

HR Information System Assessment of Employee Performance Using the Balanced Scorecard Method

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Abstract:- Human resources are at the heart of the life of an organization or company. The problem faced today is a manual assessment and not achieving the target in a purchasing performance goal. The use of accurate data will produce optimum output, so that purchasing performance goals can be achieved. By using the balanced scorecard method which consists of four perspectives including financial, customer, internal business processes and growth and learning perspectives. Based on data from 2016 to 2017 to be analyzed from all four perspectives. The four perspectives then produce different results according to the scope under study. The results of performance measurement have an impact on giving final scores on the basis of managerial decision making.

Keywords:- Assessment, Balanced Scorecard, Employee Performance, Human Resources.

I. INTRODUCTION

Facing the digital age of information technology, a lot of information and matters relating to the work of human resources presented in digital display. Through digital data-based corporate governance or organization, making it easier and faster for business affairs, the scope of the company's scope to be broad and the integration management system to be comprehensive. Management data previously processed manually by a number of employees, but in a digital system the management can use it with software. Human resources are the most important aspects of the company that have an impact on the survival of the company which is translated into a reflection of the behavior of employees in it (Rachmawati, 2016).

In achieving the goals of a company organization, it is often faced with an unexpected event called risk. To minimize the risks identified, a system is created. The system functions as a guideline for the organization to achieve its intended goals. The problem that appears in manual attendance recording is the range of data errors. Human resource management in general can be classified as planning, receiving, training, and developing and maintaining resources or members of the company. Performance appraisal

is also one of the most important aspects in a human resource management in the company.

The company is expected to be able to provide satisfaction to the employer and increase the productivity of the performance of its human resources. Performance evaluation describes a process of feedback or previous performance and encourages an increase in the next phase. Performance is the result of work that has a relationship with an organization's strategic goals, customer satisfaction, and contributes to the economy. Performance includes what is done and how to do it.

With the measurement of performance, the target of a company will be measured the quality and quantity, so that employees have clear objectives to be achieved. There are several performance measurement methods such as the balanced scorecard which was introduced in the early 1990s in the United States by David P Norton and Robert Kaplan. The balanced scorecard implies a performance that can be measured in a balanced manner on two sides including financial and non-financial.

Case studies are conducted at the purchasing department of a private company in the Karawang area in the manufacturing sector. The company in this case is referred to as PT X, has several departments but researchers will focus on the purchasing department. PT X has a vision of contributing to the highest quality community.

The purchasing department has a vision of becoming a strategic team by streamlining the purchasing process with the best quality and price. Served to serve all purchases to meet the needs of each department in PT X, such as the purchase of machinery and office stationery. It has four philosophies including customer satisfaction, fair and law-abiding purchases, quality with no defects, and increased costs in this case saves corporate budgets that have been budgeted with negotiation techniques.

Balanced scorecard measurement has effective and comprehensive performance measures, so that the balanced scorecard method can be an alternative to help agencies or companies in aligning their vision with the company.

II. METHOD

The method used in the research is the balanced scorecard method. This method is a strategic planning and management system that is widely used with the company's strategic objectives. Other data collection techniques in the form of documentation include archives that are relevant to the research objectives obtained from existing documents. The analysis technique used is descriptive analysis that is used to compile, classify, and interpret data so as to provide an overview of the problem being studied.

In making a system, a guideline is needed in making the flow become directed and precisely targeted according to the intended purpose. The Waterfall method we use so that a process can be directed and structured sequentially. The method used to build the system to be examined in this paper is a model with the stages of planning, analysis, design, then implementation and maintenance of the system (Dennis, 2015).

A. Balanced Scorecard

The balanced scorecard helps managers to highlight four dimensions and understand cross-functional relationships that ultimately lead in improvement, problem solving, and decision making. Some of the vital processes that drive organizational implementation are operations planning, supervision, and learning tests on adaptation strategies (Kopecka, 2015). Planning is the first step in all movements in a traditional perspective. The most important thing in this perspective is to reveal to everything that is the most fundamental task of management (Ghadimi, 2016)

The balanced scorecard can also relate to the Key Performance Indicator (KPI) to determine its output objectives. An example of a financial perspective is the answer to the question of how the company side sees success from the point of view of value or finance. Examples of KPIs can be in the form of profit, increase or value of shares. In the customer side, what must be achieved is the company's vision with KPI in the form of competitive prices, service, and good quality. In the internal business process, for example, KPI can be in the form of productivity, and production costs. Finally in the stage of growth and learning can be in the form of market innovation, training, and motivation (Rokhim, 2017).

Some of the identifications obtained at the conclusion of the growth and learning perspective are comfortable working conditions with good team strategies and innovations in them. The application of a good leadership training program and customer satisfaction is knowledge planning and best practice (Gesuele, 2015). The advantage of this method is to make management strategies compared to traditional management that produce strategic plans. With four characteristics that are comprehensive, coherent, balanced and measurable (Mahsina, 2017). With this method,

a goal is not only expressed in a financial measure, but can be explained further in measuring how the business unit creates customer value that exists today and in the future.

B. Data Collection Techniques

Data collection techniques are carried out in several ways including the following:

➤ Observation Method

In this method an observation is carried out on a system in the purchasing section of PT X. At this stage analysis of a system is also used to draw conclusions from the existing premise.

➤ Literature Study

In order to match the existing data in the field with personal analysis, the reading stage is carried out from the standards in the purchasing section. Standards can be in the form of workflows, purchasing standards and others.

In analyzing a problem we use the balanced scorecard method with the KPI approach. Secondary data collection in the form of reports, history of data and production data is carried out for the purposes of analyzing the perspectives of finance, customers, and internal business. Secondary data can be in the form of reports, historical data that can be used to analyze financial, customer, internal business and growth and learning perspectives (Bratanata, 2017).

The balanced scorecard has a perspective including:

➤ Financial Perspective,

Finance in this case is the source of corporate income and expenditure on employee performance in supporting the company's goals. In general, if the company can achieve the intended purpose, the employee will get the wages accordingly. The measurement that will be measured in the financial perspective is the effectiveness ratio and activity ratio (Mahsina, 2017).

- From the calculation of performance the effectiveness ratio can be formulated as follows:

$$\text{effectiveness ratio} = \frac{RS}{TS}$$

R = realization of spending negotiations

T = the target of spending negotiations

- While the activity ratio is divided into two, namely spending and spending on construction services or repairs, as follows:

$$RS = \frac{RT}{BT}$$

RS = Ratio of spending on spare parts
 RT = Routine total shopping
 BT = Budget total

$$\text{Service spending ratio} = \frac{TS}{BT}$$

TS = Total service spending
 BT = Budget Total

➤ *Customer Perspective,*

The customer's point of view in this case is the relationship between the supplier and PT X. Suppliers in this case are other companies in various Indonesia who have established cooperation or contract agreements between the two parties to conduct good business relations between the two. Some dimensions of measurement are the timeliness of suppliers in sending goods, complaints about the exchange of goods, and the accuracy of PT X in paying bills.

➤ *Internal Business Process Perspective,*

In general, the viewpoint in this category is to build organizational excellence through improvements in the organization's internal processes. The purchasing section highlights the cost of accuracy of suppliers in replying to requests for price quotes with the lowest prices and yet the best quality.

➤ *The Growth and Learning Perspective,*

Motivation and innovation in this case are performance indicators that are central to this point of view. Organizations are required to make improvements for customers by adding value to selling and also paying attention to employees in it. In this section, measurements will be carried out in terms of the intensity of training given to purchasing staff and attendance. Attendance can be measured as follows:

$$\text{Attendance Rate} = \frac{A}{B + C}$$

Information:

A= lost working day

B= the day the employee works

C= days of employees not working (including alpha and sick).

In this case the leave is considered to be present during the leave allotment is still available.

III. ANALYSIS AND DESIGN

A. Financial Perspective,

The point of view in this case is about the finances of a company, but in this study only highlights the department of purchasing, especially the effectiveness ratio and activity ratio. The purchasing department sets the target for negotiating success of 80% of the price before negotiation. This means that if the percentage is close to 80% or even smaller, the better the performance in terms of price negotiations. It can be analogous as an example of a case if you want to get a cheap item then an effort to request a discount is approaching 50%.

In 2016 with an accumulated budget of 176,741,134,177 in rupiah. Meanwhile, in table 5-2, 2017 data is presented with a budgeting of 197,985,903,283 in rupiah. There is an additional budget from 2016 to the next year of 11%.

As for the formulas that have been obtained in the previous chapter, analysis of calculations can be described as follows:

➤ *Effectiveness Ratio*

In 2016 the following ratio measurements were obtained:

effectiveness ratio = 95%

while in 2017, obtained effectiveness ratio = 94%

➤ *Activity Ratio*

In this ratio spending levels will be measured which are divided into two categories, namely spending on spare parts and repairs.

Based on the above formula, it can be described for measurements in 2016 as follows:

Ratio of spending on spare parts = 55%

Service spending ratio = 41%

For 2017 amounting to,

Ratio of spending on spare parts = 54%

Service spending ratio = 40%

B. Customer Perspective

A company has an achievement that must be taken in its vision by looking at customers. Examples include prices for consumers, good quality, and high quality. In this section, the level of relationship between company X and suppliers will be analyzed. PT X has many relationships with suppliers of up to 231 suppliers from various regions. Therefore, an analysis will be carried out regarding the accuracy of PT X in paying bills in a certain month period.

➤ *Payment of Supplier Import Bill*

For the data used is payment data of foreign exchange type in this case is United States Dollar (USD). Due to the limited data we have for using local payment data in Indonesian Rupiah (IDR), in the analysis of this sub-chapter the data used is sourced from the purchase of imported goods. Payments increased in the middle of the year.

➤ *Complaining*

Beginning with calculating complaints in 2016 with the process if suppliers send goods that do not match the purchase order (PT), PT X has the right to file complaints and exchange of goods as requested. On the other hand, the condition that causes the exchange is that the goods are suitable but after they are used they are damaged within 3 days of receiving the goods. If the damaged goods are out of the ordinary such as falling and the like, the supplier has the right to refuse the return. The company hopes that there will be no exchange of goods due to the long process if the goods are imported from abroad.

C. Perspektif Proses Bisnis Internal

By standard if the request for a price list of goods to the supplier has been requested, the supplier will send details of the price and specifications of the item to the purchasing

department. The waiting time varies depending on the speed of the supplier in giving feedback to PT X, but the standard specified is no more than 14 days. In 2017, there was a decrease in the demand for suppliers to suppliers of 7%, but at confirmation time ranged from 11-12 days. This category is quite vulnerable considering the normal standard is no more than 14 days.

D. Learning and growth

Employee performance in this case work productivity or overtime. By calculating the cost allocation compared to employee overtime. It is a competency value of each purchasing staff that fits the needs or abilities that must be mastered. The managerial side provides an assessment form to employees and then fills in according to the achievement or target for a year to increase bonus and salary increases. In general, there were 8 purchasing staff in PT X excluding managers.

E. System Analysis

After analyzing a performance measurement using the balanced scorecard approach, the next step is to analyze and design the system. To be more structured, the menu structure is made as follows:

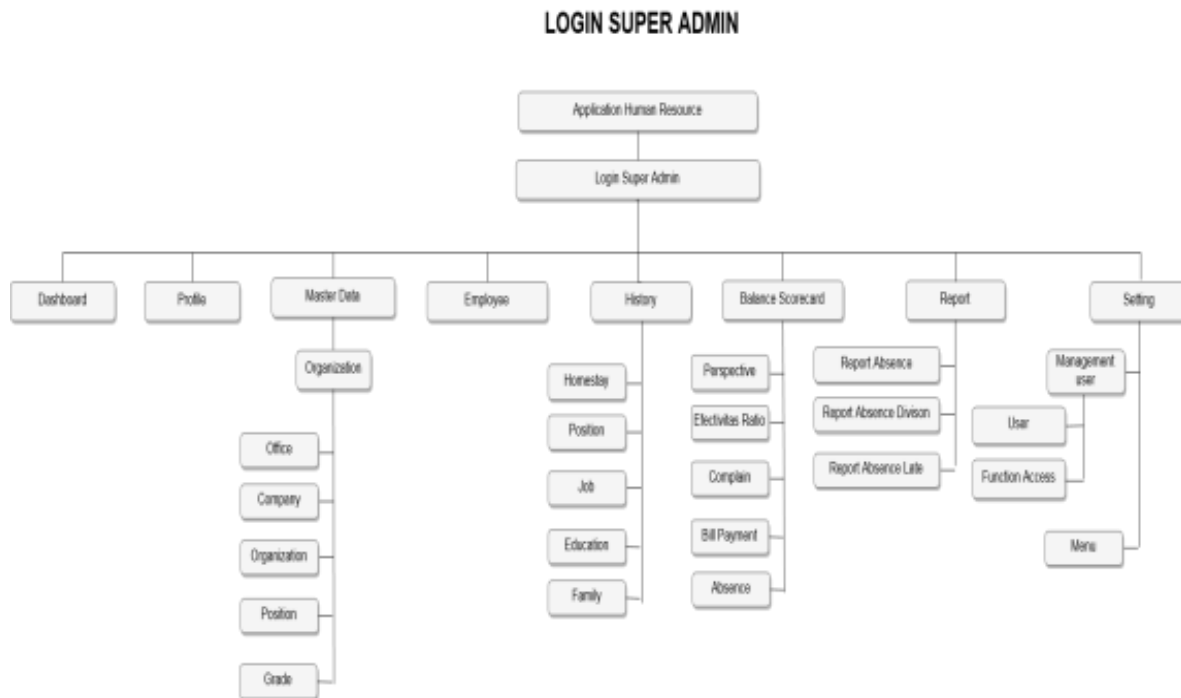


Fig 1:- Login Super Admin

The menu structure is divided into two parts between login as super admin and regular admin. The difference lies in the configuration of user management on the system.

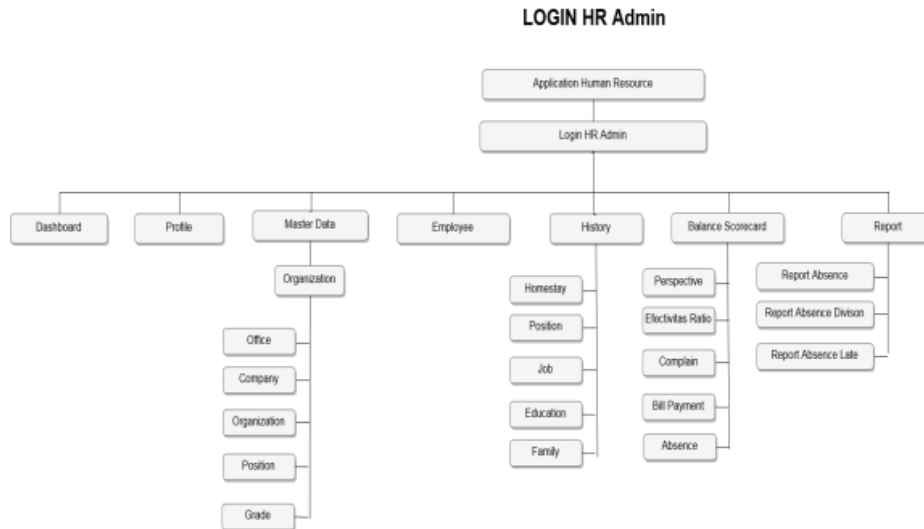


Fig 2:- Login HR Admin

After the menu design can be created and the program code is implemented, then the next is designing the display design. The following is one view of the main screen of the performance appraisal system that has been implemented.

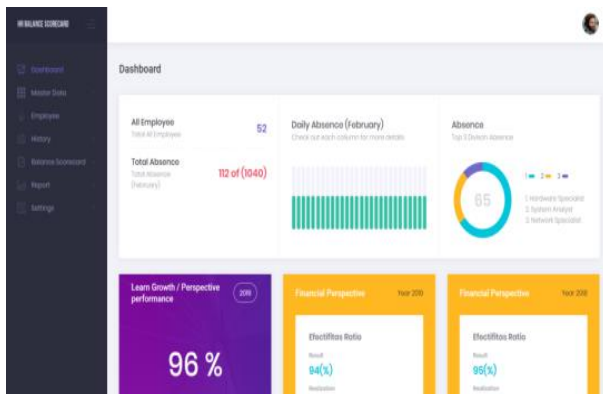


Fig 3:- Dashboard

IV. CONCLUSION

Company X has an effectiveness ratio ranging from 94% to 95% which means there is a decrease of 1%. For the activity ratio is 95% with the purchase of spare parts and 40-45% for spending services. In the customer's perspective, expenditures in terms of payments are volatile. In the first year the payment was not too much, but in the middle of the payment it jumped due to the need for prouduction in achieving the company's target. In terms of complaints, suppliers have a gap of 45% in handling PT X complaints. Good categories with conditions to be able to suppress complaints so that nothing increases. Based on internal business processes, the supplier's ability to respond to price quote requests ranges from 7% with an average of 11 days in 2016, good category, but in 2017 the category is vulnerable because it ranges from 12 days to 14 days. Based on the learning and growth perspective, in terms of absenteeism

there was a decrease in July in both 2016 and 2017 with a standard of 96 percent.

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