SMALL AND MEDIUM ENTERPRISE WEBSITE (Case Study: Lahat Union)

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Abstract: The development of small and medium lenterprises (UKM) in facing regional and global markets should be based on continous and sustainable enterprise in order to deveop UKM as excellent enterprise. Individual approach to UKM group usually can not comprehend market opportunity (share) because of no promotion facility in form of website. The objective of UKM Cooperation website development was to provide facility that can be accessed by many community members. The method used in this research was Waterfall and the results was UKM Cooperation website. This website can comprehend market opportunity, as business network and as opportunity for UKM. This in turn can optimize human resource and natural resources, expand job opportunity, increase productivity and produce economic added value for UKM.

Keywords *: Small and Medium enterprises, Waterfall, Cooperation*

1. INTRODUCTION

The small and medium enterprises (UKM) are consisted of home industry and small industry scales with manpower numbers in the range of 1 to 19 (Jauhari 2010). UKM is people economic activity and usually related to small scale activities (Wisnu and Erik, 2013). The UKM is supervised by Cooperation Council. Cooperation is a group of people or law bodies with an objective to improve socioeconomic condition of its members by fulfilling their economy needs through cooperative actvities conducted by members with certain profit limit (Napitupulu, 2010). Supervision and development of the small and medium enterprises (UKM) had certain constraints such as lack of management and lack of information delivery media. Cooperation and UKM Council in Lahat District is the council that supervise UKM in this region. Cooperation Council can coordinate and give the capital to UKM so that UKM role in increasing regional income should be taken into account by providing conducive business environment through capital aid provision, training and web-based technology.

Cooperation Council has no website facility for introducing home industry products from community members of Lahat District. The small and medium enterprises in this area so far had limited scope because they conduct their businesses and products individually so that they can not comprehend market opportunity and business network resulting in lack of opportunity for UKM. UKM at least should have comparative advantage, even it is expected that they have competitive advantage. The group or cluster business approach is systematic effort to develop UKM conducted by Cooperation so that UKM will have opportunity to become reliable and competitive enterprise.

The competitive power of UKM will be better and effective by using group approach because it will produce synergy so that website of the small and medium enterprises (UKM) can provide more information which is easily to be accessed. The objectives of cooperation website development are to increase business competitive power of UKM, to optimize local human resource and natural resources potential and to extend job opportunity which in turn can increase the productivity and added value of UKM.

2. THEORETICAL BACKGROUND

"Several terminologies are used in this research. UKM is people economic activity and usually related to small scale activities (Wisnu and Erik, 2013)".

"Cooperation is a group of people or law bodies with an objective to improve socioeconomic condition of its members by fulfilling their economy needs through cooperative actvities conducted by members with certain profit limit (Napitupulu, 2010)**"**.

Waterfall is software development model. There are five steps in waterfall model covering of *Requirement Analysis*, *System Design*, *Implementation*, *Integration* and *Testing, Operations* dan *Maintenance* (Alfiasca et al., 2014). The development of data flow is done by using Data Flow Diagram (DFD) (Adelin and Fatmariani, 2011).

"The research with title of " *Web-Based UKM System Information at Sumberjaya Village*" had produced web-based UKM information system at Sumberjaya Village so that it can publish its existence and become well known (Jonatan and Lestari, 2015)".

3. THE RESEARCH METHOD

3.1 The Proposed System

The software of waterfall model is adopted in this research. Waterfall is software development model. There are five steps in waterfall model covering of *Requirement Analysis*, *System Design*, *Implementation*, *Integration* and *Testing, Operations* dan *Maintenance.* The name of waterfall implied that this model was developed using multi step mode and each step is conducted in sequence, i.e. one step before the others such as shown in Figure 1. In addition, from one step can return to the previous step.

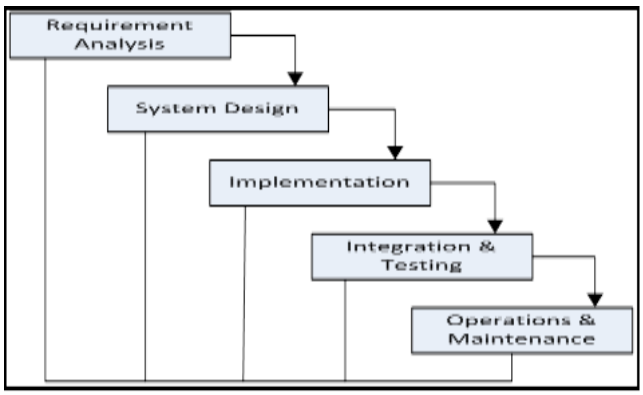

Figure 1 stages of development the waterfall model
Source : Adelin dan Fatmariani, 2011

Data flow diagram is a tool that describe data flow within the structured and clear system for website development in this research. Based on research analysis, data flow for the proposed system was as follows:

a. Context Diagram

It is initial process or general description of a system which show data flow, data origin and data objective. Figure 2 is contex diagram for the running system:

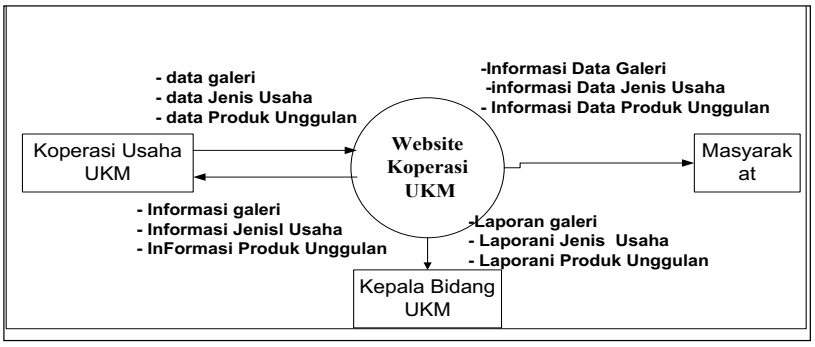

Figure 2 context diagram
Source : Personal documentation

The website has 3 entities composed of the cooperative efforts of SME, head off SME and community. In Figure 2 can be described:
1. from the cooperative efforts of SME obtained data gallery, type of business, the result of excellent products
2. Once the process is UKM Business Cooperative then head of then get a report
3. The public information Gallery, information and business information products.

b. Data Flow diagrams

Data Flow Diagram (DFD) is a diagram which describe processes occuring within system. Data shown in each process will be indentified by using this model. Level 0 DFD shows the diagram of all main processes which construct the overall proposed website (Figure 3).

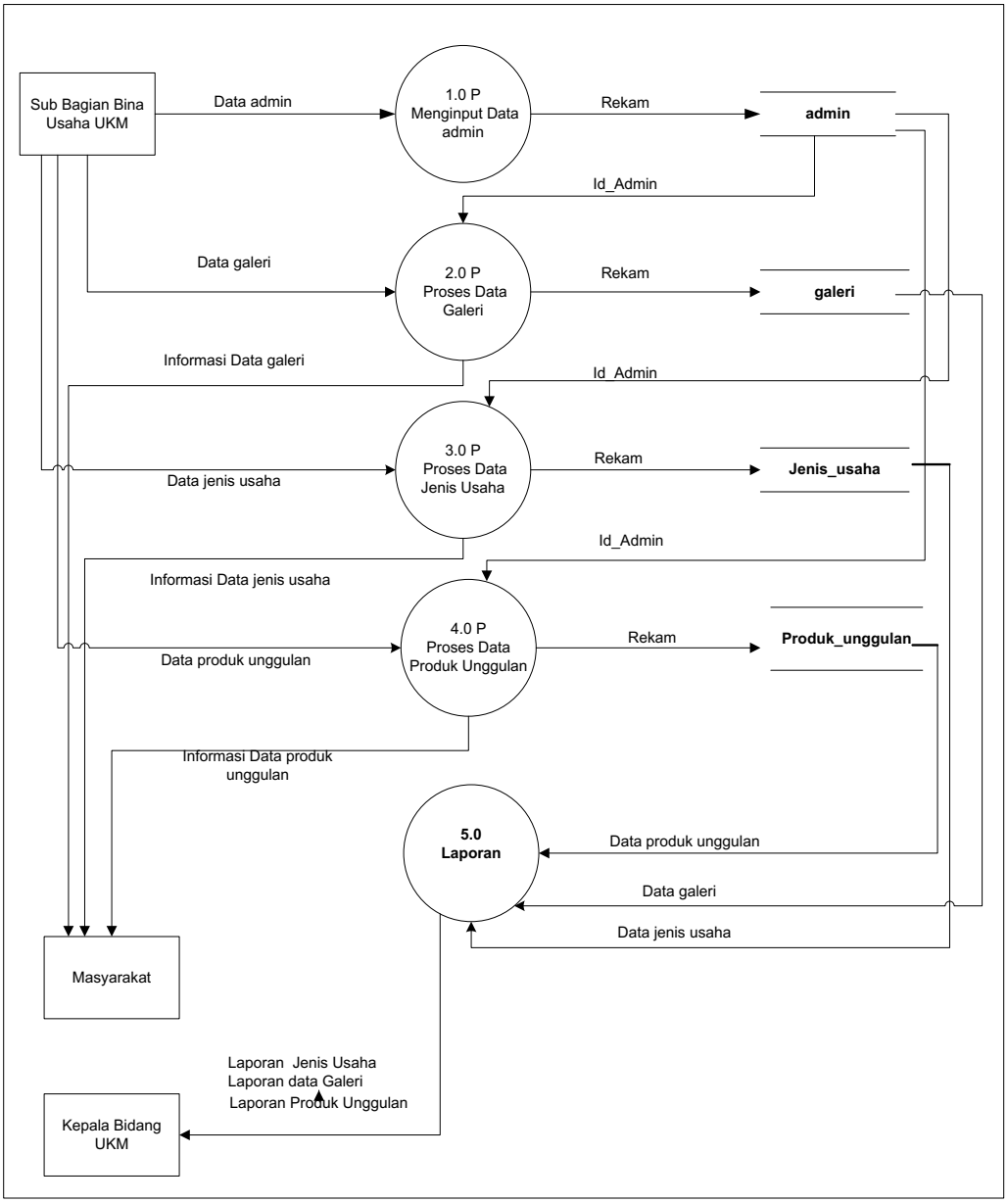

Figure 3 diagram level 0
Source : Personal documentation

1. Process of 1.0 P is administrative data input process from administrative entities consisting of administrative data. The results of administrative data is stored in administrative table.
2. Process of 2.0 P is gallery data process from administrative entities consisting of gallery data. The results of gallery data is stored in gallery table that will become prerequisite information for participants and committee entities.
3. Process of 3.0 P is data input process related to enterprise type. The results is enterprise type information that can be accessed by UKM enterprise cooperation and community members.
4. Process of 4.0 P is data input process relate to enterprise product. The results is enterprise product information that can be accessed by UKM enterprise cooperation and community members.

3.3. Entity Relationship Diagram (ERD)

Entity Relationship Diagram is consisted of components of entity group and relation group which is respectively equipped with attributes (Figure 4).

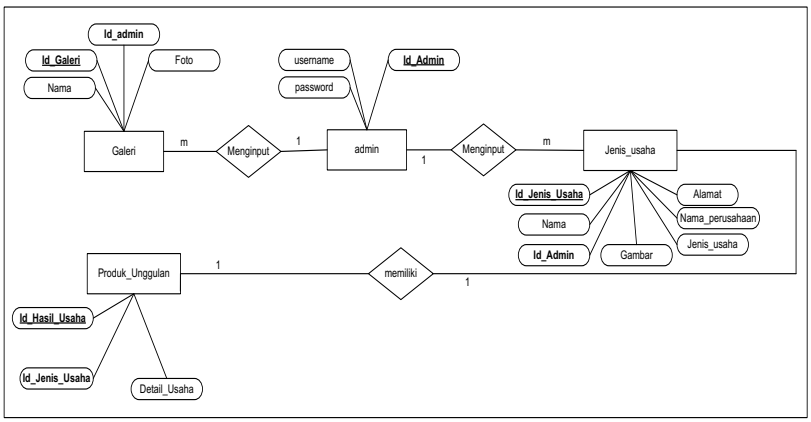

Figure 4 entity relationship diagram
Source : Personal documentation

Figure 4 shows the relationship amongst respective data. Administrative staff can input gallery data and enterprise type data, whereas enterprise type has superior product from UKM production.

4. RESULT AND DISCUSSION

4.1. Platform Form Display

Platform form in this system has function as main menu and main page. The menu available in this platform can be used as a connection to other forms. Several menus available in this platform are about us, gallery, enterprise type and superior product displays (Figure 5).

Figure 5 Display Form Home
Source : Personal documentation

4.2 Gallery Data Form Display

This display contains gallery data input form and is shown in Figure 6. Gallery input form has function to input gallery data which consisted of activities data from each UKM. Gallery data give information related to activities conducted by each UKM so that the required monitoring and information can be easily accessed (Figure 7).

Figure 6 input form view gallery
Source : Personal documentation

Figure 7 display data output gallery
Source : Personal documentation

This display contains data input form menu of enterprise type such as shown in Figure 8. Data input form of enterprise type has function to input data related to UKM name, enterprise type data and picture of each UKM. Output data from enterprise type give information related to enterprise type available at each UKM so that the required monitoring and information can be easily accessed (Figure 9).

Figure 8 display the data input form type of business
Source : Personal documentation

Figure 9 results of business
Source : Personal documentation

4.4 Display Form Data Products The resulting products

This display contains superior product and detail identification of superior product as well as location activity of UKM. Superior product data display contains superior product data. Each superior product is input into form (Figure 10). Superior product display contains superior product data which available at each UKM so that the required monitoring and information can be easily accessed. Data output display of superior product is shown in Figure 11.

Figure 10 display featured product data input form
Source : Personal documentation

Figure 11 results featured product data
Source : Personal documentation

5. CONCLUSION

The website of UKM cooperation can comprehend market opportunity, as business network and as opportunity for UKM. This in turn can optimize human resource and natural resources, expand job opportunity, increase productivity and produce economic added value for UKM.

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