority of MSME actors in Indonesia have low knowledge and skills towards digital technology so that MSME actors have difficulty using and utilizing it, and one of them causes MSMEs to have difficulty entering e-commerce. - Trade.

The limited ability of Human Resources/MSMEs actors both from the aspect of formal education and their

knowledge and skills greatly affects the management of their business so that their business is difficult to develop optimally. In addition, with the limited quality of human resources/MSMEs actors, it is relatively difficult for MSMEs to adopt new technological developments to increase the competitiveness of the products produced. The competitiveness of the company can be reflected in the competitiveness of the products produced. [2] Companies that have a competitive advantage are companies that use value creation strategies that are not carried out by competitors. [3] competitiveness is defined as the ability of an organization to create a position that can be maintained through competition with other organizations. [4] The internal business environment affects the competitiveness of SMEs.

[5] Internal sources of competitive advantage cover various fields, the important thing is that competitive advantage in an organization is not only determined by external and internal factors but the source of competitive advantage of a company has been considered a factor leading to success. [6] MSME competitiveness is the degree to which a company can meet market demands, both domestically and internationally, in producing goods and services while maintaining or increasing the income of the company and its employees. [7] The results of Man, Lau & Chan and various other studies (Kadooca, 2006; Alasadi, 2007; Chawla et al, 2007; Chong, 2008; Tambunan, 2008; Wiyadi, 2009; Gál, 2010; Li, 2011; Alkali et al., 2012; Kuswanto, 2012). be: (1) the company's internal factors (skills, education level, capital, organizational and management systems, mastery of technology and information, and access to inputs); and external factors (social, economic, political and environmental policies, infrastructure, changes in market tastes, and socio-cultural changes, as well as the performance of the business world); or (2) potential dimension factors (knowledge, skills, innovation, capital, raw materials, management, organization, potential market demand, etc.); -process factors (capacity/community) technical/managerial potential, entrepreneurship, business systems, customer service, etc.); and performance factors (income, exports, profit, market share, productivity, technical standards, enterprise value, corporate image, customer satisfaction, product value, etc.).

[8] The ability of MSMEs to compete in the era of free trade, both in the domestic market and in the export market is largely determined by two main conditions that need to be met, first, a conducive MSMEs internal environment. which includes aspects of the quality of human resources, mastery of technology and information, organizational structure, management system, business culture/culture, capital strength, business network with outside parties, and level of entrepreneurship. government policies, legal aspects, market competition conditions, economic-social-social conditions, infrastructure, public education levels and

changes in the global economy. Some of the opinions of previous researchers regarding competitiveness are very clearly stated that one of the factors forming competitiveness is technology.

[9] That technology is a whole of methods that rationally lead and have efficiency characteristics in every field of human activity. Technology is a vital need for business people and is an important aspect that must be mastered by MSMEs to encourage business progress. Digital technology that can be applied by MSMEs actors to support their business activities is to utilize the internet by using several methods to support their business activities such as digital marketing, financial technology or digital transactions. Therefore, MSMEs actors must be encouraged to grow and develop as soon as possible, namely by expanding into the digital sector so that MSME competitiveness increases and is able to compete in the global market. However, this is not an easy job because there are several challenges that MSMEs usually face in the global market. markets, such as: low capacity of human resources in technological knowledge and skills, limited internet access, transaction security is still an obstacle for MSMEs in the digital ecosystem, and the capital and infrastructure they have is still inadequate. As researchers have stated, the obstacles faced by MSMEs in transforming to digital technology are because MSMEs / MSMEs actors have low knowledge and skills about digital technology. [10] which states that the problem The most basic is the ability for MSME actors to utilize IT as a means of supporting their business management, which is a matter of knowledge and skills, as well as infrastructure problems. Therefore, this research is focused on developing the technological capacity of Human Resources/MSMEs actors with the hope that Human Resources/MSMEs actors can quickly catch and adapt to the development of digital technology.

Many previous researchers have studied the relationship between technology and company competitiveness such as research conducted by: [11] research results provide empirical evidence to state that there is a significant effect of technological capability on competitiveness [12]. The results of data analysis it can be concluded that information technology, knowledge sharing, and entrepreneurial orientation affect competitiveness and business performance [13]. further demonstrated that there is increasing awareness of the role of digital transformation as a set of tools for adapting during and after a pandemic, along with principles of resilience engineering and knowledge management. [14] As a result of this research, we have developed an enhanced organizational competency model for digital transformation that enables SMEs to identify and develop the digital capabilities needed to advance in digital transformation. [15] Information technology variable is the variable with the most dominant influence on Competitive Advantage. [16] Model of Increasing Competitiveness Based on Digitalization in SMEs The

resulting model design includes several important elements, namely: Strengths and experiences of SMEs in the market, digitalization-based innovation activities, Innovation Activities, Innovation implementation, Product improvement or activities, Increasing the competitiveness of SMEs [17]. The contribution of human resource competencies is the main driver of quality economic growth, and the contribution of social capital competencies is a major determinant in enhancing entrepreneurial competitiveness.

From these previous studies, researchers have not found the results of research that design a technology capacity development model to build an internal environment for MSMEs that is competitive in the global market. Therefore, researchers are interested in conducting research that focuses on developing the technological capacity of Human Resources/MSMEs actors.

Based on the background described above, the research objective is to find a model for developing technological capacity to build an internal environment for MSMEs that is conducive and competitive in the global market.

2. METHOD

As the objective described in the previous description, namely to develop a technology capacity development model to build a conducive and competitive MSME internal environment in the global market, this study uses a qualitative approach with descriptive analysis. The stages of the research are as follows:

1. To obtain data on the technological competence of MSMEs actors who are members of the MSME forum in Purworejo Regency, this is done through the methods of observation, interviews and FGD. The initial stage is carried out by mapping. The mapping referred to in this study is to identify how the knowledge and skills of MSMEs actors in obtaining information about digital marketing and digital technology. Research data includes primary data and secondary data. Secondary data was obtained through literature studies to obtain information about digital marketing and reports on the development of MSMEs that were explored via the internet. Primary data was obtained through the interview method, and

interviews were conducted with informants who really understand and understand all information about MSMEs in Purworejo Regency. They are the Chair of the MSMEs Forum of Purworejo Regency, the Chair of the Regency-level MSMEs Forum and MSMEs actors.

2. Focus Group Discussion (FGD), At this stage, the activities carried out were to approach and discuss MSMEs actors with the aim of exploring and opening up the mind-set of MSMEs actors about the importance of digital technology transformation in their business activities, recognizing the problems faced by MSMEs in digital technology. time and looking for solutions. The results of the FGD can then be used to formulate a technology capacity development model for MSMEs actors to build a conducive and competitive internal environment. The FGD was conducted with the management of the MSMEs forum in Purworejo Regency, the management of the MSMEs forum at the sub district level and MSMEs players and academics.

3. RESULT AND DISCUSSION

Based on the results of a study conducted in several stages, namely observation, interviews, and FGD with several parties regarding the general description of MSMEs actors who are members of the MSME Forum in 16 Districts in Purworejo Regency, the following results were obtained:

Interviews conducted with the chairman of the MSME forum of Purworejo Regency it is known that the number of MSMEs who are members of the MSME forum of Purworejo Regency as many as 997 people spread over 16 districts. Furthermore, through the stages of interviews conducted with both the chairman of the MSMEs forum at the sub-district and district levels, it can be seen that the problems faced by MSMEs include:

Low technological competence: Based on the results of interviews with the Chairperson of the MSMEs Forum of Purworejo Regency, and the results of the mapping conducted through questionnaires, it can be seen that MSMEs actors who are members of the MSME Forum of Purworejo Regency have low competence in the field of digital technology both in terms of knowledge and skills and the data can be seen in the table below.

Table 1 Digital Competence Performers MSMEs Technology in Forum UMKM in Purworejo

No	Digital Technology Competence	Volume (person)	Percentage (%)
1	Digital marketing	648	65%
2	Financial technology	348	35%
3	Digital transactions	49	5%

Source: Primary Data processed in 2021

Based on the table above, it can be seen that the digital technology capabilities of MSMEs actors who are members of the MSMEs Forum in Purworejo Regency are still low, especially in the mastery of financial technology and digital transactions but digital marketing can be said to be quite. Sourced from the information above it is imperative would do an effort competence development of digital technology for the Human Resources/MSMEs, and is based on information that the researchers tried to propose a draft model of capacity development of digital technology for the Human Resources/ MSMEs in the hope of future MSMEs grade and can compete in the global market. with the hope that digital technology competence will increase and can create a competitive MSMEs internal environment.

1. Internet access limitations

MSMEs actors in remote rural areas are usually faced with a condition where it is very difficult for them to access the internet. The reason is that besides the lack of digital technology capabilities of MSMEs actors, there are also limitations of the internet network so that accessing the internet is difficult to signal.

2. There is no guarantee of security for online transactions in the digital ecosystem

This is due to the lack of knowledge of MSMEs actors regarding online transactions. They do not know what digital payment is, so MSMEs feel that there is no guarantee of security in online transactions. MSMEs actors in transacting prefer the conventional marketing system, namely between buyers and sellers meeting directly.

3. Owned infrastructure is still inadequate

The digital technology equipment owned by the majority of MSMEs actors is a smartphone with a low price so that the work process takes a long time and there are minimal applications. MSMEs actors are identical with limited financial capabilities so they have not been able to buy digital technology equipment such as computers or laptops because this equipment is expensive. The lack of knowledge about digital technology and its supporting infrastructure makes MSMEs actors reluctant to apply bookkeeping administration records in their business activities.

The technology capacity development model for MSMEs actors was discussed through a Focus Group Discussion (FGD). This stage is taken to dig up information about what is the most appropriate step to develop MSMEs Human Resources technology competencies. Based on the results of mapping with MSMEs actors, discussions with parties who really understand the condition of MSMEs and inputs from several parties, a model for developing technological

capacity for MSME Human Resources is developed. The model consists of three interrelated dimensions, namely input, process, and performance. To measure the success of the dimensions of the process that has been carried out, these indicators can be seen from the outcomes produced/achieved by MSMEs actors. The model for developing technological capacity for MSMEs actors can be seen in the Figure 1.

Input Dimensions: Dimensions describe the internal condition of the particular input is HR SMEs. FGD resulted in identification of problems that come from internal factors especially those stemming from human resources competency low level of technology, causing a lack of mastery of digital marketing, limited access to capital, and the lack of application of digital transactions in business activity.

Process dimensions: These are activities that convert inputs into outputs as expected. The process that can be done to change inputs into outputs is through training. The types of training proposed for MSMEs Human Resources technology capacity development include:

- a. Digital marketing training: This training is intended to open the marketing gate for MSMEs in the online world so that authentic Indonesian products can compete in the global market. Training through lecture methods, presentations, questions and answers, discussions, and hands-on practice. Some of the digital marketing skills that can be taught include digital marketing techniques, creating e-commerce accounts, display advertising, social media advertising, creating blocks and web marketing, making product photos and flyers.
- b. Digital transaction training: the type of training that can be taught is transactions through digital payments
- c. Financial technology training: peer to peer landing, Capital (financial marketplace and aggregator marketplace)

Output Dimensions: describe the expected immediate results after the training process is given to MSME actors, namely:

- a. Digital marketing training: MSME human resources are able to create e-commerce accounts, able to display promotions online, able to promote their products on social media, can create blocks or the web, and make product photos and create flyers.
- b. Digital Transaction Training: MSMEs Human Resources can serve online payment transactions.
- c. Financial Technology Services: Human Resources can easily access capital loans online.

Outcome Dimension: To measure the final results that can be measured significantly from training programs which are then implemented in business activities accompanied by assistance from experts in their fields, the expected outcomes are: increased

productivity, increased product sales, increased turnover, wider marketing reach, more social networking relationships, e-commerce on boarding, fast sales transactions, easy to get additional capital.

Implementation: The process by which MSMEs actors implement or apply the knowledge and skills acquired during training into their business activities.

Accompaniment (Mentoring): aims to provide advocacy, consultation and outreach as well as help MSMEs find a variety of alternative solutions to the problems faced by SMEs in their business activities. The role of mentoring becomes very important after the training process is given to MSMEs actors. Training without assistance will not guarantee that the knowledge and skills of digital technology provided will improve the technological capabilities of MSMEs actors. When implementing what they get from the training, usually MSMEs actors will find difficulties in applying the

knowledge and knowledge they get. However, if MSMEs actors in applying the knowledge and knowledge obtained are accompanied by competent mentors in their fields, then when MSMEs actors find difficulties or obstacles they face, they can be overcome and the training program obtained by MSME actors will be really beneficial for progress. his efforts.

Monitoring: To find out the success of implementing training programs carried out by MSME actors in their business activities, this monitoring activity is very important because through monitoring all activities carried out by MSMEs actors in implementing the knowledge and knowledge gained during training can be monitored and monitored. it is known whether it is in accordance with the goals and objectives and if an error occurs in applying the knowledge, knowledge and skills obtained, it can be resolved as early as possible. Through monitoring can also be used to formulate the development of models in the future.

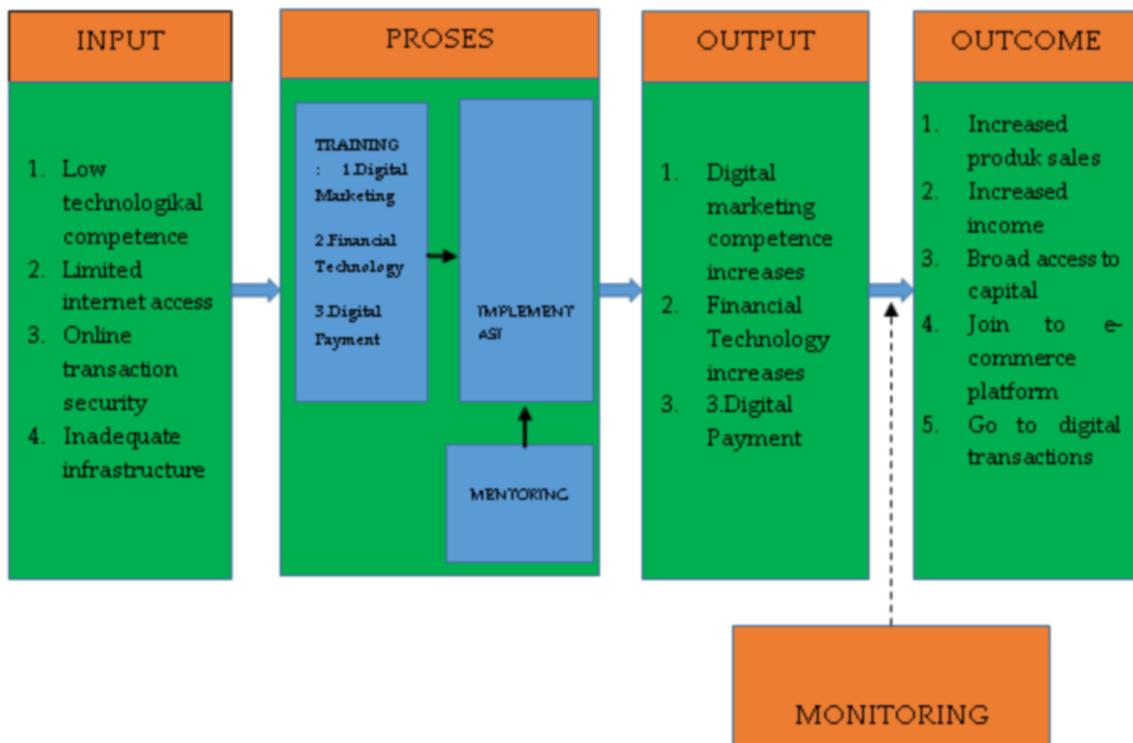


Figure 1 Model of Technology Capacity Development in MSMEs Human Resources

4. CONCLUSION

Based on data and information collected through several methods, namely observation, interviews and FGD, it can be concluded that the problems faced by MSMEs actors who are members of the MSMEs forum in Purworejo Regency include: digital competence is still low, there is no guarantee of security in digital transactions, access to capital is limited and the infrastructure owned is inadequate so it is necessary to

take an action to improve the digital technology capabilities of MSMEs actors. The focus of this research is on developing the technological capacity of Human Resources/MSMEs actors. To improve the technological competence of MSME actors, it is necessary to provide training accompanied by mentoring. The result of this study are the availability of a model for developing the technology capacity of MSMEs actor so that is expected to be able to build a conducive and competitive MSMEs internal environment in the global market. There are many limitations of data sources, analysis and concept

generation which are still very shallow in this article, so this model needs to be tested first.

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