

E-Farm Marketplace In Hasanah SMEs

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Abstract— In the practice of animal husbandry there are still problems, namely the interaction of livestock actors who are less harmonious and less optimal marketing and sales of livestock. In addition, the presence of middlemen (intermediaries of farmers and consumers) in the sale of livestock products activities worsen the conditions of farmers. In this case it makes the farmers lose, because they get a small profit compared to the middlemen. Brokers are usually located in rural areas where people still lack information technology. As a result, they do not know the actual selling price of livestock products. The purpose of this research is to Design and Build an E-Farm for Livestock so that it can help improve the general economy of the community and facilitate the sharing system for livestock, livestock auctions and livestock trading. The System Development Method in this study uses the Rapid Application Development (RAD) Method, and System Design using Unified Modeling Language (UML). Testing this system uses the blackbox testing method and user testing using the questionnaire method. The results of testing through the blackbox can be concluded that the system developed can run and in accordance with expectations. The results of testing through the questionnaire obtained results for superadmin E-Farm Farms have been running well all the features in the system, for the leadership of this system can make reports, for breeders and member systems can help livestock marketing and livestock sharing systems.

Keywords— *E-Farm, livestock, blackbox, questionnaire.*

I. INTRODUCTION

Indonesia is an agricultural country rich in agricultural, forestry, plantation, livestock and fishery products. These natural conditions provide opportunities for most Indonesian people to conduct business activities, one of which is in the field of animal husbandry. Animal husbandry is a sector that has a huge opportunity to be developed as a business in the future. [1]. Community needs for livestock products will increase every year. Animal husbandry as a provider of protein, energy, vitamins, and minerals is increasing with increasing public awareness of nutritional needs in order to improve the quality of life.[2].

The development of technology nowadays has experienced rapid progress. [3]. In the business world, technological development is very helpful in various aspects and social aspects. The use of technology by humans in helping to get work done is a necessity in life. The development of this technology must also be followed by developments in Human Resources (HR)[4]. The phenomenon that occurs at this time is the increasingly widespread competition in the business world, especially livestock practitioners in getting consumers.[5].

Hasanah SMEs is a collection of several people who have businesses in the field of animal husbandry located in the village of Nglegok, Ngargoyoso, Karangpandan, Karanganyar, Central Java. In Hasanah SMEs, the livestock sales system still uses the traditional system of selling through word of mouth, from neighbors, relatives and consumers who are in the market, so that the reach of

consumers is less extensive, and the livestock sharing system is also still running traditionally so that the reach to get consumers also will not be maximized.

The problems that still exist in Hasanah SMEs animal husbandry practices are about the interaction of livestock actors that are less harmonious and less optimal marketing and sales of livestock. In addition, the presence of middlemen (intermediaries of farmers and consumers) in the sale of livestock products activities worsen the conditions of farmers. In this case it makes the farmers lose, because they get a small profit compared to the middlemen. Brokers are usually located in rural areas where people still lack information technology. As a result, they do not know the actual selling price of livestock products

II. METHOD

A. System Development Method [6]

1) Design Requirement

At this stage, the author analyzes and identifies the objectives of the Farm Animal E-Farm system which will be designed as needed to achieve the objectives. The design that was analyzed was carried out by the method of interview and field observation to find out what are the requirements of this system. This need will also affect the work process, input and output data that is processed in the Farm Animal E-Farm system.

2) Design Process

At this stage, the author will do a system design that includes: the workflow of the system, how to operate, the outputs and appearance of the system and others that have been adapted to the needs analysis at an early stage to resolve the problem. The author meets with the Board of Directors of Hasanah SMEs and provides a design the system that will be made henceforth can be corrected by the Hasanah SMEs Management regarding any deficiencies of the design provided in order to create a system that is in accordance with the Hasanah SMEs Management. After the user sees the design that has been given and provides corrections to the design of the system, the author will make improvements to be adjusted to the request of the Hasanah SMEs Management.

3) Implementation

In this implementation phase, the authors worked intensely with Hasanah SMEs Management during the workshop and designed the business and non-technical aspects of the company. As soon as these aspects are agreed upon and systems are built and filtered, new systems or parts of the system are tested and then introduced to the running organization.

III. RESULT

A. Running System Workflow

Hasanah SMEs is a group of people who have a business in the field of animal husbandry, the system that runs on Hasanah SMEs prospective buyers come directly to the Hasanah SMEs to conduct transactions of buying and selling livestock and livestock sharing systems, prospective buyers ask directly about information about livestock prices desirable, if it cannot face to face, the buyer and seller at the Khasanah SMEs can talk via mobile phone, if the buyer has obtained the desired livestock, the buyer can pay directly to the Hasanah Livestock Group.[7]

If the buyer does not get the right price of livestock, the buyer will move to other markets or other SMEs to get the desired price, thus the buyer must find another place that requires time, energy and costs to travel.

Here is the workflow about the system that runs on Hasanah SMEs:

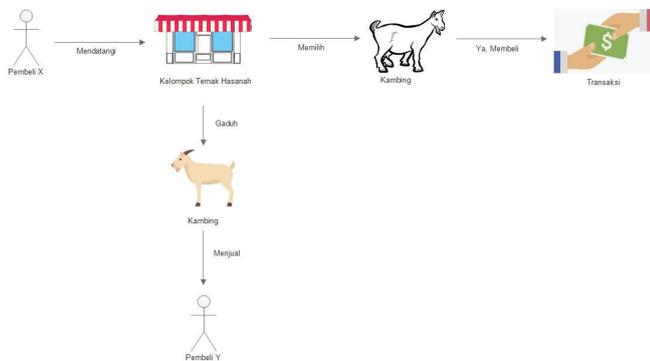


Figure 1. Work Flow system at SMEs Hasanah

Information:

1. The SEMs Hasanah party provides livestock stock as a catalog.
2. Buyers come to SEMs Hasanah to see livestock catalogs or livestock stock available
3. Buyers choose cattle
4. If you agree the buyer will pay, if you do not agree the buyer will look for another place.

B. Proposed New Workflow System

The new system is a proposed system design by removing all existing displays and information. The following new Workflow systems are designed:

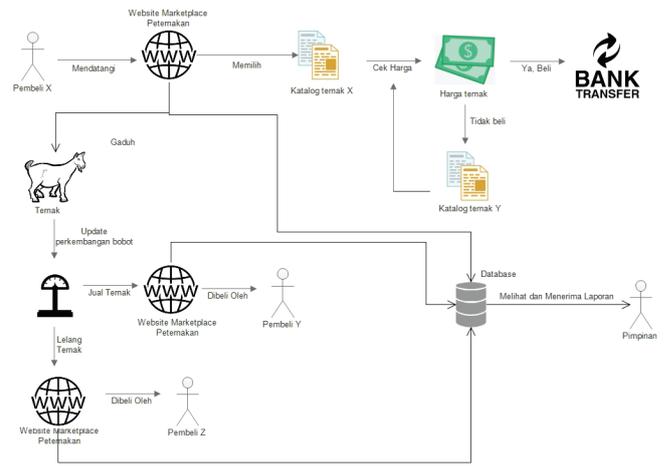


Figure 2. Proposed new system workflow

Information:

1. Superadmin manages the website, manages the user account of the farmer member.
2. Farmer registers with original data and NIK according to KTP caring for and maintaining livestock from members within a certain period.
3. Member register and conduct transactions for the system of production sharing to farmers.
4. Farmers can upload livestock data for the production sharing, buying and selling systems.
5. Member can upload livestock data for the buying and selling and auction process.
6. Payments are made via bank transfer.
7. Delivery of livestock individually according to agreement by livestock sellers and buyers, not included in the system.
8. Farmers provide livestock weight reports periodically in a certain time.
9. Leaders can receive and view reports from the Farm E-Farm website.

C. Use Case diagram

The Use Case diagram is a picture of the interaction between the system and actors. Farm Market Use Case Diagrams are as follows:[8]

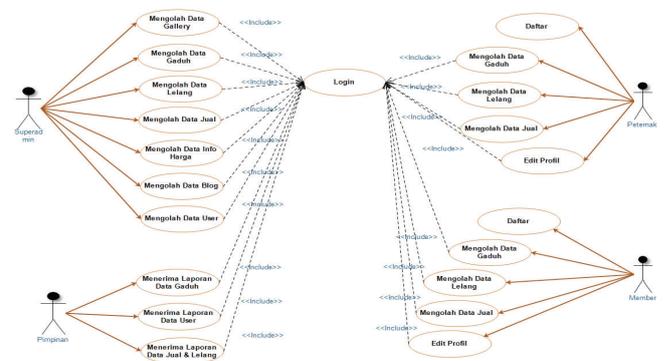


Figure 3. Farm Use Market Case Diagram

D. Relationships Data

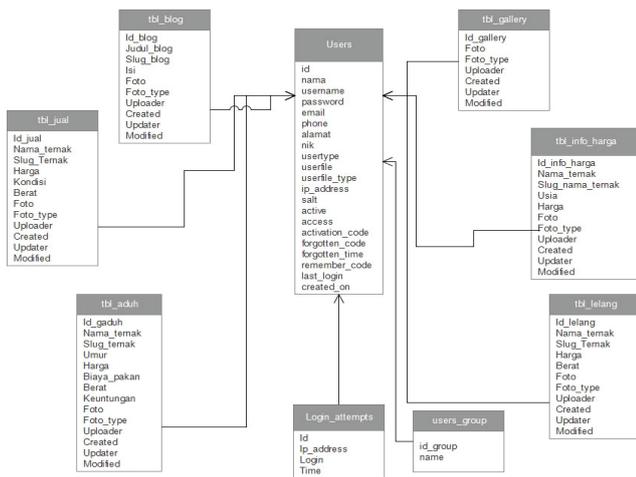


Figure 4. Relationships Between Tables

IV. CONCLUSION

The conclusions of the process of making this Farm Animal E-Farm are:

- Marketplace This farm uses the PIECES system weakness analysis method (Performance, Information / data, Control / security, Efficiency, Service) and the System Development Method uses the RAD (Rapid Application Development) Method.
- Right of access from E-Farm Animal Husbandry is a leader who can see and receive reports on the number of users (both breeders and members), system catalog production data and order sharing system, auction catalog data and auction bidder list, cattle sales catalog data , Superadmin can manage website views, user data, system catalog data for profit sharing, profit sharing system orders, auction data, auction bid list and choose auction winners, livestock selling data, blog data, livestock price info data, breeders can change profiles, can manage the production system catalog data and order sharing system, auction catalog data and cattle sales catalog data and

Members can change profiles, can order profit sharing systems on the production sharing page, can see livestock weight updates (from breeders), can upload sales data livestock and can follow the auction process on the auction page.

- Testing this system uses the BlackBox testing method and user testing with the questionnaire method. The results of testing through the blackbox can be concluded that the system developed can run and in accordance with expectations. The results of testing through the questionnaire obtained results for superadmin E-Farm Animal Husbandry has been running well all the features in the system, for the leadership of this system can already make a report, for breeders and members of the system can help marketing livestock and livestock sharing systems.
- Users indicate that the system is built free of bugs and errors so that it is as expected.

REFERENCES

- Ahmadi dan hermawan. 2013. E-Business & E-Commerce. Yogyakarta: Andi)
- Pressman, R.S. (2010), Software Engineering : a practitioner's approach, McGraw-Hill, New York, 68.
- Zhai Chunjuan, Liu Hui. Factors affecting SMEs adoption decision of B2B E-Farm: A case study in China.
- Dien D.Phan. FaE-business development for competitive advantages: a case study.
- Rajesh K. Singh, Suresh K. Garg, S.G. Deshmukh. Strategy development by SMEs for competitiveness: a review
- P Beynon-Davies, C Carne, H Mackay & D Tudhope. Rapid application development (RAD): an empirical review
- LerinaAversanoGerardoCanforaAndreaDe LuciaPierpaoloGallucci. Business process reengineering and workflow automation: a technology transfer experience
- Mika Katara, Antti Kervinen. Making Model-Based Testing More Agile: A Use Case Driven Approach