

INNOVATION OF "FARMERS" AND AUCTION "(HUKAKU)" MOBILE APPLICATIONS FOR INCREASING PRODUCTIVITY AND MARKET ACCESS TO LAND GROUPS IN CINTA DAME VILLAGE KECAMATAN SIMANINDO SAMOSIR REGENCY

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ABSTRACT

The purpose of activity is to provide software training to farmer groups in an effort to increase productivity and market access in farmer groups in the love village of SimanindoSubdistrict, Samosir District. Partners in this activity are the Mandiri Farmers Group and Farmer Group Saurdot at Cinta Dame Village. The problem faced by the Farmers Group are the selling price is very cheap such as dried corn which is sold for Rp. 350, - per kilogram, the agricultural waste have never been used (usually farmers will burn waste or residual production), attack of fungi on the Onion plant. Until now there are no experts who can solve the problems of these farmers. Solution to overcome this problem by using the "HUKAKU" Auction Application so that farmers can sell agricultural products at reasonable and competitive prices and "FARMERS" Application so that farmers can communicate and discuss with agricultural experts. Both applications that will be implemented complement each other to become complete and appropriate solutions for farmers to increase productivity, open market access and improve health services. The results of this activity were an increase in agricultural income and productivity in the Farmers Group.

Keywords: Application, Farmer, Income, Productivity.

A. INTRODUCTION

Leading Potential and Problems in the Community

Samosir Regency is one of the regencies in North Sumatra, where some of its territories are in the middle of Lake Toba and some on the mainland of Sumatra. Cinta Dame Village is one of the villages located in Simanindo District, Samosir Regency. Cinta Dame Villagers Most of them are looking for farmers as farmers. Agricultural products in Cita Dame Village are rice, corn, red onion and other horticultural crops. Agricultural Potential of Samosir Regency is Onion, Corn and and Rice with harvest area of 22895 Hectar (BPS 2016). One of the problems faced by the Farmers Group is that the selling price is very cheap such as dried corn sold at Rp. 350, - one kilogram. In addition, the remainder of the agricultural products have never been used. Besides that, the problem faced by farmers is the attack of fungi on the onion plant. Until now there are no experts who have solved the problems of these farmers. Farmers are only experimenting with the hope of success. The Problem Formulation is:

1. How is the implementation of Hukaku and Mobile-based Farmers as a price comparison system, and long distribution chain breakers that cause low prices in farmers but high consumer prices, because farmers are very dependent on yields and selling value?
2. How is the implementation of the Hukaku Application and Mobile-based Farmers as a communication system Farmers and experts to be connected at all times so as to be able to answer the needs of farmers about cultivation and plant pests?

3. How is the implementation of the Hukaku Application and Mobile-based Farmers as a source of information on the availability of subsidized fertilizers and documentation of crops?

It is expected that after the implementation and introduction of this application Farmers have a good coordination system and can directly sell their crops at competitive prices.

Proposed Settlement of Problems and Ways of Community Empowerment

The system that will be implemented is a mobile integration application (Harumy T.H.F. 2018) (Muhammad Iqbal, Muhammad Zarlis, Harumy 2017). Mobile application is an application that runs on mobile (Sukur 2014) (Hardhienata et al. 1892). With the "HUKAKU" Auction Application and the Farmer "FARMER" Application. This system allows farmers to sell higher because it uses an auction system so that farmers are free to sell agricultural products with buyers who offer the highest prices so that farmers' income increases, and also farmers can communicate directly with potential buyers.

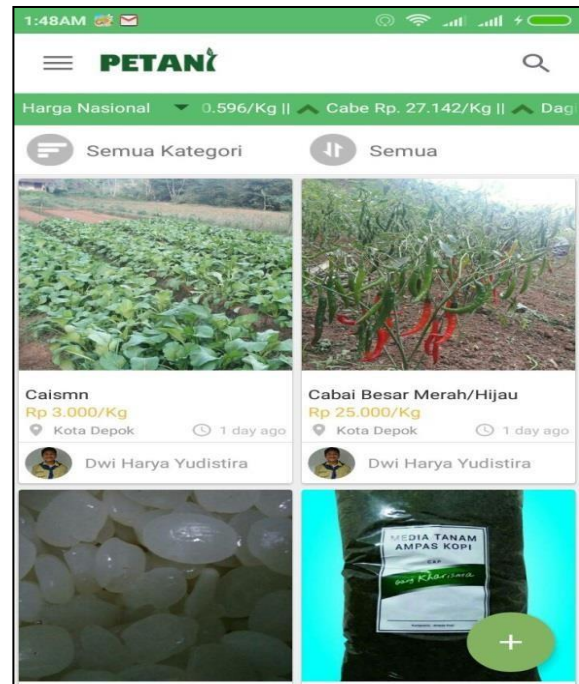
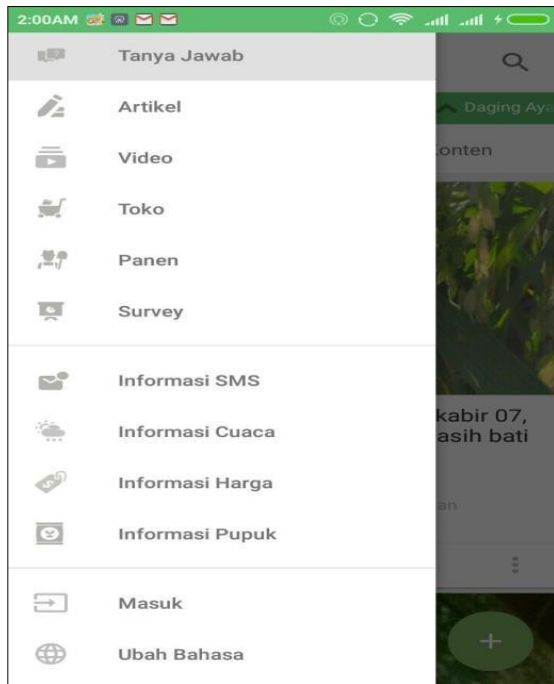
1. With the application of the HUKAKU and PETANI auction based on mobile farmers and experts (agricultural experts) can be connected at any time so that farmers who experience problems such as pests that disrupt the production process, find it difficult to determine the best fertilizer and other agricultural problems can be assisted by experts connected in the application.

2. With the mobile-based HUKAKU and PETANI auction application, farmers can document harvests well with the harvest features available in the application.
3. Providing convenience to find out weather information obtained directly from BMKG.
4. Providing ease of communication with doctors connected in the application to

minimize health problems experienced by farmers.

Technology to be used.

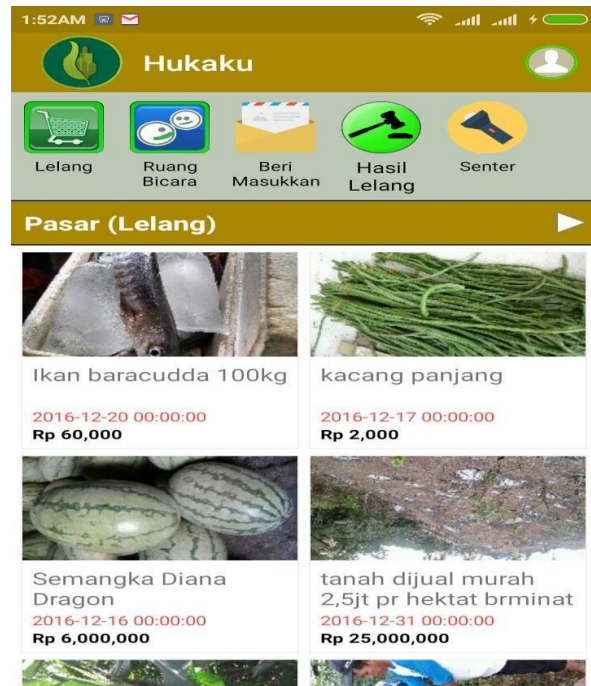
The technology used is the Mobile HUKAKU and PETANI application with the following information



Commodity	Price	Trend
Bawang	Rp. 32.081/Kg	↑
Beras	Rp. 10.596/Kg	↓
Cabe	Rp. 27.142/Kg	↑
Daging Ayam	Rp. 30.304/Kg	↑
Daging Sapi	Rp. 115.784/Kg	↑
Garam	Rp. 6.095/Kg	↑
Gula	Rp. 13.443/Kg	↑
Ikan	Rp. 74.109/Kg	↑
Jagung	Rp. 7.068/Kg	↑
Kacang	Rp. 25.575/Kg	↑

Source : ews.kemendag.go.id / 07:00 WIB





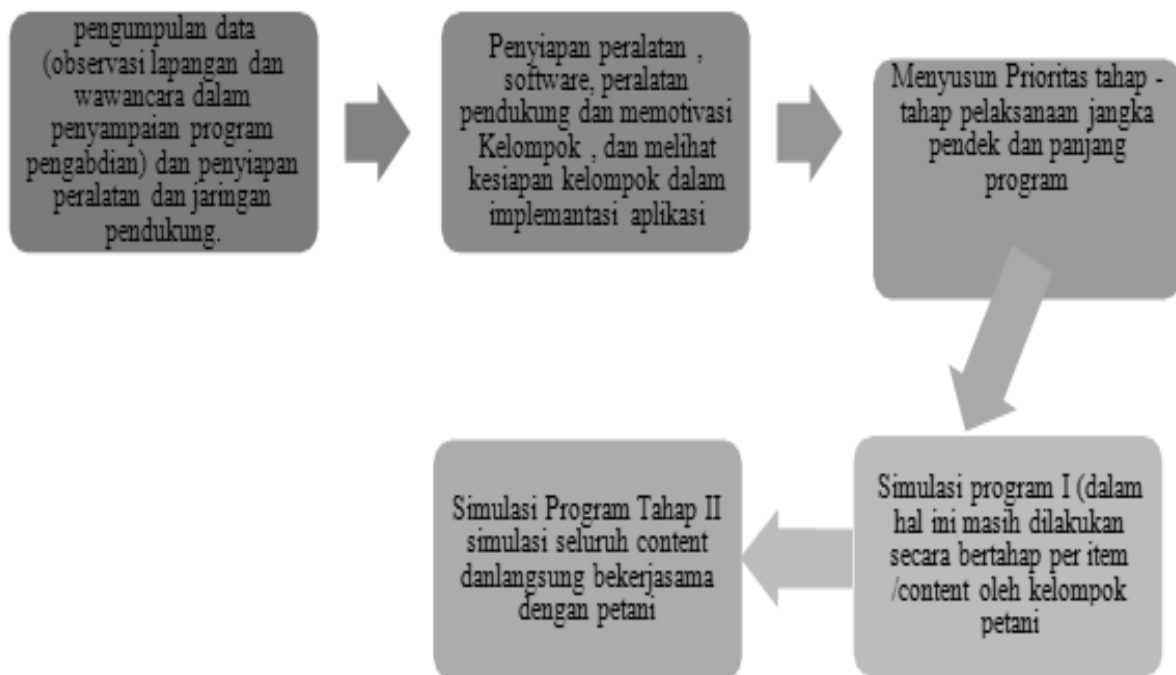
Picture 2. Application HUKAKU

Target Group Profile

The target group for the implementation of this activity was the Mandiri Farmers Group and the Sourdot Farmers group. The Farmers Group is located in Cinta Dame Simanindo Village, Samosir District. The Farmers Group has business fields namely Corn, rice and onions. There are various

main problems in Simanindo village that need attention and assistance so that these problems can be overcome in order to realize independent villages and farmer groups that have high competitiveness to improve the welfare and productivity of farmers

B. IMPLEMENTATION METHOD



Picture 3. Implementation Method

The entire set of work procedures for the implementation of the PKM mobile

application "PETANI" and "HUKAKU" Auctions can be seen in the picture below:



Gambar 4. Work Procedure Event

C. RESULT and DISCUSSION

The results of the application implementation can be illustrated in the table as follows:

Table 1. Impacts before and after implementation application

No	Impacts before implementation application	Impacts after implementation application
1	Farmers Difficulty Finding Price Comparators, And Long Distribution Chain Breakers So Prices In Low Farmers But Prices In Consumers Are High As Farmers, They Are Very Dependent To Harvest Results And Selling Value.	Farmer And Hukaku Application Provides Ease To Farmers With Comparative Features Price To Look For Comparative Prices And Sell Your Own Harvesting Results At Higher Prices
2	Farmers have difficulty communicating and consulting with experts and extension agents for pest and productivity problems	Farmers Have Ease To Communicate And Consult With Experts And Extension For Pest Management And Productivity Problems With Chat Features And Talk Rooms And Questions and Answers
3	Farmers have difficulty in documenting harvest results and subsidized fertilizer availability information.	Farmers Have Ease With "Shop" Feature To Document Harvest Results And Look For Subsidized Fertilizer Availability Information.

D. CONCLUSION

The conclusions of this activity are as follows:

1. Mobile-based Hukaku and Farmer Application is a system that can be used as a price comparison system, and a long distribution chain breaker so that the selling price in farmers is high.
2. Hukaku Application and Mobile-based Farmers as communication systems Farmers and experts so that they can be connected at all times to provide answers about their needs

3. Mobile-based Hukaku and Farmer Application is a system that can be used as a price comparison system, and a long distribution chain breaker so that the selling price in farmers is high.
4. Hukaku Application and Mobile-based Farmers as communication systems Farmers and experts so that they can be connected at all times to provide answers about their needs
5. The Hukaku and Farmer-based Application as an Information system for the availability of subsidized fertilizers and documentation of harvests can be done.

The Hukaku and Farmer-based Application as an Information system for the availability of subsidized fertilizers and documentation of harvests can be doneThe conclusions of this activity are as follows:

ACKNOWLEDGMENT

Thank you Team, to the Ministry of Research, Technology and Higher Education for providing financial support through the PKM 2018 program, then the Development University of Panca and Cinta Dame Simanindo Village Farmers Group who have participated in this activity

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