Implementation of Marketing Information System on Android-Based Agriculture Sector: A Short Review

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Abstract - *This paper is designed based on the material entitled marketing information system while the title of the discussion explains the android-based agricultural sector, concerning the paper entitled marketing information system with the role of the agricultural sector in economic development in Indonesia due to the lack of the agricultural sector in the food sector. The method used is the black box method, for the writing method the author uses qualitative methods. The qualitative method is a method that focuses on in-depth observations with references from scholars. The results of the black box method are very beneficial for the community, especially people who are still dependent on the sector.*

Keywords: Marketing information system, role, agricultural sector.

Introduction

The marketing information system (SIMPEM) or marketing information system (MKTIS) is an information system that is applied to the marketing function. A marketing Information System (SIMPEM) is an information system that supports the planning, control, and transaction processing required for the completion of marketing activities such as sales management, advertising, and promotion. The Marketing Information System (SIMPEM) provides information to all levels of managers in the marketing function. The information generated by the Marketing Information System (SIMPEM) can be grouped into five types of information groups, namely information about the place (place), product (product), promotion (promotion), price (price), and information integrated from the four (integrating mix).

Research Method

At this stage, literature reviews and literature studies are carried out on several references relevant to the research topic. The references referred to in this study are several studies related to research topics, information systems, marketing, and android programming that will be used in designing applications. The system to be built has two actors who will interact directly with the system. The two actors are Admin and the User. Admin actors are tasked with adding users, adding plants, editing plants, deleting plants, and viewing plant types and price info on the system. Meanwhile, the user can see the types of plants and see price info. Figures 2 and 3 show use case diagrams for admin and user. The application design stage is a continuation of the system requirements analysis stage. The system design will fully refer to the system requirements analysis. The system will be divided into two parts, namely Admin and User. The system to be built is based on Android with two parts of the interface according to the design that has been made. The system to be built is based on Android with two parts of the interface according to the design that has been made. At this stage, an analysis of the system that has been made based on the analysis of system requirements will be carried out. This analysis aims to determine whether the system built is following the needs analysis that has been made previously.

Results And Discussion

The role of the agricultural sector in economic development in Indonesia is very important. This is because most Indonesians still depend on this sector for their livelihoods, especially as providers of necessities. Basic needs in life include 3 things, namely clothing, food, and shelter. Along the way, the three basic human needs become more and more irreplaceable, namely the need for information.

Even the need for information in this era of globalization has increased the budget for the cost of human life to obtain the latest information and exchange information. Information systems that discuss the prices of goods in the agricultural sector of the food section are very rare. Especially the information system regarding the sale price of agricultural products. On that basis, the authors want to build an information system for marketing agricultural products, especially in the food sector, with the aim that farmers can market their products throughout Indonesia without the intervention of irresponsible middlemen. In this chapter will be explained in detail the system architecture, implementation, and analysis of the system. The following are some of the application interfaces on Android devices.

System Test

System testing is done by two methods, namely the black box method and the questionnaire method. The black box method aims to test the suitability of the results of making the system to the needs analysis that has been made previously. While the survey method is carried out to determine the feasibility of the system that has been built.

1. Testing with the Black Box Method

The results of testing with the BlackBox method on the Admin are shown in Table 1. The table shows the suitability between the results of making the system and analyzing system requirements. While in Table 2 shows the results of testing on users.

Table 1. Test Results with the Black Box method on Admin

Test Class	Test Scenario	Expected Results	Conclusion
Display login on admin	Press the login button after entering the username and password	The main menu appears, namely agriculture, plantation, and user list	Succeed
Main course	Press farm button, press farm button Press the user list button.	Crops visible Show types of plantation crops Show user list	Succeed Succeed Succeed
Types of crops	Press farm crops.	Show price info menu	Succeed
Options menu	Press logout Press add crop Press add user Press edit or delete crop Press Change password Press hint Press exit	Show login menu Show menu add a user Show edit menu or delete crop The change password menu appears Show menu instructions Exit the app	Succeed Succeed Succeed Succeed Succeed Succeed

Test Class	Test Scenario	Expected Results	Conclusion
Menu Add Plant	Adding Farm or Plantation Crop Types	Plants Saved in Database	Succeed
Menu Edit or Delete Crop	Editing or Deleting Plantation/Farm Crops	Crops changed or deleted in the Database	Succeed
Menu Change Password	Changing Password on Admin	Password Change	Succeed
Menu Add User	Add User	User Stored in Database	Succeed
Hint Menu	Press Hint Button	Show Instructions For Admin	Succeed
Exit Menu	Press Exit Button	Exit Application	Succeed

Table 2. Test Results with the Black Box method on the User

Test class	Test Scenario	Expected results	Conclusion
User Register Menu	User Registers	Username and Password are stored in the Admin Database and registered	Succeed
User Login Display	Press the Login button after entering the username and password	Main Menu Show	Succeed
User Register Menu	User Registers	Username and Password are stored in the Admin Database and registered	Succeed
User Login Display	Press the Login button after entering the username and password	Main Menu Show	Succeed

2) System Feasibility Test

Application feasibility testing is done by giving questionnaires to two types of respondents, namely, respondents from elements of the community or farmers and respondents from elements of the Department of Agriculture and Plantation of Enrekang Regency. The questionnaires distributed were divided into two types, namely the functionality checklist and the application usability checklist.

Table 3. The results of the questionnaire checklist of functional elements of the community or farmers

Number	Question	Yes	No
1	Is this application running properly and functioning properly on your smartphone?	10	0
2	Is the register function running properly?	8	2

3	Is the login function working properly?	10	0
4	Is the function of the plant species running properly?	10	0
5	Is the price info function working properly?	7	3
6	Is the change password function working properly?	8	2
7	Is the logout function working properly?	9	1
	Total	62	8

Conclusion

From the discussion described, the authors draw the following conclusions. This Earth Product Marketing Information System in Enrekang Regency has been successfully created and can be used as a reference by the community to obtain information about the prices of agricultural and plantation crops easily and precisely because the application process runs in real-time. Based on the results of the functional checklist questionnaire and usability checklist, this application is useful for the public in presenting information about prices.

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