

Investigating the resilience of micro, small and medium enterprises in entering the digital market using social media: Evidence from Aceh province, Indonesia

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ABSTRACT

Technological developments are increasingly sophisticated, so micro, small and medium enterprises (MSMEs) must maintain their business through digital markets. The main problem faced by MSMEs in Aceh province is the lack of use of social media as a medium for promoting or selling products online. Thus, this study analyzes the MSMEs' product marketing model, determines the factors that influence MSME labor productivity, and determines MSMEs' resilience strategies in entering the digital market. The research location is Aceh Province which consists of 23 districts/cities. The population in this study were all MSME actors in Aceh Province who were spread across districts/cities, using a purposive random sampling technique. The samples in the study were related agencies and MSMEs actors in Aceh Province, which are spread across 13 regencies/cities, namely Banda Aceh, Sabang, Lhokseumawe, Subulussalam, Langsa, Aceh Tamiang, East Aceh, North Aceh, Central Aceh, West Aceh, Aceh Singkil, Aceh Besar and Aceh Jaya. The results of the study show that (1) the marketing model that is used effectively is the marketing mix, namely the marketing mix, (2) the productivity of MSME workers is influenced by the level of education, age, work experience, gender and expertise or skills possessed by the workforce, (3) The MSMEs resilience strategy is dealing with the digital market can be pursued through government policies by providing training or assistance to business actors to increase product innovation and increase promotion or product sales online through various types of social media, such as Instagram, Facebook, WhatsApp, and market places other.

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1. Introduction

The world is currently still faced with the disastrous spread of the COVID-19 disease. Since it was first discovered in Wuhan, China, at the end of December 2019, the World Health Organization (WHO), on March 12, 2020, declared the COVID-19 outbreak a global pandemic (Zhang et al., 2020). In Indonesia, the first positive case of COVID-19 was announced on Monday, March 2, 2020. The government has carried out strategies to suppress the spread of COVID-19 in Indonesia. However, until May 2022, there were 6,429,987 positive patients with COVID-19, 6,429,987 who recovered, and as many as 159,676 victims of COVID-19 who died. As one of the global pandemics, the spread of COVID-19 is so fast that it has become the main topic of conversation in every country. COVID-19 has had an impact not only on human health but also on a country's people's social and economic aspects. To prevent the COVID-19 infections, various efforts and policies has been made by government, such as imposing large-scale restrictions such as those carried out in several regions in Indonesia and working from home.

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The consequences of Working from Home (WFH) policies or large-scale restrictions impact changes in the social life order and decrease economic performance. The decline in Indonesia's economic performance due to the COVID-19 pandemic was most felt during the second quarter of 2020, where the economy contracted by 5.32 percent (y-o-y); that is, there was a decrease compared to the achievements in the first quarter of 2020 of 2.97 percent (yoy). One of the effects of economic growth in Indonesia is through Micro, Small and Medium Enterprises (MSMEs), where the role of MSMEs can provide employment opportunities (Yudiansyah et al., 2022), especially in the informal sector. Besides that, the expansion of employment absorption is also very dependent on productivity and policies regarding employment absorption. Opportunities and employment opportunities can be pursued through industrial development, especially in labor-intensive industries. Industrial development (MSMEs) will cause production capacity to increase to create job opportunities (Yudiansyah et al., 2022). The main problem faced by most Developing Countries (NSB), including Indonesia, until now is how to take advantage of the abundant and mostly unskilled human factor for their development so that a large population is not a burden for development; instead, it becomes development capital. Micro, small and medium enterprises (MSMEs) are vital in driving the people's economy and impacting the national economy. In their daily lives, MSMEs are integrated with the community by fulfilling daily life's needs and goods that are affordable and easy to find.

MSMEs are very important in Indonesia (Achmad, 2023; Tambunan, 2018). Based on data from the Ministry of Cooperatives and SMEs, the number of businesses in Indonesia is 64,199,606 units. Of these, 64,194,056 units or 99.99 percent of Micro, Small and Medium Enterprises (MSMEs). The rest, around 0.01 percent or 5,550 units, are big businesses. In addition to the increasingly rapid development of the number of MSMEs, in 2022, MSMEs will have a very large contribution to reducing the number of unemployed, namely absorbing 96.9 percent of the total workforce in the business world, being able to create jobs in 99.9 percent and being able to collect up to 60 percent of total investment, and able to contribute to the economic growth of 60.5 percent. MSMEs appear saviors of the national economy, especially during a national recession, monetary crisis, or even the current COVID-19 pandemic (Istiqomah et al., 2022; Zenrif & Mustofa, 2022).

MSMEs are a people-based economy where the government shows seriousness in supporting this potential by providing various assistance, training and assistance for MSME actors. The government, in this case, the Ministry of Cooperatives and SMEs, has launched MSMEs in the national vision and mission. During the COVID-19 pandemic, aspects of economic life weakened and slowed down, including the slowdown in the MSME economic sector (Rasul et al., 2021; Sahoo & Ashwani, 2020). In Indonesia, some MSMEs have gone out of business due to decreased sales, difficulty with capital, distribution barriers, difficulty obtaining raw materials, decreased production, and termination of employment for workers and laborers as well as decreased purchasing power of the people, which affects the national economy (Hidayat et al., 2021; T. Tambunan, 2020; T. T. H. Tambunan, 2018). As drivers of the domestic economy and absorbing labor, MSMEs face a decline in productivity, resulting in a significant decline in profits. On the basis of a survey by the Asian Development Bank (ADB) regarding the impact of the pandemic on MSMEs in Indonesia, 88 percent of micro businesses have run out of cash or savings, and more than 60 percent of these micro and small businesses have reduced their workforce.

The COVID-19 pandemic has reduced people's purchasing power because the public has reduced outdoor interaction to suppress the spread of the pandemic (Nundy et al., 2021). Thus, many consumers keep their distance and switch purchases digitally (Fakhri et al., 2023; Nundy et al., 2021; Rahadi et al., 2023). The impact is that many MSMEs must close their businesses due to decreased purchases and are still dependent on sales outside the network (offline). So that several MSME sectors that have not adapted digitally have a great impact, closing their businesses (Izaak et al., 2022; Setyoko & Kurniasih, 2022; Sulhan, 2021). Even so, the COVID-19 pandemic has indirectly prompted new changes in Indonesia's business style (Setyoko & Kurniasih, 2022). This change is the shift from offline business to digital business which is also known as the phenomenon of digital entrepreneurship (Kraus et al., 2019; Steininger, 2019).

Social media and marketplaces (intermediaries) can be a concept to make it easier for MSME actors to gain wider marketing access (Kraus et al., 2019; Steininger, 2019). Therefore, an entrepreneurial model is needed to adapt to technological advances (Kraus et al., 2019; Steininger, 2019; Tambunan, 2018). It is what later gave birth to the digital entrepreneurship model. This business model comes from combining digital technology and entrepreneurship, producing a new characteristic phenomenon in business (Giones & Brem, 2017). In this case, the role of digital technology significantly influences the new business units created. The emerging technology paradigm harnesses the potential of collaboration and collective intelligence to design and launch stronger and more sustainable entrepreneurial initiatives. Although, four dimensions are associated with digital entrepreneurship, namely digital actors (who), digital activities (what), digital motivation (why) and digital organizations (how) (Elia et al., 2020).

On the basis of the data retrieved from the Ministry of Cooperatives and SMEs in 2020 (see Table 1), only 16 percent or around 10.25 million MSMEs, are entering the digital economic ecosystem (Eddy & Putra, n.d.). This figure is very far from the total MSMEs in Indonesia. This condition is also not much different from the MSMEs in Aceh. Based on the 2021 Aceh Provincial IMK survey, the number of micro and small businesses using the internet is 12,968 business actors or only around 14.94 percent of the total businesses. At the same time, the remaining 73,876 businesses or 85.06 percent have not used the internet. The average use of the internet is for marketing or selling products, namely, the percentage of use is 71.17 percent. In contrast, business actors use the rest for product promotion, purchasing raw materials and searching for information.

Table 1

Number of Businesses/Companies in the Micro and Small Processing Industry using the internet across Regency/ district in Aceh Province

Regency/City	Number of Efforts	Using the Internet		Purpose of Using the Internet			
		No	Yes	Sales promotion	Product Marketing/ Sales	Purchase of Raw Materials	Information Search
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Simeulue	1,480	1,298	182	51	60	45	26
Aceh Singkil	2,180	1,305	875	217	386	129	143
South Aceh	4,100	3,619	481	114	240	20	107
Southeast Aceh	2,844	2,552	292	44	111	68	69
East Aceh	2,654	2,535	119	49	42	15	13
Central Aceh	1,471	796	675	128	300	209	38
West Aceh	4,658	2,632	2,026	388	939	448	251
Aceh Besar	6,242	4,378	1,864	637	674	201	352
Pidie	10,447	10,195	252	92	43	46	71
Bireuen	8,032	7,012	1,020	440	350	181	49
North Aceh	9,661	6,664	2,997	423	1,688	463	423
Southwest Aceh	3,015	2,915	100	43	34	-	23
Gayo Lues	5,277	4,948	329	142	142	30	15
Aceh Tamiang	2,551	857	1,694	517	551	312	314
Nagan Raya	1,532	1,364	168	7	61	43	57
Aceh Jaya	1,876	973	903	275	196	2	430
Really Merry	1,088	481	607	164	187	150	106
Pidie Jaya	2,255	1,793	462	70	139	164	89
Banda Aceh	7,125	4,603	2,522	871	1,154	77	420
Sabang	680	304	376	83	140	69	84
Langsa	4,394	1,819	2,575	1,080	1,164	125	206
Lhokseumawe	2,467	1,604	863	251	408	131	73
Subulussalam	815	217	598	193	221	108	76
Aceh	86,844	73,876	12,968	6,279	9,230	3,036	3,435

Source: Aceh IMK Survey, 2021

Technological advances that are currently being experienced can affect the development of MSMEs (Gupta & Barua, 2016), including Aceh. So, adaptation to technological advances is a must. It means that technology has a multiplier effect on the progress of SMEs. Therefore, MSME actors have challenges to continue to grow and adapt to produce a sustainable business. The competitiveness of SMEs is very diverse. For identifying the SMEs' competitiveness, it is necessary to include three characteristics: potential, process, and performance. To increase competitiveness, MSMEs must have the ability to compete. Based on the conditions mentioned above, this study aims to discuss the resilience of MSMEs in entering the digital market so that it impacts national security and increases regional economic growth.

2. Literature review

2.1 Digital Marketing

Digital marketing includes branding, which uses different web-based media such as blogs, websites, e-mail, or social networks (Thamrin et al., 2022). Digital marketing is marketing using digital technology (Setyawan et al., 2023). One form of digital marketing using electronic media, or the internet, is internet marketing (e-marketing). E-marketing is a marketing process that uses electronic communication technology, especially the internet (Salehi et al., 2012; Taherdoost & Jalaliyoon, 2014). Digital marketing is very beneficial for entrepreneurs (Kurniawati & Chairunisa, 2023); with technological developments, besides helping promote products, digital marketing can also expand markets where sellers can interact with consumers without the need to meet in person. During the COVID-19 pandemic, of course, digital marketing was needed by sellers and consumers alike. It was triggered due to the lockdown policy, which prevented consumers from shopping directly at stores.

Since e-commerce was discovered, trade has experienced tremendous development. There are at least five advantages to using e-commerce; namely, the business can be carried out quickly and effectively, reducing working capital requirements, is more economical, maintains better relationships with customers or suppliers, and makes it possible to carry out international trade or transactions (Sholih et al., 2022). With e-commerce, it can increase the competitiveness of products in the world market and determine the advantages of products owned by business actors (Wahyuddin et al., 2022).

According to survey data from the Association of Indonesian Internet Network Providers (APJII), it is stated that more than half of Indonesia's population is connected to the internet. The survey conducted in 2016 showed that 132.7 million Indonesians were connected to the internet. While the total population of Indonesia as a whole is 256.2 million people. It can be concluded that there was an increase of 51.8 percent compared to the number of internet users in 2014. The survey conducted by APJII in 2014 was only around 88 million internet users (Febriyantoro & Arisandi, 2018). As a result of technological developments, the percentage of the population using smartphones continues to increase until 2019 users are 63.53 percent (BPS, 2020). It is what drives people's lives to begin to change from various existing aspects, ranging from education, marketing, and so on.

2.2 Marketing Models

In marketing, companies create value for customers and build strong customer relationships to capture value from customers in return (Walter et al., 2001; Nadaraja & Yazdanifard, 2013). Marketing includes activities related to sales, advertising, promotion and pricing. Online marketing strategies, often called digital marketing strategies, are all efforts (business) carried out to market a product or service through or using online media, namely internet media (Kortmann & Piller, 2016). A marketing model or strategy is a plan that will be carried out to achieve goals in terms of sales, promotion, and product distribution. The industrial era of 4.0 development was so fast and globalized that the world and society had to keep abreast of existing developments.

This development allows us to take advantage of the development of the internet as a marketplace for product marketing. With the development of technology, producers must be able to master existing technology. Many MSME entrepreneurs still have not taken advantage of the marketplace. It is due to business actors having difficulty meeting consumer demand, being constrained by business capital, and being technologically illiterate. A marketing strategy is a comprehensive, integrated and unified plan in the field of marketing that provides guidelines on activities to achieve company goals through advertising, promotional programs, sales, product programs and distribution (Lefebvre, 2011; Nundy et al., 2021). Internet marketing prepares integrated communications that provide information about goods and services that satisfy human needs and desires through internet media (Juska, 2021). The online marketing strategy can be divided into 6 steps which are as follows:

1. Search and research carry out the search process and market research and competitors.
2. Initiate strategy and determine the system and strategy that will be used to reach prospects and customers.
3. Start a content engine and use various content to attract people to your business.
4. Traffic, bringing visitors to your site.
5. Embrace relationships, build relationships with customers through various channels.
6. Money is a strategy to bring income and profits.

According to Bob et al. (2020), integrated marketing communication consists of five tools that can be combined in communicating to the target audience, namely as follows:

- a. Advertising or advertising - Advertising or advertising is a non-personal form of mass communication that offers high control over the results of the design and delivery of messages. The ability of advertising to influence the target audience to think and behave in certain ways is still a question. Flexibility in advertising is considered good because it can be used to communicate broadly to target audiences even though the costs incurred are also very high.
- b. Sales promotion or sales promotion - Just like advertising, sales promotion is a form of non-personal communication that has more capacity to target more focused (small) targets. Sales promotion involves various marketing techniques typically used to add value to a given offer. The goal is to accelerate sales and gather marketing information.
- c. Personal selling or personal selling - Personal selling or personal selling is a form of interpersonal communication involving face-to-face activities carried out by an individual representing an organization or business entity to influence or remind the target to make a purchase. Salesperson relates to communication in the form of direct communication (one to one), which allows for direct input.
- d. Public relations - Public relations is the art and social science of analyzing trends, predicting their consequences, consulting the leadership of an organization or business entity, and implementing a program plan for an organization or business entity as well as public interest (Mexican Statement, 1978). The increasing use of public relations reflects a form of highly credible communication. Public relations use many forms and methods, including event management, sponsorship, and lobbying.
- e. Direct marketing or direct marketing - Direct marketing targets individual consumers to deliver a personal message and build a relationship based on the response to that direct communication. Media that can respond directly is the primary communication tool for direct marketing.

2.4 Labor Productivity

According to Tangen (2005), productivity yields the ratio obtained from output and input. Suppose the increase in productivity is only made possible by an increase in efficiency (time-materials-labor) and work systems, production techniques and an increase in the workforce's skills. Work productivity is the ability of employees to produce compared to the input used (Caves et al., 1982). An employee can be productive if he can produce goods or services as expected quickly or precisely (Loveman, 1994).

According to Alexander (2013) and Pfeffer (1992), workers are all people who want or are willing and have the ability to be able to work, including those who are unemployed even though they want and can be able to work. Still, they are forced to be unemployed because there are no job opportunities. According to (Johnston, 1987), the workforce is all residents of a country who can send labor and products if they want to work and think they will be involved in this activity. Labor is a factor of

production that consists of all the physical and mental contributions people provide (Council, 2001). According to Assauri (2007), he added that to measure the productivity of the elements that need attention are as follows:

- a. Input or input, in this case, can be in the form of the number of workers, or wages paid for a certain period of time.
- b. Output is something that is generated. In calculating output or output, the number of physical units or products, services or the amount of work can be used. The formula of the workforce as follows:

Labor productivity = Total production results/unit of time

It was also explained that labor productivity was influenced by age, wages, and level of education. Where if the wage rate rises, then labor productivity increases. If the age level rises, then labor productivity increases, and if the workforce's education level is high, it positively affects labor productivity. According to (Mankiw, 2001), several factors can affect productivity as follows:

- a. Physical Capital - Workers are more productive if they have the tools. The equipment and infrastructure used to produce goods and services is called physical capital or capital goods. With more and more equipment work can be completed faster and more accurately. It means that a worker with simple equipment produces less furniture per week than one with sophisticated equipment.

The inputs used to make goods and services, labor, capital and others are called factors of production. One of the important characteristics of capital goods is the production factors created by other factors of production.

- b. Human Capital - The second determinant of productivity is human capital. Human capital is an economist's term for the knowledge and skills workers acquire through education, training, and experience. Although education, training, and experience are intangible capital, unlike lathes and buildings, human capital is similar to physical capital in several ways.
- c. Natural Resources - The third determinant of productivity is natural resources. Natural resources are production inputs provided by nature, such as soil, rivers and mineral deposits.

2.5 Micro, Small and Medium Enterprises (MSMEs)

2.5.1 Definition of Micro, Small and Medium Enterprises

MSMEs are productive business units that stand alone, carried out by individuals or business entities in all economic sectors (Tambunan, 2020; Tambunan, 2018). The difference between UMI, UK, and MU is based on the initial asset value (not including land and buildings), average yearly turnover, or the number of permanent employees. Based on the information from the BPS, MSMEs are divided on the basis of the number of workers. According to the BPS category, small businesses are synonymous with small and home industries (IKRT). BPS classifies industries based on the number of workers, namely:

1. Home industry with 1-4 workers 21;
2. Small industry with 5-19 workers;
3. Medium industry with 20-99 workers;
4. Large industries with 100 workers or more.

MSMEs are productive businesses that stand alone, carried out by individuals or business entities in all economic sectors, which have forms in the form of individual companies, partnerships (Fa, CV, PT, Cooperative) and can also be distinguished based on the number of employees. SMEs in this study are the tofu industry in Manisrenggo District, which is included in micro businesses. The Sweet Renggo Tofu Industry will be examined for its influence on the use of production factors using regression. The measured production factors are wages, raw materials, and length of business. MSMEs are grouped based on business capital or annual sales results criteria. The criteria for working capital are used for establishing or registering MSME activities that were established after the PP UMKM came into effect. The capital criteria consist of the following:

- a. Micro Businesses have business capital up to a maximum of IDR 1,000,000,000.00 (one billion rupiah), excluding land and buildings in the place of business;
- b. Small Businesses have business capital of more than IDR 1,000,000,000.00 (one billion rupiah) up to a maximum of IDR 5,000,000,000.00 (five billion rupiah), excluding land and buildings where the business is located;
- c. Medium Enterprises have business capital of more than IDR 5,000,000,000.00 (five billion rupiahs) up to a maximum of IDR 10,000,000,000.00 (ten billion rupiahs), excluding land and buildings for business premises.

Whereas for MSMEs established before the PP UMKM came into effect, the grouping of MSMEs was based on the annual sales results criteria. The criteria for annual sales results consist of the following:

- a. Micro Enterprises have annual sales results of up to a maximum of IDR 2,000,000,000.00 (two billion rupiahs)
- b. Small Businesses have annual sales of more than IDR 2,000,000,000.00 (two billion rupiahs) up to a maximum of IDR 15,000,000,000.00 (fifteen billion rupiahs)
- c. Medium Enterprises have annual sales of more than IDR 15,000,000,000.00 (fifteen billion rupiahs) up to IDR 50,000,000,000.00 (fifty billion rupiahs).

The nominal value of the criteria above can be changed according to economic developments. In addition to the criteria for venture capital and annual sales results, ministries/state agencies may use other criteria such as turnover, net worth, investment value, number of employees, incentives and disincentives, local content, and/or application of environmentally friendly technology following the criteria for each business sector for certain interests (Article 36 PP UMKM).

2.5.2 Functions and Roles of Micro, Small, and Medium Enterprises

The function of micro, small and medium enterprises on a micro basis is as an inventor and as a planner. Meanwhile, micro, small and medium enterprises at the macro level support the development of a country, acting as movers, controllers and pioneers in a country's economic and social development. Following are some of the roles of small and micro enterprises in developing countries put forward by Liedholm & Mead (2013), including:

- a. Help advance economic development.
- b. Increase job opportunities
- c. Economic wheel drive
- d. Foreign exchange earner
- e. Increase productivity
- f. Contribute to social functions
- g. Driving the emergence of new businesses
- h. Business development base.

2.5.3 MSMEs Development

The development of Micro, Small and Medium Enterprises, according to Anderson (1982), goes through three growth phases determined based on data obtained from the experience of developed countries. These three phases can explain business development seen from the structure of business scale in the industrial sector based on region and time in developing countries. The three phases are:

1. First Phase - This first phase begins with the industrial growth phase, with many businesses still operating in the agricultural economy. In this phase, micro-enterprises begin to emerge. They are often called home industries, with most of their business sectors in apparel, food and beverage, simple building materials, and other handicraft industries. This line of business is chosen due to the minimum capital required to start a business, the ease of obtaining raw materials and the processing process. In this first phase, micro-enterprises supply various needs for agricultural activities and process agricultural products such as food and beverages. Most production activities are carried out by women working part-time and at the business owner's home. The owners or actors of micro-businesses in this phase do not generally have a high level of formal education. Most of these micro business locations are in rural areas and work side by side with several large foreign state-owned enterprises or state-owned enterprises located in big cities.
2. Second Phase - Business actors experience this second phase in more developed areas than the first phase with higher per capita income. This second phase gave birth to small and medium enterprises, which resulted from micro-enterprises development. In this phase, micro-enterprises engaged in manufacturing began to be shifted and taken over by small and medium enterprises. Several factors, including urbanization, cause expansion activities carried out by small and medium enterprises towards micro-enterprises, the large number of businesspeople recruiting employees, and changes in the barter buying and selling system with the cash market system. The cash market system is a buying and selling system where transactions are carried out using money as it has been until now.
2. Third Phase - This final phase is the development phase in which large businesses have emerged which have shifted the role of Small and Medium Enterprises in economic activities in various industrial fields. According to Anderson (1982), the opportunities that give rise to the emergence of big businesses in this phase are the products of the second phase. This third phase is characterized by several characteristics, including business scale development from small and medium enterprises to large enterprises and large enterprises expanding their production scale. Expansion carried out by large businesses does not come entirely from increasing the scale of medium-sized businesses. Still, there are large businesses whose development does not go through business-scale growth but is directly designed to become a large-scale business. Some of the factors that influence the development of MSMEs include:

- a. Management System Improvement in MSMEs - An essential factor that small and micro business owners usually ignore is business planning at the start before starting to run a business and managing all resources, which is different from management/management in large companies. If resource management has been carried out properly, this will impact making the right decisions for business owners.
- b. Technological Development - In a developing country like Indonesia, most micro-enterprises are businesses that are carried out alone without hiring other people, better known as self-employment, so the business owner handles all work. This condition is increasingly supported by the development of technology and communication, making it easier for entrepreneurs to control all their business needs by utilizing technology. The number of micro-entrepreneurs is also increasing.
- c. MSME Products - Most of the products produced by small and micro enterprises are those the lower middle-class needs. However, it does not rule out the possibility of producing unique products so that they reach the niche market and the upper middle class. As a developing country, Indonesia has problems almost the same as other developing countries; the lower middle-class population is larger than the upper-middle-class population. In addition, most Indonesia's population is consumptive. It is a distinct advantage for micro, small and medium entrepreneurs in marketing their products. Based on data obtained by BPS, many small and micro enterprises in Indonesia are engaged in the food industry sector. In 2014, it was recorded that the number of small and micro businesses engaged in the food industry sector was 1,125,425, while large businesses that entered the food industry sector in 2014 were only around 5,852. The food industry is a strategic sector that is very profitable for small and medium enterprises, so creative ideas always emerge to produce products that attract consumers' interest.

2.5.4 Aspects in SMEs

Rudjito (2010) reveals that there are at least four main aspects which are the reasons why MSMEs have a strategic role, namely:

- a. Managerial aspects include increasing productivity/turnover/utilization/occupancy rate, increasing marketing capabilities and developing human resources.
- b. Aspects of capital include capital assistance (1-5% allowance for SOE profits and the obligation to extend credit to small businesses of at least 20%) from bank loans through credit facilities.
- c. Development of partnership programs with large businesses through systems such as upstream-downstream or downstream-upstream linkages, venture capital, and subcontracting
- d. Development of a small industrial center system in an area, whether in the form of PIK (Small Industrial Settlements), LIK (Small Industry Environment) supported by UPT (Technical Service Unit) and TPI (Industrial Extension Workers)
- e. Guidance for certain business are fields and regions through KUB (Joint Business Group), Kopinkra (Small Industry and Handicraft Cooperatives).

Besides having an important role in absorbing labor, SMEs mediate a country's industrialization process. In general, MSMEs in the national economy have a role: (1) as the main actor in economic activity, (2) the largest provider of employment, (3) an important player in the development of the local economy and community empowerment; (4) creators of new markets and sources of innovation, and (5) their contribution to the balance of payments (Department of Cooperatives and SMEs, 2008). Therefore, empowerment must be carried out structured and sustainably, aiming to increase productivity and competitiveness and foster strong new entrepreneurs. It is in line with Ayyagari et al. (2018), who argued that MSMEs have always been the dominant type of business. Business actors in this category have a quite diverse contribution to GDP but always have a significant value in absorbing labor.

3. Methodology

3.1 Research Location

This study was conducted in Aceh Province because the contribution of MSMEs to the Aceh economy is quite significant. The population in this study were all MSME actors in Aceh Province. At the same time, the sampling was carried out randomly based on the researchers' considerations based on fulfilling the elements related to the substance of the research using a purposive sampling technique. The regencies/cities that are the object of this research by zone are as follows:

- a. Zone 1 of the Eastern Region, which consists of the City of Sabang, the Municipality of Banda Aceh, and the District of Aceh Besar
- b. Zone 2 consists of Lhokseumawe City, North Aceh District, East Aceh District, Langsa City, and Aceh Tamiang District.
- c. Zone 3 South West Region comprises Aceh Jaya District, West Aceh District, Subulussalam City, and Aceh Singkil District.

- d. Zone 4 in the Central Aceh district area.

3.2 Data Types and Sources

This study uses primary data and secondary data. Primary data collection was obtained from direct interviews (face-to-face) using a questionnaire to MSME actors in the districts/cities of Aceh Province. Meanwhile, secondary data was collected from related agencies, the Central Bureau of Statistics and related agencies.

3.3 Data Analysis

3.3.1 Qualitative Descriptive Analysis

Descriptive analysis is used to see the development of UMKM in Aceh Province. Then to find out the factors that affect the labor productivity of MSMEs is carried out using multiple linear regression analysis (Gujarati, 2004), which is formulated as follows:

$$LPD_{it} = b_0 + b_1LED_i + b_2AGE_i + b_3WEX_i + b_4GDR_i + b_5DM_i + e$$

where:

- LPD : Labor productivity
 LED : Level of education
 AGE : Age
 WEX : Work experience
 GDR : Gender
 DM : Dummy for labor force
 e : Error term
 b_0 : Intercept
 b_1, b_2, b_3, b_4, b_5 : Regression coefficient

3.3.2 Marketing Mix Analysis

Marketing mix is a tool created by the president of the American Marketing Association in 1953. Until now, the 4p marketing mix is still used to make important decisions on marketing strategy. Marketing Mix consists of 4P: Product, Place, Price, and Promotion.

3.3.3 SWOT analysis

SWOT is a situational analysis. SWOT is an acronym for strengths, weaknesses, opportunities, and threats (Wheelen et al., 2015). SWOT analysis generates differentiating competencies within an organization, company, or product and generates opportunities in the field and threats (Wheelen, 2015).

Table 2
Demography Profile of Respondent

Demographics	Category	Frequency	Percentage
Gender	Man	62	62,0
	Woman	38	38,0
Age (Years)	20 – 27	19	19,0
	28 – 35	29	29,0
	36 – 43	23	23,0
	44 – 51	24	24,0
	>51	5	5
Number of Family Members	0 – 1	3	3,0
	2 – 3	44	44,0
	4 – 5	47	47,0
	>5	6	6,0
Level of education	Middle school/equivalent	1	1,0
	SMA/equivalent	21	21,0
	Diploma	17	17,0
	S1	48	48,0
	S2/S3	13	13,0

Table 2 shows the results of the distribution of the frequency of respondents by gender. The number of males is 62 frequencies with a percentage of 62 percent and females are 38 frequencies with a percentage of 38 percent, the total number based on

gender is 100 frequencies. In Micro, Small and Medium Enterprises (MSMEs) the distribution of respondents is based on age where in the age group 20-27 there are 19 frequencies, ages 28-35 there are 29 frequencies, ages 36-43 there are 23 frequencies, ages 44-51 there are 24 frequencies, and ages above 51 there are 5 frequencies with a total of 100 frequencies. The frequency distribution of respondents by age shows that the highest percentage is at the age of 28-35 with 29 percent and the lowest is at the age above 51 with 5 percent.

The frequency distribution of respondents based on the number of family members, the highest frequency was in 4-5 family members with 47 frequencies and the lowest was in respondents whose family members only consisted of 0-1 with 3 frequencies. The percentage distribution of the frequency of respondents based on the number of family members, it can be seen that between 0 to 1 the number of family members has a frequency of 3 percent, 2 to 3 the number of family members has a frequency of 44 percent, 4 to 5 the number of family members has a frequency of 47 percent. Respondents with more than 5 family members have a frequency of 6 percent.

The frequency of MSME respondents in Aceh Province based on education level in this study was used starting from the junior high school/equivalent level of education up to the master/doctoral level of education. The education level based on the SMP/equivalent group has 1 frequency with a percentage of 1.0 percent, SMA/equivalent education level has 21 frequencies with 21.0 percent, Diploma education level has 17 frequencies with a percentage of 17.0 percent, S1 has 48 frequencies with a percentage of 48.0 percent, and the Master/S3 education level has 13 frequencies with a percentage of 13.0 percent. This study concludes that the frequency distribution of respondents based on their education level is at most S1 with a percentage of 48 percent and the lowest frequency is at the Masters/S3 level of education with a percentage of 13 percent.

4.4 Analysis of MSME Labor Productivity Levels

Table 3

Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.956	1.359		-0.704	0.483
Level of education	0.268	0.131	0.247	2.038	0.044
Age	0.304	0.130	0.268	2.331	0.022
Work experience	0.271	0.127	0.255	2.131	0.036
Gender	0.231	0.105	0.178	2.192	0.031
Skill Dummy	0.241	0.107	0.201	2.231	0.020

a. Dependent Variable: Labor Productivity

Table 3 captures the result of hypothesis testing. This study indicates that level of education, age, work experience, gender and skill dummy significantly affect Labor Productivity. The regression coefficient of the level of education is 0.268, standard error is 0.131 and the significance at 0.044 or 5 percent. It indicates that the education level significantly affects the productivity of MSME workers. So, the proposed hypothesis (H1) is accepted. Also, the result of age variable, the t-stat value was 2.331 with a significance value of 0.022. Furthermore, the t-table value according to the statistical table was obtained at 1.984. When compared between t-stat and t-table, then $t\text{-stat} > t\text{-table}$ ($2.331 > 1.984$). The significance value of 0.022 is smaller than 0.05. The results of this test indicate that age significantly affects the productivity of MSME workers. So, it can be concluded that the second hypothesis (H2) is accepted.

For the work experience variable, the t-stat value was 2.131 with a significant value of 0.036. Furthermore, the t-table value according to the statistical table was obtained at 1.984. When compared between t-stat and t-table, then $t\text{-stat} > t\text{-table}$ ($2.131 > 1.984$). The significance value of 0.036 is smaller than 0.05. The results of this test indicate that work experience significantly affects the productivity of MSME workers. So, it can be concluded that the third hypothesis (H3) is accepted. Based on the t-test results for the gender variable, the t-stat value was 2.192, with a significance value of 0.031. Furthermore, the t-table value, according to the statistical table, was obtained at 1.984. We compared t-stat and t-table (e.g., $2.192 > 1.984$). The significance value of 0.031 is smaller than 0.05. The results of this test indicate that gender significantly affects the productivity of MSME workers. So, it can be concluded that the fourth hypothesis (H4) is accepted.

4.6 MSME Resilience in Entering the Digital Market

The digital market is starting to become a trend in online marketing strategies. Increasingly sophisticated technological developments drive this. The digital market is also able to help MSME business actors to get sizable profits and be able to reach a wider market. MSMEs are very important in economic activity, providing employment, community empowerment, and creating new product innovations. In entering the digital market, MSMEs have obstacles such as capital, market information, and a lack of knowledge in using technology. The government's role is needed in helping and encouraging the success of MSMEs in the digital market to gain access to expand their marketing network. Therefore, the strategy for MSMEs in entering the digital market must be carried out in a structured and sustainable manner to encourage increased product competitiveness and MSME resilience in the digital market.

5. Conclusions and recommendations

This study concludes that the MSMEs resilience is one focus of the government in achieving the country's economy due to the MSMEs are the pillars of development based on the people's economy. The MSME resilience and sustainability strategy is carried out by maximizing product marketing through a marketing mix. The development of MSMEs will positively impact regional economic growth. MSMEs development is inseparable from government policies to maintain regional superior products in supporting the regional economy. Human resources must also support the resilience and sustainability of MSME development with a qualified workforce with good skills. MSME workforce productivity can be influenced by education level, age, gender, work experience, and skills. The Marketing Mix strategy for marketing MSME products is necessary to run a business. A good business strategy will increase the product competitiveness of MSME business actors in the market. To master product marketing strategies, complete knowledge and information about marketing targets is needed. Based on technological developments and product innovation, MSME players must utilize digital media as a marketplace for marketing products and promotional media. Apart from reaching market areas not limited to product sales on the marketplace, it will provide many advantages for MSME business actors.

Some policy recommendations that can be made for the resilience of regional MSMEs in entering the digital market are that local governments must have an accurate database related to the condition of regional MSMEs so that they can provide and assist business development according to the needs required by every business actor. The government also provides facilities and infrastructure to promote regional MSME products, such as galleries and creative corners at the district/city, provincial, national and international levels to display MSME products. Local governments must be more effective in training MSME actors to improve the skills and quality of the products produced and assist MSME actors in developing and improving the products' quality. The government should focus on training business actors related to online marketing (digital marketing) and socializing online platforms provided by the government, such as Aceh Sale, to promote MSME products. as an effort for the resilience and sustainability of MSME businesses.

The government plays an active role in the process of business licensing and business development and is the center for producing or promoting regional MSME superior products. The regional government focuses on realizing and using CSR funds for companies operating in the area to be earmarked for helping the development of small and medium enterprises. The local government makes regulations, or Qanun obliges all agencies, companies, or agencies to use local products to promote and love local products. The government needs to coordinate, integrate and synchronize between related agencies in meeting the needs for the availability of raw materials for MSMEs that already have high productivity in their business so that the sustainability of MSME businesses is maintained in meeting the market.

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