ARRANGEMENT OF PERFORMANCE MEASUREMENT TOOLS WITH HUMAN SCORECARD METHOD IN XYZ GENERAL HOSPITAL

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Abstract: XYZ Hospital in effort to improve its human resources quality only conduct competency assessment only. The hospitals so far have not focused on measuring the human resources performance comprehensively or thoroughly so it is not known what factors have not been achieved to form good employee performance quality in addition to employee competence. For that, it needs study to analyze employee performance measurement through approach of correlation between company strategy and human resource strategy in achieving company performance. The Human Resource Scorecard contains key performance indicators that can present the performance of human resources to reach corporate objectives. This study will be limited to the arrangement of organizational performance indicators with the HR scorecard model. This research was conducted in the personnel department of XYZ General Hospital. Identification of measurement aspects was based on the company vision, mission, and strategic direction.

Keywords: *Performance assessment, Balance Scorecard (BSC), Key Performance Indicator (KPI)*

1. Introduction

Employee performance is one of the success benchmarks of company so become serious attention for human resources management as one of the critical success factors that is absolutely needed. Each hospital must have strategy in dealing with competition and use its resources more effectively and efficiently, which in the end the hospitalvision, mission and strategy can be achieved.

XYZ General Hospital in effort to improve its quality of human resources conducts competency assessments only. The competency assessment conducted only assesses employee performance soft skills and it is subjective in nature, while hospitals need to know in real terms how the organization's achievements through its employees performance.

The Human Resource Scorecard exist to translate the company's vision, mission and strategy into comprehensive set of measures that provide framework for measurement and strategy management systems. The preparation of mechanisms for measuring organizational

performance is related to many things. This study will be limited to the arrangement of organizational performance indicators with the HR scorecard model. This research was conducted in the personnel section of XYZ General Hospital. Based on the background of the problem, the authors propose the following problem formulations:

1) How to align the personnel department strategy with XYZ General Hospital strategy?
2) How to arrange performance measurements on the XYZ General Hospital personnel department?

2. Literature Review

Performance Measurement Concepts

According to Mahmudi (2005: 6), performance is outcomes of work, because work outcome provide strong link to the goals, organizational strategy, customer satisfaction, and economic contribution. According to Larry D. Stout (in Yuwono 2002) states that performance measurement is process of recording and measuring the achievement of activities implementation in the direction of mission accomplishment through the results displayed in the form of product, service or a process.

Human Resource Scorecard Concept

Human Resource Scorecard translates the company's vision, mission and strategy into comprehensive set of measures that provide framework for measurement and strategy management systems. In addition to emphasizing the company goal achievement, the human resource scorecard includes performance driving factors for the company goalsachievement, by applying the human resource scorecard method in a company, the key company characteristics will be evaluated for evaluation so that improvements can be made that can later bring positive changesfor the company. Suyono (2007) argues that by using the Human Resource Scorecard, we can see organization in four perspectives, namely financial perspective, customer perspective, internal business process perspective, and learning and growth perspective.

a. *Financial perspective*
   The financial perspective is financial benchmark that provides summary of the economic consequences resulting from the policies that have been taken, relating to the customer, internal and learning and growth perspectives (Rusidianto, 2009).

b. *Customer Perspective*
   Customer perspective is employee benchmark as assets, as users or implementation outputs of the human resource strategy that impacts the customer from internal and learning and growth perspectives.

c. *Internal business process perspective*
   This perspective focuses on internal processes that will have an impact on customer satisfaction in achieving the financial goals of the organization.

d. *Learning and Growth perspective*

According to Suyono (2007), this perspective views that in an organization there are various categories, including the ability of employees in the ability of information systems, motivation, empowerment, and compliance with performance standards.

KPI Concept

Key performance indicators are list of benchmarks used to evaluate the performance success level of individual, department, or section. KPIs are financial or non-financial metrics that are used to help organization assess the business condition and determine action against that situation. KPIs are often used to assess activities that are difficult to measure such as development benefits, leadership, service and satisfaction.

The characteristics of KPI to measure company performance are as follows:

a. Objectives, the assessment is not subjective
b. Controllable, measurement results can be controlled by the company where the potential for outside influence can be minimized
c. Simple, easy to understand and only measures one type of measure
d. Timely, has frequency in carrying out company performance measurements
e. Accurate, reliable and precise with significant results
f. Graded, existing data may not be in the form of a yes or no choice
g. Motivating, achievement of targets is used as a driver of performance

AHP Concept

AHP also uses the principles of eigenvector and eigenvalue in the weighting process (Saaty, 1990). The stages or procedures of AHP (Rochmasari, 2010), include the following matters:

a. Define the problem
b. Create problem hierarchy structure that starts with the main goal
c. Evaluate the criteria and alternatives by making a pairwise comparison.

Table 1 *Pairwise Comparison matric*

Importance level	Definition	Explanation
1	Both elements are important	Both element are balanced in equal magnitude at the character
3	One element less than other element	Experience states that it is partially favor to one element
5	One element is	Experience shows

	more important than the other elements	strongly favor to one element
7	One element is clearly more absolutely important than the other elements	Experience shows that it is strongly liked and dominated by one element which is clearly more important
9	One element is absolutely more important than the other elements	Experience shows that one element is clearly more important
2,4,6,8	The middle value between two adjoining assessments	This value is given if a compromise is needed
The opposite		If the ijth element in factor i gets the x value, the ji element in the jth factor gets the value 1 / x

Pairwise Comparative Assessment Scale Creates pairwise matrix of criteria against criteria

1) Add the column matrix
2) Calculating the value of column criteria element value by dividing each column element value with the total of column matrices
3) Determine the priority criteria for the number of rows (n criteria)
4) Calculate alternative priorities by making alternative pair matrices to alternatives as many as the number of criteria.

5) Calculate consistency

$$\text{.............(1.1)}$$

$$\underline{\;/ X)}$$

$$n$$

Explanation:

Y = Multiplication between comparison matric with the weight

X = matric result of normalization comparison

n = row /attribute amount

6) Consistency Index(CI)

$$CI = \frac{\lambda_{maks} - n}{n - 1} \qquad \text{.............(1.2)}$$

Explanation :

λ_{maks} = consistency value

n = row amount

7) Consistency Ratio (CR), is a statement stating how much the degree of Inconsistency from determination of comparisons value between criteria that have been made, namely:

$$CR = CI \,/\; RI \qquad \text{..........(1.3)}$$

Explanation:

CR = *Consistency Ratio*

CI = *Consistency Index*

RI = *Index Random*

Table 2List *Random Index* (RI)

Matric Size	RI Values
1,2	0,00
3	0,58
4	0,90
5	1,12
6	1,24
7	1,32
8	1,41
9	1,45
10	1,49
11	1,51
12	1,58

If the value of CR ≤ 0.10, the data is consistent / can be tolerated but if CR ≥ 0.10 then the data is inconsistent and needs to be revised. If the value of CR $= 0$, it can be said "Perfectly Consistent".

3. Discussion

Hospital strategy is translation of the hospital's vision and mission that has been applied previously in relation to the personnel department.

Table 3 Relational Matric between Mission and Goals

Missions	Goals	Indicators
Realizing safe, friendly and quality health services	Improving the quality of health services that is based on patient safety with accreditation standards	Percentage of achievement of the SPM indicator
To realize superior service of perfect respiration	Develop pulmonary and respiration services	Pulmonary and respiration disease referral hospital
Develop management and resource-based information technology / science and technology and tourism-oriented (hospital tourism)	Realizing hospitals that have adequate human resources, management and information technology capabilities and are able to provide services to tourists who seek treatment	Percentage of SIM RS Implementation
Carry out research development, education and training in the field of health services	Turning XYZ Hospital into a Class B Educational Hospital	Status of class B public education hospital
Improve employee welfare based on professionalism and customer satisfaction	Improving the quality of human resources who are competent and professional	Percentage of HR who attended training according to competency

Table 4 Summary of Objectives in the Strategy Map and Performance Indicators

Perspective	Goals	Strategic objectives	Indicators
Financial	Improving the quality of health services that is based on patient safety with accreditation standards	1. Improving the quality of health services 2. Product service development	1. BOR 2. ALOS 3. BTO 4. TOI 5. NDR 6. GDR 7. Presentage of SPM achievement 8. Satisfaction index of society
Customer	Develop pulmonary and complete respiratory services	Pulmonary and Respiratory Service Development	Percentage of P2TB network in the target area of XYZ General Hospital
Business Internal	Realizing hospitals that have adequate human resources, management and information technology capabilities and are able to provide services to tourists who seek treatment	1. Development of SIM RS 2. Improving the quality of hospital administration and management	Percentage of RS SIM implementation
Learning and Growth	1. 1. Making XYZ General Hospital a Class B Educational Hospital 2. Improving the quality of competent and professional human resources	1. Improving the quality of education and training 2. Improving the quality of human resources	1. Percentage of education networks 2. . Percentage of employees who attended the training according to competency 3. Cost Recovery Ratio

Figure 1Corporate Strategy Map
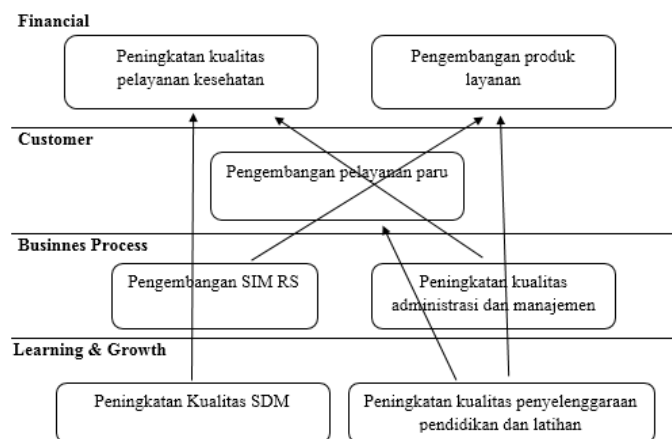
In Figure 1 above shows the strategy map of the XYZ General Hospital which shows the linkages or relationships between each perspective.

KPI Identification of Personnel Section

In assessing the performance of the unit, key performance indicators need to be developed, which is a tool to help the strategies arranged in the map strategy with the Balanced Resource Scorecard (BSC) method be achieved. To compile key performance indicators, a process is needed in which strategies related to the human resource system in the Hospital Map Strategy. Hospital strategy map in Figure 1 above that leads to the personnel unit are:

1. Improving the quality of human resources
2. Improving the quality of organization and training

Furthermore, the strategic objectives are made map strategy at the division level, as follows:

Figure 2 *Strategy mapdivision*
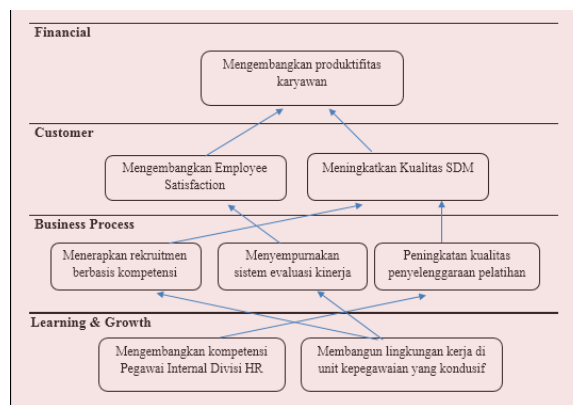
Determination of strategic Objectives and KPI

The strategic objectives for each of the human resource scorecard perspectives are outlined in the company's strategic map. From the Strategy Map, 8 strategic objectives were obtained for the overall perspective of the balanced scorecard and 14 KPIs were obtained which showed the measurement of the achievement of the strategic objectives of the personnel unit.

Table 5 Strategic objectives and Financial perspective KPI

Strategic objectives	KPI	Measure
Develop employee productivity	• Average number of patients per day	Numeric
	• Total hospital revenue per day	Rp
	• Employee attendance rate	%

Table 6 Strategic Objectives and   Customer Perspective KPI

Strategic objective	KPI	Measure
Develop employee satisfaction	• Employee satisfaction index for personnel services	Index
	• Number of employees who turn over in a year	Numeric
Improve the quality of human resources	• Percentage of employees attending training in a year	**%**
	• Number of internal knowledge sharing section activities in a year	Numeric

Table 7 Strategic objectives and *Business Process* perspective KPI

Strategic objectives	KPI	Measure
Implement competency-based recruitment	• Number of people applying for each recruitment activity	Numeric
	• Level of position formation fulfillment	%
Improve the performance evaluation system	• Completion Level of employee assessments in the form of SKP	%
Improving the training quality	• Number of training (in house training) conducted in a year	Numeric

Table 8 Strategic Objectives and Learning and growth perspective KPI

Strategic objectives	KPI	Measure
Develop internal employee competencies (personnel units)	• Average competency score of internal personnel units	Numeric
Building a work environment in a conducive personnel unit	• The level of employee satisfaction within the internal personnel division with the staff coordinator	%

KPI Weighting

After all the strategic objectives and hospital Human Resource Scorecard KPI are established, the next step is to measure the Weighted Interest of the Balanced Scorecard. Weighting is done based on the performance hierarchy using the Analytical Hierarchy Process (AHP) approach for each KPI that has been obtained.

KPI weighting in this paper uses the AHP (Analytical Hierarchy Process) method with the following steps:

1) It has been determined that there are 8 criteria namely Developing employee productivity, Developing employee satisfaction, Improving the quality of human resources, Improving competency-based recruitment, Improving the performance evaluation system, Improving the quality of education and conducting training, Building a working environment in a conducive personnel unit

2) Arrange these criteria with a pairwise comparison matrix. After that determine the value of the criteria in accordance with a predetermined scale.

Tabel 4.8 Matrik *Pairwise Comparison*

kriteria	A	B	C	D	E	F	G	H
A	1	1/2	1/8	1/5	1	1/5	1	1
B	2	1	1/5	1/5	1/2	1/7	1/5	1
C	8	5	1	1/7	1	1/4	1	1/4
D	5	5	7	1	1/2	1/2	1	1/3
E	1	2	1	2	1	1/2	1/4	1
F	5	7	4	2	2	1	1	1/5
G	1	5	1	1	4	1	1	1/4
H	1	1	4	3	1	5	4	1

Explanation :
A: Develop the employee productivity
B: Developing employee satisfaction
C: Improve the human resourcesquality
D: Increase competence basedrecruitment
E: Improve the performance evaluation system
F: Improving the education quality andtraining implementation
H: Build a work environment in conducive personnel unit

After that, to determine the normalization matrix by dividing each element in the column with the appropriate number of columns, and the results obtained as the table below.

Kriteria	A	B	C	D	E	F	G	H	Eigen factor
A	0.042	0.018	0.008	0.021	0.091	0.023	0.106	0.199	0.0635
B	0.083	0.038	0.011	0.021	0.045	0.017	0.021	0.199	0.054375
C	0.333	0.189	0.055	0.014	0.091	0.03	0.106	0.05	0.1085
D	0.208	0.189	0.382	0.105	0.045	0.058	0.106	0.066	0.144875
E	0.042	0.075	0.054	0.21	0.091	0.058	0.026	0.199	0.0944
F	0.208	0.264	0.218	0.21	0.182	0.116	0.106	0.038	0.16775
G	0.042	0.189	0.054	0.105	0.364	0.116	0.106	0.05	0.12825
H	0.042	0.038	0.218	0.314	0.091	0.582	0.423	0.199	0.2384

After that, add up each element in each row and divide by the number of criteria (n = 8), so we get the results of normalization (Eigen vector) like the table below.

To simplify the calculation, it will be rounded as in the table below.

Criteria	*eigen* vector outcome	Rounding	Percentage (%)
A	0.0635	0.06	6
B	0.054375	0.05	5
C	0.1085	0.11	11
D	0.144875	0.15	15
E	0.0944	0.09	9
F	0.16775	0.18	18
G	0.12825	0.12	12
H	0.2384	0.24	24

After weighting each indicator is calculated to see the value of each indicator so as in table 9 below.

Table 9 *Key Performance* of personnel section

No	Performance Goals	Weight	KPI	Target	Realization	Score		Total
1	Develop employee productivity	6	Employee satisfaction index on employee performance	75	60,5	8.07	62.014	3.72
			% administrative or personnel affairs (leave, study permit, BPJS, etc.)	100%	98%	98		
			Number of socialization on personnel SPO conducted for 1 year	5 kali	3	6		
			% of periodic salary arrangements and promotion of employees	100%	100	100		
			Level of attendance	100%	98%	98		
2	Develop employee satisfaction	5	Turnover rate in a year	1 kali	1	1	1	5
3	Improve the human resources quality	11	%employees who taking training	100	100	100	52.5	5.775
			Number of internal knowledge sharing sessions conducted a year	10 kali	5	5		
4	Increase competency-based recruitment	15	Average number of applicants for each formation	50	40	8	6	9
			Number of employees (BLUD) who resign in a year	2	5	4		
5	Improve the performance evaluation system	9	Percentage of completion of performance assessment (SKP)	100%	100%	100	100	9
6	Improve the education	18	Number of exercises held in a year	10 kali	5	50	5.5	9.9

	quality and training implementation		Number of Employees who get permission to study in a year	5 orang	3	60		
7	Developing the competence of internal employees in the HR division	12	Average competency score of employees in the personnel division / unit	80	82	97	97	11.64
8	Building work environment in conducive personnel unit	24	The level of internal employee satisfaction of the personnel division with the staff coordinator	80	75	93.75	93.75	22.5
T O T A L							76.535

Traffic light system serves as a sign whether the score of performance indicator needs an improvement or not. The traffic light indicator of the system is presented in three colors namely green, yellow and red. Green with score of 0 - 3 is an achievement of the performance indicators that have been achieved or even exceeded the target. Yellow with score of 4 - 7 is achievement of performance indicator has not been achieved, even though the value is nearing the target. So the management must be careful with various possibilities. The red color with score of 8-19 is performance achievement that is really below the target set and requires immediate improvement. The results of the traffic light system analysis can be seen in table 10

Table 10 Performance Assessment Calculation for Personnel Section of Public Hospitals

KPI	Target	Realization	Score	Criteria	Color
Employee satisfaction index on employee performance	75	60,5	8.07	good	
% administrative or personnel affairs (leave, study permit, BPJS, etc.)	100%	98%	9,8	good	
Number of socialization on personnel SPO conducted for 1 year	5 kali	3	6,0	good	
% of periodic salary arrangements and promotion of employees	100%	100	10,0	good	
Level of attendance	100%	98%	9,8	good	

Turnover rate in a year	1 kali	1	1	poor	🟥
% employees who taking training	100	100	100	good	🟩
Number of internal knowledge sharing sessions conducted a year	10 kali	5	5,0	less	🟨
Average number of applicants for each formation	50	40	8,0	good	🟩
Number of employees (BLUD) who resign in a year	2	5	4,0	less	🟨
Percentage of completion of performance assessment (SKP)	100%	100%	10,0	good	🟩
Number of exercises held in a year	10 kali	5	5,0	less	🟨
Number of Employees who get permission to study in a year	5 orang	3	6,0	less	🟨
Average competency score of employees in the personnel division / unit	80	82	97	good	🟩
The level of internal employee satisfaction of the personnel division with the staff coordinator	80	75	93.75	good	🟩

Based on the analysis results with the traffic light system, the performance assessmentresults of each KPI are obtained as follows :

a. Green performance indicators, which are performance indicators that are at level 8- 10 belong to good performance assessment, the realization of which is almost close to or even able to achieve the targets set, including:
   1) Employee satisfaction index on employee performance
   2) Administrative or personnelaffairs (leave, study permit, BPJS, etc.)
   3) Number of socialization on personnel SPO conducted for 1 year
   4) % periodic salary management and promotion of employees
   5) Level of attendance
   6) % employees attending training
   7) Average number of applicants for each formation
   8) Completion percentage of performance assessment (SKP)
   9) Average employee competency score in the personnel division / unit

10) The internal employee satisfaction level of personnel division toward the staff coordinator

The performance indicators above do not require improvement, but this does not mean that they do not require continuous supervision, but rather will make it easier for the personnel department to maintain the good performance indicators and even improve the achievement of future performance.

b. Yellow performance indicators, which are performance indicators that are at level 4 - 7 belong to the sufficient performance assessment, whose realization has not yet reached the target, even though its value is close to the set target, including:
    1) Number of internal knowledge sharing sessions conducted a year
    2) Number of employees (BLUD) who resign in a year
    3) Number of exercises held in a year
    4) Number of Employees who get permission to study in a year

The performance indicators above do not yet need improvement, but UWKS must be careful with the various possibilities that can cause a decrease in performance.

c. Red performance indicators, namely performance indicators that are at level 0 - 3, are classified as poor performance assessments, which realization is below the target set, namely the level of turnover in a year. This indicator needs improvement to improve employment performance as a whole, because if this is allowed to continue it will cause losses to hospitals.

4.   CONCLUSION

1) Arrangement of employee performance measurement tools with HR Scorecard method is the first step for the hospital to continue in other parts. The design of employee performance measurement tools with the HR Scorecard method has been able to identify the direction of organizational development in a measurable manner. HR Scorecard that has been designed, arranged based on the vision, mission, direction of the hospital strategy.
2) Good performance assessment is not only based on financial aspects, but also how assessments must be interrelated, consistent and supportive which is built up in 4 (four) perspectives in the human resource scorecard.
3) From the results above it can be seen that the performance assessment consists of several perspectives based on the vision and mission of the hospital so that 8 (eight) criteria are formed that become a reference in measuring the personnel department performance, namely:
    a. Developing employee productivity

    b. Develop employee satisfaction

    c. Improve the human resources quality

    d. Increase competency-based recruitment

    e. Improve the performance evaluation system

    f. Improving the quality of education and training implementation

    g. Developing the competence of internal employees in the HR division

    h. Building working environment in conducive personnel unit

Based on the results of the preparation of the performance assessment measuring instrument through the human resources scorecard process and the preparation of key indicators is 76,535

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