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INCREASING THE EXISTENCE OF SMES IN BANYUWANGI DIGITAL COMMERCE THROUGH DESIGNING DECISION SUPPORT SYSTEM (DSS) FOR BANYUWANGI MALL SITE

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ABSTRACT

This study aims to design a support system for banyuwangimall.com e-commerce platform. Starting from the rapid development of technology, affect the transaction process that occurred. Until now, digital business has become a very popular trend. Many people are aware of this, so almost everyone can do business in e-commerce. Of course it is very good, especially to increase innovation and competition for the product or service more qualified. But on the other hand, SMEs should also be able to compete in the electronic market. Answering the problems of SMEs then Banyuwangi government, providing a special platform for SMEs that is banyuwangimall.com. There are 97 SMEs listed in the marketplace, and offer a wide range of products ranging from culinary, handicrafts, to tour package services. This study uses qualitative methods, data collection is done in depth through observation, interview and FGD. Marketplace that has existed since 2 years ago is certainly still continue to experience changes and improvements. One of the things that need to be improved is access to register for SMEs that are still running manually. The result of this research is a supporting system design that can be used to improve the system by doing online registration for the perpetrators of SMEs.

Keywords: E-commerce, Decision Support Systems (DSS), Banyuwangimall.com, SME, qualitative research.

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1. INTRODUCTION

The development of the fast-moving era requires many parties to continue to make changes that have far-reaching impacts either directly or indirectly. One of the most widespread changes in Banyuwangi is buying and selling practices in the market. The practice of buying and selling which some years ago was still centered on the traditional market, has undergone a considerable shift. And now has entered the market online or digital commerce.

Responding to changes in buying and selling practices that can reduce the income of traders in traditional markets and SMEs. Regent of Banyuwangi with its policy through Regional Regulation of Banyuwangi No 4 year 2016 about Public Order and Public Society, prohibits establishment of modern networked or franchised stores except non networked or modern stores integrated directly with public facilities. The regulation also requires an integrated modern shop to stand at least 4 kilometers from traditional markets. Regional regulation is intended to protect traditional traders and SMEs so as not to erode the times. Regent of Banyuwangi revealed that modern market can stand in Banyuwangi but enough in suburb area, not in Kota. And the rules applied are Mall integrated with other. For example in the mall there are hospitals, schools and creative industries or other public facilities. So it is expected that the economy of the periphery will be boosted by the Regional Regulation (http://news.detik.com accessed on February 6, 2018).

Another effort that has been made by the local government to increase the income of SMEs is to provide facilities such as e-commerce platform that is banyuwangimall.com. Through e-commerce sites managed by the local government, the department of cooperatives, actors of SMEs can practice buying and selling online. The existence of e-commerce site has become one of the strategic steps taken by the government of Banyuwangi, given the current practice of buying and selling online or e-commerce is very common. The perpetrators of SME incorporated in banyuwangimall.com are also free of charge in their activities.

The perpetrators of SMEs must still meet certain requirements to be able to join banyuwangimall.com. One of the most important conditions is the goods or services traded are the result of their own productions and not as resellers. Total perpetrators of SMEs in Banyuwangi in 2017 is 269,267 and incorporated in banyuwangimall.com amounted to 96 SME only. The lack of SME business actor who joined in banyuwangi mall, because only the best quality SME that is ready to be marketed globally (Creative House).

Based on the results of initial interviews on one of the perpetrators of SMEs who are members of Banyuwangi Mall, revealed that e-commerce site banyuwangimall.com is very helpful in product marketing. In addition, managers of e-commerce sites under the auspices of the cooperative service also provides other services such as education the use of social media, the use of banyuwangimall.com system, and provide facilities for packaging design and product photos. The entire facilities and training and education provided are not at any cost, so the perpetrators of SMEs do not need to incur additional cost expenses.

There are some things that SME complained of one of them is access to register in Banyuwangi mall far enough. Registration is done at Banyuwangi Creative House located in downtown. Given Banyuwangi as the widest district in East Java, so the distance between areas with the city center is very far away. On the other hand, SMEs need to always update price and latest goods. Not a few SMEs with a distance of over 30 Km from the creative house and then can not continue the existence in Banyuwangi Mall, because of the constraints of distance and time. This causes some SMEs registered in Banyuwangi Mall but not active in running their business in digital media, so the goods and prices installed are not updated. Goods and prices that are not updated certainly become one of the causes of SMEs are not active in digital transactions.

Some of the previous research which became the reference of this research is Diartono et al (2015) research, about making e-commerce development system at SME in Kendal district by using cyber cluster model, to sell its SME product and used as a reference in making the design of support system e-commerce in Banyuwangi. This research is also supported by the results of Oma's (2015) study, which designed the decision support system to accelerate and simplify the determination of the selling price of goods on SMEs. The difference of this research with previous research is design decision support system to monitor product and price update done by SME, so that SME perpetrator does not need to come to creative house. This research is also supported by Lorentz's research, Harri, et al (2016) which focuses on the influence of manufacturing strategies of SMEs. Lorenzt's research uses business intelligence (expert system) theory. The result of the research is the manufacturing strategy of SME able to become the driving force during macroeconomics shock that is the condition where macroeconomic state is suffering from shock from domestic and foreign influence.

The purpose of this study is to design decision support system to facilitate the perpetrators of SMEs with a long distance in order to stay able to update prices and latest items. The focus in the design of this system is to facilitate the performance of admin Banyuwangi Mall in determining the goods and prices that must be updated and also facilitate the perpetrators of SMEs that are far away to update through the system. The design of the resulting system is not a replacement system or a bully system from Banyuwangi Mall. The design of this system is a supporting system that will simplify performance and improve efficiency for both admin and SMEs.

The expected output or research result from this research is the publication of Scientific Journal with national and international reputation. In addition, this research will also produce Design Decision Support System that will facilitate the performance of the perpetrators of SMEs, so that will accelerate marketing, and increase sales. This research is in accordance with Roadmap research Faculty of Economics and Business Airlangga University. The suitability of the Roadmap with the theme raised is socioeconomic and legal with the current strategic issues of performance of SMEs. This topic is also in accordance with faculty research related to the management of various management functions in current issues, in this case the issue is the development of e-commerce in Indonesia, so that SMEs should also be able to compete and have a competitive advantage.

Contribution offered from the results of this study is the ease of access of SMEs in performing the update of goods and prices and ease for admin Banyuwangi mall in the selection for goods and services that have been updated. Such ease accelerates the performance and sales of SME goods or services, resulting in increased SME revenue. The modern market becomes a representation of the progress of the times, and SMEs become a high-value community creativity and become the driving force of economic growth if managed properly. The hope of this e-commerce system design can be implemented in Banyuwangi and become one of the drivers of economic growth.

2. LITERATUR REVIEW

2.1. Small and Medium Enterprises (SME)

Small and Medium Enterprises (SMEs) in particular have been regulated in the Constitution of the Republic of Indonesia Number 20 Year 2008. In that constitution article 1 on General Provisions there is a definition and criteria related to SMEs. Micro Business is defined as a productive enterprise owned by individual and / or individual business entity that fulfill the criteria of micro business as stipulated in the Law. A small business has a definition as a stand-

alone productive economic enterprise, carried out by an individual or a business entity and not a subsidiary or not a branch of a company owned, controlled, or partakers either directly or indirectly with a medium-sized or large- net worth or annual sales in accordance with the criteria set out in this Law. A medium-sized enterprise is a productive and stand-alone economic enterprise, carried out by an individual or business entity that is not a subsidiary or a branch of a company owned, controlled, or incurred either directly or indirectly by a small business or a large enterprise with a net amount of wealth or proceeds annual sales as set forth in the Constitution of the Republic of Indonesia Number 20 Year 2008.

2.2. E-commerce

E-commerce or electronic commerce is part of electronic business that performs transactions of buying and selling of goods and services through internet media. These transactions include advertising, marketing, customer support, security, delivery, and payment (Laudon and Laudon, 2016).

According to Radovilsky (2015) e-commerce is a most important solution in the development of trading systems using the internet media. E-commerce becomes a very significant element in the increasingly modern global economic environment. E-commerce is defined as the use of computer networks, especially the use of the Internet, which users use to sell or buy products either goods or services, and the sharing of information and communication media.

2.3. Information System

According to Laudon and Laudon (2016: 48-49) explains that an information system is a set of interconnected components to collect, process, store, and distribute information used for decision-making and control carried out by the organization. Information systems have three basic activities that produce information that managers will use for decision-making, control operations, problem analysis, and creating new products. These activities are:

1) Input. This activity is related to the collection of raw data sourced from within the organization as well as the external environment.

2) Process. This activity is related to the processing or conversion of raw data that has been obtained into a more meaningful form.

3) Output. This activity is related to the transfer of information process to the user or to the activity to be used.

2.4. System Development

System development is a clear and structured activity that produces enterprise information system solution to problem solving or opportunity utilization. These activities consist of (Laudon, 2016: 541 - 547):

1) System analysis

2) System design

3) Programming

4) Testing

5) Conversion

6) Production and Maintenance

2.5. Decision Support System

According Laudon and Laudon (2016) Decision Support System (DSS) is used for non-routine decision making. This system focuses on a unique and rapidly changing problem, where in the procedure in reaching a solution has not been determined before. In addition, the system is more often provide information from external sources, such as stock prices at this time .. This system is also able to provide more data controller, focusing on the utilization of information from quantitative data widely.

2.6. Technology Acceptance Model (TAM)

TAM is a development of Theory of Reasoned Action (TRA) and TAM was first introduced by Davis in 1989. According to Davis, 1989 in Gupta et al (2015) states that there are two factors that greatly affect the use of a system. These factors are perceived usefulness, to improve user performance and perceived ease of use, to make it easier for users to learn the system. This theory is also required to support the behavior of e-commerce users.

3. RESEARCH METHODOLOGY

This research uses qualitative exploratory type implemented in Banyuwangi Regency. Yin (2011) reveals that qualitative methods are useful for investigating a problem contained in everyday life and social phenomena. Exploratory approach is an approach done by researchers by way of direct observation on the object under study (Creswell, 2013). This study uses the perpetrators of SMEs registered in Banyuwangi Mall and the system that has been running in Banyuwangi mall as the object of research. Data collection is done in depth through observation, interview and FGD.

4. RESULT AND DISCUSS

4.1. SME Readiness

SME readiness in digital business still not seen significant. This is indicated from the SME accounts listed in banyuwangimall.com only a few are aware of the benefits and uses. On the other hand some SME actors claimed to be unable to do maximum access, because for them too complicated. The age gap and education are one of the factors that make SME actors unable to grow in line with the digital business. Various training, mentoring and counseling are often done by the local government through Dinas Koperasi and UM, but it is still acknowledged that there is a difficult constraint is to change the mindset or the way of thinking of SMEs from selling traditionally into digital sales. Based on interviews conducted at the time of research with respondents from SME players that e-commerce platform banyuwangimall.com quite helpful in terms of promotion, but still very less effective in terms of transactions. Efforts undertaken by the government to encourage the ability of SME actors are large enough, to provide assistance for each registered SME players, training for SMEs in every district and village in almost all Banyuwangi regency. The perpetrators of SME acknowledge it at the time of the research interview. On the other hand, the perpetrators of SMEs complain about capital that can not make their business grow. However, because the number of SMEs in Banyuwangi reach 269,267 not all can be covered in capital, so the related capital is done in rolling. Some SMEs managed by young entrepreneurs are still very possible to grow following the flow of digital business. However not many SMEs are listed in the platform banyuwangimall.com of a total of 269,267 actors SME only 96 registered. Interview with admin banyuwangimall.com revealed that to be seller through several stages that must be passed. First actors SME register manually to the creative house which became the base of work of banyuwangimall.com which

is located at Jalan Achmad Yani no. 97 Banyuwangi. After subsequent registration the business actor brings the product to be sold, or the specification of the services offered. Based on the product or specification of the offered services are conducted an assessment of whether the product is worth selling digitally or not. Some aspects of the assessment are product quality, product packaging, P-IRT for culinary products, and appropriate business permits. If SME has not been completed or there are still obstacles in some respects, then from creative house and clinic team of SME Banyuwangi Regency will do guidance and guidance, start to take care of business license, to design and photo of product, so that product or service feasible to be offered in banyuwangimall.com. According to the admin at banyuwangimall.com said that the time required to join banyuwangimall.com not long, if all the requirements have been met. Associated with poto products can be done professionally by the photography and product design from the Creative House. The following system analyzes were identified during the study.

4.2. Proposed System

4.2.1. System Analysis

The running system is considered to be very good. In accordance with that disclosed by the perpetrators of SMEs engaged in the industry of Godho batik. Ani's mother said

"Banyuwangi mall through the creative house has helped a lot, especially in terms of marketing and packaging. But unfortunately Banyuwangi mall does not include my contact as a perpetrator of SMEs, so some buyers that Just look at the internet or in banyuwangimall.com it and then find their own info about the location, and my phone number is sometimes in the same help of the employee at home creative to provide contact I.".

Results of interviews with other SMEs located in southern banyuwangi also reveal the weaknesses that exist in the system. According to Mrs. Masrikah owner of culinary business by Banyuwangi typical Sri Rejeki located in Genteng district said:

"Creative house have been very helpful, many provide training and mentoring begin to take care of the permits to the attractive packaging design. But if my banyuwangimall.com system is less suitable because of the long transaction until, I still have to check again to HP, more comfortable selling directly like this. Can directly make money not complicated to send and so on. Very petrified actually in terms of marketing and promotion, so some of my buyers who come after he opened the internet and banyuwangimall.com. Constraints are difficult so far if I want to do a product update I have to banyuwangi city, while the distance is only 40 kilo meters more, so very rarely do the product updates and the price, should wait a lot because of the count between cost and benefitnya.

On the other hand the results of interviews conducted with admin banyuwangimall.com as the manager of the system said:

"Site banyuwangimall.com is an e-commerce platform, but considering the SME condition that is not much technology literate is more pressed as a media campaign. In addition, because this platform is also one of the CSR of Bank BNI, the cooperation is established only with Bank BNI, related to cooperation with other banks should be the authority of Bank BNI to establish business partners with other banks. "

To complete the results of this study then the interview was also conducted with respondents who had tried to shop at marketplace banyuwnagimall.com. Rista as one of the respondents said that:

"In actual appearance is very good, but if to shop and still have to login it seems too complicated. In addition to me as a young man who understands the technology, it becomes very ineffective and efficient if it must register first, login, and new shopping. Plus there is no contact person effort that can be contacted directly, all have to go through the admin first yes, impressed long actually. But if for display, and service including delivery is already good. "

Based on the results of in-depth interviews that have been done it can be seen that the current weakness of the system is the lack of access to online registration for SMEs. Related training, mentoring and guidance that has been provided by the agency is enough to help. But back again for the most important system is the user, if the system both can not be understood and controlled by the user it will be worth it. Responding to this design support system is intended to further facilitate access made either by the perpetrators of SMEs in the registration, update prices and product updates.

4.2.2. System Design

Based on the analysis that has been done, the proposed system provided for Decision Support System at Banyuwangi Mall site is the following.
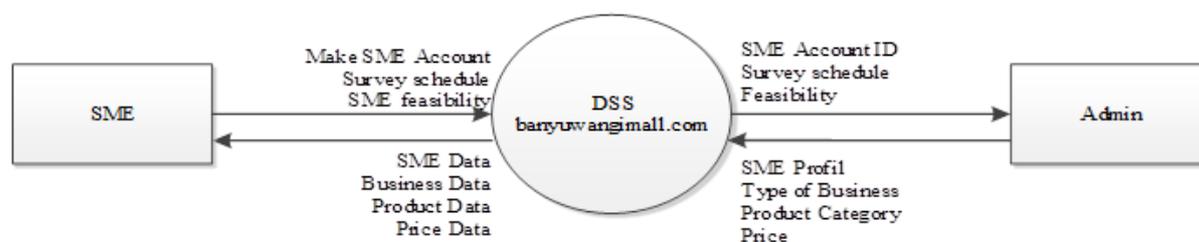

Figure 1. Context Diagram

Context Diagram above shows that in the proposed DSS created involving two parties, namely SME and Admin. SMEs are the main parties that have business in Banyuwangi and want to expand their business by selling products owned through the site Banyuwangi Mall. While this Admin is the party who run and manage every activity that runs in Banyuwangi Mall. In addition, the Admin is also tasked to help any problems or difficulties experienced by SMEs.

The explanations regarding each activity that occurred in DSS Banyuwangi Mall are described in the following Data Flow Diagram (DFD) Level 0.

Figure 2. Data Flow Diagram Level 0

In the figure above explains that there are three activities that occur. These activities are SME account registration, SME eligibility selection, and product preparation.

4.2.2.1. SME Account Registration

This activity is related to the need for online SME registration through DSS.

Figure 3. Data Flow Diagram Level 1 Proses 1

Figure DFD Level 1 above SME Account Registration Process explains that there are three processes on the SME Registration activity. The activity are preparing email and active whatsapp number owned by the perpetrators of SMEs, fill out the registration form from the official, and get the account ID from Admin Banyuwangi Mall.

The email address used should be operable. If the owner of SME can not operate the email, then there must be another party who has been appointed who can operate the email. The form has been determined by the relevant authorities. While this ID is the Account ID used to prepare the product to be sold through Banyuwangi Mall.

4.2.2.2. SME feasibility selection

In this activity related to the selection process of the feasibility of SME in accordance with the standards that have been determined by the Government of Banyuwangi Regency.

Figure 4. Data Flow Diagram Level 1 Proses 2

Figure DFD Level 1 The selection process of the feasibility of SME consists of four processes. The process is login in the SME account, check the survey schedule, prepare product samples, and wait for the announcement of eligibility.

4.2.2.3. Product Preparation

In this activity related to the process of uploading photos of the product to the system and get authorization from the admin when the product has been completed.

Figure 4. Data Flow Diagram Level 1 Proses 3

Figure DFD Level 1 The process of preparing this product consists of four processes, namely uploading product picture, uploading prices, product suitability, products displayed on the site Banyuwangi Mall.

DSS Banyuwangi Mall involves several databases integrated in the Entity Relationship Diagram below.
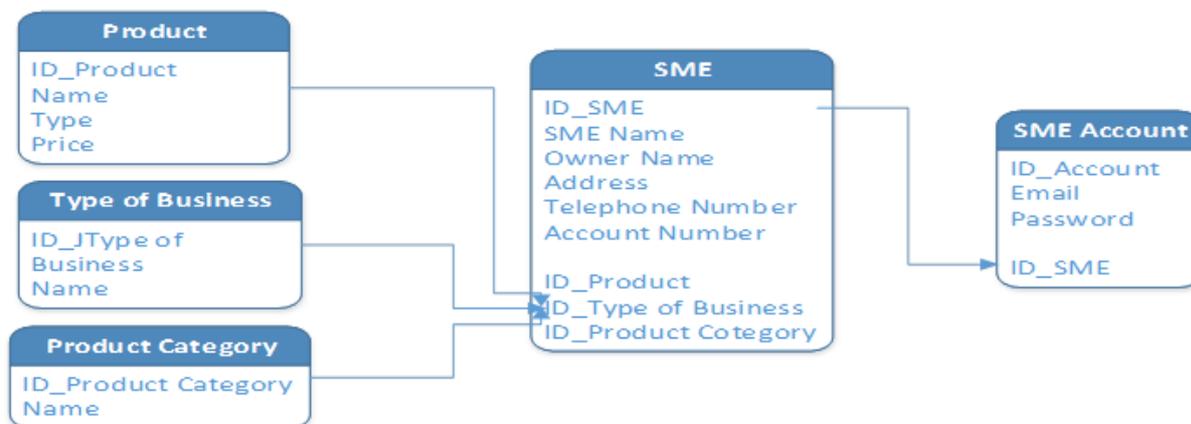
Figure 5. Entity Relationship Diagram

In the picture above explained that there are three basic database that will form the main database. The three databases are Product, Business Type, and Product Category. Each database will have their respective IDs. The ID will be integrated into the main database, ie the SME database. The database also has its own SME ID and in the database also displays the ID of each of the basic databases. From the main database will be established database of SME Account. The database will be integrated into the main site of Banyuwangi Mall. This is because in the SME Account database will be given an Account ID. The ID will be used to login when will install the product to be sold through Banyuwangi Mall site.

5. CONCLUSION

SME readiness in digital business still not seen significant. This is indicated from the SME accounts listed in banyuwangimall.com only a few are aware of the benefits and uses. The current weakness of the system is the lack of access to online registration for SMEs. Responding to this design support system is intended to further facilitate access made either by the perpetrators of SMEs in the registration, prices update and product updates. Context Diagram above shows that in the proposed DSS created involving two parties, namely SME and Admin. DSS Banyuwangi Mall are described in the following Data Flow Diagram (DFD) Level 0. These activities are SME account registration, SME eligibility selection, and product preparation.

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