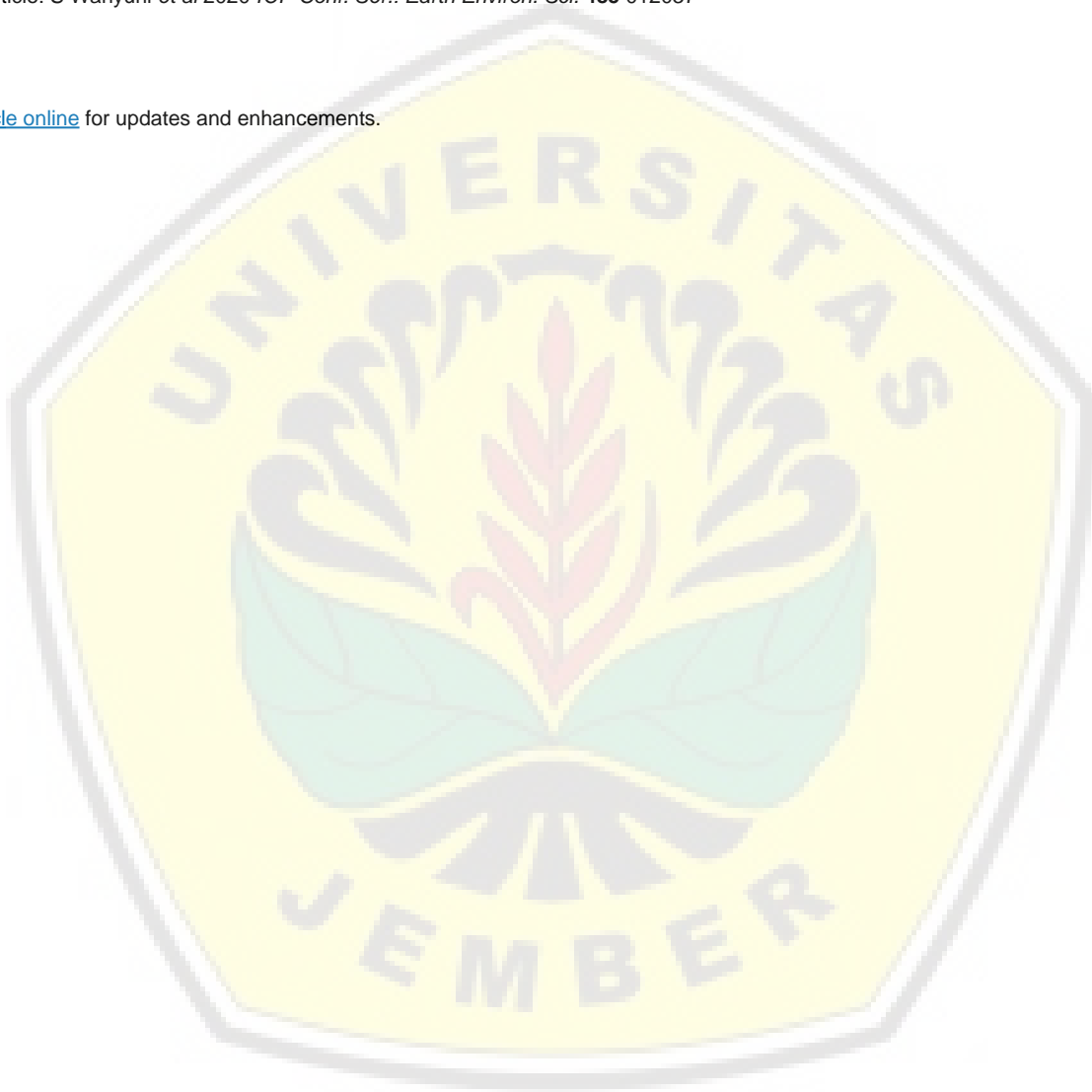


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A promotional banner for the PRiME 2020 meeting. The background is a dark blue space-themed image with a globe. On the left, there are three circular logos: ECS (Electrochemical Society), The Electrochemical Society, and The Korean Electrochemical Society. The main text in the center reads 'Joint International Meeting PRiME 2020 October 4-9, 2020' in white and blue. Below this, a blue bar contains the text 'Attendees register at NO COST!' in white. On the right, there is a logo for 'PRiME™ PACIFIC RIM MEETING ON ELECTROCHEMICAL AND SOLID STATE SCIENCE 2020'. At the bottom right, a blue bar contains the text 'REGISTER NOW' with a white arrow pointing right.

The analysis of e-commerce utilization in Micro, Small and Medium Enterprises (MSMEs) at Jember

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Abstract:

Globalization era is a challenge for MSMEs to survive and have a competitive advantages. Information technology development, specifically social media, offers benefits for MSMEs to increase marketing and sales, to expand market share, and to help business decisions. A couple of business world development today, e-commerce is a necessity to improve and gain business competition and product sales. In the process of using e-commerce, trading and marketing activities are more efficient where the use of e-commerce show the transactions ease reducing costs and speeding up the transaction process. Operational costs can be reduced as good as possible by speeding up time and reducing the possibility of human error. Reducing paper used in various work activities is starting from designing, producing, sending, distributing to marketing. Social media as part of e-commerce media is an innovative tool for MSMEs in supporting business systems. This current study was descriptive study with a qualitative approach. The results proved that MSMEs in Jember has utilized e-commerce in developing its business. The internet used in business on MSMEs strategies deployed in increasing its competitiveness. Moreover, the factors that constrain the implementation of e-commerce included the frequent mistrust between sellers and buyers, intense competition in online market, the strength amount in the offline market, the availability of internet facilities and infrastructure, as well as the perception on e-commerce systems are complicated.

1. Introduction

The 2016 Economic Census of East Java Province shows that the management of MSMEs is carried out simply reflected by the legal entity status, financial records, and the computers use. The number of MSMEs without legal status still dominates, specifically reaching 94.50 percent. The majority of MSMEs do not use computers. Computers are not only useful for conducting financial reports, but also it is useful for product design, product marketing and others. The aim is to increase the value added of MSME products. However, only 6.42 percent of MSMEs use computers, and 11.00 percent use the internet. To increase MSME revenue and the competitiveness of the products, partnership is one of the right ways. However, this business is still not an option for MSMEs. The information limitations become one of the obstacles to establish partnerships within large companies. Only 6.77 percent of MSMEs have formed partnerships with other companies.

The globalization era is a challenge for MSMEs to survive and have a competitive advantages. The development of information technology, especially social media, offers benefits for SMEs to increase marketing and sales, expand market share, and help business decision making [9]. Based on data from the Indonesian Internet Service Providers Association [2], Indonesian internet users in 2016 reached 51.8% of 132.7 million users as the total population. Internet used is mostly for accessing social media, entertainment and online shop. This makes a great potential for MSMEs in cyberspace, especially on social media. Therefore, it is important to investigate the factors that influence the motivation for the social media used by MSMEs.

The competition is quite good now that the developing world of information technology is increasingly advanced. Moreover, the rapidly over time has felt the impact by most people from simple to modern and fast paced in all fields, both in education, health, entertainment, information sources, labor,



business and communication without place and time restrictions. The need for information that is faster and cheaper certainly requires information providers to have an online media, where the information presented can be easily and quickly obtained by consumers of information. This can be done through the use of the internet.

According to [14], other problems faced by MSMEs can be internal or external. Internally, the constraints of micro and small businesses are capital, technology, market access, limited management, and limited human as well as information resources. While external factors are government policies that do not support micro and small businesses such as monopolistic practices and the protection of several large industries. Therefore, external factors are also an important supporting factor in efforts to develop MSMEs.

The internet use for business transaction activities is known as Electronic Commerce (E-Commerce). E-Commerce can occur between business organizations and consumers, including the internet and the World Wide Web for the products sale and services to consumers [3]. The e-commerce use has increased in Indonesia [13]. The internet use for business transactions has been considered as an important thing that marked by the increasing number of entrepreneurs who use e-commerce in their companies.

Nowadays, the development of the business world e-commerce is a necessity to improve and win business competition and product sales. The process of using e-commerce trading and marketing activities are more efficient where the use of e-commerce will show the ease of transactions, reducing costs and speeding up the transaction process. The quality of data transfer is also better than using a manual process which does not do re-entry allowing human error.

According to [7], electronic commerce or e-commerce is the use of communication networks and computers to carry out business processes. The definition of e-commerce is to use the internet and computers with web browsers to introduce, offer, buy and sell products. The benefits of implementing e-commerce a company can have an international market. Business can be run without having to bump into national borders with digital technology. Operational costs can be reduced as little as possible by speed up processing time and reduce the risk of human error. Reducing the use of paper in various work activities is ranging from designing, producing, shipping, distribution to marketing.

Social media as part of e-commerce media is an innovative tool for MSMEs in supporting business systems. Therefore, the spread of social media, such as antecedents in adoption, used and consequence will be well spelled out based on DOI theory [8]. This study investigates four antecedents on two social media platforms (Facebook and Instagram) and the impact of using social media which is described in five performances as follows: a) interactivity, b) cost effectiveness, c) compatibility, d) trustworthiness, e) service performance, f) sales performance, g) marketing performance, h) internal operating performance, i) innovation performance [10].

2. Methods

This research was descriptive research with a qualitative approach and the focus of this study is to examine:

- 1) Utilization of e-commerce in Micro, Small and Medium Enterprises (MSMEs) in Jember Regency.
- 2) The impact of the e-commerce use on the development of micro, small and medium enterprises (MSMEs) in Jember.
- 3) Constraints faced by Micro, Small and Medium Enterprises (MSMEs) in Jember under the e-commerce use to support the marketing activities of their business products.

The data analysis was carried out in four stages based on Miles and Huberman [12], precisely:

- 1) Data collection is the process of collecting data used to support research results.
- 2) Data reduction is the process of selecting, focusing on simplification, and transformation of rough data arising from field notes.
- 3) Presentation of data is the activity of presenting a set of information in the form of narrative text which is assisted by metrics, graphs, networks, tables, and charts which aim to sharpen the researchers' understanding of the information obtained.

- 4) Conclusions is looking for meanings, patterns, explanations, possible configurations, causal flows, and propositions. Conclusions are drawn carefully by verifying a review in the field notes so that the existing data is validated.

3. Results and Discussion

3.1. Utilization of e-commerce in Micro, Small and Medium Enterprises (MSMEs) in Jember

The results showed that MSMEs in Jember has utilized e-commerce in developing its business. The results indicated several factors that encourage the use of the internet and also the e-commerce use for SMEs in Jember, namely the development of increasingly modern times and demands, more creative in running their businesses, ease of promotion and marketing for MSMEs, lack of space and time limits, ease of transactions, and the desire to develop business. From the five factors, ease of promotion and marketing of products and develop business are the biggest factors affecting MSMEs in implementing e-commerce. This is in accordance with the opinion of Kuswiratmo [6], relating to electronic commerce (E-Commerce) which is the implementation of commerce in the form of sales, purchases, orders, payments, and promotions of a product and / or service product carried out by utilizing computers and facilities digital electronic communications or data telecommunications that can be done globally, namely by using the internet network.

MSMEs in Jember on e-commerce has carried out two main categories of 6 interaction in the business world namely business to consumer interaction (B2C) and business to business (B2B). Business to consumer (B2C) activities are the activities of MSME in Jember which involves selling retail products and services to individual buyers by utilizing e-commerce. While in the business to business (B2B), MSMEs in Jember involves selling products and services between companies by utilizing e-commerce. This is supported by the opinion of Sandhausen [11], who explained that the forms of interaction in the business world consist of B2B (Business to Business), B2C (Business to Consumer), C2C (Consumer to Consumer), C2B (Consumer to Business), B2G (Business to Government), and G2C (Government to Consumer).

MSMEs in Jember has utilized the use of web media, blogs, marketplaces, social media, youtube, fanpage, and others. Based on the information from the informant, they have used several media and it turns out that the most effective media is social media. They find it faster to find potential markets on social media, especially Facebook. Through social media, informants can easily find information about their competitors and share it more easily with other MSMEs related to business knowledge and development. In this case, it is supported by Kim and Park [4] who also discovered the fact that the popularity of social media today has created a new paradigm of ecommerce called social commerce. Social commerce is part of e-commerce by utilizing social interaction and the contribution of social media users in shopping online. Furthermore, Kumar et al [5] also found that social media became a profitable platform for businesses and consumers to transact and establish intense communication.

3.2. Impact of e-commerce usage on the development of Micro, Small and Medium Enterprises (MSMEs) in Jember

The internet use in business activities at MSMEs in Jember is a strategy used in increasing its competitiveness. The use of the internet certainly has an impact on MSMEs both positive and negative impacts. Negative impacts that may arise as a consequence include investment costs for procurement of the internet as a support, susceptible to fraud and fraud, as well as the potential for plagiarism or plagiarism of business ideas and products. However, various positive impacts are felt by MSMEs, including products marketed that are more easily recognized by consumers and making it easier to get customers. Other positive impacts were saving of promotion costs, increasing income, and increasing the speed of transactions. Utilization of e-commerce in the long term can increase the competitiveness of MSMEs in Jember. Strengthening competitiveness can be seen from informants about the conditions when starting a business with traditional sales and after implementing e-commerce. The business pattern of MSMEs after the implementation of e-commerce has changed which used to only target traditional markets and sales stalling outside the city. Furthermore, now have reached all of Indonesia and even abroad.

The impact of using e-commerce for MSMEs businesses in Jember could be seen from cost effectiveness, compatibility, trust, interactivity, and business performance which includes service performance, marketing performance, sales performance, internal operating performance, and innovation performance.

a) Cost Effectiveness

The information from respondents revealed that there was a positive impact between the e-commerce use on cost effectiveness. The main factor that motivates MSMEs' entrepreneurs in Jember primarily in the use of social media is related to cost-effective and efficient. Most small-scale businesses, such as MSMEs, tend to experience limited capital. MSMEs business people take advantage of opportunities by using internet media to support business activities at a low cost. MSMEs can save costs in marketing communications, promotions, and advertisements through social media, marketplaces, the web, blogs, fan pages, and other media that utilize internet media.

The internet use is more effective and cuts costs compared to traditional media in marketing, branding and customer service. This empirical finding is in line with the results of study from Purwantini and Friztina [10]. They found that most small-scale businesses such as MSMEs tend to experience capital constraints, so MSMEs business people take advantage of opportunities by using e-commerce to support business activities at reasonable costs low.

b) Compatibility

Compatibility is the level of conformity of e-commerce media to the needs, values and practices of MSMEs. The social media compatibility under the needs and business practices of MSMEs is a big driver for MSMEs entrepreneurs in Jember with a young age to use e-commerce media in its business activities. On the average, they manage e-commerce media without employees / admins help. However, this study was also found that the elderly MSMEs prefer to leave it to the admin or employee in matters of using e-commerce media. Age and willingness as the factors to learn new technology are separate considerations in the use of social media for business activities for MSMEs.

c) Trust

Trust of MSME business practitioners related to the reliability, credibility and accuracy of information obtained from e-commerce media is a factor that influences the use of e-commerce. MSMEs have belief that the environment in e-commerce media provides a safe means of transacting information and protecting the information posted. Furthermore, the existence of legal actions such as the ITE (Information and Electronic Transaction) Act and adequate technology to overcome the problem of internet use also a reinforcing factor and a driver of MSMEs in the adoption and use of e-commerce media.

d) Interactivity

Interactive by two-way communication between sellers and consumers is an important factor in the use of e-commerce media. In various types of media used in e-commerce provides interactive features such as personal chat menus, replies and mentions / tags that make it easy for businesses to establish communication with consumers. The interactivity feature can accelerate the seller's response to consumer needs because it bridges the time and location difference between sellers and consumers. Interactive features offered by the media in e-commerce can be a place for sellers and customers to co-create products. Therefore, consumer desires such as product customization can be facilitated through existing features on the media.

e) Business Performance

The results of this study indicated that the e-commerce media use in the MSMEs business in Jember provides a beneficial impacts on business performance, to be precise financial performance, service performance, marketing performance, sales performance, internal operating performance, and innovation performance.

Financial performance is represented by an increasing perception of business sales when it was compared to MSMEs on having not implemented e-commerce in running their businesses. Based on

information from informants, the impact of performance benefits on customer service is the biggest impact on the use of e-commerce media.

This indicates that the main role of e-commerce in MSMEs business activities is to provide convenience in communicating and maintaining relationships between sellers and consumers. Thus, customer satisfaction will increase. The next impact of benefits is on the performance of internal operations, which is characterized by increasing employee productivity.

MSMEs innovation performance in Jember was less contribution. Innovation is not a top priority for most MSMEs in Jember. They still provide the main focus on customer maintenance. This is possible because some of the MSMEs in Jember Regency are in the category of new start-up businesses. Even though, it does not have a big influence, e-commerce still provides support for innovation performance such as good product innovation.

The e-commerce use has a beneficial impact on improving the performance of MSMEs, both financial and non-financial. Thus, optimizing the use of e-commerce can be a competitive advantage for MSMEs in this globalization era.

3.3. Obstacles faced by Micro, Small and Medium Enterprises (MSMEs) in Jember on the use of e-commerce

The challenges and obstacles that must be faced by MSMEs in Jember in the use of e-commerce media. Factors that become obstacles in the implementation of e-commerce, such the frequent emergence of mistrust between sellers and buyers, intense competition in the online market, the amount of strength in the offline market, the availability of internet facilities and infrastructure, the perception that e-commerce systems are complicated. This following is the explanation of obstacles in implementing e-commerce.

First, there is still often mistrust from buyers. Based on the information, the absence of a direct meeting between the seller and the buyer is sometimes a factor in the emergence of distrust. The solution carried out by MSMEs that try to make personal branding in e-commerce media, especially in social media, so buyers or consumers feel more trust in the seller.

Second, there is intense competition in the online market, especially in the type of online marketplace stores such as shopee, open stall, tokopedia, and others. The intense competition in the online market sometimes makes the price war appear. The price war on the marketplace is judged to be more done by traders than on social media. This condition is a serious obstacle for MSMEs for those whose product activities are still on a small scale.

Third, the magnitude of strengths are in the offline market. The dominance of sales in traditional markets that are still strong is also an obstacle for online marketing from MSMEs. Regular customers in traditional markets have a tendency to survive shopping in traditional markets. This is due to the trust of customers in the offline market store which is still very strong.

Fourth, the availability of internet facilities and infrastructure. The availability of internet facilities and infrastructure is a major problem for MSMEs in Jember, for example in the coastal areas and highland areas (mountains). Media supporting marketing activities through e-commerce is constrained by the lack of availability of internet facilities and infrastructure, among others due to the lack of ability of MSMEs to purchase internet equipment and internet networks that are lacking.

Fifth, there are still many people who have the perception that buying and selling transactions in e-commerce systems are very complicated. Perception of the complexity of trading activities in the e-commerce system is still widely developed among the people, especially the people of Indonesia. This becomes an obstacle for MSMEs in implementing e-commerce in their business development.

Based on the data from these factors, the most difficult obstacle are intense competition in the online business world, and strength in the offline (traditional) market, to be precise sales are mainly dominated by sales in traditional markets due to permanent customers and big names. This finding is in line with the results of research from Andriyanto [1].

4. Conclusions

Based on the results and discussions, it can be concluded that: a) MSMEs in Jember utilize e-commerce in developing their business in sales, purchases, orders, payments and promotions; b) the impact of the use of e-commerce for MSME businesses in Jember has the greatest impact on the effectiveness of cheap promotional costs, interactivity of consumer outreach, and increased sales turnover; c) the obstacles faced by MSMEs in the use of e-commerce are in the level of buyer's trust in the seller, fierce competition between entrepreneurs in the online market, infrastructure and the ability of entrepreneurs to use e-commerce.

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