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Digital Literation of Micro, Small and Medium Enterprises (MSMEs) in Jember District

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Abstract. This study aims to find out how: a) ownership of digital facilities, the ability to access and the ability to use digital media, b) opportunities to access media both social media and other internet networked media, c) use of digital media to support efforts to sustain the productive business of business actors. Micro, Small, and Medium Enterprises in Jember Regency. The qualitative descriptive research method uses data collection techniques using interviews, observation, and documentation to obtain information, to answer the problems formulated, and the objectives to be achieved. The results showed that: 1) as many as 67% of MSMEs actors in Jember did not have digital media facilities in the form of computers, but other findings showed that 73% of MSMEs players had experience in using computers. This shows that even though they do not have computer facilities, some MSMEs players still have experience in using computers, meaning that some of the MSMEs players who have limited ownership of digital facilities are still trying to keep learning in the use of digital media. Based on the results of the interview, they admitted that they often borrow computers from relatives and friends to study mainly related to product design and marketing. They do this if they have trouble using only their cellphones. Meanwhile, the frequency of MSMEs players using computers in the past week was 7% more than 6 times, 13% 3-6 times, 20% 1-3 times, and 60% did not use computers at all. 7% of MSMEs players who frequently use computers in the past week explained that they do have promotional media on several marketplaces, social media and also own the web. So, every day they have to use computers to serve consumers as a routine activity, this is felt to make it easier for them to carry out online marketing and learn applications that can support product quality improvement when compared to using cellphones. Based on the findings in this research, it shows that the frequency of use of digital media for business development and increasing literacy of MSMEs actors in Jember Regency is still in the low category. 2) The dominant media facilities used for accessing the internet are cellphones at 67%, PCs at 33%, and internet cafes at 0%. Meanwhile, the dominant media channel they access is social media, namely 73% of which they tend to access are Facebook, IG, WA. On average, the respondents are not familiar with other social media besides those social media. Then for access to the marketplace by 13%, email access is only 7%. Based on these findings, it can be seen that most of the MSMEs players in Jember have not used other media such as market places, market space, and email. The use of email is only a condition for opening social media. Meanwhile, about the objectives of MSMEs players in accessing information, 67% of the objectives of accessing information were for product marketing, 13% were looking for information related to product development and business development, 7% were looking for information about competitors, and 13% for other activities. that has nothing to do with effort. 3) Efforts to sustain the productive businesses of MSMEs players in the district. Jember has been running and going on from year to year. However, most of the MSMEs actors are still unable to carry out managerial management ideally. There are still many MSMEs that have not been able to take advantage of opportunities in the current digital era. For MSMEs that are already able to take advantage of digital media in helping their business management, including marketing management, finance, information, and others, it can accelerate the pace of development and business sustainability.



1. Introduction

Indonesia is a country that has the most MSMEs industry players, this is due to the high productive age in Indonesia which is not directly proportional to the availability of job opportunities (according to the Chairman of the DKI Chamber of Commerce and Industry Advisory Council, Dhaniswara K Harjono) [1], encouraging Indonesians to compete for the race to create breakthroughs to increase competitiveness for the sake of advancing each other's economies. It is not surprising that there are more and more entrepreneurs in the Small and Medium Enterprises sector.

Over the last few decades, the rapid development of the Internet and information technology has profoundly influenced every aspect of organizational and social activities. The government has made efforts to improve access and transfer of technology to develop innovative MSMEs players, among others by utilizing information and communication technology (ICT) so that it is hoped that they will be able to compete with foreign MSMEs players. The empowerment of micro, small, and medium enterprises (MSMEs) in various regions will be the perfect solution to overcome the current downturn in the national economy. This shows that MSMEs have a great influence on the Indonesian economy. In the policy draft of the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI), The Indonesian government is committed to turning Indonesia into a middle-income country by 2025. To achieve this, Indonesia needs at least 7% economic growth per year, 2% above the average economic growth so far. It can be a lesson for us that at the time of the economic crisis that hit Indonesia in 1997, many large companies experienced losses, lethargy, and even stopped their business activities. However, Small and Medium Enterprises are proven to be more resilient in facing the economic crisis and can save the Indonesian economy when it is hit by a crisis so that the Small and Medium Enterprises sector is expected to be able to increase economic growth.

Communication and information technology-based capacity building needs to be done, in this case, digital literacy is done to develop the quality of MSMEs governance. It is hoped that the development of MSMEs based on the application of digital technology will be accompanied by the ability to use this technology to access, manage, integrate, analyze and evaluate information, build new knowledge, and create and communicate with others. There will be the optimization of the performance of the digital-based MSMEs organization.

Currently, the marketing of company products and services is an interactive process due to the use of information technology. The company not only provides product catalogs and promotions on its website, but the company website has been used as a means for online dialogue, discussion, and consultation with consumers, displaying bulletin boards, creating electronic questionnaires, mailing lists, and coordination by electronic mail [2]. Many business organizations, including small and medium enterprises (MSMEs), have started to adopt digitalization of business processes as a means of achieving market and operational efficiency [3]; [4]; [5].

Business people in Indonesia are increasingly aware of the power of the internet and digital devices in improving their business performance [6]. The digitization of business processes is defined as an enterprise-wide information system based on Internet technology. To date, the majority of research on SME digitization has focused on the antecedents of SMEs involved in one or several specific types of e-business practices or processes [7]. Other studies have also looked at the role of digitization in influencing the market and operational performance of SMEs [5]; [8]; [9]; [10].

Therefore, the development of MSMEs in this context must be placed as an effort to increase the productivity of the public sector. Holzer & Callahan argues that the integration of quality management, human resource development, technology adaptation, strategic partnerships, and organizational performance measures will result in increased public sector productivity when synergized with capital, labor, and energy [11]. Given that currently the world, including Indonesia, is entering the era of technology-based information. So the pressure point for improving the quality or development of MSMEs is placed on technological adaptation. Holzer & Callahan stated that technology adaptation was carried out in 5 ways: (1) open access to data; (2) digital technology-based organizational management; (3) opening public information through new media; (4) application of cost-effective applications; and (5) cross-cutting techniques. In other words, Holzer & Callahan's recommendation focuses on the digitization of the organization, in this context, MSMEs. Organizational digitization is only possible when members of the organization are digitally literate, which is a condition when technology has become part of everyday life. However, if this condition has not been achieved, digital literacy is needed to develop digital-based MSMEs. Adams and Hamm said that literacy is the ability to

read, write, speak, hear, think, and see [12]. Kress [13] also said that literacy is used when composing messages with letters to recording the message.

About digital literacy according to Potter [14] is the interest, attitude, and ability of individuals to use digital technology and communication tools to access, manage, integrate, analyze and evaluate information, build new knowledge, create and communicate with others to participate effectively in society. In Potter's conception, the effort to literate a digital-based society means not only introducing digital media but also synergizing with daily activities (including organizations) which lead to increased productivity. The term digital literacy itself became popular around 2005 [15]. Digital literacy means the ability to relate to hypertextual information in the sense of computer-assisted unordered reading. The term digital literacy was used in the 1980s [15] when computing technology began to be used to support everyday life.

Then the concept of digital literacy was expanded as the ability to understand and use information from various digital sources for the benefit of personal and organizational development. In other words, the ability to read, write, and relate to information will determine how an individual and an organization develops. The ability of individuals to be able to access information in the digital era is important, including for women.

The results of Kervin's research [16] indicate that the use of digital media has the potential to enrich and offer opportunities for learning and literacy with ease. Because using digital media allows the target to use, be active, build closeness, and encourage the ability to learn [16]. If MSMEs have been developed with a digital literacy approach, then the next concept that must be presented is community development.

Media culture, as stated by Kellner, refers to a situation where audio-visual displays or shows that have helped organize daily life, dominate entertainment projects, form political opinions and social behavior, even provide material supplies to form an identity. someone [17]. Print media, radio, television, film, internet, and other final forms of media technology have provided definitions for being male or female, and differentiating a person's status based on class, race, or sex [18]. In this context, digital literacy is carried out based on a gender perspective. The hope is that there will be a synergy of concepts between technology adaptation, digital literacy, MSME development, and a gender perspective. The diffusion of innovation theory becomes relevant to be used as one of the literature reviews to enrich the discussion of this reality. Diffusion and innovation theory was developed by Everett Rogers. Diffusion is a process of innovation that is communicated through certain channels to members of the social system.

Communication is a process where participants create and share information to achieve a common understanding. Innovation is an idea, practice, or object that is understood as something new by each individual or other user unit [19]. In this theory, it is explained that the innovation process consists of a series of actions which include (1) Knowledge, namely the individual's awareness of the innovation and the existence of a certain understanding of how the innovation functions; (2) Persuasion related to individuals having the nature of approving or disapproving of innovation; (3) Decision, in this case, that individuals are involved in activities that lead to a choice to adopt an innovation; (4) Implementation, namely individuals carry out their decisions according to their choices; and (5) Confirmation, that is, individuals will seek opinions that will strengthen the decisions they have taken, but the individual can change from decisions that have been taken previously if the messages about the innovation they receive contradict one another [20]. The diffusion theory of innovation is generally used to explain the reasons why adoption occurs and some people believe that it is not necessarily better [21]. According to Dearing's view [21] that the study of the diffusion of this innovation is used to increase diffusion which can help to solve practical problems. The four main elements in the diffusion theory of innovation include the characteristics of the innovation, communication channels, social systems, and period [19].

Based on the above thinking, researchers are encouraged to examine more deeply a study entitled "Digital Literacy of Micro, Small and Medium Enterprises (MSMEs) in Jember Regency".

2. Methods

This study used a qualitative descriptive research method using data collection techniques using interviews, observation, and documentation to obtain information, to answer the problems formulated, and the objectives to be achieved. Meanwhile, data analysis was carried out continuously from the beginning to the end of the study, including:

- a. Data reduction, namely making abstracts of all data obtained from all field notes from interview observations and document review. Data reduction is a form of data analysis that sharpens, expects important things, classifies directives, removes unnecessary and organizes data so that it is systematic and can make a meaningful conclusion. So, the data obtained through observation.
- b. Interviews and document reviews were collected, selected, and grouped then concluded without eliminating the value of the data itself.
- c. Data presentation, namely a set of structured information that gives the possibility of concluding taking action. This data presentation process reveals the whole set of data obtained so that it is easy to read and understand, which is most often used for data presentation in qualitative research is narrative text.
- d. Conclusion and verification
Data that has been arranged in such a way (patterned, focused, arranged systematically) are then summarized so that the meaning of the data can be found.

3. Results and Discussion

Jember Regency is an area that has a wealth of local products with very good potential. Some of Jember's superior products in various fields are mostly produced by MSMEs. Many of these local products are the superior products of Jember Regency. The recent developments in information technology have created new opportunities for MSMEs with all their limitations to penetrate national and international markets with relatively affordable promotional costs.

The research results show that the growth of internet users, social media, and mobile users encourages a shift in digital consumer shopping behavior towards online shopping. There is a shift in people's behavior in the use of digital technology to encourage the growth of e-commerce in Indonesia. With the habit of people doing online shopping, the selling trend through the internet is increasing. The growth of digital consumers in Indonesia is an opportunity.

This is supported by the results of research from Partners [22] in Indonesia, there are 326 million mobile phone users with 88 million internet users and more than 79 million social media users, which will further open up opportunities and facilitate SMEs in promoting and developing businesses through digital media.

3.1. Ownership of Digital Facilities, Ability to Access and Ability to Utilize Digital Media for Micro, Small and Medium Enterprises in Jember Regency

Based on the results of the research, findings related to the ownership of digital facilities, especially computers, the ability to access them, and the ability to use digital media at 15 MSMEs in this study, were explored, namely as follows.

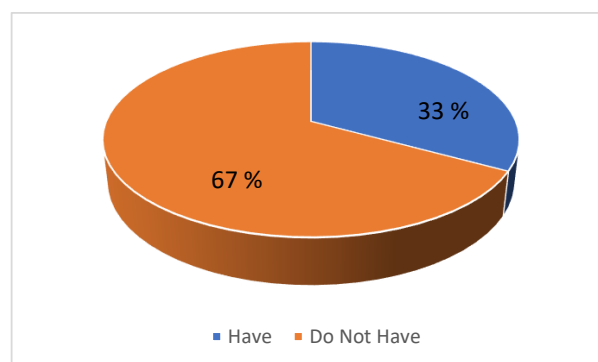


Figure 1. Ownership of Computer Facilities

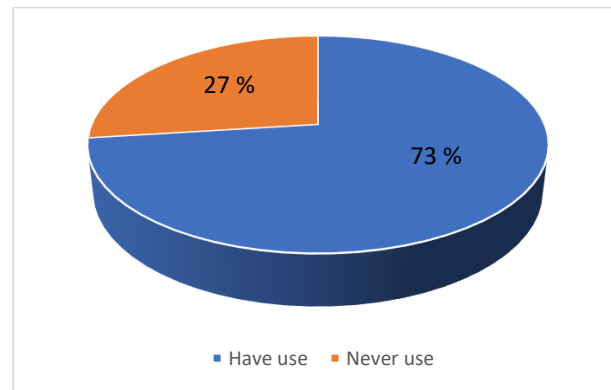


Figure 2. Computer Usage

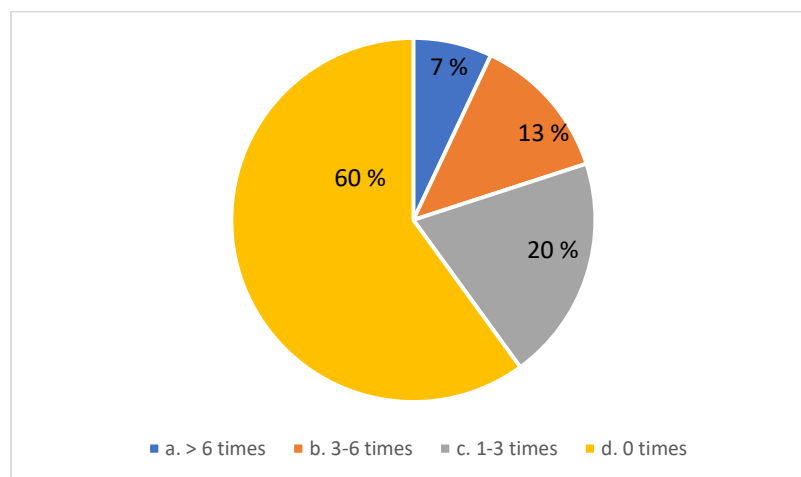


Figure 3. Computer Usage in the Last Week

Based on Figure 1 shows that as many as 67% of MSMEs players in Jember do not have digital media facilities in the form of computers, but Figure 2 shows that as many as 73% of MSMEs players have experience in using computers. This shows that even though they do not have computer facilities, some MSMEs players still have experience in using computers, meaning that some of the MSMEs players who have limited ownership of digital facilities are still trying to keep learning in the use of digital media. Based on the results of the interview, they admitted that they often borrow computers from relatives and friends to study mainly related to product design and marketing. They do this if they have trouble using only their cellphones.

Figure 3 shows the frequency of MSMEs actors using computers in the past week, namely 7% more than 6 times, 13% 3-6 times, 20% 1-3 times, and 60% did not use computers at all. 7% of MSMEs players who frequently use computers in the past week explained that they do have promotional media (digital marketing) on several marketplaces, social media and also own the web. So, every day they have to use computers to serve consumers as a routine activity, this is felt to make it easier for them to carry out online marketing and learn applications that can support product quality improvement when compared to using cellphones.

Based on the findings in this research, it shows that the frequency of use of digital media for business development and increasing literacy of MSMEs actors in Jember Regency is still in the low category. This is in line with the explanation from Wignaraja [23] which shows that the participation of Indonesian MSMEs in global production networks is still low. By using World Bank Enterprise Survey data covering 5,900 companies in five ASEAN countries, namely Malaysia, Thailand, the Philippines, Indonesia, and Vietnam, it can be concluded that the number of Indonesian MSMEs involved in global production is only 6.3 percent. This figure is far below the MSMEs of Malaysia, Thailand, Vietnam,

and the Philippines, where respectively the number of MSMEs involved in the global production network is 46.2; 29.6; 21.4; and 20.1 percent. Based on these findings it shows that not only in Jember Regency, as a whole the findings in Kab. Jember also occurs in almost all regions in Indonesia.

If MSMEs players can adopt digital technology, it will be able to support the development of MSMEs businesses. This was admitted by the informant who focused on adopting digital technology and using it for business development.

"After I use technology in product marketing through several web social media market places, I design product packaging, create e-catalogs for my products. There was an increase in the number of consumers of my products, both from Jember and from outside the city. I often send my products to my customers overseas. And our efforts are increasingly being recognized by the public. Many TV stations have come to cover our business activities. Many students and researchers also came to share and interview us. Digital technology helps our business "

This is in line with the explanation from Slamet et al, who stated that the adoption of digital technology has been proven to improve the performance of SMEs, especially in increasing access to new customers, and can have an impact on increasing sales [25].

3.2. Opportunities for accessing media, both social media and other internet-networked media, are carried out by Micro, Small, and Medium Enterprises actors in Jember Regency

The next findings are related to media access opportunities, both social media and other internet networked media, carried out by Micro, Small, and Medium Enterprises actors in Jember Regency. The results and findings this time, describe specifically the use and ways of MSMEs actors to utilize the internet. Even though Figure 2 shows that MSMEs actors do not have computer facilities, in reality, they have the opportunity to access the internet. The following is an overview that we can find out.

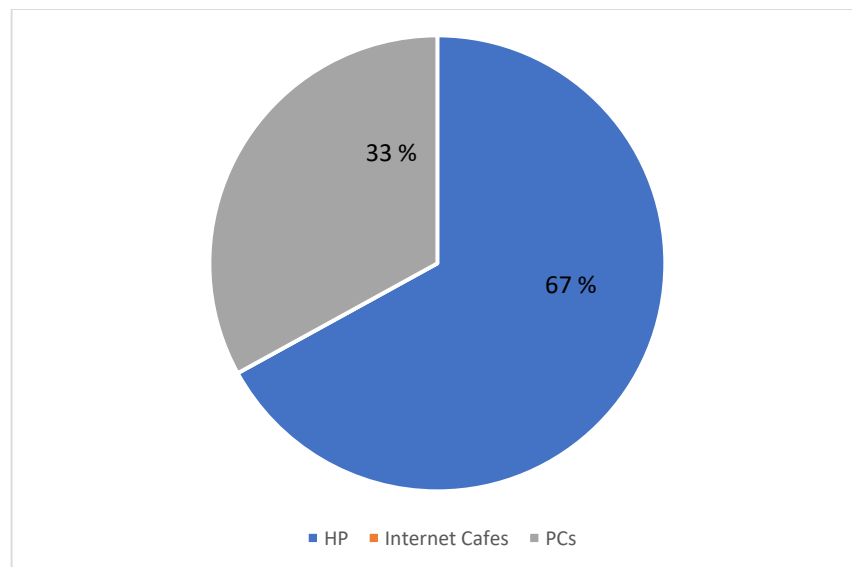


Figure 4. Media for Accessing the Internet

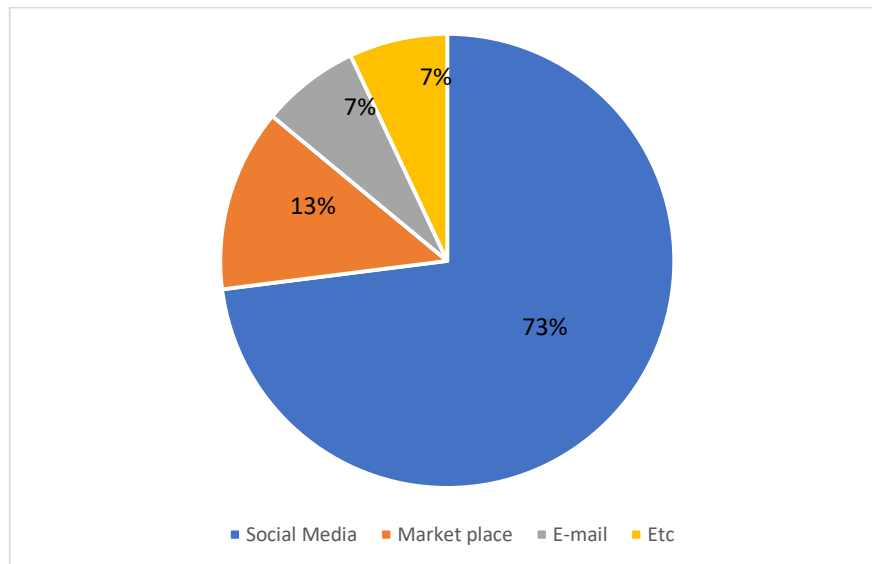


Figure 5. Accessed Media Channels

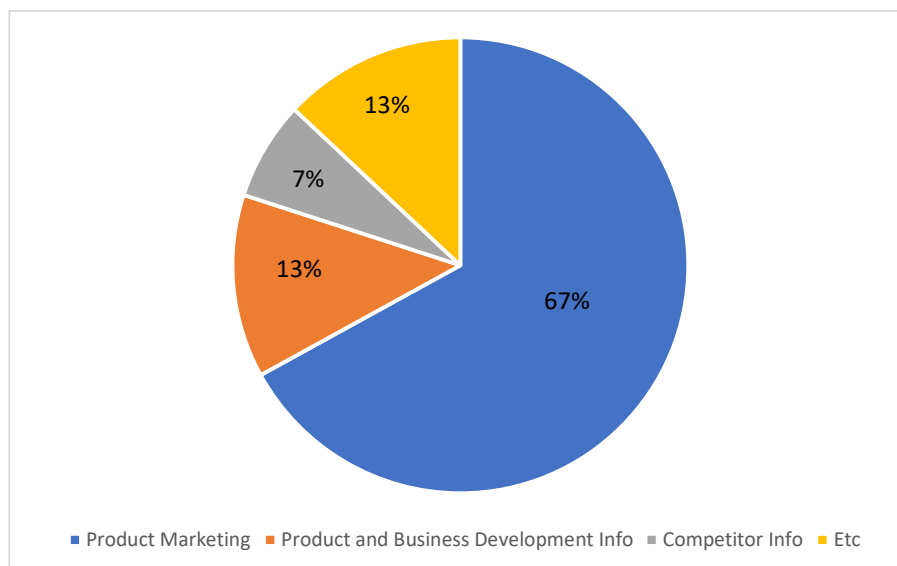


Figure 6. Purpose of Accessing Information

Figure 4 shows the dominant media facilities used for accessing the internet, namely mobile phones at 67%, PCs at 33%, and internet cafes at 0%. Meanwhile, Figure 5 shows that the dominant media channel they access is social media, namely 73% of which they tend to access are Facebook, IG, WA. On average, the respondents are not familiar with other social media besides those social media. Then for access to the marketplace by 13%, email access is only 7%. Based on these findings, it can be seen that most of the MSMEs players in Jember have not used other media such as marketplaces, market space, and email. The use of email is only a condition for opening social media. Many of them explained that they had not opened their email for a long time, so they forgot the password.

Figure 6. shows the objectives of MSME actors in accessing information. The results obtained were 67% to access information, namely for product marketing, 13% for seeking information related to product development and business development, 7% for seeking information about competitors, and 13% for other activities that had nothing to do with business. Based on the findings, it shows that the pattern of doing business of MSMEs in Kab. Jember is run as it is, many of them have not yet used its internet access to seek information on strategies on how to improve product quality and accelerate

business development, even some of them ignore or don't care about competitors. If they want to learn, actually observing competitors will add a lot of insight into business development for them. However, all informants admitted that indeed the internet and digital devices have their strengths in supporting their business. This is in line with the findings of Deloitte [6] who explained that business people in Indonesia are increasingly aware of the power of the internet and digital devices in improving their business performance. Sites, social media, and mobile messaging applications are very important media for SMEs in interacting with consumers. As many as 38% of business owners and managers stated that the site is very important for them to interact with consumers, while 32% and 23% chose social media and mobile messaging applications in interacting with consumers.

3.3 The use of digital media to support efforts to sustain the productive businesses of Micro, Small, and Medium Enterprises in Jember Regency

Efforts to sustain the productive businesses of MSME players in the district. Jember has been running and going on from year to year. However, most of the MSME actors are still unable to carry out managerial management ideally. There are still many MSME players who have not been able to take advantage of opportunities in the current digital era.

For MSMEs that are already able to take advantage of digital media in helping their business management, including marketing management, finance, information, and others, it can accelerate the pace of development and business sustainability. For example, data from We Are Social [24] explains that in Indonesia the average person spends time using the internet is 4.42 hours/day (desktop) and 3.33 hours/day via mobile phones and to use social media on average. Average of 2.51 hours/day and watching television 2.22 hours/day. This shows that the use of the internet and social media has become a behavior in Indonesia. So, with this condition, MSMEs can take advantage of digital media to seize opportunities for the sustainability of their productive businesses.

This is by the results of research from Deloitte [6] showing that of the 437 MSMEs in Indonesia spread across the cities of Medan, Jakarta, Bandung, Semarang, Surabaya, and Makassar stated that users can provide an 80% profit increase in income, one and a half times more likely to increase job opportunities, 17 times more likely to be more innovative and MSMEs more internationally competitive.

4. Conclusions

Based on the results and discussion, it shows that:

1. As many as 67% of MSMEs players in Jember do not have digital media facilities in the form of computers, but other findings show that 73% of MSMEs have experience in using computers. This shows that even though they do not have computer facilities, some MSMEs players still have experience in using computers, meaning that some of the MSME players who have limited ownership of digital facilities are still trying to keep learning in the use of digital media. Based on the results of the interview, they admitted that they often borrow computers from relatives and friends to study mainly related to product design and marketing. They do this if they have trouble using only their cellphones. Meanwhile, the frequency of MSMEs players using computers in the past week was 7% more than 6 times, 13% 3-6 times, 20% 1-3 times, and 60% did not use computers at all. 7% of MSMEs players who frequently use computers in the past week explained that they do have promotional media (digital marketing) on several marketplaces, social media and also own the web. So, every day they have to use computers to serve consumers as a routine activity, this is felt to make it easier for them to carry out online marketing and learn applications that can support product quality improvement when compared to using cellphones. Based on the findings in this research, it shows that the frequency of use of digital media for business development and increasing literacy of MSMEs actors in Jember Regency is still in the low category.
2. The dominant media facilities used to access the internet are mobile phones at 67%, PCs at 33%, and internet cafes at 0%. Meanwhile, the dominant media channel they access is social media, namely 73% of which they tend to access are Facebook, IG, WA. On average, the respondents are not familiar with other social media besides those social media. Then for access to the marketplace by 13%, email access is only 7%. Based on these findings, it can be seen that most of the MSMEs players in Jember have not used other media such as market places, market space, and email. The use of email is only a condition for opening social media. Many of them explained that they had not opened their email for a long time, so they forgot the password. Meanwhile, about the objectives of MSMEs players in

accessing information, 67% of the objectives of accessing information were for product marketing, 13% were looking for information related to product development and business development, 7% were looking for information about competitors, and 13% for other activities. that has nothing to do with effort. Based on the findings, it shows that the pattern of doing business of MSMEs in Kab. Jember is run as it is, many of them have not yet used its internet access to seek information on strategies on how to improve product quality and accelerate business development, even some of them ignore or don't care about competitors.

3. Efforts to sustain the productive businesses of MSMEs players in the district. Jember has been running and going on from year to year. However, most of the MSMEs actors are still unable to carry out managerial management ideally. There are still many MSMEs players who have not been able to take advantage of opportunities in the current digital era. For MSMEs that are already able to take advantage of digital media in helping their business management, including marketing management, finance, information, and others, it can accelerate the pace of development and business sustainability.

Based on the results and discussion, the suggestions given are the need for an active role for the government to assist MSMEs players in Jember Regency to increase digital literacy. So, with the high digital literacy owned by MSMEs, it will make MSMEs able to compete in the current digital era, able to easily access consumers from all regions, both domestic and foreign. Also, good digital literacy can help MSMEs players learn to improve the quality of their products. So, products owned by MSMEs can have competitiveness.

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