

# Businesses Transformation of Micro Small and Medium Enterprises (MSME) in Industrial ERA 4.0

Deograsias Yoseph Yustinianus Ferdinand<sup>1</sup> & Thyophoida W.S. Panjaitan<sup>2</sup>

<sup>1,2</sup> Universitas Katolik Darma Cendika - Surabaya

**ABSTRACT:** The era of the industrial revolution 4.0 aims to increase revenue and cost savings that lead to operational efficiency. Therefore, in order not to be eroded by change and turn it into an opportunity, business actors, in this case Micro, Small and Medium Enterprises (MSMEs), must improve, such as starting the process of transformation to follow the currently developing industry, namely 4.0 industry based on digitalization. growing very fast ahead of other industrial eras. Therefore this study wants to explore in-depth information about the extent of the ability of MSMEs to keep pace with the growth of industry 4.0 whose growth is very fast. The sampling technique used in this study was non-probability sampling with a purposive sampling technique, where the interview method used was a semi-structured interview, where the researcher had previously prepared a topic, a list of questions and interview guides before the interview was conducted (Sugiyono, 2014: 231) .

From the results of interviews conducted by researchers at the Surabaya Culinary Tourism Centers, that Culinary Tourism Centers in Surabaya still need a digitalization transformation strategy in order to compete in the fast-growing culinary business and need new innovations that can develop Culinary Tourism Centers into centers of activity Public.

**Keywords:** MSME, Industry 4.0, Digital

## I. INTRODUCTION

At present we are in the Industrial Revolution 4.0 era. Various products are produced following the development along with the growth of technology 4.0. Technology 4.0 will be a driver of changing patterns and management of all business lines. Various challenges and obstacles will be present as demands for industries that are still using the old business perspective to immediately transform into smart business. So that small and medium business actors can compete with large scale actors and expand market share through technology 4.0, according to Lusy & Devina (2019) MSME entrepreneurs should utilize technology 4.0.

Based on data from the CISCO APAC SMB Digital Maturity Index in 2019, Indonesia is the country that ranks last two out of 14 Asia Pacific countries related to its readiness in digital transformation. According to research conducted by McKinsey, adoption of technology can drive the growth of MSMEs to double. Meanwhile, the Micro, Small and Medium Enterprises sector in Indonesia does play an important role in the country's economy.

According to the Ministry of Industry of the Republic of Indonesia, in the last five years, the contribution of the MSME business sector to gross domestic product increased to 60.34% from the previous number of around 57.84%. SMEs must be responsive in the face of changes in trends very quickly, not only in changing market trends but also technological developments. The adoption of high and precise digital technology can encourage MSMEs to be motivated in presenting new products and services to increase business process productivity. This certainly makes the digital transformation of the MSME business increasingly crucial and worthy of attention. Moreover, the rapid development of technology, has changed the behavior of society which is increasingly leading to digitalization.

The government as the owner of regulatory power is able to parse and find solutions to solve the competitive attributes of grocery stores and modern stores so that it can benefit both parties (Ferdinand & Ayu, 2019). The Office of Cooperatives and SMEs has a role in developing the existence of culinary tourism centers, such as providing assistance. Actively developing culinary tourism centers (Panjaitan, et al., 2020). With ongoing monitoring and coaching, businesses undertaken by SMEs will be able to develop as expected (Mochklas & Hariri, 2019).

The government must continue to support and oversee online trade and ensure that regulations regarding online trade are running well (Mukarromah, et al., 2018). The future of MSMEs can be seen by the extent to which business people can utilize existing technology, but unfortunately there are a large part of MSMEs who still do not know anything about digitization and they are still dependent on traditional and manual patterns, the main factor being "Technology Stuttering". Besides the technological stuttering factor, one of the factors that cause digitalisation is the lack of the role of government officials in combating crime in the world of technology/digitalization, for example, until now there are still many social media accounts (digitalisation) that offer pseudo products/services which certainly not only harm consumers but also impacted MSME entrepreneurs in the same field.

The special purpose of this research is Knowing the extent of the transformation of MSMEs in the face of the industrial era 4.0. While the final target of this research is to make MSMEs have high competitiveness and can provide maximum contribution to improving people's welfare. SMEs have a very big role for the economic improvement of a region because it has a large "economic cake". If MSMEs are not transformed in the digital era, they will not be able to develop optimally, therefore it is necessary to know the extent to which MSMEs transformed in the industrial era 4.0, which in turn could improve MSME competitiveness, so that MSME business growth could increase which impacted on increasing people's welfare. also.

## **II. LITERATURE REVIEW**

### **Definition of the Industrial Revolution 4.0**

The stages of the industrial revolution are as follows (Sun, 2018), the first Industrial Revolution took place 1750-1870 marked by mechanization, steam power and water power. Entrepreneurship focuses on creating new markets and creating work systems (on the production floor). The second industrial revolution took place in 1870-1980 marked by mass production line, assembly line & electricity. Entrepreneurship focuses on mass production and international national trade. The third industrial revolution that took place in 1980-2011 was marked by computer automation. Entrepreneurship focuses on digitalization and multi-national companies. The fourth industrial revolution taking place in 2011-now characterized by cyber physical systems, the internet of things & robotics, cloud computing, cognitive computing, big data. Entrepreneurship focuses on business interconnection, smart outomation, drones and others.

In the era of the 4th industrial revolution, opportunities and challenges also emerged. Threats in the form of job loss (termination of employment) and production excellence for developed countries. Among the opportunities are product-as-service, collaborative economics, and digital services and digital exports. This is a market that is currently underdeveloped in Asia but has great potential given the geography, demographics and urbanization that is taking place in Asia. Anticipation of the negative impact of the industrial revolution 4.0 in the form of job loss is to encourage entrepreneurial attitudes. Thus new businesses will emerge based on the technology that developed in the 4.0 industrial revolution. Government policies need to accommodate the growth of entrepreneurial attitudes and practices from the world of education to the world of education (Naude, 2017).

### **Micro, Small and Medium Enterprises (MSME)**

In the Indonesian economy, MSMEs are the business group that has the largest number and is proven to be resistant to various kinds of economic crisis shocks. Business criteria that are included in Micro and Small and Medium Enterprises have been regulated in a legal umbrella. Based on Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSMEs) there are several criteria that are used to define the terms and criteria of Micro, Small and Medium Enterprises.

According to Rahmana (2008), some institutions or agencies even provide their own definitions for Small and Medium Enterprises (UKM), including the State Ministry of Cooperatives and Small and Medium Enterprises (Menekop and UKM), the Central Statistics Agency (BPS), Decree of the Minister of Finance No. 316 / KMK.016/1994 dated June 27, 1994. The definitions of SMEs submitted differed from one another. According to the Ministry of State for Cooperatives and Small and Medium Enterprises (Menekop and UKM), what is meant by Small Business (UK), including Micro Business (UMI), is a business entity that has a net worth of at most Rp 200,000,000, excluding land and business premises, and have annual sales of up to Rp 1,000,000,000. Meanwhile, Medium Enterprises (UM) are business entities owned by Indonesian citizens who have net assets greater than Rp. 200,000,000 s.d. Rp 10,000,000,000, excluding land and buildings.

The Central Statistics Agency (BPS) provides a definition of SMEs based on the quantity of labor. Small businesses are business entities that have a workforce of 5 to 19 people, while medium businesses are business entities that have a workforce of 20 to. 99 people. Based on the Decree of the Minister of Finance No. 316/KMK.016/1994 dated June 27, 1994, small businesses are defined as individuals or business entities that have carried out activities/businesses

that have sales/turnover per year as high as Rp. 600,000,000 or assets/assets as high as - a maximum of Rp 600,000,000 (excluding land and buildings occupied) consisting of: (1) business units (Fa, CV, PT, and cooperatives) and (2) individuals (craftsmen/home industries, farmers, breeders, fishermen , forest encroachers, miners, merchants of goods and services).

### **Criteria for Micro, Small and Medium Enterprises (MSMEs)**

Criteria for Small and Medium Enterprises Based on Development, from the perspective of its development Rahmana (2008) groups MSMEs into several criteria, namely:

- a. Livelihood Activities, are Small and Medium Enterprises that are used as employment opportunities to earn a living, more commonly known as the informal sector. An example is a street vendor.
- b. Micro Enterprise, is a Small and Medium Enterprises that have the nature of artisans but do not yet have the nature of entrepreneurship.
- c. Small Dynamic Enterprise, is a Small and Medium Enterprise that has an entrepreneurial spirit and is able to accept subcontracting and export jobs
- d. Fast Moving Enterprise, is a Small and Medium Enterprise that has an entrepreneurial spirit and will transform into a Big Business.



**Figure 1. CISCO digital maturity model**

Based on the CISCO Digital Maturity Model approach to four dimensions, MSMEs are classified into four digital stages:

- a. Stage 1: Digital Indicator
- b. Stage 2: Digital Observer
- c. Stage 3: Digital Challenger
- d. Stage 4: Digital Native

### **III. RESEARCH METHODOLOGY**

This type of research used in this study is qualitative research. According to Sugiyono (2014), qualitative research means the process of exploration and understanding the meaning of individual and group behavior, describing social problems or humanitarian problems. The research process includes making research questions and procedures that are still temporary, collecting data on participant settings, inductive data analysis, building partial data into themes, and then providing interpretations of the meaning of data. The final activity is to make a report into a flexible structure. The research method used in this study is a qualitative research method with a descriptive approach, the research method carried out to determine the natural condition of the research object, where the researcher is a key instrument, data collection techniques are carried out by triangulation (combined), data analysis is inductive/qualitative, and qualitative research results emphasize more meaning than generalization (Sugiyono, 2014).

The object of research is a scientific goal to get data with specific goals and uses about something objective, valid, and reliable about something (Sugiyono, 2014). In this study, the object to be investigated is the transformation of MSME businesses in the industrial era 4.0 while the research subjects used are restaurant owners in the Culinary Tourism Area of Surabaya. Data collection methods in this study were interviews and observations. An interview is a meeting of the two parties between the person who gives the question and the person who answers who exchanges

information, so that it can be built on a particular topic.

The interview method used was a semi-structured interview, where the researcher had previously prepared a topic, a list of questions and interview guides before the interview was conducted (Sugiyono, 2014). The purpose of using semi-structured interviews in this study is to get more data, because researchers can develop interview guidelines according to the problems found. While observation is a data collection technique used to compare data obtained through interviews with the original situation (Sugiyono, 2014). The sampling technique used in this study is non-probability sampling with purposive sampling technique, namely the sampling technique of data sources with certain considerations (Sugiyono, 2014). The consideration or criteria used by researchers to select sources in the study are the owners of each restaurant owner in the Culinary Tourism of Surabaya.

Validity in qualitative research is called authenticity or authenticity, which is honest, fair, balanced, and appropriate based on the perspective of the individual or subject concerned. While reliability in qualitative research is the level of concordance between the data or the description presented by the subject and the actual condition (Hardiansyah, 2011). The validity test used in this research is the triangulation of sources, which is a technique used to test the credibility of the data by checking the data that has been obtained through several sources (Sugiyono, 2014). The reason for using source triangulation techniques, because researchers want to get the views or opinions from different sources (restaurant owners, target consumers, and consumers) about the problem under study. Sugiyono (2014: 444) also explained that the reliability test in qualitative research was done by dependability testing conducted through an audit by researchers of the consistency of answers given by informants during data collection.

#### **IV. DISCUSSION**

According to Surabaya city government data, there are 42 Surabaya Culinary Tourism Centers scattered throughout Surabaya. Of 42 Culinary Tourism Centers. Researchers took 5 Surabaya Culinary Tourism Centers.

1. Deles Culinary Tourism Centers
2. RMI Culinary Tourism Centers
3. Semolowaru Culinary Tourism Centers
4. Taman Prestasi Culinary Tourism Centers
5. Bratang Binangun Culinary Tourism Centers

With the existence of dozens of Culinary Tourism Centers, it is necessary to have a digital-based development strategy. This needs to be done because of the digital era that requires special abilities for culinary tourism centers to adjust quickly to an era that relies on digital processes in business processes in all lines, including the Culinary Tourism Center business line.

From the CISCO dimension it can be explained the conditions of the Culinary Tourism Centers as follows:

##### **a. Strategy and Organization**

Street vendors who are part of the Culinary Tourism Centers are culinary business people who do business in traditional ways. For the shopping process they come to the traditional market at night after the Culinary Tourism Centers are closed, then start cooking the menu in the early morning and then serve in the morning until the evening at the Culinary Tourism Centers. in the business process. With no digitalisation process, only some customers who happen to pass by and feel hungry are enjoying the atmosphere of Culinary Tourism Centers.

##### **b. Processes and Governance**

Culinary Tourism Centers consist of street vendors who have a distinct menu of cuisine. Because these differences cause the supply chain system of the members of the Culinary Centers to have differences. But from the Researcher's interview to each member of the Culinary Tourism Centers, food businesses at the Culinary Tourism Centers in Surabaya do it traditionally. There is no digital or automation supply chain system. In their marketing they still carry out traditional processes that rely on word of mouth reaction. If the good word of mouth response, the Culinary Tourism Centers will be visited by visitors. If the reaction from the mouth is negative, it will also affect the quiet of the beneficiaries at the Culinary Tourism Center.

##### **c. People and Skills**

Humans, in this case the owners of street vendors and managers of Culinary Tourism Centers are the resources that determine the success or failure of a business. In interviews conducted by researchers on food booth owners at the Culinary Tourism Centers in Surabaya, it can be concluded that the street vendors and managers at the Culinary Tourism Centers do not have adequate literacy about online technology. With a low average education, they only

depend on their ability culinary experience that they get from their experience without getting support to increase their literacy about technology.

Their inability to digitize and socialize the industry is low causing a slowdown in the development of culinary businesses which they hope can develop in the Culinary Tourism Centers. This continues to happen so that their perspective on the culinary business is still very simple and their services are still traditional.

### d. Technology

As an inevitable necessity, technology has a very important role for the sustainability of the Culinary Tourism Center business processes in Surabaya. In the current industrial era 4.0, who cannot adapt quickly will be eliminated. Likewise with the existence of Culinary Tourism Centers today. The Culinary Tourism Centers technology still has shortcomings. There is no information system that will encourage them to compete in the industrial era 4.0.



Figure 2. CISCO Digitalization Stage

From the perspective of CISCO based on the 4 dimensions that have been explained, the position of Culinary Tourism Centers in Surabaya lies in the position of phase 1, digital indifference. This is because the Culinary Tourism Centers are only limited to the gathering of street vendors facilitated by the city government in a Culinary Tourism Centers with weaknesses in terms of self-deception in the process of digitization in the industrial era 4.0.

## CONCLUSIONS

Culinary Tourism Centers are built with the hope of visitors not only enjoying the taste to satisfy the tongue but also the atmosphere visually. The big expectation of the Culinary Tourism Centers is the increasing number of visitors who will linearly increase the income of Culinary Tourism Centers members.

From the results of interviews conducted by researchers at Surabaya Culinary Tourism Centers. Then it can be concluded that the Culinary Tourism Centers in Surabaya still need a digitalization transformation strategy in order to compete in the fast-growing culinary business. New innovations are needed that can develop Culinary Tourism Centers into centers of community activities, especially communities around Surabaya Culinary Tourism Centers.

## References

- [1] Cisco. (2009). Transforming Collaboration through Strategy and Architecture. [https://www.cisco.com/en/US/services/ps2961/ps2664/Transforming\\_Collaboration\\_through\\_Strategy\\_Architecture.pdf](https://www.cisco.com/en/US/services/ps2961/ps2664/Transforming_Collaboration_through_Strategy_Architecture.pdf)
- [2] Cook, R.A., Hsu, C.H.C., & Marqua, J.J. (2004). *Tourism: The Business of Hospitality and Travel (5th ed.)*. New Jersey: Pearson
- [3] Ferdinand, D.YY. & Ayu, S.A. (2019). Development of Customer Loyalty Convenience Stores in Wonokromo District Surabaya. *SSRG International Journal of Economics and Management Studies*, 6(10): 52-55.
- [4] Ishak, E. (2005). *Peranan Informasi Bagi Kemajuan UKM*. Yogyakarta: Kedaulatan Rakyat
- [5] Lusy & Devina, V. (2019). Analysis of Factors That Influence The Sustainability of Businesses of Micro Small And Medium Enterprises (MSMEs). *SSRG International Journal of Economics and Management Studies*, 6(10): 56-60.
- [6] Meliala, A.S., Matondang, N. & Sari, R.M. (2014). Strategi Peningkatan Daya Saing Usaha Kecil dan Menengah(UKM) berbasis Kaizen. *Jurnal Optimasi Sistem Industri*, 13(2): 641-664
- [7] Mochklas, M., & Hariri, A. (2019). Pemberdayaan Purna TKW (Tenaga Kerja Wanita) Kecamatan Solokuro, Lamongan. *Jurnal Pengabdian Pada Masyarakat*, 4(4), 475-482.
- [8] Mukarromah, S., Maro'ah, S. & Mochklas, M. (2019). Implementasi Strategi Bauran Pemasaran Dalam

Meningkatkan Volume Penjualan Toko Baju Senam Grosir.Com. *JURNAL EKSEKUTIF*, 15(2), 316-333.

- [9.] Naude. (2017). Entrepreneurship, Education and the Fourth Industrial Revolution in Africa. *Discussion Paper Series, Institute of Labor Economics*.
- [10.] Panjaitan, T.W.S., Hermanto, Y.B., & Widyastuti, M. (2020). Analysis Marketing Strategies At Culinary Tourism Centers. *Humanities & Social Sciences Reviews*, 8(1):725-732
- [11.] Rahmana, A. (2009). Peranan Teknologi Informasi dalam Peningkatan Daya Saing Usaha Kecil Menengah. *Seminar Nasional Aplikasi Teknologi Informasi(SNATI).Yogyakarta. 20 Juni 2009*
- [12.] Sugiyono. (2009). *Metode Penelitian Bisnis*. Bandung: Penerbit CV. Alfabeta.
- [13.] Sun, (2018). Innovation & Entrepreneurship in the 4th Industrial Revolution, *Joint Workshop on Entrepreneurship. Lae, PNG, 18 July 2018*.