PERFORMANCE METRICS MODEL THROUGH HUMAN RESOURCE INFORMATION SYSTEM IMPLEMENTATION SUPPORTED BY USER'S SATISFACTION IN PT. ENSEVAL PUTERA METRATRENDING (EPM) BANDUNG

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Abstract: The purpose of this study is to determine effect of the human resources information system (HRIS) software quality on Employees' Performance through Users' Satisfaction in PT.Enseval Putera Megatrending (EPM) Bandung. The method used in this research is descriptive and verification with quantitative approach. Data collection techniques use observation and questionnaire distribution. Quantitative analysis usespath analysis with the aid of SPSS software. Results of research conducted by the researcher show that the current HRIS already meets the criteria of software qualitythat is expected by the company; ERPsoftware is in good category; the users of the HRIS software is satisfied; the performance of employees after using HRIS software is categorized good; HRIS software affects the users' satisfaction significantly; the users' satisfaction affects significantly on the employees' performance and HRIS software quality affects the employees' performance through the users' satisfaction significantly.

Keywords: The human resources information system software, users' satisfaction, employees' performance.

I. INTRODUCTION

1.1 Background Research

The development of information technology is growing rapidly, along with various kinds of shapes and benefits at this point is very encouraging. Many things can be taken and used by humans to support life for the better. Computer with all the accessories have been able to provide the necessary convenience. Various information requiring high speed and accuracy, has been met with the help of these devices. Modern information technology has been through the boundaries of time and distance that often become obstacles in people's lives. With the ability in processing data quickly and accurately, presenting information in an interesting

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and easy to read, as well as ease of operation, the device is very effective and feasible computer used to support the routine work of the wearer.

PT. EPM manages business of raw material sales for industry: pharmacy, food and beverage, as well as cosmetics by collaborating with its company branch, namely PT Global Chemindo Megatrading. The vision of the company to become a leading company in integrated primary service distribution and logistics at health field based on advanced technology and qualified human resources. The mission of PT EPM is to give contribution in health problems solution. One of the competitive advantages of this company is to provide primary service by way of excellent human resources. It means that this company prioritizes the high quality of human resources in succeeding the company goals and in generating maximal performance of the company; that is why the role of HRIS software in this company is very important.

One of the company's best achievement is to obtain ISO certification in 2014 in terms of Certification in how to distribute medicine well given by Board of Medicine and Food Supervision Republic of Indonesia (BPOM RI) for their branches in Jakarta 1, Kupang, Palu, Balikpapan, Bogor, Jember, RDC Jakarta and RDC Surabaya, Palembang, Jakarta 2, Padang, Pematang Siantar, Tangerang dan Yogyakarta.

II. LITERATURESTUDY

2.1 Software Quality

Software (software) is said to be good if it can fully and "perfect" meets the specific criteria of the company's organization requires. It is often termed as the fulfillment of the "User requirements" (the needs of users of software that has been previously defined and details).

Quality software is a complex disorder of the various factors that will vary in different applications and customers who need it. Factors affecting the quality of the software can be categorized into two major groups, namely:

1. Factors that can be directly measured.
2. Factors which can not be directly measured.

According to Mc Call and his colleagues in 1977 in Roger (2002: 611) has proposed a classification of factors or dimensions that affect the quality of software. Basically McCall emphasizes these factors into three (3) important aspects, namely related to:

1. The operational properties of the software (Product Operations).
2. The ability of the software to undergo changes (Product revision).

3. Power software adaptation or adjustment to the new environment (ProductTransition).

But in this study the author discusses only one factor/dimension *i.e* factors/ dimensions related to the properties of the operational software, which can be described as follows:

1. Correctness, *i.e.* the extent to which software meets specifications and mission objectives of the user.
2. Reliability, namely the extent to which software can be expected to carry out its functions with the necessary thoroughness.
3. Efficiency, computerized yaknibanyaknya resources and code of a software program needed to perform its function.
4. Integrity, the extent to which access to software and data by unauthorized parties can be controlled.
5. Usability, the effort required to learn, operate, prepare input and interpret the output of the software.
6. Mobility Data, Data on a content (content) a WEB-based software must always be on the up-date. Viewed from the side mobility.

2.2 Software Human Resource Information System (HRIS)

Human resource Software Information Systems an application that is in use in PT EPM used to assist and facilitate its employees in completing all work quickly, precisely and accurately. According to the manual module Human Resource Information System (HRIS), said that:

> HRIS is a system or software that is used in PT EPM that have diverse functions ranging from absenteeism to making the report and it is one tool to accelerate the achievement of the goals set by the company. HRIS software was created with the aim to facilitate the work of employees in completing each job, thus increasing employee performance.

The notion of HRIS (Human Resources Information System) according to according to experts in Abdul Kadir (2003: 97), namely:

> The information system provides information that is used by the function of human resources department.For exampleit contains salary information, a summary of the tax, and arrears to the employee's performance.

2.3 Performance Concept

The concept of performance refers to the level of achievement of the organization's employees or job requirements. According to Robbins, S,P. (2012 : 187) defined performance as a function of the interaction between the ability and motivation so performance = $f\,(A \times M)$. If there is inadequate, performance will be adversely

affected. In this case, the performance of employees is the variable (Y) which is affected by the variable (X), namely HRIS Software. The understanding of employee performance according to FaustinoCardoso Gomes, 2003 in Umi Narimawati (2007: 76), namely:

"The outcome resulting from a work function within a specific time period or at present".

The concept of performance is expressed by Dessler (2011) which defines performance as the job performance comparison between the work significantly with labor standard set.

2.4 Employee Performance Measurement

According to Dessler (2011) there are six (6) factors in the measurement of performance, namely :

1. Quality includes accuracy, throughness, the level of acceptability of the company's performance;
2. Productivity include quantities and the resulting efficiency of work within a particular period;
3. Knowledge of the work includes practical skills and techniques and information used in the work;
4. Credibility include the degree to which employees can be trusted with regard to completion of the work and solusion;
5. Availability includes the degree to which employees are timely, observe the timing breaks/meals, and the overall attendance rate;
6. Freedom include the level of performance for companies with little observing the timing is unsupervised.

III. FRAMEWORK OF THOUGHT AND HYPOTHESES

3.1 Framework

Assuming that the Human Resource Information System (HRIS) Software have an impact on the users's satisfaction and performance of employees at PT EPM, it can be seen and based on the data comparison between before and after using HRIS software is the result of observation. The concept of performance is expressed by Dessler (2011) which defines performance as the job performance comparison between the work significantly with labor standard set. According to Armstrong and Baron in Wibowo (2007:2) the performance is:

"The work that has a strong relationship with the organization's strategic objectives, customer satisfaction, and contribute to the economy".

Improving employee performance greatly affects the human resources owned by a company, because the Human Resources (HR) is the basis for the development of a company. Our company not only need information fast, accurate and timely, but the company also would require the Human Resources (HR) quality and reliable to be able to compete with other companies.

Each company must have the same goal, namely one of which was to keep developing better and become larger. To achieve these objectives the company must have good information systems, supported by human resources quality and reliable in all fields. As for getting reliable human resources and quality, the need for HR planning. Understanding of HR planning according to Eddy Soeryanto Soegoto (2009: 198), namely:

> "Human resource planning is an activity that systematically predict the number and quality of workers needed by an organization."

Having obtained the human resources that are reliable, must also be balanced with a good information system as well. The information has no value usually because the data set is incomplete or expired. Characteristics of information is the acceptance of change of state information (state) do not know into the condition (state) know. This change contains elements that are not correct and can only be corrected by confirming previous information. The benefits of the information is to reduce uncertainty, it is very useful for the decision making process.Software is a device that consists of items/objects which are configurations of:

1. Program: command (computer program) which when executed provides the functionality and performance as desired.
2. Document: describes the operation and usefulness of the program.
3. Data: data structure that allows programs to manipulate information in proportion.

Once the information systems and software are good and reliable human resources, it is necessary to our analysis of the impact caused by the information system on the performance of the company's human resources. According to McCall and his colleagues in 1977 in Roger (2002: 611) has proposed a classification of factors or dimensions that affect the quality of software. Basically McCall emphasizes these factors into three (3) important aspects, namely related to:

1. The operational properties of the software (product operations).
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3. Power software adaptation or adjustment to the new environment (producttransition).

Never the less, in this study the writer discusses only one factor/dimension related to the properties of the operational software, which can be described as follows:

1. Correctness, *i.e.* the extent to which software meets specifications and mission objectives of the user.
2. Reliability, namely the extent to which software can be expected to carry out its functions with the necessary thoroughness.
3. Efficiency, the amount of computerized resources and code of a software program needed to perform its function.
4. Integrity, the extent to which access to software and data by unauthorized parties can be controlled.
5. Usability, the effort required to learn, operate, prepare input and interpret the output of the software.
6. Mobility Data, Data on a content (content) a WEB-based software must always be on the up-date. Viewed from the side of mobility.

Based on the description framework and the theory of the relationship between variables of Human Resource Software Human System (HRIS) with employee performance, it can be formulated the paradigm regarding the influence of Software Human Resource Information System (HRIS) have an impact on the performance of employees at PT EPM, as seen in Figure 1.1 below:
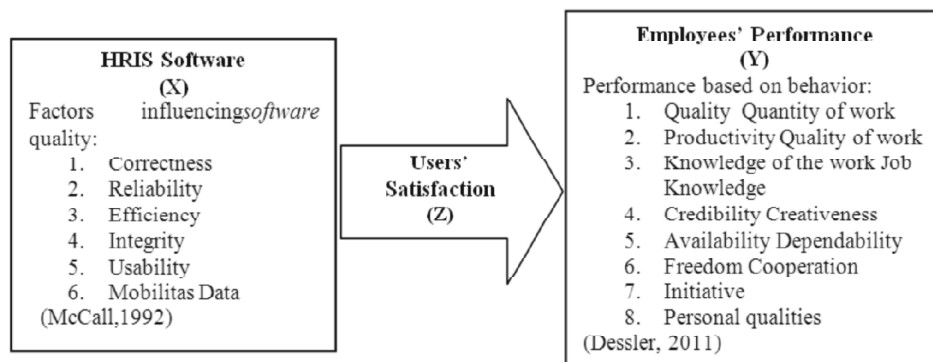
Frame of Thought Paradigm

"Human Resource Information System (HRIS) Software have an impact on the performance of employees through users' satisfaction at PT EPM Bandung "

III. RESEARCH METHODS

3.1 Problem Formulation

Furthermore, the problem in this study can be formulated as follows:

1. How is the information system that is currently operated?
2. How do respondents assess software quality of Human Resource Information System?

3. How is the performance of employees after using the Human Resource Information System (HRIS) software?

4. How much is the effect of the Human Resource Information System (HRIS) software on the users' satisfaction?

5. How much is the effect of the users' satisfaction on the employees' performance?

6. How much is the effect of the Human Resource Information System (HRIS) software on the employees' performance through the users satisfaction?

3.2 Research Benefits

(a) For the Company

Results ofthis studyare expected toprovide inputregarding theinformation on theinformation systems that are running today is Human Resource Information System (HRIS) to serve asa reference inthe development of information systems that are running in the future and can be considered for leader ship in decision-making for more improving the performance of employees of PT EPM Bandung.

(b) For the Employees

The result is expectedto be usefulfor all employees at PT EPM Bandung to use information systems Human Resource Information System (HRIS) maximally in order to improve its performance.

(c) For theDevelopment of Science

The result is expected to increase the contribution of information science, especially in the field of management in formation systems, as supporters of policies to improve employees' performance.

3.3 Scope of Problems

The scope of thediscussion are as follows:

The present writer tests the quality of the Human Resource Information System (HRIS) Software because not all dimensions of qualityof software are usable and suitable for testing the quality of the Human Resource Information System (HRIS) Software. The six dimensions are: correctness, reliability, efficiency, integrity, usability and mobility data.

3.4 Research Object

This research was conducted to obtain data relating to the object of research: the HRIS software quality, users' satisfaction and employees' performance. There are

three variables in this study, namely the independent variable (X), the intervening variable (Z) and the dependent variable (Y). The independent variable (X) in this study is the Human Resource Information System (HRIS) software, the intervening variable is users' satisfaction, and the dependent variable (Y) is the employees' performance at PT EPM Bandung.

3.5 Research Methods

The method used in this research is descriptive analysis method with quantitative approach. In this study, the research conducted to gain an overview of the use of HRIS (Human Resource Information System) or the Human Resources Information System that is currently being run in PT EPMand whether it can improve the employees' performance. Therefore, the present writer uses a descriptive as well as verified approach.

3.6 Operationalization of Variables

In this research, the independent variable (X) is Human Resources Information System software, the intervening variable (Z) is users' satisfaction. It assumed that both independent and intervening variables affect the performanceof employees.

3.7 Sampling Technique

To determine the amount of the sample that the writer uses in the study some steps are as follows:

(a) Population

The population in this research is the employee who uses Human Resource Information System (HRIS) software in PT EPM. Thenumber of employees at PT EPM taken as respondents is 50 employees.

(b) Samples

The study was conducted to all employees who use and is associated with the use of Human Resource Information System (HRIS)software in PT EPM. The sampling technique is saturated of a total population of 50 people, then the sample is taken as many as 50 people.

3.8 Data Collection Methods and Data Type

Primary data

Primary data were collected by interview and questionnairefrom both managers and employees who use the HIRS software.

3.9 Procedure of Analysis

Data analysis method used is a quantitative method, The procedure used is path analysis. Calculation is assisted with SPSS software.

Design of Hypothesis

Based on the statistical tools used and the research hypothesis above, the author defines two hypotheses, namely the null hypothesis (H0) which is formulated to be rejected and the alternative hypothesis (H1) that is the hypothesis formulated to be accepted, with the formulation as follows:

First Hypothesis

H0: $\beta = 0$, Human Resource Information System (HRIS) software does not affect the users' satisfaction.

H1: $\beta \neq 0$, Human Resource Information System (HRIS)softwareaffects the users' satisfaction.

Second Hypothesis

H0: $\beta = 0$, Users' satisfaction does not affect the employees' performance.

H1: $\beta \neq 0$, Users' satisfaction affects the employees' performance.

Third Hypothesis

H0: $\beta = 0$, Human Resource Information System (HRIS) software does not affect the employees' performance through users' satisfaction.

H1: $\beta \neq 0$, Human Resource Information System (HRIS) software affects the employees' performance through users' satisfaction.

IV. RESULTS AND DISCUSSION

4.1 Research Result

4.1.1 Descriptive Analysis

In this part the writer will present respondents' assessment on the quality ofHuman Resource InformationSystem (HRIS) at PT EPM Bandung.

Based on the calculation above, it can be concluded that the respondents to the quality of Information Systems Human Resource Information System (HRIS) is assessed as much as 88 which indicates that the presentation software used is in excellent category. The quality of software indicates that the software has met the criteria of needs of workers.

Table 4.1
Respondents' Assessmenton the Quality ofHuman Resource InformationSystem (HRIS) Software

Indicator	Score of Quality
Correctness	90
Efficiency	85
Integrity	80
Usability	95
Mobility of Data	90
Average	88

Based on the five indicators that make up the software HRIS obtaining the highest response or appreciation of the level of usability, lowest efficiency. It can be understood that the presence of HRIS considered beneficial for the employees' administrative management, while the efficiency is said to be the lowest among the four, because there are some employees who have not been able to use the system optimally.

Table 4.2
Users' Satisfaction

Indicator	Score of Satisfaction
Correctness	70
Efficiency	80
Integrity	75
Usability	85
Mobility of Data	80
Average	78

Based on the table above it can be concluded that most of the users of HIRS at the company feel satisfied with the six criteria of the HIRS software quality with the average as much as 78 included as moderate category.

Table 4.3
Respondentson Employee Performance

Indicator	Score	Criteria
1. Quality	70	Moderate
2. Productivity	90	Good
3. Knowledge of the work	85	Good
4. Credibility	85	Good
5. Availability	85	Good
6. Freedom	75	Moderate
Average	81,67	Good

Based on the above calculation, it can be concluded that the respondents of the overall performance of employees included in the good category. Of the eight indicators that make up the performance, there are four indicators that have been perceived as good, namely productivity, knowledge of the work, credibility and availability, while the other four are still in the category enough. This indicates that the performance expected by the leadership on the implementation of the information system is not fully optimal in accordance with the target of company. Based on interviews with themanagers that use the HRIS software. It has not been achieved yet because it is influenced also by other factors, such as employee education factor. Based on 6 indicators that affect the performance of employees received any response or highest appreciation is of a level of independence, the lowest initiatives. It can be understood that the presence of HRIS requires a high degree of independence from the employees to continue to learn, while the initiative has less attention because the employees felt the work as monotonous, It means that the required level of initiative has not been fully optimal.

4.1.2 Hypothesis Testing

Verification analysis will be based on the following result:
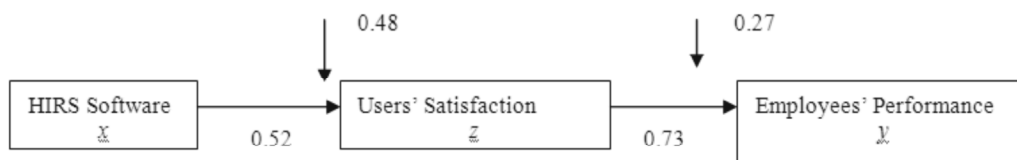
From the calculation the result is as follows

1. The effect of HIRS software on users' satisfaction is 0.52 with the significance level as much as 0.02.
2. The effect of users' satisfaction on employees' performance is 0.73 with the significance level as much as 0.00.
3. The effect of HIRS software on employees' performance through users' satisfaction is 0.38 with the significance level as much as 0,03.

First Hypothesis: The Effect of HIRS Software on Users' Satisfaction Steps to test the first hypothesis is are as follows:

First: State hypothesis

H0: $\beta = 0$, Human Resource Information System (HRIS) software does not affect the users' satisfaction significantly.

H1: $\beta \neq 0$, Human Resource Information System (HRIS) software affects the users' satisfaction significantly.

Second: Determine the criteria

If significance level from the observation < 0.05 reject H0 and accept H1

If significance level from the observation > 0.05 accept H0 and reject H1

Third: Decision

From the calculation the significance level is as much as 0.02 which is smaller than 0.05; therefore H0 is rejected and H1 is accepted. Accordingly, Human Resource Information System (HRIS) software affects the users' satisfaction significantly with the amount of effect is 0.52.

Second Hypothesis: The Effect of Users' Satisfaction on Employees' Performance Steps to test the second hypothesis is are as follows:

First: State hypothesis

H0: $\beta = 0$, Users' satisfaction does not affect the employees' performance significantly.

H1: $\beta \neq 0$, Users' satisfaction affects the employees' performance significantly.

Second: Determine the criteria

If significance level from the observation < 0.05 reject H0 and accept H1

If significance level from the observation > 0.05 accept H0 and reject H1

Third: Decision

From the calculation the significance level is as much as 0.00 which is smaller than 0.05; therefore H0 is rejected and H1 is accepted. Accordingly, the users' satisfaction affects significantly on the employees' performance with the amount of effect is 0.73.

Third Hypothesis: The Effect of HIRS Software on Employees' Satisfaction Through Users' Satisfaction Steps to test the third hypothesis is are as follows:

First: State hypothesis

H0: $\beta = 0$, Human Resource Information System (HRIS) software does not affect the employees' performance through users' satisfaction significantly.

H1: $\beta \neq 0$, Human Resource Information System (HRIS) software affects the employees' performance through users' satisfaction significantly.

Second: Determine the criteria

If significance level from the observation < 0.05 reject H0 and accept H1

If significance level from the observation > 0.05 accept H0 and reject H1

Third: Decision

From the calculation the significance level is as much as 0.03 which is smaller than 0.05; therefore H0 is rejected and H1 is accepted. Accordingly, Human Resource Information System (HRIS) software affects the employees' performance through the users' satisfaction significantly with the amount of effect is 0.38.

4.1.3 Coefficient of Determination

Coefficient Determination shows the variability of the dependent variable (endogenous variable) that can be explained by the independent variable (exogenous variable). From the calculation the results are as follows:

1. *First structural equation:* The Effect of HIRS Software on Users' Satisfaction. The value of R^2 is 0.52. It means that the variability of the users' satisfaction dependent variable (endogenous variable) can be explained by the HIRS software independent variable (exogenous variable) as much as 0.52 while the remainder as much as 0.48 is affected by other factors outside this research.

2. *Second structural equation:* The Effect of Users' Satisfaction on Employees' Performance. The value of R^2 is 0.73. It means that the variability of the employees' performance dependent variable (endogenous variable) can be explained by the users' satisfaction independent variable (exogenous variable) as much as 0.73 while the remainder as much as 0.27 is affected by other factors outside this research.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusion

Based on the identification of the problem to be studied, the research objectives to be achieved, the hypothesis to be observed, and the results of data processing and analysis, the researchers obtained some conclusions as follows:

1. That the current information system already meets the criteria of software quality that is expected by the company.

2. The quality of the Human Resource Information System (HRIS) Software is in good category.

3. The performance of employees after using Human Resource Information System (HRIS) Software is in good category.

4. The users of the HIRS software is satisfied.

5. Human Resource Information System (HRIS) software affects the users' satisfaction significantly.

6. The users' satisfaction affects significantly on the employees' performance.

7. Human Resource Information System (HRIS) software affects the employees' performance through the users' satisfaction significantly.

5.2 Recommendation

Suggestions given are as follows:

1. Human Resource Information System (HRIS) Software in PT EPM has been good, and the performance of employees is good; therefore the employees should able to defend and to increase the performance maximally.

2. Human Resource Information System (HRIS) Software in PT. EPM viewed from all indicators that have been testedare good; accordingly for the future it can be developed in accordance with the needs of the company.

3. Employees' performance is very good on some indicator, such as quality, productivity, knowledge of the work, credibility, availability, freedom, accordingly the employees should be able to adjust in terms of completing the work by using Human Resource Information System (HRIS) Software. In order that the performance increasesmaximally the company should conduct a training, especially in the field of IT training in order that the employeescan optimize the existing HRIS software.

4. The HRIS software should be further improved and optimized so that the employees' performance can be further increased in accordance with the standards of the company's performance.

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