

Designing The Human Resource Scorecard As A Performance Measurement of Human Resource

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Abstract. *This study discusses the importance of performance measurement in a company because it can be used to assess the success of the company. The purpose of this study is to design and measure the performance of a MIGAS company using the Human Resource Scorecard approach by establishing the priority weight of strategic objectives and Key Performance Indicators on the Strategy Map through the Analytical Network Process. Results of this study are acquiring 16 strategic objectives, and 20 leading indicators and 17 lagging indicators. Results of the priority weight show that the company is more focused on the operational perspective, then the financial perspective, strategic perspective, and the last is the customer perspective. From the design and measurement results obtained from this study, a plan of the Human Resource Scorecard design was created that can be used by the company.*

Keywords: *performance measurement, human resource scorecard, strategy map, key performance indicator, analytical network process*

Abstrak. *Penelitian ini membahas mengenai pengukuran kinerja yang merupakan salah satu faktor sangat penting bagi perusahaan karena dapat dipergunakan untuk menilai keberhasilan perusahaan. Tujuan penelitian ini adalah merancang dan mengukur kinerja sumber daya manusia salah satu perusahaan MIGAS melalui penetapan prioritas sasaran strategis beserta Key Performance Indicator (KPI) pada Peta Strategi melalui metode Analytical Network Process. Hasil penelitian ini diperoleh 16 sasaran strategis, dan terdapat 20 leading indicator dan 17 lagging indicator. Hasil pembobotan prioritas menunjukkan bahwa perusahaan lebih memfokuskan kepada perspektif operasional, baru kemudian perspektif finansial, perspektif strategis, dan terakhir adalah perspektif pelanggan. Dari hasil perancangan dan pengukuran ini diperoleh perencanaan perancangan Human Resource Scorecard yang dapat digunakan oleh perusahaan.*

Kata kunci: *pengukuran kinerja, human resource scorecard, peta strategi, key performance indicator, analytical network process*

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Introduction

Each company must strive to always improve its business that ultimately aims to achieve maximum benefit. With the right strategy, a company will obtain maximum results on investment that have been planted. The Human Resources Department plays a critical role in supporting the implementation of the company's strategy to achieve its objectives. The department puts its focus to provide solutions to the problems related to the human factors in the company. Human factors that influence a company is its performance. Performance measurement is a very important factor for the company because it can be used to assess the success of the company.

Huselid and Ulrich (2001) have developed a performance measurement system called Human Resource Scorecard. This measurement is the development of the Balanced Scorecard. Human Resource Scorecard focuses more on human resource measurement systems linking people, strategy, and performance. In designing a measurement system with the Human Resource Scorecard model, a Strategy Map will be formed showing the interrelationship between strategic objectives with their KPIs (Key Performance Indicator) in every perspective of the scorecard in order to provide an overview in the process of adding value in the company.

The purpose of this study is to design and measure the performance of human resources of an oil and gas company through setting priorities of its strategic objectives and KPIs on the Strategy Map through the Analytical Network Process. The process of this study begins with designing the company's Human Resource Scorecard, then measuring the priority weight for each perspective, strategic objectives, and KPIs of the company.

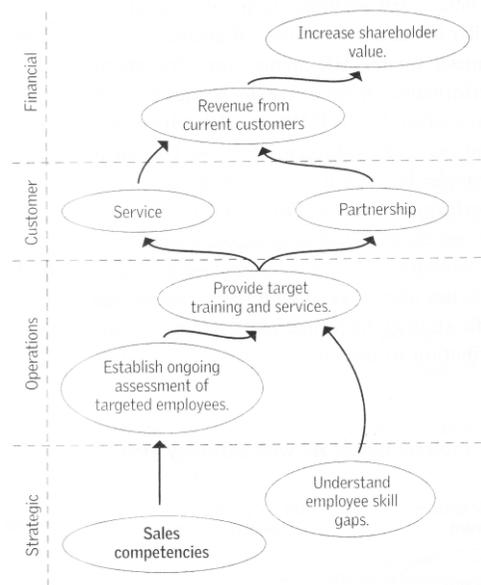
Research Methodology

Human Resource Scorecard

Human Resource Scorecard focuses on the role of the human resources manager.

According to Becker *et.al* (2001), Human Resource Scorecard is a measurement system that assesses the contribution of human resources in the creation of value in the company. This is used to maximize the contribution of human resources to the organizational goals, and subsequently creating value for shareholders, so the assessment of the relationship should be known in advance then the consequences are later examined. Human Resource Scorecard describes something that is intangible (leading/cause) and makes it become tangible (lagging/effect).

Human Resource Scorecard is a performance measurement method of human resources in an effort to improve organizational performance. This measurement model is very useful for human resource managers in understanding the difference between HR Doables (human resources performance that does not affect the implementation of company strategy) with HR Deliverables (performance of human resources that affect the implementation of company strategy). Figure 1 illustrates how human resources can link its contribution on the implementation of company strategy.



Source: Becker *et. al.*, 2001, page 46

Figure 1. Example of Human Resource Strategy Map

Analytical Network Process

Analytical Network Process (ANP) is a multi-criteria assessment method for structuring and analyzing decisions that has the ability to measure the consistency of judgment and flexibility in the selection of the sub criteria level. In the ANP, the decision taken must begin by making a comparison of priority between the two pairs of elements associated with the use of questionnaires in which the pairwise comparison of weighted priorities in assessment involves the respondents experts who knows the company and understand the goals and objectives of the it. The value of this ratio is further used as a basis in calculating scores or weights of these elements.

Results and Discussion

Results

Mapping of the Company Vision, Mission, and Strategy

The process of this study starts with mapping the company vision, mission, and strategy to the four perspectives of Human Resource Scorecard. This will help the company in understanding the current condition of the company so it will simplify them in implementing their strategy and contributing their human resources in executing that strategy. The mapping of the company's vision can be seen in Table 1.

Table 1. Mapping of Company Vision

Perspective	Company Vision
Strategic	Competitive industry
Operational	A good business strategy
Customer	-
Financial	-

The mapping of the company's mission can be seen in Table 2.

Table 2. Mapping of Company Mission

Perspective	Company Mission
Strategic	Improve management training program in terms of methods, policies, planning and implementation
Operational	Strengthen the cooperation in human resources, improve the increasing efficiency, safety organizations and business ethics Creating human resource services that are good for customers
Customer	Improve efficiency and limit the withdrawals of labor and equipment Meet and supervise the outsourced workforce planning Implement the results of the planning and career development
Financial	Continue improvements in the system of remuneration and compensation and benefit policies

The mapping of the company's strategy can be seen in Table 3.

Table 3. Mapping of Company Strategy

Perspective	Company Strategy
Strategic	Improve the implementation of personnel development
	Continuously improve the work environment
	Improve training matrix
	Manage the required technical training correctly
	Reduce the identified competency gaps
	Optimize personnel in line with the company's work program
Operational	Complete business processes and ensure that the KPIs are placed correctly
	Monitor the implementation of HR activities to be in line with the company's objective
	Ensure effectivity and efficiency of HR Organization within the company
	Establish competency matrices by defining the competencies profile in the form of a model
Customer	Develop new HR application system
	Develop and improve a robust information system
	Perform studies related to appreciation, motivation, and retention program
	Integrate "Rencana Penggunaan Tenaga Kerja" (RPTK)
Financial	Perform customer and entity survey and to support a more effective operation
	Improve the elaboration of work programs and its budgets
	Continue to optimize the integrity and utilization of plants and means

Formulate Strategic Objectives

Strategic objectives for each Human Resource Scorecard perspective is translated based on the company's strategy that is adjusted to the Human Resources Department function. The result is overall obtaining 16 strategic objectives in the Human Resource Scorecard perspectives.

The ability to achieve operational, customer, and financial objectives are dependent on the capabilities of the company in strategically planning its activities that allows the Human Resources Department to do their job. Grouping of strategic objectives in the strategic perspective can be seen in Table 4.

Table 4. Grouping of Strategic Objectives in Strategic Perspective

Company Strategy	Strategic Objective
Improve the implementation of personnel development	Finding the right candidate
Continuously improve the work environment	Work environment
Improve training matrix	Training
Manage the required technical training correctly	
Reduce the identified competency gaps	
Optimize personnel in line with the company's work program	Employee performance management
Develop new HR application system	Organizational integration

The purpose of the operational perspective is to formulate activities in the Human Resources Department that will help achieve the goal of-

financial aspects and also meet the customer needs. Grouping of strategic objectives in the operational perspective is shown in Table 5.

Table 5. Grouping of Strategic Objectives in Operational Perspective

Company Strategy	Strategic Objective
Monitor the implementation of HR activities to be in line with the company's objective	Align HR program with business strategy
Ensure effectivity and efficiency of HR Organization within the company	Ensure an effective and efficient HR organization in the company
Establish competency matrices by defining the competencies profile in the form of a model	Competency mapping
Develop new HR applicatin system	Develop HR application system

In Human Resource Scorecard, strategic objectives of the customer's perspective describe what the workers in the company want from the Human Resources Department function.

It also includes on how the Human Resources Department is seen by the main customer segments. Grouping the strategic objectives on the customer perspective can be seen in Table 6.

Table 6. Grouping of Strategic Objectives in Customer Perspective

Company Strategy	Strategic Objective
Develop and improve a robust information system	Workforce productivity through HRIS
Perform studies related to appreciation, motivation, and retention program	Appreciation and motivation program
Integrate "Rencana Penggunaan Tenaga Kerja" (RPTK)	Integrated RPTK
Perform customer and entity survey and to support a more effective operation	Simplicity for an effective operation

Strategic objectives for the financial perspective pays attention to the financial involvement of the activities of the Human Resources Department. This perspective sees how the Human Resource Department adds measurable financial value to the organization,

in terms of money and human resources performance. To that end, the grouping of strategic objectives on the financial perspective is shown in Table 7.

Table 7. Grouping of Strategic Objectives in Financial Perspective

Company Strategy	Strategic Objective
Main goal of the company	Improve return on investment
Improve the elaboration of work programs and its budgets	HR budgeting
Continue to optimize the integrity and utilization of plants and means	Human resources utilization

Human Resource Strategy Map

Before coming to the final result, the study found the Human Resource Strategy Map from arranging the company's strategic objectives

and determining the causality between the strategic objectives. The Human Resource Strategy Map is shown in Figure 2.

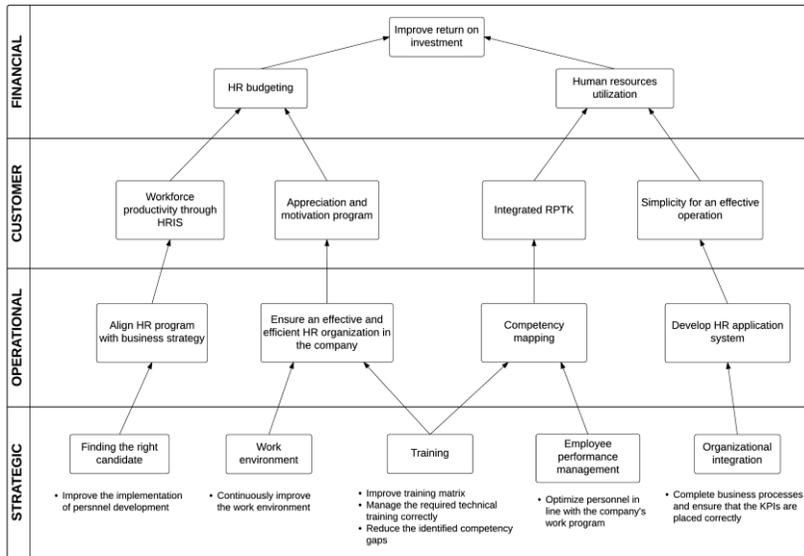


Figure 2. Company's Human Resource Strategy Map

Determine Key Performance Indicators

KPI is translated to bring the company's vision and mission to reality based on the chosen strategies. There are two measurements that needs to be determined to measure the success in achieving the strategic objectives, they are:

1. Outcome measures or lagging indicators that are used to measure the success in achieving the strategic objectives.

2. Performance driver measure or leading indicators that are measures that show the achievement needed to reach the outcome measures.

KPI that are in the form of leading and lagging indicator for every strategic objective in the strategic perspective is shown in table 8.

Table 8. Key Performance Indicator of Strategic Perspective

Strategic Objective	Key Performance Indicator	
	Leading Indicator	Lagging Indicator
Finding the right candidate	Cost per hire	Number of candidates with appropriate competencies
Work environment	Employee climate survey	Employee satisfaction scores for work environment
Training	Number of training program days held per year % Of employees involved in training	Training cost per employee
Employee performance management	% Of employee performance assessment completed on time Employee index performance appraisal of colleagues	The level of increase in the value of employee performance per time unit
Organizational integration	Accuracy of data Availability of data	Response time

KPI that are in the form of leading and lagging indicator for every strategic objective in the operational perspective can be seen in table 9.

Table 9. Key Performance Indicator of Operational Perspective

Table 9. Key Performance Indicator of Operational Perspective

Strategic Objective	Key Performance Indicator	
	Leading Indicator	Lagging Indicator
Align HR program with business strategy	Evaluation of employee performance achievement per time period	% Incompatibility of target achievement caused by HR competence
Ensure an effective and efficient HR organization in the company	Survey score on employee performances	FTE (full-time equivalent)
Competency mapping	Accuracy of data and information on each type of operation	Compatibility index number and competence of employees for each operation
Develop HR application system	Application system development time The number of labor involved in the development of application systems	% Application systems executed

KPI that are in the form of leading and lagging indicator for every strategic .

objective in the customer perspective is shown in table 10

Table 10. Key Performance Indicator of Customer Perspective

Strategic Objective	Key Performance Indicator	
	Leading Indicator	Lagging Indicator
Workforce productivity through HRIS	Number of man hours per activity	The optimum value of productivity (%)
Appreciation and motivation program	Employee engagement survey	The amount of positive feedback from employees Absenteeism
Integrated RPTK	% Of employees with development plans	% Of employees who reach the target of their development plan
Simplicity for an effective operation	The accuracy of information required for employee competency	Alignment of HR activities with the competencies of employees needed

Table 11. Key Performance Indicator of Financial Perspective

Strategic Objective	Key Performance Indicator	
	Leading Indicator	Lagging Indicator
Improve return on investment	Increasing the number of service products	Break-even time to reach ROI
HR budgeting	HR cost per year	Budget variance
Human resources utilization	Company revenue per employee	Employee utilization rate

Calculating Priority Weight

Determining the priority is done using a closed questionnaire. Respondents are asked to weigh the criteria and sub criteria of the company's performance measurement based on the outline of Human Resource Scorecard by filling in the pairwise comparisons questionnaire. From the results of the pairwise comparisons questionnaire, we are able to calculate:

1. Weight of every criteria in the network
This weight shows the priority of a perspective if compared with another perspective.
2. Weight of every sub criteria in the network
This weight shows the priority of a strategic objective with another strategic objective that is still in the same perspective.
3. Weight of every Key Performance Indicator
This weight shows the priority of a leading or lagging indicator with another indicator that is still in the same strategic objective.
4. Global weight of Key Performance Indicator
This weight shows the priority of a KPI compared with another KPI.

Overall, the priority weight of every perspective, strategic objective, and KPI is shown in table 11 in the attachment.

Discussion

The Human Resource Strategy Map is based on the company's vision, mission, and strategy that are related to human resources. This research found that the strategic objective of the main internal process that creates value and intangible assets is required of the strategy map. The strategy map also describes the casual link of the company's strategy in four perspectives of the Human Resource Scorecard. Those casual links in the four perspectives are shown in Figure 2.

Basically, each strategic objective contributes to support the achievement of strategic objectives on top of it; either in the same perspective or a different perspective, while the arrows in the Human Resource Strategy Map only depicts the strategic goals that have a direct influence on the other strategic objective.

Furthermore from this research, it also can be seen that in running the business, the company focuses on achieving performance in the operational perspective, then the achievement in the financial performance, strategic, and the last is the customer's perspective. The first priority is to establish an operational perspective, which is the competence of employees who are ready to face business challenges that will be faced by the company. For financial perspective, the first priority is to improve the return on investment. Training becomes the strategic objective with the highest priority in the strategic perspective. As for the customer perspective, its priority is to continue to improve the labor productivity of the company.

Conclusion

In accordance with the purpose of this study, the conclusions that are drawn based on the results of this study are:

1. Obtain the design of the company's performance measurement by using Human Resource Scorecard in order to identify, analyze, and monitor the performance of human resources in order to show exactly how the human resources are capable of creating value for the company in accordance with its purpose. By translating the company's vision, mission, and strategy through the Human Resource Scorecard approach, this study produces five strategic objectives on the strategic perspective, four strategic objectives on operational perspective, four strategic objectives on the customer's perspective, and three strategic objectives on the financial perspective.

2. In total, there are 37 KPI produced that consists of 20 leading indicators and 17 lagging indicators which are identified for the four perspectives of Human Resource Scorecard.
3. Operational Perspective is the perspective with the highest priority level (0.358), the financial perspective (0,287), the strategic perspective (0,211), and the final is the customer perspective (0,145). Operational perspective is the perspective with the highest priority due to the fact that the operational perspective is the company's ability to execute business processes to support the function of the Human Resources Department in order to be a superior company.

To improve future research, there are some suggestions that could be considered, namely:

1. The management of the human resources in each department of the company may be different according to their activities.

In order to optimize the management of human resources, primarily associated with identifying, measuring and reporting of human resources; there may be a requirement of performance measurement through the Human Resource Scorecard approach in every department of the company.

2. The Human Resource Scorecard approach is continuous and involves all aspects of human resources in the company and it also has a major impact to the entire company. Therefore, the involvement of all elements of the company should participate in the design of Human Resource Scorecard, starting from the management company. Besides that, it should be noted that the time period of the application of Human Resource Scorecard is in accordance with the agreed terms in order for it to run smoothly.

Table 12. Results of Priority Weight for Each Perspective, Strategic Objective and KPI

Perspective (Weight)	Strategic Objective	Weight	Key Performance Indicator					
			Leading Indicator	Local Weight	Global Weight	Lagging Indicator	Local Weight	Global Weight
Financial (0.287)	Improve return on investment	0.375	Increasing the number of service products	1	0.140	Break-even time to reach ROI	1	0.140
	HR budgeting	0.258	HR cost per year	1	0.049	Budget variance	1	0.049
	Human resources utilization	0.367	Company revenue per employee	1	0.089	Employee utilization rate	1	0.089
	Workforce productivity through HRIS	0.389	Number of man hours per activity	1	0.076	Optimum value of productivity (%)	1	0.076
Customer (0.145)	Appreciation and motivation program	0.132	Employee engagement survey	1	0.022	<ul style="list-style-type: none"> • The amount of positive feedback from employees • Absenteeism 	0.552	0.012
	Integrated RPTK	0.226	% Of employees with development plans	1	0.028	% Of employees who reach the target of their development plan	1	0.028
	Simplicity for an effective operation	0.253	The accuracy of information required for employee competency	1	0.057	Alignment of HR activities with the competencies of employees needed	1	0.057
	Align HR program with business strategy	0.195	Evaluation of employee performance achievement per time period	1	0.070	% Incompatibility of target achievement caused by HR competence	1	0.070
Operational (0.358)	Ensure an effective and efficient HR organization in the company	0.284	Survey score on employee performances	1	0.116	FTE (full-time equivalent)	1	0.116
	Competency mapping	0.349	Accuracy of data and information on each type of operation	1	0.193	Compatibility index number and competence of employees for each operation	1	0.193
	Develop HR application system	0.171	<ul style="list-style-type: none"> • Application system development time • The number of labor involved in the development of application systems 	0.569	0.023	% Application systems executed	1	0.040
	Finding the right candidate	0.127	• Cost per hire	1	0.009	Number of candidates with appropriate competencies	1	0.009
Strategic (0.211)	Work environment	0.145	• Employee climate survey	1	0.013	Employee satisfaction scores for work environment	1	0.013
	Training	0.312	<ul style="list-style-type: none"> • Number of training program days held per year • % Of employees involved in training • % Of employee performance assessment completed on time 	0.423	0.019	Training cost per employee	1	0.044
	Employee performance management	0.216	• Employee index performance appraisal of colleagues	0.577	0.026	The level of increase in the value of employee performance per time unit	1	0.032
	Organizational integration	0.201	<ul style="list-style-type: none"> • Accuracy of data • Availability of data 	0.569	0.018	Response time	1	0.022

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