

The Application of Farm Management System in the Grand Parent Stock Farm of PT. Berdikari Unit Lebak

Siti Azizah¹

Social and Economic Department, Animal Science Faculty, Brawijaya University, Indonesia
siti.azizah@ub.ac.id

Dede Aprylasari²

Social and Economic Department, Animal Science Faculty, Brawijaya University, Indonesia

Gerald Guan Gan Goh³

Faculty of Business, Multimedia University, Malaysia

Abstract

The research objective was to compare the application of FMS (Farm Management System) and a manual system based on the perception of farm officers at the Grand Parent Stock farm of Berdikari Lebak Unit. This research was conducted from 18 January 2021 to 18 February 2021 at the Grand Parent Stock farm of Berdikari Lebak Unit. Data were obtained by purposive sampling with 30 respondents of Lebak Farm officers, which include the Head of Farm Unit, Farm Officer, and Operators. In addition, data was also obtained from interviews with Berdikari employees in IT Department. This study uses primary data and secondary data. The data analysis was processed using a Likert scale, and the comparison of the application of the FMS and manual systems was used quantitative descriptive analysis. The results showed that the application of the FMS system was better than using the manual system. It can be seen based on the recap time, input time, and data transmission time where the application of the FMS system is faster than the manual system. The manual system data input average is 10 minutes, while the FMS system is one minute. Moreover, the time for sending data is also faster in the FMS system, while in the manual system, it will take 5-10 minutes, depending on the network speed. The implementation of the FMS system results in safer and more reliable data. The application of the FMS system can be integrated with the entire company system, the ERP (Enterprise Resource Planning) system.

Keywords: DOC; ERP; Feed; FMS; Innovation; OVK

INTRODUCTION

Information technology (IT) is needed to develop its business; until now, many companies have relied and moved on information technology (IT) to integrate their company systems electronically. The impact of the system shift is a more efficient business change. Puspitaningrum and Endah (2018) state that implementing system

integration also provides great benefits for the company. It can increase performance productivity and maintain a competitive advantage for the company.

PT. Berdikari (Persero) is a state-owned enterprise engaged in animal husbandry. Business at PT. Berdikari (Persero) needs to be handled with the help of adequate information technology. Utilization of information technology carried out by PT. Berdikari (Persero) can assist in disseminating information that was very limited at first; now, it can be distributed according to the company's needs.

The manual system is applied to the scope of the PT. Berdikari (Persero) has many weaknesses and poses various risks such as inaccurate information produced, the risk of incorrect notes, and inaccuracies in recapitulating and inputting data. The change from a manual system to a computerized system will create adjustments. The benefits resulting from an integrated system will be widely felt after reducing errors due to the use of a manual system. The computerized system in the scope of the farm is the FMS (Farm Management System) system, which is part of the ERP (Enterprise Resource Planning) system. At PT. Berdikari (Persero) ERP system has many scopes, including finance, Accounting, Sales and Distribution, Human Resource Information systems, and Farm Management systems.

FMS (Farm Management System) is part of the ERP (Enterprise Resource Planning) system. PT. Berdikari (Persero) uses this FMS (Farm Management System) system to integrate all farm management activities. FMS is used to create system integration on-farm grandparent stock and farm parent stock spread across various regions in Indonesia.

Perceptions of employees of PT. Its initial view of the technology measures self-reliance on the application of FMS (Farm Management System) technology. Rogers and Shoemaker (1981) state that several things need to be considered in adopting innovations where technology is closely related to innovation characteristics, including profitability, compatibility, complexity, trialability, and observability. It is hoped that the perception of employees of PT. Self-reliance is a measure of the success of improving employee behavior and attitudes towards the technology adoption process. Increased perception of farmers must be consciously developed to support the improvement of employee attitudes toward PT. Independent of the FMS system (Farm Management System) on the Lebak grandparent stock farm.

This research is important to find out the comparison between the application of the FMS system (Farm Management System) using a manual system based on the perception of employees of PT. Independent. The results of this study are expected to add insight or useful information for livestock substances who want to develop the application of the FMS system to determine the level of effectiveness and efficiency in farm operations compared to manually inputting data. With this research, it is hoped that it can also be a reference for those who want to research the advantages of

using an ERP (Enterprise Resource Planning) system with system coverage, one of which is FMS (Farm Management System).

LITERATURE REVIEW

FMS (Farm Management System)

Farm Management System is one of the specific modules in the ERP (Enterprise Resource Planning) information system. The Farm Management System is an ERP module that is usually made specifically for companies in the field of animal husbandry or agriculture. FMS integrates conditions in the field with the company's system in real time and automatically. The way FMS works is that the farm admin is in charge of inputting data on the farm and the data will be automatically entered into the system. FMS is an application framework that provides functionality to users. FMS is a service that can be modified according to the user's wishes, such as for agricultural data and weather data. Farm management systems also offer vertical services that can interact and relate to various services in the information systems used such as ERP (Kaloxyllos, 2012). FMS makes time efficiency by maximizing existing technology and abandoning manual recording techniques.

Soronsen, et al (2010) stated that the application of the Farm Management System affects developments in various aspects of work, one of which is in the world of agriculture. The benefits of implementing farm management in general in agriculture include: (1) Work that is more efficient in terms of time, this is because there is no need to check repeated data and work templates have been adjusted to the system; (2) The resulting data has a high level of security; and (3) If there is a data input error, it can be crosschecked the data to other parts of the system. Another opinion, namely Husemann, et al (2012) stated that system updates are very important to do, this is adjusted to the trend of developing markets. The Farm Management system is expected to be able to overcome various existing problems and become a breakthrough in the agriculture and livestock sector. The benefits of implementing farm management include: (1) Preventing manual data errors; (2) Following the trends and advances of today's technological systems so that companies are better prepared to compete in the current era of globalization; and (3) The creation of an effectiveness and efficiency so as to increase the company's profit.

Enterprise Resource Planning (ERP)

ERP Development

Material Requirement Planning (MRP I) is a system formed in the manufacturing world by using a manufacturing calculation system. The basis for the calculation is to use a Bill of Materials which is a list of raw material requirements needed to make

products (Noni, 2015). MRP I was integrated with other manufacturing business functions, which in turn resulted in a new system called MRP II (Manufacturing Resource Planning). The concept of MRP II is the unification of material requirements and resource requirements for the production process.

MRP II developed into a system with a wider scope known as Enterprise Resource Planning (ERP) which developed in the early 1990s. Basically ERP is the addition of a financial module to MRP II, making it easier for companies to make decisions. The addition of other modules includes manufacturing processes, distribution, accounting, finance, HR, production, service and maintenance (Noni, 2015).

Understanding Enterprise Resource Planning (ERP)

Enterprise Resource Planning (ERP) is a solution in the world of information technology (IT) that allows companies and suppliers to manage their company's big data effectively and efficiently in the entire company system. The expected benefits of using ERP are increasing the efficiency of the company's system implementation and easier data system control (AboaAbdo, et al. 2019). Chofreh, et al (2018) stated that ERP is a new system that helps companies to integrate all company big data into one database system.

Enterprise Resource Planning (ERP) is one of the information technology specifically made to assist the performance of a company. ERP is an information system used by companies that function to connect and also to optimize business processes in a production process, logistics, distribution, tax, finance and also human resources (Al-Aziz, et al. 2018).

Rezi (2018) states that the current ERP system is not only implemented by large-scale companies but is also used by medium-scale companies. The reason is that if the implementation of the ERP system is successful, the perceived benefits such as improved service with customers, better production schedules and reduced production costs will be felt by companies that implement the ERP system.

Characteristics of Enterprise Resource Planning (ERP)

Muhammad (2018) states that the characteristics of an ERP system include various things, including the following:

1. ERP system is a software package that has been designed for a network-based company or customer environment.
2. ERP systems combine various kinds of big data in business processes
3. ERP systems process most of the company's systems. The ERP system uses a company database that can store data with one data input.
4. ERP system allows to access data in real time (real time). ERP systems also allow for integrating transaction processing and planning activities.

5. ERP systems allow for customizing the company's specific needs without having to reprogramming normally done by multinational companies.

Advantages of Enterprise Resource Planning (ERP)

Azevedo, et al (2012) stated that the advantages of implementing an ERP system are the ease of integration between the company's systems and other services, for example, the ease of service with customers. In addition, the convenience obtained by the company is that the time used to enter new data into the company's database system is more flexible. According to another opinion, namely Lengnick-Hall, et al (2004) the advantage of using an ERP system is that the company's system becomes more integrated and strategic and is able to solve operational problems within the company. In addition, ERP systems can also lead to effective and sustainable gains in the field of economy and knowledge.

Iqbal and Rajesri (2017) state that the benefits of an ERP system are of three kinds, namely business benefits, technological benefits and organizational benefits. Business benefits are the benefits obtained from the ERP system related to the company's main activities such as strategic planning, business processes and management of the company's management. The benefits of technology are the benefits of an ERP system related to the technology infrastructure in a company. While the organizational benefits are the benefits of the ERP system related to human resources in a company, as well as the work culture within the company. Another opinion, namely Muhammad (2018), states that the advantage of an ERP system is that it helps expedite the process of implementing supply chain management with the ability to integrate company data and human resources, while also being able to synchronize big data in separate computer systems.

Disadvantages of Enterprise Resource Planning (ERP)

Amri (2013) states that the shortcomings of the ERP system include frequent errors caused by disturbances in the data storage area or usually called overload. In addition, if the employee is assigned outside the office or company, it will be disturbed regarding the internet network if the place has not enough internet network. Another drawback is the lack of communication between employees which can cause delays in data input. Another opinion, Wahyu (2015) stated that the weakness of the ERP system is that it makes all companies switch systems and synchronize into a new system and this is a job that requires time and high patience. In addition, an employee who is tasked with carrying out the input process sometimes if he has worked for too long will be confused with his own work, for example they will feel that they are inputting too much data from the previous data.

METHOD

The research was conducted at the state-owned company PT. Berdikari (Persero), Central Jakarta, and the scope of Farm Grand Parent Stock Lebak Branch. Determination of the sample is done by the purposive sampling method. Samples were taken as many as 30 people from Lebak Farm and 3 IT employees of PT. Independent. The variables measured in this study are Feed, OVK (Drugs, Vaccines, and Chemicals), and DOC, each of which is seen by the characteristics of innovation, which include:

1. Profitability (profits obtained by employees of PT. Berdikari in utilizing the FMS system). Indicators of profitability include:
 - a. FMS system creates work efficiency
 - b. FMS system improves employee skills
 - c. FMS system minimizes expenses
 - d. The FMS system is more effective than the manual system.
2. Compatibility (compatibility of FMS system innovation with the values of the previous system). Indicators of compatibility include:
 - a. FMS system compatible with previous systems
 - b. FMS system according to how it works
3. Complexity (level of complexity of innovation). Indicators of complexity include:
 - a. The level of complexity and implementation of the FMS system
 - b. The level of speed of time required in the application of the FMS system
4. Trialability (accessible or not the innovation is applied or tried). Indicators of trialability include:
 - a. Ease of testing employees
 - b. FMS system as a technology investment to maximize resources
5. Observability (accessible or not, the innovation is observed and the benefits in its application). Indicators of observability include:
 - a. Employees quickly see the results of implementing FMS
 - b. The FMS system has a high level of data security

Data sources consist of primary data and secondary data. Primary data was obtained directly from the state-owned company PT. Berdikari (Persero) Central Jakarta and a survey on farm grandparent stock officers at the Lebak branch and IT employees at PT. Independent, while secondary data is taken from the literature, company parties' reports, and farms' reports to companies.

Quantitative Descriptive Analysis

The data analysis technique used is descriptive quantitative. According to Ghozali (2011), descriptive research aims to explain or describe a situation, event, object, person, or everything related to the variables explained in numbers and words.

The process of data analysis used a Likert scale. The Likert scale, according to Sugiyono (2012), is a measurement method used to measure attitudes, opinions, and the perception of a person or group of people about social phenomena. Meanwhile, according to Arikunto (2010), the Likert scale is a psychometric response scale mainly used in questionnaires to obtain participant preferences or the level of agreement with statements or statement cells. Respondents were asked to indicate the level of the agreement through the statements given using an ordinal scale. Likert scale with a score of 1-5 consisting of:

1. Decreased Efficiency / Decreased Skills / Very expensive / Decreased effectiveness / Very inappropriate / Very easy to implement / Very easy / Very fast / Very ineffective / Very detrimental / Difficult / Very unsafe / Very bad / Very useless
2. No changes from the previous system
3. Neutral
4. Efficient / Improves Skills / Minimal / Effective / Appropriate / Easy to Apply / Easy / Fast / Effective / Errors Occurred / Helpful / Safe / Able / Good / Helpful
5. Highly Efficient / Highly Skills Upgrading / Very Minimal / Highly Effective / Very Compatible / Very Appropriate / Very Not Easy to Apply / Harmful / Very Old / Very Influential / Never Errors / Very Helpful / Very Safe / Very Capable / Very Good / Very Helpful.

RESULTS AND DISCUSSION

Farm Officer Quantitative Descriptive Analysis

1. Characteristics of Respondents

The characteristics of the respondents in this study were the respondent's name, age, gender, formal education, main occupation, position on the farm, and length of time working on the farm (Table 3). Respondents are Lebak farm employees from PT. Berdikari (Persero) consists of Unit Head, Farm Officer, and Operator. Data on the characteristics of the respondents were obtained through questionnaires and interviews.

Table 1.
CHARACTERISTICS OF RESPONDENTS OF FARM OFFICERS

Variable	Interval Score	Number of Respondents	Percentage (%)
Age	19-29	15	50
	30-40	10	33.33
	41-51	5	16.67
Education level	S1	3	10
	Senior High School	27	90
	Junior High School	0	0
		30	100
Position	Unit Head Farm	1	3.33
	Farm Officer	2	6.67
	Operator	27	90
Employment period	1-3 years	25	83.33
	3-5 years	3	10
	> 5 years	2	6.67

2. Age

Based on Table 3. The overall age of farmworkers is included in the productive age with the maximum age being 19-29 years as many as 15 people (50%), age 30-40 years as ten people (33.33%), and the age level of 41-51 years being five people (16.67%). This follows Murwanto (2008) opinion, which states that farm officers or breeders of productive age usually have a dynamic mindset and excellent physical abilities to carry out their duties.

3. Gender

Employees at PT. Independent, especially in Lebak's grandparent stock farm, has special considerations for why all farm staff is male. This is because work on the farm requires a higher level of productivity and requires greater human resources. In addition, the consideration of the safety factor is also the reason for the company not to employ women on the farm.

4. Level of education

Employees with relatively high education are generally more dynamic, creative, and easy to accept and be taught an innovation. In Lebak's grandparent stock farm, farm

officers are divided into farm officers and Farm Operators. The education level of the farm operator is SMA/equivalent, and the education level of the farm officer is Strata 1 (S1). Risqina et al. (2011) stated that education greatly influences a person's mindset, making decisions, and managing management at work.

5. Length of work

Most of the farm staff at the Lebak grandparent stock farm worked between 1-3 years with 25 officers (83.33%), three people for 3-5 years (10%), and five years as many as two people. (6.67%). This study shows that the length of time working does not always affect its skills since skills can also be influenced by other factors such as age and level of education.

Comparison of FMS and Manual Systems

The innovation characteristics of the application of the FMS (Farm Management System) system are assessed from 5 (five) sub-variables which include Profitability, Compatibility, Complexity, Trialability, and Observability. The total score of each variable from the questionnaire results based on the perception of the Lebak grandparent stock farm staff can be seen in Table 4.

Table 2.
FARM OFFICERS PERCEPTION OF FMS INNOVATION CHARACTERISTICS

Innovation Characteristics	Indicator	Total Score Feed	Total Score OVK	Total Score DOC
<i>Profitability</i>	FMS system creates work efficiency	140	140	139
	FMS system improves employee skills	142	143	140
	FMS system minimizes expenses	138	142	140
	The FMS system is more effective than the manual system.	141	141	139
<i>Compatibility</i>	FMS system compatible with previous systems	143	141	140
	FMS system according to how it works	274	278	273

Innovation Characteristics	Indikator	Total Score	Total Score	Total Score
		Feed	OVK	DOC
Complexity	The level of complexity in implementing the FMS system	71	74	82
	The level of speed of time required in the application of the FMS system	38	34	38
Triability	Ease for employees to try	289	286	281
	FMS system as a technology investment to maximize resources	144	145	138
Observability	Employees can easily see the results of implementing FMS	289	288	282
	The FMS system has a high level of data security	291	291	283

Sholahuddin (2017) stated that for assessing innovation characteristics, including profitability, compatibility, trialability, and observability, it shows that if the assessment indicator is greater, the innovation applied is appropriate. As for complexity, the greater the assessment in the complexity category, the more complicated the innovation system is to implement. This follows the study results in Table 10, which shows that the score in the complexity category with several question items shows a low value, thus proving that the innovation is suitable to the Lebak Grand Parent Stock farm.

Recapitulation Time Comparison between OVK and DOC

No.	Variable	Manual (minutes)	FMS (minutes)
1	Feed	10	5
2	OVK	5	5
3	DOC	5	5
	Time Average	6.7	5

Source: primary data, 2021

Based on Table 4. respondents stated that the application of FMS provides a relative advantage (profitability) to farm officers, where the results for feed recap are shorter because they have used a computerized system. Recapping OVK and DOC data on the FMS and manual systems is because the amount of data for these variables is the same when using the system or manually. In addition, the application of FMS is compatible with the previous system and according to the way the system works. The FMS system has a higher level of complexity than the manual system. This is because, in the FMS system, the data recap is carried out by the system. The FMS system is easy to test (trialability) during the implementation process, and the results or benefits of the FMS system are easy to observe (observability).

Media for Feed Recap, OVK, and DOC

Based on Table 10. Respondents stated that in addition to compatible media systems, the FMS system also has a better effectiveness value in media use (profitability). In addition, the media used also facilitates collaboration between farm officers (trialability).

Manual System Data Input Time

No	Time required to input data (minute)	Respondents (person)	Time Average (minutes)
1	10	7	
2	11		
3	12		
4	13		
5	14		
6	15	10	16 Menit
7	16		
8	17		
9	18		
10	19		
11	20	13	

Source: primary data, 2021

Based on Table 4. According to the perception of farmworkers, the FMS system creates profitability in the form of efficiency in working time for farmworkers, where the average time required for the manual system is 16 minutes while the FMS system

is only 4 minutes. The FMS system is compatible with previous systems, and the FMS system has a low level of complexity because the system has provided the template for data input. The FMS system is easy to try (trialability), and the input data results are easy to see (observability) with a high level of security.

Feed Data Delivery Time, OVK, and DOC

Based on Table 4. According to respondents' perceptions, it can be seen that the speed of data transmission is very different between the manual system and the FMS system. These differences include the delivery media used; this shows the FMS system has a more effective level of profitability. The speed of time required by the FMS system is higher, and the level of complexity is lower (complexity). Data that has been sent or has been submitted to the FMS system has a high level of accuracy (observability)

Feed Data Input Frequency, OVK, and DOC

The use of manual systems or FMS systems has similarities in the frequency of data recap or input for one entire month. This is because the Lebak farm maintains grandparent stock chickens. It is necessary to record the amount of feed given every day, what ovk is given and how many doc chickens die or are sick. So the number of times input data for feed, ovk, and DOC is done every day, either by using the manual system or the FMS system. This is following the research of Rostianingsih et al. (2015), which states that by using a technology system on farms, owners can find out several reports they want, for example, purchase reports, sales reports, production reports, material retrieval reports, debt payment reports, accounts payable reports, accounts receivable reports, accounts receivable reports, journals, ledgers, income statements, overhead reports, balance sheets, chicken stock reports, egg inventory reports, grocery inventory reports, chicken mutation reports, egg mutation reports, food ingredients mutation reports, production cost report, account balance report, feeding effect report and egg stock card report.

Total Employees Required During the Process of Inputting Feed Data, OVK, and DOC

Based on Table 4. According to the perception of farm officers, the FMS system creates work efficiency for farm officers (profitability) so that work is more focused and does not have double work. In addition, the workings of the FMS system are compatible with manual systems. The FMS system is easy to apply with various training or learning beforehand so that the level of complexity of the FMS system is easy to learn. The system is a form of technology investment to maximize resources at the farm (trialability). The benefits or results of implementing the FMS system are easy to observe and feel by farm officers (observability).

No.	Number of Employees	Manual (person)	FMS (person)
1	Data Recapitulation	27	5
2	Data Input	27	3

Sumber: primary data, 2021

Facilities and Infrastructure for Feed Data Input, OVK, and DOC

In the manual system, the required facilities and infrastructure include the availability of an internet network, the mandatory availability of a laptop or computer supported by Microsoft Office Excel software, and the need for paper and printers. In the FMS system, the required facilities and infrastructure other than the internet are laptops, but laptops are not components that every farm officer must own. That's because even though the laptop is not privately owned, it is still possible to input data via a smartphone or borrow a laptop because the data is automatically autosaved.

Total Costs Expended for Facilities and Infrastructure Needs

Based on Table 4. According to respondents' perceptions, the application of the FMS system minimizes the expenditure required for facilities and infrastructure (profitability). This shows that farm officers do not need to pay for the purchase of paper and stationery. The application of the FMS system is more effective than the manual system.

No.	Variable	Manual (IDR)	FMS (IDR)
1	Paper	70.000/month	-
2	Printer	1.050.000	-
3	Stationery	35.000/month	-
4	Laptop	9.000.000	9.000.000
5	Jaringat Internet	7.200.000/ months	7.200.000/year

Sumber: primary data, 2021

How the System Works

Based on Table 4. According to the perception of farm officers, the application of the FMS system creates effectiveness in the form of ease of using the FMS system (profitability). The FMS system also follows how farmworkers work that is not burdensome on one side only (compatibility) and does not have multiple jobs (complexity). The FMS system helps in cooperation between farm officers (trialability), with the work of each farm officer easy to understand (observability).

Farmer Working Hours

Based on Table 4. The working time of farmworkers does not affect the characteristics of the innovations implemented in the company. This is because working time is determined by the policies of each company, not based on the current system.

	Working period (hour/day)		Average working period (hour/day)	
	Farm Officer	Operator	Farm Officer	Operator
Manual	8	10		
FMS	8	10	8	10

Sumber: primary data, 2021

Constraints in the Process of Inputting Feed Data, OVK, and DOC

There will be various obstacles during the data input process, both in using the manual system or with the FMS system. Constraints usually occur in manual systems, namely on-farm officers; sometimes, the recorded or recorded data does not match the original data. For example, chicken feed in the cage is 1.33 kg, but sometimes the farm staff notes it is only 1.3 kg. This can be a loss for the company because the amount of feed purchased when the feedstock runs out is not appropriate. Constraints that occur in the use of the FMS system are not much different from the manual system. However, the FMS system has the advantage that it can crosscheck the data on the available stock, and the data can be compared and then confirmed at the purchasing department. This is following the research of Rostianingsih et al. (2015), which states that using a technology system on livestock can minimize errors that occur to create efficiency. The recording of purchase and sales transactions can be carried out in a structured and computerized manner and is equipped with stock cards using the average method.

Repeat Check

Based on Table 4. According to the staff's perception, the FMS farm system creates time efficiency with no repeated checks (profitability). With the implementation of the FMS system, the work of farm staff is more controlled and faster (compatibility) with the convenience of the system without repeated checks (complexity). The work of the farm staff is more precise with the absence of repeated data checks (trialability), and the application of FMS is beneficial to the results of the amount of data (observability).

Based on the table above, the cost for the system is different from the cost of facilities and infrastructure; this is because what is intended for system costs is the cost of the software. In using the manual system, the fee for the system is free; this is because the software used is Microsoft Office Excel which is usually already installed on the laptop. This differs greatly from the cost of an FMS system. The purchase of the FMS system is 2,000,000,000 IDR (2 billion). Besides that, there is also an annual fee. For one user or one user or account, there is an additional fee of 1,200,000 IDR/per year.

Quantitative Descriptive Analysis of IT Employees

Characteristics of Respondents

Table 5.
CHARACTERISTICS OF RESPONDENTS OF IT EMPLOYEES

No	Variable	Score Interval	Respondents (number of people)	Percentage (%)
1	Age (yo)	19-29	1	33.33
		30-40	1	33.33
		41-51	1	33.33
2	Education level	Bachelor	2	66.67
		Diploma	1	33.33
		Senior High School	0	0
		The staff of the IT Department	2	66.67
3	Position	Head of IT Department	1	33.33
		Other	0	90
4	Working period (year)	1-3	2	66.67
		3-5	0	10
		> 5	1	33.33

Table 5. It shows that education is a mandatory requirement that must be possessed by an employee. In addition, employee age and length of service do not affect the position held in the company—IT employees of PT. Berdikari is currently counted as new staff in the company. This is done to support the success of implementing innovations in the company, which is closely related to the tasks of the IT division.

Comparison of Implementation of Manual Systems and FMS Systems

IT Division Tasks

The IT division is included in the support section of the Independent Company. The IT Division is incorporated into one Head Manager, namely in finance, tax, accounting, and IT. The IT division has an essential role in the company, especially in implementing ERP and FMS systems. In implementing the manual system, the IT division does not have any tasks. This is because, in the previous system, all activities on the farm were carried out manually without any connection with the system or technology. While in the implementation of the FMS system, the task of the IT division is as an administrator whose job is to maintain the configuration and security of the FMS operating system and ERP system. In addition, another task of the IT division in implementing the FMS system is controlling. This IT division has the task of controlling all forms of activity from the FMS system.

Working Time

The length of working time between the IT division and farm officers is the same because the company determines the length of work. The IT division does not have a difference in working time, whether using the manual system or the FMS system. The working time of the IT division is eight working hours.

Facilities and Infrastructure Needed

The facilities and infrastructure needed by the IT division are not too many and difficult. In the implementation of the manual system, the facilities and infrastructure needed by the IT division do not exist; this is because the manual system application is not related to systems and technology. In the application of the FMS system, the facilities and infrastructure needed by the IT division can support and support the work system of the IT division itself. The facilities and infrastructure include the internet network and the media used, namely laptops.

IT Division Involvement with Lebak Farm

The FMS system is closely related to other supporting systems incorporated in the ERP system. This has resulted in many other divisions being incorporated. Examples of divisions involved include accounting, purchasing, and operations divisions. Not many divisions were involved in the manual system implementation, including the IT division, which was not involved with the previous system. In contrast to the manual system, the IT division's implementation of the FMS system has a lot of involvement. This involvement is closely related to the tasks of the IT division after the implementation of the FMS system. Another involvement in the IT division as a trainer or teacher to farm officers at the Lebak farm. This aims to ensure that farm staff understands the work tasks carried out with the new system, using the FMS system.

The advantages of each system

Every system implemented in a company certainly has its advantages or advantages and manual systems and FMS systems. Based on the perception of the IT division, the benefit of the manual system is that it is flexible, meaning that because the data is input manually, the resulting data can be changed at any time if the farm staff forgets or accidentally makes a mistake. The advantage of implementing the FMS system is based on the perception of the IT division that the data produced is safer because it reduces the risk of data being lost and data being sent faster. In addition, another advantage is that using the FMS system can be accessed anywhere, and the work done is more manageable. Another advantage of implementing the FMS system is that data cannot be changed after validation; this is the safest security to protect data. The application of the FMS system reduces paper usage. Wibowo et al. (2019) stated that after the data has been inputted, the data will be stored safely on the server. The data is sent and received by the company faster than using conventional systems.

Weaknesses of each system

A system with advantages must also have disadvantages, be it a manual system or an FMS system. Based on the perception of the IT division, the weakness of the manual system implementation is that the data produced is not safe. Besides that, the facilities and infrastructure needed are also more and more expensive, such as paper. Another weakness is that the manual system is earlier, an old school system. A company certainly wants changes for the better and follows the development of technology. The weakness of the FMS system's application based on the IT division's perception is that the application of FMS must use the internet network, starting from the beginning of opening the website until the data has been approved by the Head Farm Unit. Amin (2011) states that information system applications can only be implemented with a client/server architecture to run on a local area network (LAN) by several users simultaneously.

Benefits of each system

The company implements a system with the hope that it can benefit all forms of activities in the company. Based on the perception of the IT division, the application of manual systems has no benefit or effect on the IT division. However, it is still beneficial for the company and in other fields or divisions. In implementing the FMS system, the benefits based on the perception of the IT division include: 1) FMS data is processed in real-time so that it can facilitate companies in making decisions; 2) The data generated is following the meaning, namely the data generated is the result of validation from many divisions; 3) Reduce costs for facilities and infrastructure even though the cost for the system is expensive, and 4) Following the company's current needs. Sulistyo and Linda (2020) state that the company will have fast and accurate data to assist the transaction process and facilitate making financial reports by using an information system application.

CONCLUSION

The conclusion obtained from the results of this study is that the FMS system (Farm Management System) application is more efficient in terms of both times, including recap time, data input time, and data transmission time. The FMS system has many advantages in data management, such as data security, data processing, and data accuracy compared to manual systems. This shows that the application of the FMS system follows the characteristics of innovation, including profitability, compatibility, complexity, trialability, and observability, so that continued adoption can be carried out. In addition, the FMS system is very applicable to livestock companies today; it helps integrate the entire system in the company and make decisions faster.

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