DESIGNING SYSTEM INFORMATION E-FARMING BASED ON WEBSITE IN THE AGRICULTURAL SECTOR

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Abstract

The agricultural sector at this time is a commoditor contributing a very vital role in the cycle of human life needs. The impact of frequent changes in the level of harvest feasibility in the agricultural sector is increasingly becoming a challenge for the movement of economic growth, currently the level of feasibility of harvesting does not only occur on unproductive land but also penetrates into land with good productivity. Seeing the emergence of this statement, the analysis of the problem studied in this study is the need for the provision of an information system that can support the observation of the feasibility of crop yields to be produced by the agricultural sector, one of which is the E-Farming information system. information that can provide a statement of early detection of the occurrence of appropriate or inappropriate levels of crop yields in the agricultural sector. The data that makes up this information system are tabular data and spatial data, tabular data is numerical data from soil, plant and water availability data, while spatial data contains data on area, position of agricultural land. This information system is expected to be used by the general public, especially farmers, to find out whether their agricultural crops are feasible or not from anywhere, anytime, accurately and easily. The analysis method used in this research is Farming System Analysis (FSA), the method of developing an information system for assessing the feasibility of harvesting numbers in the agricultural sector using the System Development Life Cycle (SDLC) method using ERD diagrams, DFD, for modeling applications built and using Adobe Dreamweaver CS5 and MYSQL-Server as a database in the system.

Keywords: Designing, system information, e-farming, harvest eligibility, agricultural sector.

INTRODUCTION

The impact of changes in climate behavior, especially those related to the uncertainty of the period of changing seasons, is a challenge for the agricultural sector to determine the feasibility of the quality of the harvest they produce. Field data shows that things like this not only have an impact on land around the lowlands but also hit hilly plains and even mountains which are in fact the plantation sector that must continue to be carried out. The feasibility of crop yields in the agricultural sector here is assessed from several aspects, namely, product quality, quantity obtained and time period. Some of the losses that often arise due to the absence of a harvest feasibility

calculation system in the previous step result in a decrease in farmer profits that are not in accordance with the capital that has been used. The number of crops that are of poor quality and damage to agricultural land are the impact of the absence of a feasibility calculation system.

Such is the severity of the impact of the absence of an information system on the feasibility of agricultural production management, so that a feasibility management system is needed, this is done so that the community, especially farmers, can get maximum benefits. Lifting feasibility assessment is carried out by early detection with existing real simulations and agricultural production plans. Commodities in the agricultural sector are very vital for the continuity of human daily consumption activities. The existence of activities to determine the harvest period in the agricultural sector requires the availability of decision-making tools for farmers in determining the quality of the appropriateness of the harvest to reduce the impact of losses for farmers and consumers, in this way The importance of this activity requires access to information supporting decisions on the feasibility of agricultural production harvests accurately, quickly, and easily.

RESEARCH METHODS

Development this application is done in several stages, namely:

1. Designing Activity Diagrams;
2. Designing ERD;
3. Designing Application;
4. Creating Views.

The cycle of the agricultural production feasibility information system can be seen at Figure 1.

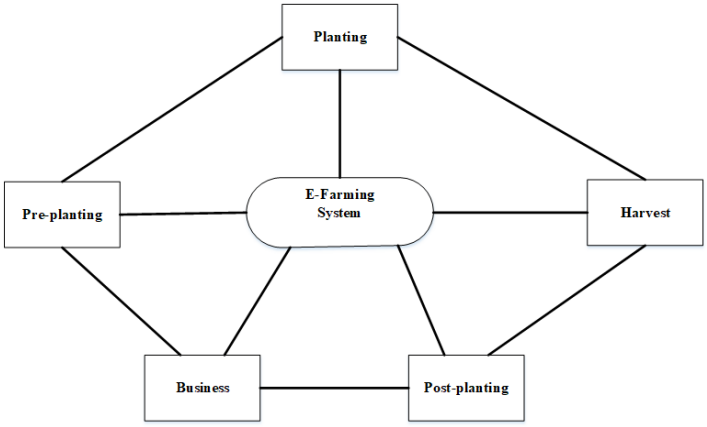

Figure 1. Diagram Activity

The stage described in this study is to define the problems that occur, given the increasingly irregular production results in the agricultural sector, seeing from this there must be a decision support information system that provides information to farmers about the feasibility of harvesting. In addition, the system design must have a role that is easy for users to use, making it easier for users to use the application, the main design is shown at Figure 2.

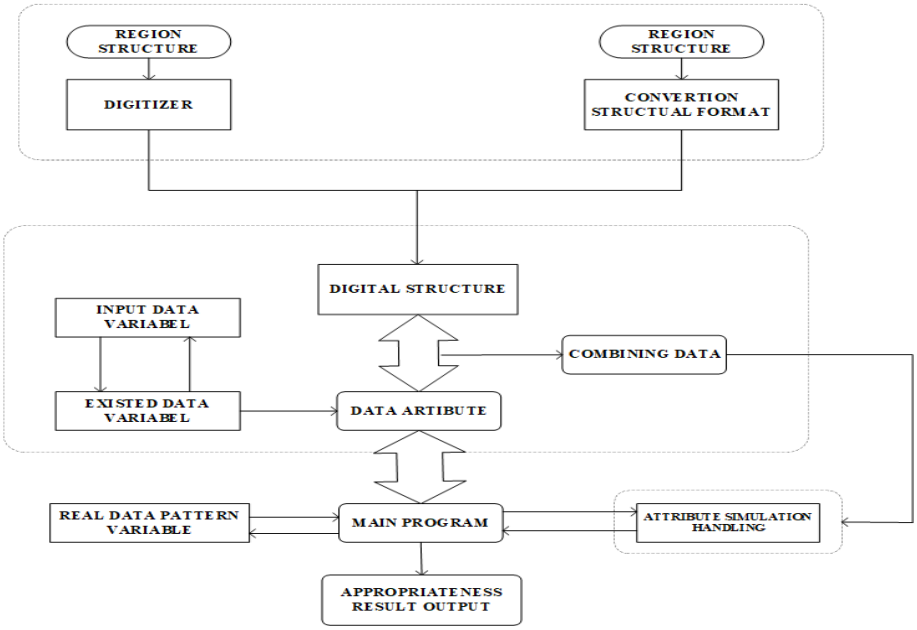

Figure 2. Application Design

The activities carried out are making process modeling and data modeling in the system development process later. The Figure 3 shows the process modeling of the E-Farming information system using Data Flow Diagrams (DFD).

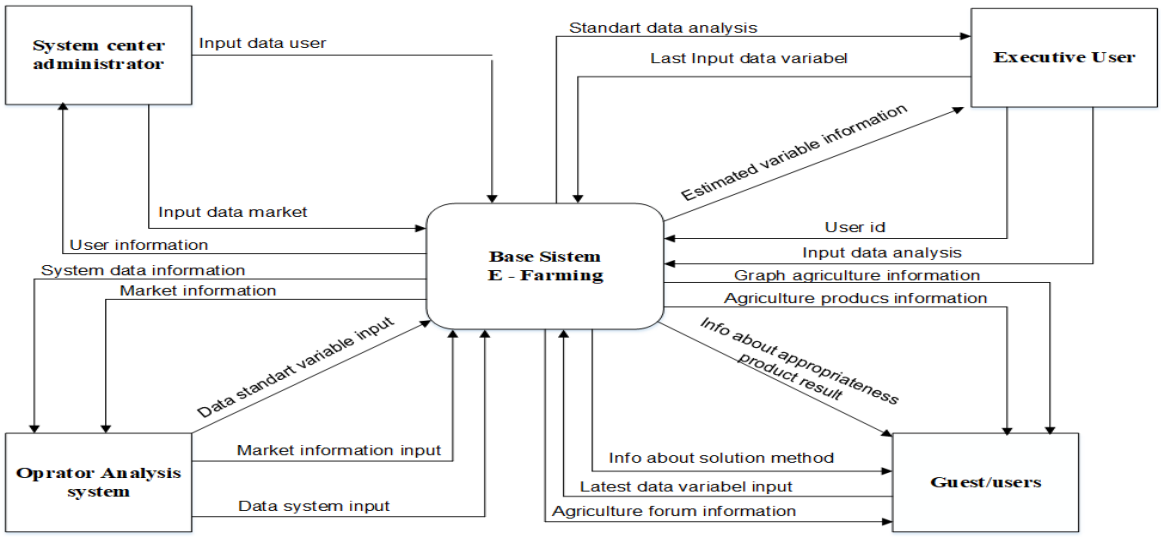

Figure 3. Data Flow Diagram

The Figure 4 shows the data modeling of the E-Farming Entity Relationship Diagram (ERD) information system.

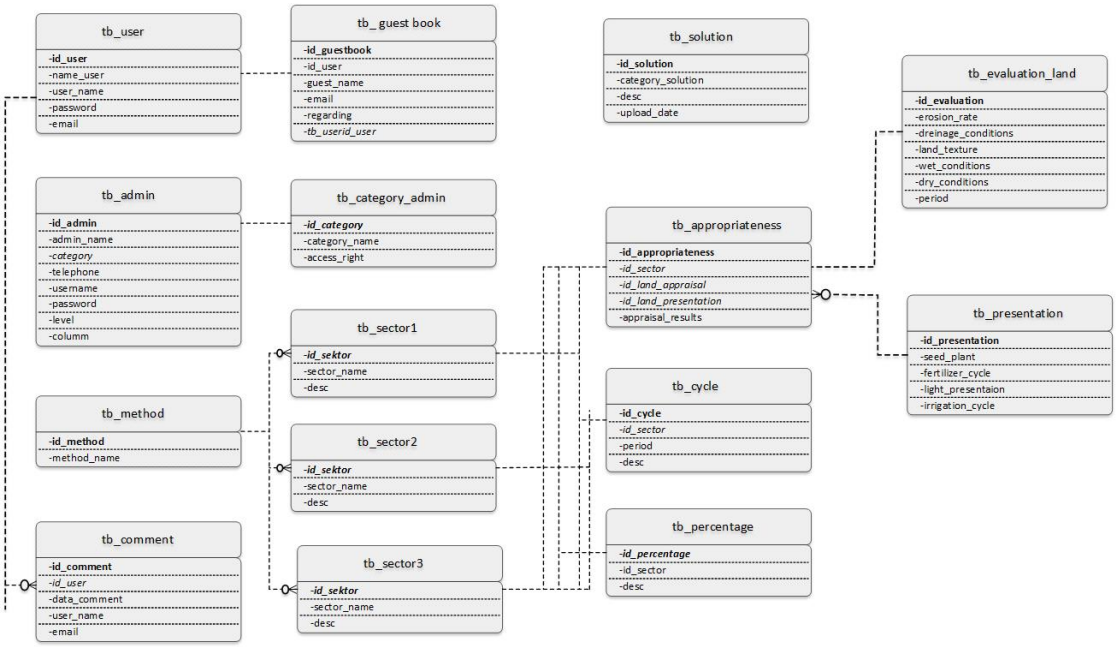

Figure 4. Entity Relationship Diagram

RESULTS AND DISCUSSION

The main view is the initial view that will be presented, figure 5 shows, this display has several options that can be selected and used according to their function, namely:

1. Home / Initial view: Initial display presented;
2. Profile: Display user data;
3. Info: Provides information about plantations and agriculture;
4. Guess Book: Record user activity;
5. Gallery: Displays photos about plantations and agriculture;
6. Other Links: Provide site references, articles on plantations and agriculture;
7. Customer Service: Serving users if they have problems;
8. Contact: Contains contacts.

Figure 5. Home Page

Figure 6 shows, the function of this menu is to record user/user activity, this menu can add, change and delete existing data.

Figure 6. Guess Book Page

This menu contains contacts who can be contacted for application-related issues in case of problems.

Figure 6. Contact Page

CONCLUSION

The main display is the initial display that will be presented, this display has several options that can be selected and used according to their function, namely: Home/Initial display: the initial display that is presented; Profile: displays user data; Info: provides information about plantations and agriculture; Guess Book: records user activity; Gallery: displays photos about plantations and agriculture; Other Links: provides site references, articles about plantations and agriculture; Customer Service: serving users if they experience problems; and Contacts: contains contacts.

It is hoped that this information system can be used by the general public, especially farmers, to find out whether their agricultural crops are suitable or not from anywhere, at any time, accurately and easily.

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