

Performance Measurement ERP System Module Purchase and Sale Cooperation on Consumption in Tangerang District

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ABSTRACT

ERP system is an integrated information system to support the core business activities of an organization, helping the business unit related to data and information sharing, cost reduction, and improvement of business processes, which will have an impact on the increase in the work to become more efficient and effective. Organizations that implement ERP system can take the form of cooperative consumption. Purpose cooperative consumption implement an ERP system is to achieve improved productivity and operational effectiveness of the cooperative. Standard Operating Procedures can help the user can use the ERP system, but required knowledge management. This rapid business development prosecute organizations innovate to maintain and grow the business. One such effort is the one measuring the performance achieved are supported by the implementation of the Knowledge Management. In this information age, where information must be obtained relatively quickly, accurately and easily without being limited by space, time, location.

The important thing is how to measure the performance of the ERP system once implemented. Performance measurement module ERP system purchases and sales on consumer cooperatives, will give inputan dan innovation for consumer cooperatives in developing the organization towards a more structured, competitive and advanced, and improve decision making, increase the efficiency of operations and business processes.

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1. INTRODUCTION

1.1. Background

This rapid business development prosecute organizations innovate to maintain and develop the organization. One such effort is the performance measurement modules of ERP systems on the purchase and sale of consumer cooperatives in the Tangerang District. In this information age, where information must be obtained relatively quickly, accurately and easily without being limited by space, time, location, where such information can be dipertanggungjawabkan Untuk it requires the implementation of performance measurement results. In the business world, the implementation of ERP systems is important in efforts to increase competitiveness and assist the company in identifying, selecting, organizing and transferring important information. Effective and efficient structure of knowledge in solving various problems related to operational activities, learning that is dynamic, strategic planning and to support the decision making process for the managerial and leadership levels of an organization. Most companies, especially in the field of industry have already implemented ERP system in the management of business processes aktivas

komputerisasi. Nevertheless, the common problems faced by companies in these implementations are not as expected, but on the contrary the challenges and obstacles resulting failure.

So, it is necessary to measure the performance of an ERP system that has been implemented, to be empowering and can provide improved performance of the organization, which can ultimately increase the maximum profit organizations in expanding the market share towards globalisasi. Kindly, this study can provide results with the implementation of performance measurement ERP systems purchase and sale of modules are ideal for consumer cooperatives in the Tangerang District, so that eventually will be able to increase competitive advantage.

1.2. Problem Formulation

How the results of performance measurement modules of ERP systems purchase and sale in accordance with the consumption cooperative business processes that can provide performance improvements consumption cooperative?

1.3. Research Objectives

This study is a continuation of previous studies entitled modules of ERP system implementation in the purchase and sale of consumer cooperatives in the Tangerang District. By measuring the performance of the ERP system module purchase and sale makaakan produce cooperative organizations consume more agile is the organizational structure that is flexible, have managerial responsibilities and job roles are flexible, so it can easily take advantage of new business opportunities, to contribute positively to the use of sources power to be optimal and has a competitive advantage.

1.4. The purpose of this study is as follows:

Performance measurement modules of ERP systems purchase and sale which can be implemented as needed for consumer cooperatives in Indonesia with a focus Tangerang Regency, to be able to apply, and can support the realization of the vision, mission and strategy of cooperative consumption.

The purpose of this study are as follows:

- a. Conduct an analysis to make the questionnaire in measuring the performance of the ERP system purchase and sale of modules corresponding to the consumption cooperative business processes with a focus on Indonesia Tangerang District.
- b. Knowing the results of the implementation of the ERP system modules on cooperative buying and selling of consumer cooperatives that support business processes and as needed to conduct performance measurement knowledge management.

1.5. Benefits of Research

With the research conducted by the research objectives, the expected benefit to the consumer cooperatives in Indonesia, with a focus Tangerang District, such as the following:

- a. Knowing the cooperative performance corresponding to the consumption of some cooperative business processes of consumption in Indonesia, and know the level ERP system application requirements on some consumer cooperatives.
- b. By getting the results of performance measurement modules of ERP systems purchase and sale, there will be activities for peningkatanpenggunaan application modules of ERP systems purchase and sale optimally, so that the organization can be achieved strategically.

2. LITERATURE REVIEW

2.1. ERP System

ERP system is an application program integrated with an organization's cross-functional. The main goal is the use of ERP systems to improve ways of working more efficiently and effectively than an organization. The essence of ERP systems is the occurrence of a change that will finally achieved an increase in efficiency of cost, time and resource use. With the presence of the ERP system, then all the information needed can be obtained by instant and up to date, but still needed support resources to make the process of business transaction management in performing data entry on the application ERP program. In general, users who are already familiar with how the system works are traditionally in completing the work, will have a tendency to have a habit to not care about the attainment of efficient work. It is actually that will form the old mindset and become a habit that is difficult to change, especially for users who already feel comfortable with the job now. To change that mindset, we need a relatively long process and takes the example or examples of the leadership of an organization with to undergo a change in behavior and mindset. The renewal of the mind is not easy work. But need to do extreme things such as that the user has to try to have a commitment to proceed with the changes to the workings of the old mindset and philosophies are wrong, and users began to

have the attitude to be willing to change ways of working with the use of the use of information technology devices and communication technologies, and begin receiving a new mindset of being willing to receive training and are actively involved and interested in the serious of the things that is a breakthrough for changes to the renewal of mind, thus eventually berkebiasaan to generate new patterns of work that emphasizes more efficient level of employment. Therefore, users should make the process of change of mind consistently with the active involvement of the use of the application ERP programs in the management of business transactions daily, until the end user can understand the purpose and management thinking of an organization to invest in a relatively significant value to changes to the provision of ERP system is to provide solutions in business.

In building the ERP system, it is worth noting that the risk of a high failure rate. If there is a failure in the implementation of ERP, it will pose a high risk that will affect the organization's performance can even kill the business organization as a whole.

[3] Strategies in favor of success in developing and implementing an ERP system are as follows:

- a. User Focus and Focus Technology, Users trying to ERP systems can support the process that is currently underway, so that the ERP system is determined to be flexible. Therefore, implementation of ERP systems should focus on the needs of the user. And after focusing on the user can be met, then focus on technology may be considered.
- b. Human Resource Allocation
- c. Effective business innovation requires the support of the top management. Tim, who was involved in the implementation of ERP systems, should be someone who has the reputation and integrity in the field and has access or a strong influence in the organization, so as to keep the ERP system implementation project is still running on the track. The implementation team should involve users, information technology specialists, that is, those who understand business processes Organization well.
- d. Consultant Support
- e. Ideally an organization has ultimate control over the support of external consultants in the implementation of ERP systems, aimed at the transfer of knowledge and experience of the consultant in the ERP system implementation stage. Before appointing the external consultant for the implementation of the ERP system, internal party organization should have determined things will be improved (improved), specify the destination (goal setting), and the calculation of the advantages of using an outside consultant. Thus, the consultant can provide training to users, developed standard procedures, and other necessary things, so that the transfer of knowledge and experience of the organization as desired.
- f. Training, Training is an important aspect in the implementation of ERP systems. Some factors causing the failure of the ERP system implementation is due to poor training materials provided to the user. The successful implementation of ERP systems, can be influenced by the level of absorption and management and user acceptance of the training.

2.2. Performance Measurement of ERP Systems

In the implementation of the ERP system, necessary to the performance measurement used. [5] Measuring the performance of knowledge management ERP system can use several methods of IT Supply Management Scorecard, IT Development Management Scorecard, and IT Infrastructure Management Scorecard.

In the ERP system with performance measurement of IT Supply Management Scorecard method, can measure the effectiveness and efficiency of how the availability of the application of ERP systems and IT services that can be applied to support the needs of cooperatives. Development of systems that run in-house development and carried out by the company's internal IT development team, requires a considerable expense for training and development. Similarly, in the ERP system with performance measurement method of IT Development Management Scorecard, can ensure the development of systems and applications can be run in accordance with the business needs of consumer cooperatives. Time considerations become important things to learn and implement. ERP system performance measurement needs to be done to support the needs of the consumer cooperative business more effectively and efficiently. In addition, there should be testing of the system and training on a regular basis. In measuring performance management knowledge of ERP system is an assessment of the effectiveness and efficiency of the implementation of the ERP system, looks pretty good use of time in studying and applying the tools of technology or new IT support. The process of measuring the performance of the system and the training given is essential, in order to anticipate problems such as human error, lack of mastery of the use of the system and others so that the resulting system according by user needs and support the cooperative business operations and processes. Training sufficient also considered capable of making users better understand the procedures for using the system before the system is implemented.

2.3. ERP system modules on the purchase and sale of consumer cooperatives

ERP systems can support and the occurrence of a business synergy of all the functions that exist within the organization, it may even involve the entire management functions in the management of business transactions. With the implementation of the ERP system, it can automatically improve the performance of the organization's efforts to produce a system that is informative in providing a variety of accurate and up to date information on the management of the activities of the Cooperative consumption. Cooperative activities consumption can be the synergy of all the parts that exist in an organization, such as the value chain (value chain), where the organization's activities begin with a customer and market demand for a certain product, with existing resources, the organization will seek to process the raw materials into products that customers want or do direct procurement of the required product from the supplier. The series of process or activity into a material change in the product, known as value chain (value chain) .With the activities of the value chain activities, of course, can benefit from the value of price and product quality.

ERP systems purchase and sale of the module is the main activity in an organization that can demonstrate business activity occurred. System Buying and Selling Cooperative Konsumsiharuslah can provide and meet the main needs of its members towards the needs of consumer goods, the price is relatively reasonable and the product quality is assured, with a can monitor inventory information, recording the activities of sales and purchases, making reports some reports are up to date and informative for decision-making, such as the statement of cash flows, sales, purchasing, credit balances of the members to minimize the occurrence of errors in decision-making, as well as the presentation of various financial reports for the parties concerned. This, of course, would be effective and efficient in the presence of the ERP system support module Purchase and Sale with the availability of ERP program applications.

3. METHODOLOGY

3.1. Research Design

The methodology used in this study is a case study approach, analysis, and evaluation and literature study of documents - documents pertaining to the organization of the organization's strategy, managerial and operational plans, as well as the use of technology and information systems that exist in the organization. Besides, it also uses the book study method, which uses several books and literature relating to the object of this study, particularly matters relating to the results of the implementation of the ERP system is used as a reference, also using field, which the authors direct observation and the author's experience as a practitioner and consultancy in the field of information systems, performance measurement denganmelakukan ERP system to enhance the competitive advantage bagikoperasi in Indonesia, especially the Tangerang District.

3.2. Data Collection Techniques

To get the data to be processed, so in this study conducted three data collection techniques, namely:

- a. Study of literature
The study of literature by reading articles or writings related to the topic of research through books, journals, and internet.
- b. Interview
Interviews will be conducted with the management and the people associated with research topics in several KoperasiIndonesia Tangerang District.
- c. Observation
At this observation method of direct observation team on the parts related to the research. This study is required to determine the business processes that are running, see what information is available and required, and the technology used by the organization and see the performance of their related business processes.
- d. Questionnaires
The questionnaire is the technique of the data collection is done by giving a set of written questions that will be distributed to Reviews those Involved in cooperative business processes.

4. RESULTS DISCUSSION

Performance measurement modules of ERP systems purchase and sale, performed using data collection method used was a questionnaire. The questionnaire addressed to any users who use the module purchases and sales. Selection of a questionnaire method for the measurement of performance with the implementation of the ERP system modules purchases and sales on consumption cooperatives in the Tangerang District considered able to get the results objectively whether the use of the system in accordance

with existing business processes and is able to provide solutions to performance for the development of a better system.

The questionnaire aimed to obtain performance measurement modules of ERP systems on the purchase and sale of consumer cooperatives in Tangerang district, there are 15 user or users who use the system. Category choice answers to the questions contained in the questionnaire:

Choice Answers Category of Question No. 1

- a) Highly Efficient (> 5 minutes)
- b) Efficient Enough (> 3 – 5 minutes)
- c) Efficient (> 1 – 3 minutes)
- d) Less Efficient (<= 1 minutes)
- e) Very Inefficient (longer than last system)

Choice Answers Category of Question No. 2

- a) Very Good (6 modules)
- b) Good Enough (5 modules)
- c) Good (4 modules)
- d) Less Good (3 modules)
- e) Very not Good (2 modules)

Choice Answers Category of Question No. 3

- a) Very Easy (< 1 weeks)
- b) Easy Enough (> 1 – 2 weeks)
- c) Easy (> 2 – 3 weeks)
- d) Less Easy (> 3 – 4 weeks)
- e) Very not Easy (> 4 weeks)

Choice Answers Category of Question No. 4

- a) Very Rarely (< 3 times)
- b) Rarely (> 3- 6 times)
- c) Often (> 6 – 9 times)
- d) Often Enough (> 9 – 12 times)
- e) Very Often (> 12 times)

Choice Answers Category of Question No. 5

- a) < 10 days
- b) 10 - 20 days
- c) 20 – 30 days
- d) 1 - 2 months
- e) 2 months

Choice Answers Category of Question No. 6

- a) < 3 times
- b) > 3 – 6 times
- c) > 6 – 9 times
- d) > 9 – 12 times
- e) > 12 times

Weight rating is used for selection of each question is:

A score of 5 is given to the choice answers of:

- a. Highly Efficient (> 5 minutes)
- b. Excellent (6 modules)
- c. Very Easy (< 1 week)
- d. Very Rarely (< 3 times)
- e. < 10 days
- f. < 3 times

A score of 4 is given to the choice answers of:

- Efficient Enough (> 3 – 5 minutes)
- Good Enough (5 modules)
- Easy Enough (> 1 – 2 weeks)
- Rarely (> 3- 6 times)
- 10 – 20 days
- > 3 – 6 times

A score of 3 is given to the choice answers of:

- Efficient (> 1 – 3 minutes)
- Good (4 modules)
- Easy (> 2 – 3 weeks)
- Often (> 6 – 9 times)
- 20 – 30 days
- > 6 – 9 times

A score of 2 is given to the choice answers of:

- Less Efficient (<= 1 minutes)
- Less Good (3 modules)
- Less Easy (> 3 – 4 weeks)
- Often Enough (> 9 – 12 times)
- 1 - 2 months
- > 9 – 12 times

A score of 1 is given to the choice answers of:

- Very Inefficient
- Very not Good (2 modules)
- Very not Easy (> 4 weeks)
- Very Often (> 12 times)
- 2 months
- > 12 times

After weight rating multiplied by the number of users of each choice answer the questions, it will get the total value. Then the total value compared with a range of categories of answers to each question are obtained from a reduction in the total value of the maximum and minimum total value of the total value of the results of the questionnaire. The questionnaire aimed at measuring the performance of the ERP system modules purchases and sales, are as follows:

Question No. 1

How long the system can help accelerate the completion of work compared to the old system?

Table 1. Questionnaire

Answer Options	User Answer	Weight	Total Score
> 5 minutes	0	5	0
> 3 – 5 minutes	1	4	4
> 1 – 3 minutes	10	3	30
< 1 minutes	4	2	8
Longer than last System	0	1	0
<i>Total user</i>	15	<i>Total</i>	42

The total value for question 1 is 42, it can be concluded that the system is applied to purchases and sales module is efficient and can help accelerate the completion of work compared with the old system.

Question No. 2

How many modules already integrated well?

Table 2. Questionnaire

Answer Options	User Answer	Weight	Total Score
6 modules	0	5	0
5 modules	0	4	0
4 modules	1	3	3
3 modules	10	2	20
2 modules	4	1	5
<i>Total user</i>	15	<i>Total</i>	28

The total value for question 2 is 28, it can be concluded that the purchase and sale of system modules were implemented already well integrated

Question No. 3:

What is the number of days required by the user in understanding and using the system?

Table 3. Questionnaire

Answer Options	User Answer	Weight	Total Score
< 1 weeks	0	5	0
> 1 – 2 weeks	3	4	12
> 2 – 3 weeks	10	3	30
> 3 – 4 weeks	2	2	4
> 4 weeks	0	1	1
<i>Total user</i>	15	<i>Total</i>	47

The total value for question 3 is 47, then the number of days about 2-3 weeks means that the system is easy to understand and use by the user.?

Question No. 4:

Is the system implemented still often has an error within the last 1 year?

Table 4. Questionnaire

Answer Options	User Answer	Weight	Total Score
< 3 kali	0	5	0
> 3 – 6 kali	11	4	44
> 6 – 9 kali	3	3	9
> 9 – 12 kali	1	2	2
> 12 kali	0	1	0
<i>Total user</i>	15	<i>Total</i>	55

The total value to question 4 is 55 with a selection of the most (> 3-6 times), it can be concluded that the system is applied rarely experienced an error in the last period of 1 year.

Question No. 5:

How long number of days of training that has been held for the user (user) for 1 year?

Table 5. Questionnaire

Answer Options	User Answer	Weight	Total Score
< 10 hari	0	5	0
> 10 – 20 hari	4	4	16
> 20 – 30 hari	11	3	33
> 1 – 2 bulan	0	2	0
> 2 bulan	0	1	0
<i>Total user</i>	15	<i>Total</i>	49

The total value for question 5 is 49, proving that the number of days of training have been conducted for the users of the system is more than 20 to 30 days to 1 year.

Question No. 6:

How often the user / user requires assistance support team in addressing problems that occur on the system each month?

Table 6. Questionnaire

Answer Options	User Answer	Weight	Total Score
< 3 kali	0	5	0
> 3 – 6 kali	2	4	8
> 6 – 9 kali	11	3	33
> 9 – 12 kali	2	2	4
> 12 kali	0	1	0
<i>Total user</i>	15	<i>Total</i>	45

The total value for the question 6 is 45, it can be concluded that the user / user requires 6-9 times assistance support team in addressing problems that occur on the system each month.

5. CONCLUSIONS AND RECOMMENDATIONS

Performance measurement ERP system module purchases and sales on consumption cooperatives to ensure the development of a system can help daily operations more effective and efficient, it can be used by the user and for the interest of users, the managerial level, customers, and other parties associated with the system that, by measuring performance to prove that the use of the system is optimal, achieving the desired objectives and in accordance with user needs. The decisive factor is not only on the development of the technology or the utilization of infrastructure, but also how the system can optimize the performance of users, helps business processes and operational processes, as well as the methods used.

By measuring the performance of the ERP system modules purchase and sale, can help evaluate the performance of systems that can assist in managing the consumption cooperative operational activities better. This can have an impact on improving the competitiveness of the cooperative and increase the efficiency and effectiveness of the performance of users at the same time capable of producing cooperative consumption of more agile, with the information in real time, the documentation that systematically facilitate cooperative leadership in decision making and ultimately improve the productivity of cooperatives which has a competitive advantage. to further refine the existing system and after the evaluation is to measure the performance of the ERP system modules on the purchase and sale of consumer cooperatives in the Tangerang District, the authors suggest for the future for the development of a web-based application system, so it can be optimized to integrate all the data and information flow of business processes including external parties related existing cooperative environment with a wider area with the utilization of internet technology.

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