Information System Application for Palm Oil and Rubber Plantation Sales

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Abstract. This study aims to determine the role of the information system in the sale and purchase of oil palm and rubber plantations. This research used a descriptive method to explain the problems faced by the community in applying application technology to improve sales quality. The results of this study showed that the P&R Plantation application can be a medium to improve the quality of sales and purchases in the field of oil palm and rubber plantations. This application also can help community empowerment.

1. Introduction

Indonesia is in the middle-income country category were to become a developed country, it is necessary to develop a human resource-based economy and technology-based innovation. The strategies that can be applied are to reduce dependence on the exploitation of natural resources, improve the quality of human resources and increase the number of entrepreneurs [1]. The information system is a system that consists of a series of information in the data processing subsystem that will useful in decision-making. The sales information system is a system that processes data and transactions of all business activities selling goods or services to achieve organizational goals or achieve prosperity from community income. Therefore, it is necessary to make a sales information system that includes sales transactions starting from travel documents, making invoices, receipts and offer letters, including processing data in the form of customer data integrated with goods or inventory data. Companies can find out the status of the goods warranty and also know the history of sales as well as the quantity, date of sale, and the status of goods warranty. Then made a notification system where there will be a notification from the system and also there is no bidding system [2].

Discussing the results of rubber and oil palm plantations, in 2014, the cumulative land area of oil palm plantations in Malaysia and Indonesia reached around 5.39 million hectares and accounted for around 33% of the world's oil palm cultivation area, and around approximately half a billion carbon per year in questioning oil palm trees [3,4]. In two countries, Indonesia and Malaysia, which are responsible for more than 80% of world palm oil production, and farmers are responsible for 35-40% of the total area planted and 33% of output. Land must be used as optimal as possible for the benefit of all, in meeting the world's consumption needs. In such a scenario, palm oil becomes a significant crop. Palm oil provides the highest yield per hectare among all oilseed crops. There have been efforts from various groups that have an interest in the palm oil industry to promote sustainable agriculture and address the environmental impacts of palm oil that have been highlighted by NGOs [5]. Indonesia has developed its production standards.
membership in the highly expected Indonesian Roundtable on Sustainable Palm Oil (ISPO) was made mandatory for all Indonesian plantation companies [6]. Rubber plantations in Indonesia are among the largest plantations in Southeast Asia, with the population contributing to very high rubber plantations and very high rubber production in Indonesia, discussing that this natural rubber mixture (NR) is widely used in many industries because of its excellent integrated nature. However, simple methods, very easy operations, and do not damage nature and the environment, and accurate analysis in quantitative remains a challenge for the government. This is an important issue for industries, especially for daily quality control tests [7]. Indonesia is one of the biggest land users with rubber plantations, so it is very much needed careful and careful supervision because the nature of Indonesia is the nature of the tropics [8].

This study aims to determine the role of the information system in the sale and purchase of oil palm and rubber plantations. This research used a descriptive method to explain the problems faced by the community in applying application technology to improve sales quality. The application contains programs that can facilitate the community to become an entrepreneur, the government can determine and know the economic development of its people, because entrepreneurs are the cogs for the economy in each region, whether in districts, municipalities, provinces or for the country. The purpose of this research is to find out whether socialization using an android-based application can help in promoting the Beginner Entrepreneurial program (WP) made by the government for the community.

2. Method
The method used in this study was a descriptive method from the variables associated with appropriate technology in improving the quality of the sale and purchase of plantation products and previous studies related to this research so it can analyze how the application can improve the quality of sales and purchases of oil palm and rubber plantations.

3. Results and Discussion
In urban areas, people communicate using a smartphone that was connected to the internet. However, the majority of oil palm plantations in Indonesia are located in remote rural areas and do not have internet access [9]. In the absence of internet access, it is also difficult for the community to implement information systems. Studies show that oil palm and rubber plantations do not have a significant effect on soil texture. The physical status of the soil in tropical trophies is slightly better than that of 15 years old rubber and palm oil plantations. Organic matter, total nitrogen and available phosphorus decrease in plantation soils which is relative to the forest level. However, no significant decrease occurred at the interchangeable basis level on plantation land [10].

In attracting the community to access Plantation P&R applications to increase sales of rubber and palm plantation, it needs to provide clear information about the use of the Plantation P&R application. By using a smartphone, this application can be accessed anywhere and anytime by the public. The P&R Plantation application support and facilitate the community in working and optimizing the effectiveness of work in the palm oil and rubber plantations. The following is the application design (Figure 1).
In this menu Figure 1, the user will be given 2 choices, namely the palm and rubber menu, based on the application, P&R Plantation, with P, Palm, and R, Rubber (Figure 2).

This menu appears when the user selects a rubber in the main menu. In this login menu, the users are required to log in using a username and password, if the username and password are not available, the user can press the Sign-Up button to register to be able to log in to this menu. And, there is also a login option using Gmail and others and listed the location of the application office (Figure 3).
The user selects Palm on the main menu. In this login menu, the user is required to log in using a username and password, if the username and password are not available, the user can press the Sign-Up button to register to be able to log in to this menu. And underneath there is also a login option using Gmail and others and listed the location of the application office (Figure 4).

Figure 3. Palm Plantation Login Page

The user selects Palm on the main menu. In this login menu, the user is required to log in using a username and password, if the username and password are not available, the user can press the Sign-Up button to register to be able to log in to this menu. And underneath there is also a login option using Gmail and others and listed the location of the application office (Figure 4).
The page is for the user registration, this application is also related to the server, which the server can track the transactions. To facilitate the user to transact and know the identity of the user and vice versa. The user simply needs to fill the username, password, confirm the password and choose. The function of confirming password is to convince the user of the password that the user-created for this Plantation P&R account and there is an option to choose which user will sign up for Palm or Rubber as the user wants. So when the user has signed, the user will be able to login menu by entering their username and password. And will automatically enter the transaction page (Figure 5).
After a successful login, it will enter an important menu for transactions (Figure 5), to find out how much money the users have in this application, and there is a paid menu in which this menu is used to pay for the transaction. Next, there is a promo menu to get a discount from the transaction. The balance menu is used to increase the amount of money. There are several menus the first one is the harvester’s menu when the user that do not have the time of harvest, then the user can hire people to harvest the plantation. The second buyer menus where the user can choose buyers for their crops with various selling prices that have been listed. The third introductory menu is to take the results of the user plantation, so if the user is tired after harvesting, the plantation can be delivered to the place the user wants. Fourth tenant menu, when the user lacks equipment for harvesting, then the function of this menu is to provide and rent harvesting equipment and be ready to deliver when the user needs it, so the users simply wait at their home or garden until the equipment and their estate are ready to be harvested. Then the reward menu provides rewards to users, harvesters, buyers as well as tenants (Figure 6).
This menu is to display the palm oil transaction page, the same as the previous explanation on the Rubber display.

4. Conclusion
Technological developments are increasingly fast-moving and advancing, making the government quest ways to improve the economy in the plantation sector by utilizing the application of technology, one of which is by using applications. This application will be able to help socialize programs that can advance the level of the economy, one of which is a program that can facilitate and develop the community to become an entrepreneur, where increasing entrepreneurship in a country can also improve the economy of the country. Also, direct socialization through the website is one of the most effective ways, because it is easier and faster and the website also stores complete information so that if there is a user who forgets or is unable to attend during direct socialization, it can find out complete information through the website.

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