Design of HR Performance Measurement System Using Human Resources Scorecard Method (Case Study of PT XYZ)

Ghina Tiyasti Hutami*, Christanto Triwibisono, Fida Nirmala Nugraha

[1]Department of Industrial Engineering, Telkom University, Bandung, Indonesia
*Corresponding author: ghinatiyasti@gmail.com

Abstract

PT XYZ is one company that focuses on producing high-quality clothing for the global market, at very competitive prices. Currently, the company is only measuring performance for individuals, but there has not been a comprehensive performance measurement. One performance measurement that is able to overcome HR problems is the Human Resources Scorecard method with four perspectives, namely financial, customer, internal business process, and growth and learning. Measuring HR performance at PT XYZ using a description of the company's vision, mission and strategy. Then the weighting uses the AHP method. Based on data processing, there are 5 strategic objectives, 9 critical success factors, 14 KPIs. The final result of PT XYZ's performance score financial perspective is 3.278 with good criteria, customer perspective is 4,000 with good criteria, internal business process perspective is 4.197 with very good criteria, and growth and learning perspective is 3.518 with good criteria. Overall the performance of PT XYZ is 3.7591 with good criteria.

Keywords: Performance Measurement, Human Resources Scorecard, Critical Success Factor, Key Performance Indicator, Analytical Hierarchy Process (AHP)

Introduction

Human resources play an important role in determining the success of an organization or company. The success of an organization can be measured by the ability of the organization in achieving the goals or objectives expected by the manager of the organization. Therefore, the importance of managing, developing, and utilizing human resources is the main asset of the organization to keep going well.

PT XYZ is a company engaged in high-quality textile and garment for the world market. The problem that occurs in this company is the high turnover rate for employees caused by a lack of job satisfaction felt by employees. Employee performance measurements, especially the production department, are currently carried out with RFID, which already uses a system that contains information about performance measurement indicators. However, the measurement of employee performance is currently only done for individuals, performance measurement has not been done on the large contribution of HR in creating values to achieve a company strategy. Based on the results of interviews with the head of production and development section, there is still a lack of contribution given by the HR department in improving and developing employee performance in the company and the cause of high turnover rates because the level of employee job satisfaction is still low, this is due to job satisfaction caused by lack of motivation given and training for employee competency development. In addition, in measuring performance against HR contributions, it is necessary to identify leading indicators where causal factors encourage the creation or lagging indicators of performance and the resulting factors of these causes. Lack of contribution given by the HR department in improving and developing employee performance in the company. The vision and mission of the company focus on satisfaction, so, this is where HR contributions are measured to see how much the HR department contributes to achieving the company's vision and mission. Therefore, it is necessary to carry out a performance measurement

system that not only can measure individual performance but also can measure performance towards the contribution of the HR to achieve the company's vision, mission, and strategy.

In this regard, the company requires a comprehensive measurement of HR performance. A method that is able to measure HR performance as a whole, namely the Human Resources Scorecard. Therefore, it can be expected that the HR performance measurement method. The HR Scorecard can complement the performance measurement system that already exists in the company and becomes a tool for companies to better know the contribution of HR directly to the company's current strategy. This study aims to provide a management system design for measuring the performance of HR at PT XYZ using the Human Resources Scorecard method by calculating the weights using the Analytical Hierarchy Process (AHP).

Research Method

Performance Management

Performance management is an ongoing process of identifying, measuring, and developing individual and group performance, which aims to reach the target of the organization. There are two components to consider performance management, namely Continuous Process and Alignment with Strategic Goals [1].

Performance Measurement

In performing performance measurements, there are several criteria that determine effectiveness in performance measurement [7], namely:
1.   Fit with Strategy
2.   Validity
3.   Reliability
4.   Acceptability
5.   Specific Feedback

Human Resources Scorecard

The Human Resources Scorecard (HR Scorecard) is one method for measuring employee performance and managing corporate strategies, so, corporate targets can be achieved. This HR Scorecard covers people, strategies, and performance to produce a superior company. The HR Scorecard is also a concise but comprehensive performance measurement system that will assist in HR strategic decision making and assess the contributions made by HR while working at the company [4].

The HR Scorecard is a derivative of the Balanced Scorecard which in the application of the HR Scorecard also has the same thing with the Balanced Scorecard. There are four perspectives of Balanced Scorecard, namely financial perspective, customer perspective, internal business process perspective, and learning and growth perspective [6].

1. Financial Perspective
   In a financial perspective, HR financial performance measurement will show whether it can provide improvements for the company's profits during it's planning and implementation. These improvements will be reflected in the objectives specifically related to measurable profits, business growth, returns on employee capital, and business value.
2. Customer Perspective
   This customer perspective is a leading indicator where customer satisfaction will be the main focus. If customers feel unsatisfied, then they will look for other producers that are in accordance with their needs and desires. The main measures in this perspective are customer satisfaction, customer retention, and customer loyalty.
3. Internal Business Process Perspective

The internal business process perspective focuses on internal processes that can have an impact on customer satisfaction and achieving the financial goals of the company. In this perspective include innovation, process, and service.

4. Growth and Learning Perspective

In the perspective of growth and learning, this focuses on systems and strategies in developing employees, such as conducting training. The main measures in this perspective are employee productivity, employee satisfaction at work, good employee attendance.

Seven Steps to Implement the Human Resources Scorecard

In carrying out the implementation process of the Human Resources Scorecard, it is necessary to do seven steps as a guide to the use of the HR Scorecard as follows [4].
1. Define the company's strategy and goals clearly.
2. Building a case for HR as a strategic asset.
3. Creating a strategy map that includes leading and lagging indicators and tangible and intangible.
4. Identify HR Deliverables in the strategy map.
5. Adjust the HR architecture with HR Deliverables.
6. Design a strategy performance measurement system.
7. Manage implementation with measurements.

Key Performance Indicators (KPI)

The Key Performance Indicator (KPI) is a set of actions that focus on aspects of the performance of the company or organization that are most important for the success of the company now or in the future. But basically, KPI is part of performance indicators or organizational performance indicators [9]. The advantage that KPI has compared to other performance indicators is that KPI has key indicators that are truly capable of presenting the overall performance of the company.

Analytical Hierarchy Process (AHP)

Analytical Hierarchy Process (AHP) is a theory and methodology for relative measurement [5]. Analytical Hierarchy Process (AHP) is a theory used to measure pairwise comparisons and depends on expert judgment to get the priority scale of each element. Pairwise comparisons are made using absolute rating scales where one element dominates the other with respect to the attributes that have been given [10].

Workmanship Systematics

1. Identification Phase

The identification phase includes a preliminary study and direct observation, identifying problems that occur in the company, and determining the purpose of the research is to design a management system measuring the performance of HR at PT XYZ using the Human Resources Scorecard.

2. Designing the Measuring Instrument Phase

The design phase of this measuring instrument includes identification of data needed in this study such as primary and secondary data, identification of respondents or key persons who have the right to conduct assessments, design interview formats, clearly identify vision and mission, create HR business cases, then create a strategy map , identification of HR Deliverables in strategy maps, adjustments to HR Deliverables with the HR architecture, and designing a strategy measurement system.

3. Performance Measurement Phase

At this phase of measuring HR performance, with valid data from the company, the implementation of the HR Scorecard can be done to determine the performance of HR in the company that is seen based on each perspective.

4. Analysis Phase

This phase of analysis is obtained based on the results of performance measurement using the design results which are then analyzed to the level of employee performance and the factors that influence it. This can be used as a recommendation given to the company for the future.

5. Conclusions and Suggestions Phase

The conclusion and suggestion phase is the final stage of the research. This stage contains conclusions from data processing that has been done, information, and results that have been obtained using the Human Resources Scorecard method.

Results and Discussion

Identification of Measurements

The description of the company's vision, mission, and strategy into indicators or benchmarks for success is done by identifying literature obtained from journals or books. The following is a description of PT XYZ's vision and mission into the strategic benchmarks of each perspective.

1. Financial Perspective

In a financial perspective, there is a strategic goal of increasing corporate income. The derivative of the strategic target is a critical success factor that has two factors, namely a decrease in the percentage of HR costs and labor costs. Derivatives of critical success factors are key performance indicators that have three benchmarks, such as the percentage of HR costs to income, training and certification costs, and the percentage of employee incentives.

2. Customer Perspective

In a customer perspective, there are strategic objectives, namely improving and increasing relations between companies and customers. The derivative of the strategic target is a critical success factor that has two factors, namely market research and improving service quality. Derivatives of critical success factors are key performance indicators that have three benchmarks, namely the product according to demand, the level of customer satisfaction, and the number of customer complaints.

3. Internal Business Process Perspective

In an internal business process perspective there are two strategic objectives, namely developing employee competencies and developing the production process. The derivative of the strategic target is a critical success factor that has two factors, namely the development of employee competency and the development of the production process. Derivatives from critical success factors are key performance indicators that have four benchmarks, namely performance efficiency, HR competency values, number of products meeting the target, and percentage defects.

4. Growth and Learning Perspective

In growth and learning perspective there are strategic objectives, namely developing employee quality in work and employee creativity. The derivative of the strategic target is a critical success factor that has three factors: job satisfaction, employee productivity, and employee training. Derivatives of critical success factors are key performance indicators that have four benchmarks, such as the percentage of job satisfaction, employee turnover rate, percentage of employee absenteeism, and frequency of training programs.

Weighting of Strategic Measure Rejection with Analytical Hierarchy Process (AHP) Method

The benchmark or KPI which previously identified was given the weight by using AHP through a paired questionnaire that distributed to key persons or parties entitled to make an assessment. Microsoft Excel software is being used to do the AHP method. It gets a Consistency Ratio (CR)

<0.1 for all perspectives that compare the weights from each perspective and each perspective that compares the weights of each KPI in each perspective. Table 1 shows the weighing results.

Table 1: Weighting Using the AHP Method

No.	Perspective	Strategy Objectives	Critical Success Factor	KPI
1.			Decrease in HR Cost Percentage (51.4%)	Percentage of HR Costs Against Income (27.8%)
2.	Finance (24.7%)	Increase company profits (100%)		Training and Certification Fees (38.5%)
3.			Labor costs (48.6%)	Employee Incentive Percentage (33.7%)
4.		Improve and improve relations between companies and customers (100%)	Market Research (58.2%)	Products In accordance with Requests (33.1%)
5.	Customer (25.3%)		Service Quality Improvement (41.8%)	Customer Satisfaction Level (46.1%)
6.				Number of Customer Complaints (20.8%)
7.		Develop employee competencies (50.8%)	Competency Development (45.7%)	Performance Efficiency (26.6%)
8.	Internal Business Process (26.3%)			Employee competency value (24.8%)
9.		Develop the production process (49.2%)	Production Process Development (54.3%)	Number of Products Meets Target (28.4%)
10.				Defect Percentage (20.1%)
11.			Job satisfaction (40.8%)	Job Satisfaction Percentage (24.2%)
12.	Growth and Learning (23.7%)	Developing employee quality in work and creativity to meet needs (100%)		Employee Turnover Rate (24.0%)
13.			Employee Productivity (31.8%)	Employee Attendance Percentage (27.5%)
14.			Employee training (27.4%)	Frequency of Training Programs (24.3%)

Identification of HR Deliverables in the Strategy Map

In identifying HR Deliverables into a strategy map to integrate HR into the business performance measurement system. Therefore, KPI grouping is done to maximize the meeting point that is able to improve HR performance. HR Deliverables are HR activities in implementing company strategies, while HR Doables are HR activities that are not directly related to the implementation of company strategies. HR Deliverables are supported by two performance drivers [4], namely:
1. HR Performance Driver is an ability that relates to a company or organizational assets (dealing directly with people).
2. Enabler Performance Driver is an HR activity that is able to support the HR Performance Driver process.

The following is the identification of the HR Deliverables in the strategy map grouped into four groups, namely HR Deliverables, HR Doables, HR Performance Drivers, and HR Enablers.

1. Group of HR Deliverables

    In the HR Deliverables group, there were five KPIs, namely the level of customer satisfaction, performance efficiency, percentage of job satisfaction, employee turnover rate, and percentage of employee absenteeism.

2. Group of HR Doables

    In the HR Doables group, there are three KPIs, namely the percentage of HR costs to income, training and certification costs, and the percentage of defects.

3. Group of HR Performance Driver

    In the HR Performance Driver group, there are three KPIs, namely products according to demand, employee competency values, and the number of products meeting the target.

4. Group of HR Enabler

    In the HR Enabler group, there were three KPIs, namely the percentage of employee incentives, a number of customer complaints, and frequency of training programs.

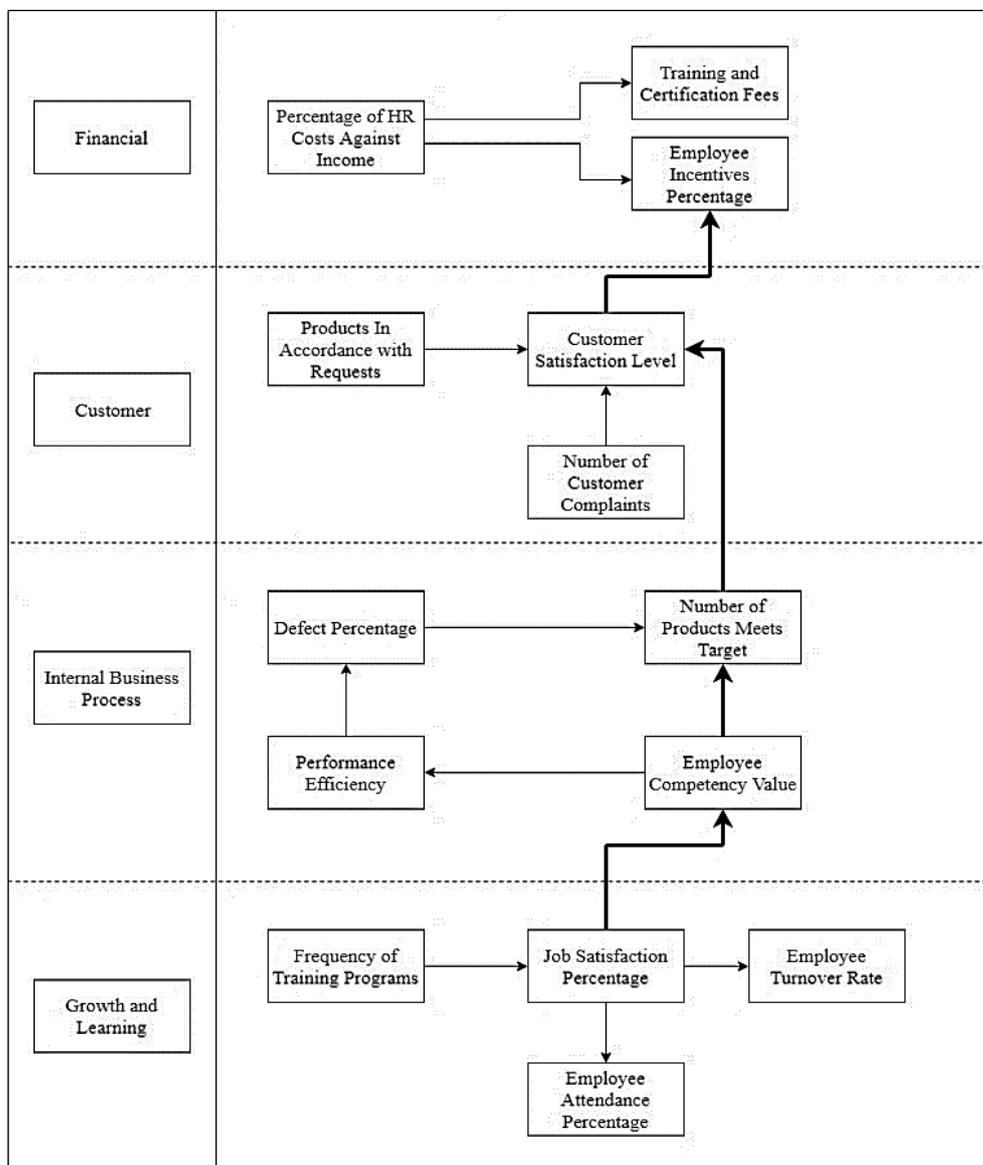## Designing a Strategic Measurement System

Figure 1. The Causal Relationship Between Each Perspective

In designing a strategic measurement system, the HR value creation process or causal relationship between KPIs described. The benefit of illustrating the causal relationship between KPIs is to find out the relationship of a KPI with other KPIs. A KPI can influence or be influenced by other KPIs. The percentage of job satisfaction in the growth and learning perspective can affect the value of employee competency and the number of products meeting the target in the internal business process perspective. Then, the greater the percentage of employee job satisfaction, the better the employee's competency value and the number of products produced, because employee job satisfaction has a positive impact on work as well as everything that is faced in the work environment. Furthermore, the number of products meeting the target in the perspective of internal business processes can affect the level of customer satisfaction in the customer's perspective. The greater the number of products according to the target, the greater the level of customer satisfaction felt. Customer satisfaction will have a positive impact on the company and will also keep customers loyal in the reorder process in the company. Furthermore, the level of customer satisfaction in the customer's perspective can affect the percentage of employee incentives on a financial perspective. This relates to the company, which experiences an increase in revenue because loyal customers and the number of products can meet the target and will have an impact on the percentage of incentives received by employees. This incentive has a positive impact because employees got a reward as an appreciation of the company to employees who have done their jobs well and the company directly provides motivation, so, employees continue to improve their competence.

Measuring Performance of Each Perspective

On scoring each KPI, performance from each perspective is calculated based on the sum of the performance values of each KPI. While the performance value of each KPI obtained from the weight of the KPI multiplied by the KPI score achieved. In measuring the performance of each perspective there are targets to be achieved by the company, the percentage of realization that has been achieved, and the score as determining the criteria for the company's KPI. In making a score determination, can be two intervals of scores with maximum achievement and minimum achievement, the difference can be seen in the percentage of achievement intervals between targets and realization experienced by the company. There were five criteria with different score intervals, namely: "very less" with a score of 1, "less" with a score of 2, "enough" with a score of 3, "good" with a score of 4, and "very good" with a score of 5.

In this study, scores generated for each KPI. There was a KPI which got a score of 5, namely the percentage of defects. The score of 5 obtained from the KPI means that the realization has reached even exceeded the set target. And here were nine KPIs got the score of 4, namely: the percentage of HR costs to income, products according to demand, level of customer satisfaction, number of customer complaints, performance efficiency, employee competency value, number of products meeting targets, employee absenteeism, and frequency of training programs. In score 4 this means that the realization of the nine KPIs almost reaches the set target. Then, for score 3 there were four KPIs, namely: training and certification costs, percentage of employee incentives, percentage of job satisfaction, and employee turnover rates. In score 3 this means that the realization of the three KPIs is close to the set target.

In carrying out recapitulation of performance measurements based on KPI and perspective, it can be seen based on perspective weight, KPI weight, which will result in KPI values and perspective values. The KPI value obtained based on the multiplication of the weight of the KPI with a predetermined score and for the perspective, the value obtained based on the sum of the KPI values that have been produced previously.

Table 2. Recapitulation of Performance Measurements Based on KPI and Perspective

No.	Perspective	KPI	KPI Value	Perspective Value
1.	Finance (24.7%)	Percentage of HR Costs Against Income	1.112	3.278
2.		Training and Certification Fees	1.155	
3.		Employee Incentive Percentage	1.011	
4.	Customer (25.3%)	Products In accordance with Requests	1.324	4.000
5.		Customer Satisfaction Level	1.844	
6.		Number of Customer Complaints	0.832	
7.	Internal Business Process (26.3%)	Performance Efficiency	1.064	4.197
8.		Employee competency value	0.992	
9.		Number of Products Meets Target	1.136	
10.		Defect Percentage	1.005	
11.	Growth and Learning (23.7%)	Job Satisfaction Percentage	0.726	3.518
12.		Employee Turnover Rate	0.720	
13.		Employee Attendance Percentage	1.100	
14.		Frequency of Training Programs	0.972	

The following were the result of measuring the overall performance of the company where there was a weight of perspective from the four perspectives. The highest perspective of weighting results was the internal business process perspective of 26.3%. Performance values obtained based on multiplication between perspective weights and perspective performance values that have been obtained previously. The overall HR performance value obtained was good, with a performance value of 3.7591 which is located in the range 3.01 - 4.00, which means that HR performance is in good criteria.

Table 3. Overall Performance Measurement Results of PT XYZ

Perspective	Weighted Perspective	Perspective Performance Value	Performance Value
Finance	24.7%	3.278	0.8096
Customer	25.3%	4.000	1.0120
Internal Business Process	26.3%	4.197	1.1038
Growth and Learning	23.7%	3.518	0.8337
Performance Value of PT XYZ			**3.7591**
Criteria			**Good**

Here are three comparisons with previous research results, as follows:
1. In the results of previous research by the name of the researcher, Azuri Harmani Oktaviani with the research title "Designing HR Performance Measurement Tools at BNP2TKI (National Agency for Placement and Protection of Indonesian Workers) Using the Human Resources Scorecard Method". Comparison of results with previous research, namely in the previous study there were 15 company KPIs that became a benchmark for success with a customer perspective which had the highest weight of 32.44% with perspective performance value of 3.8468. This is in the performance measurement which is the main focus of the customer perspective, in the customer perspective this study focuses more on employees who work in BNP2TKI which in

improving HR performance focuses on customer satisfaction with the meaning of satisfaction of BNP2TKI employees [8].

2. In the results of previous research, with the name of the researcher, Tri Wiji Astuti with the research titled "Designing a Human Resource Performance Measurement Tool in the Blood Donation Unit (UDD) of Bandung City PMI by Using the Human Resources Scorecard Method". Comparison of results with previous research, namely in the previous study there were 20 corporate KPIs that became a benchmark of success with an internal business process perspective that had the highest weight of 33.76%. This performance measurement is the main focus, called the perspective of internal business processes. In this perspective, it is more focused on how internal processes run well and can generate job satisfaction and customer satisfaction at UDD PMI Bandung City [2].

3. On the results of previous research, with the name of the researcher, Ghea Okta Audina with the research titled "Designing an Organizational Performance Measurement System at PT Cyberlabs with the Balanced Scorecard Method". Comparison of previous research with current research, namely different performance measurement methods because in previous studies focused on corporate levels. Comparison of results with previous research, namely in the previous study there were 17 KPI companies with a customer perspective having the highest weighting of 36.41%. There are similarities in this study, such as weighting calculations for perspectives, strategy targets, critical success factors, and key performance indicators. This is a reference for previous research because the HR Scorecard method is derived from the Balanced Scorecard which in the application of the HR Scorecard also has the same thing with the Balanced Scorecard, which can enable companies or organizations to measure strategic contributions especially in HR departments based on four perspectives [3].

Based on the results of a comparison of previous studies, it can be seen that in the current study more focus on the perspective of internal business processes because this perspective is suitable for use in garment companies where internal processes are more focused on operators who produce products in the form of clothing.

Conclusion

From the results of the study, several conclusion points obtained, namely:

1. The results of the design of the HR performance measurement system at PT XYZ measured by performance indicators on the company's vision, mission, and strategy by using the Human Resources Scorecard method. The derivative of the company's strategy is a critical success factor. There are two critical success factors in the financial perspective, namely a decrease in the percentage of HR costs and labor costs. There are two critical success factors in the customer's perspective, namely market research and improving service quality. There are two critical success factors in the perspective of internal business processes, namely the development of employee competencies and the development of the production process. Furthermore, there are three factors of critical success in the growth and learning perspective, namely job satisfaction, employee productivity, and employee training. For company KPIs, 14 interconnected KPIs are based on each perspective from the perspective of growth and learning to a financial perspective.

2. The results of measuring the performance of HR at PT XYZ used the Human Resources Scorecard method based on indicators that are expected to be a benchmark for bettering the company. From the results of data processing using the Analytical Hierarchy Process (AHP) the results of HR performance measurement obtained from each perspective. In the perspective of internal business processes, it has the highest weighting results of 26.3% with the results of the prospective value of 4.197. In the perspective of the customer, it has a weighing result of 25.3% with the result of a perspective value of 4,000. Furthermore, the financial perspective, it has a weighing result of 24.7% with the result of a perspective value of

3.278. In the perspective of growth and learning, it has a weighing result of 23.7% with the results of the prospective value of 3.518. This obtained the value of company performance of 3.7591 with good criteria.

3. The action plan provided for PT XYZ based on HR performance measurement results using the Human Resources Scorecard method to improve HR performance and contribution.

   a. Finance Perspective
     1) Conduct training for employees, but first, there must be a selection, so, that training can be targeted so as to minimize the cost.
     2) Do a re-check by making a list of targets that must be achieved by employees. So, the company can be right on target in providing incentives or rewards to employees.

   b. Customer Perspective
     1) Developing employees, especially the production department, which aims to improve the qualifications of expertise based on their work through training that is able to improve employee competency.
     2) Give awards to employees who can work well and know the suitability of the products requested by customers, so they can motivate other employees.

   c. Internal Business Process Perspective
     1) Do a regular monitoring of the efficiency of employee performance and employee competency.
     2) Keep maintaining and stabilizing the percentage of defects so as not to exceed the maximum limit set.

   d. Growth and Learning Perspective
     1) Conduct training on a regular basis and provide equal opportunities to all employees to attend training and skill development every year.
     2) Creating a comfortable work environment for employees and facilities provided by the company, this will increase job satisfaction felt by employees.

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