

Measurement of human resources performance and making proposed improvement with Human Resources Scorecard Approach and OMAX (Objective Matrix) Tools in Production Division in PT. OCM

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Abstract. PT. OCM is a company that produces bed mattresses, divan, pallet, and backrest. In the production process PT.OCM often experience failure of production achievement, this makes the production process becomes inefficient. To overcome these problems, Human Resource Performance Analysis performed on PT.OCM with Human Resource Scorecard method approach with the help of AHP methods by describing the vision of company mission to human resource action which can be measured in 4 perspective perspective namely financial perspective that have weight 0,396, customer perspective (employee) that have weight 0,118, internal business perspective that have weight 0,240, and growth and development perspectives that have weight 0,247. After analyzing the HRSC method (Human Resource Scorecard) followed by Analyzing process using OMAX (Objective Matrix) measuring instrument with traffic light system which analyzes each KPI category into a red category indicating the need for immediate action, yellow category indicating the need for action in a short period of time, and a green category indicating that the KPI is functioning properly. Based on the achievement measured using OMAX measuring instrument with traffic light system shows that labor productivity is at the level of 1.92 with an average of 86.41%.

Keywords: Bed, AHP, HRSC, OMAX, Conclusion Matrix

1. Introduction

Nowadays, the development of the era is growing very rapidly this is directly very big effect with modern industries where every industry is required to always improvise. Continuous development in case of performance improvement and work efficiency is mostly towards the development of work skills, work spirit, work motivation, and work environment of every employee.

PT OCM in developing its company experiencing some work discrepancies, Some cases of work mismatch experienced by PT OCM as there is often a delay in production that makes the company can not meet the deadline of production. According to observations, production delay is often caused by employees who are less serious in doing their work often joking while doing a job that makes the productivity is less good. The following graph illustrates the production of mattress, divan, backrest, and also bed protector from January 2015 to December 2017 which can be seen in Figure 1, Figure 2, Figure 3, and Figure 4.

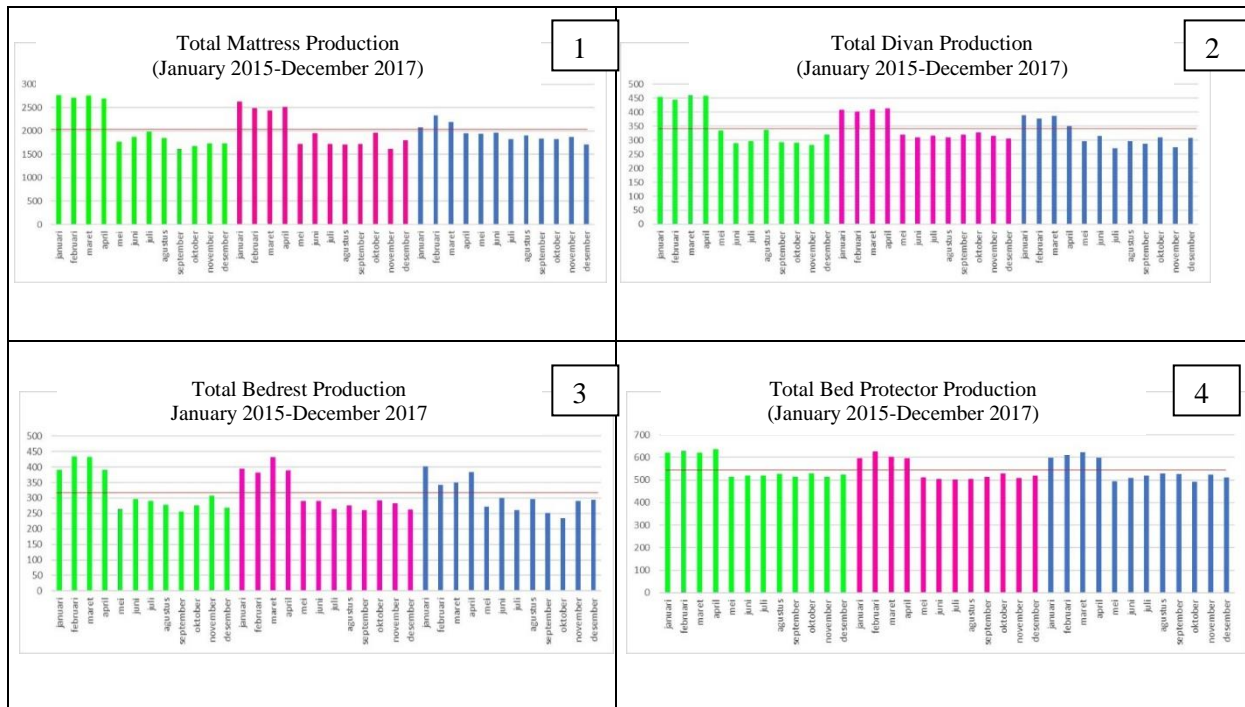


Figure 1. Total Mattress Production Period from January 2015 to December 2017
 Figure 2. Total Divan Production Period from January 2015 to December 2017
 Figure 3. Total Bedrest Production Period from January 2015 to December 2017
 Figure 4. Total Bed Protector Production Period from January 2015 to December 2017

The impact of the company's production pursuit from January to April gradually imposes a financial burden as well as an excessive mental burden on employees due to increasing production outsourcing to other plants and requiring overtime for permanent employees. To address these issues companies must examine what aspects of employee performance degradation and make gradual and effective improvements.

2. Methods

2.1. Human Resources Scorecard

Becker, Huselid and Ulrich (2001) have developed a measurement system called the Human Resource (HR) Scorecard. This measurement is the development of the Balanced Scorecard concept, where the measurement of Human Resource Scorecard focuses more on HR activities. [Becker, B.E, M.Am Huselid, and D. Ulrich, The HR-Scorecard Linking People, Strategy, and Performance. (Boston: Harvard Business School Press, 2001).

2.2. The Main Principle in AHP

In solving the problem with explicit logical analysis, there are three principles underlying AHP thinking: the principles of hierarchy, the principle of prioritization, and the principle of logical consistency.

2.3. OMAX Methods and Arrangements

The arrangement of the matrix model is a table whose cells are arranged according to columns and rows so that when the process of reading from left to right has a different function from reading from top to bottom. The arrangement of this matrix also aims to facilitate the operation and reading process. Omax with the help of traffic light system method is a method of advanced data processing that

focuses on the granting of categories in each assessment criteria, where the category is divided into 3 namely: red category which means the criterion is worth 0 to 3, the yellow category which means the criterion is worth 4 to 7, and if the criterion is green indicates the category is 8 to 10.

2.4. Traffic Light System

Traffic Light System is closely related to Scoring System. Traffic Light System serves as a sign whether the score of a performance indicator requires improvement or not and presented with three colors, namely:

1. Green Colour

Interpreted the achievement of a performance indicator has been achieved given to the performance figures contained at the level of numbers eight to ten

2. Yellow Colour

Achieved, although the value is close to the target. The yellow color is given for the performance figures found at levels four through seven. So the management must be careful with every possibility that will arise.

3. Red Colour

Understood the achievement of a performance indicator is really below the target set and immediately require improvement. The red color is given for the performance figures that are on the level of zero to three.

2.5. Research Methodology

Research methodology is the steps that will be done in research to achieve the desired goals. These measures of human resource performance measurement can be seen in Figure 5.

3. Results and Discussion

3.1. Create a Strategy Map

On the strategy map. The goal of a financial strategy is to increase employees' work commitments and to provide effective targets. The goal of customer perspective strategy (employee) is to improve employee welfare, to increase awareness of the company to its employees, and to increase assertiveness in the application of regulations. The strategic goals of the internal.

3.2. Weighting

Weighting done to know the contribution of each performance indicator to the achievement of company performance. This weighting is done using AHP method. Based on the calculation. The weighting result of Human Resource Scorecard using AHP can be shown in Table 3 and can be seen in the diagram form in Figure 7.

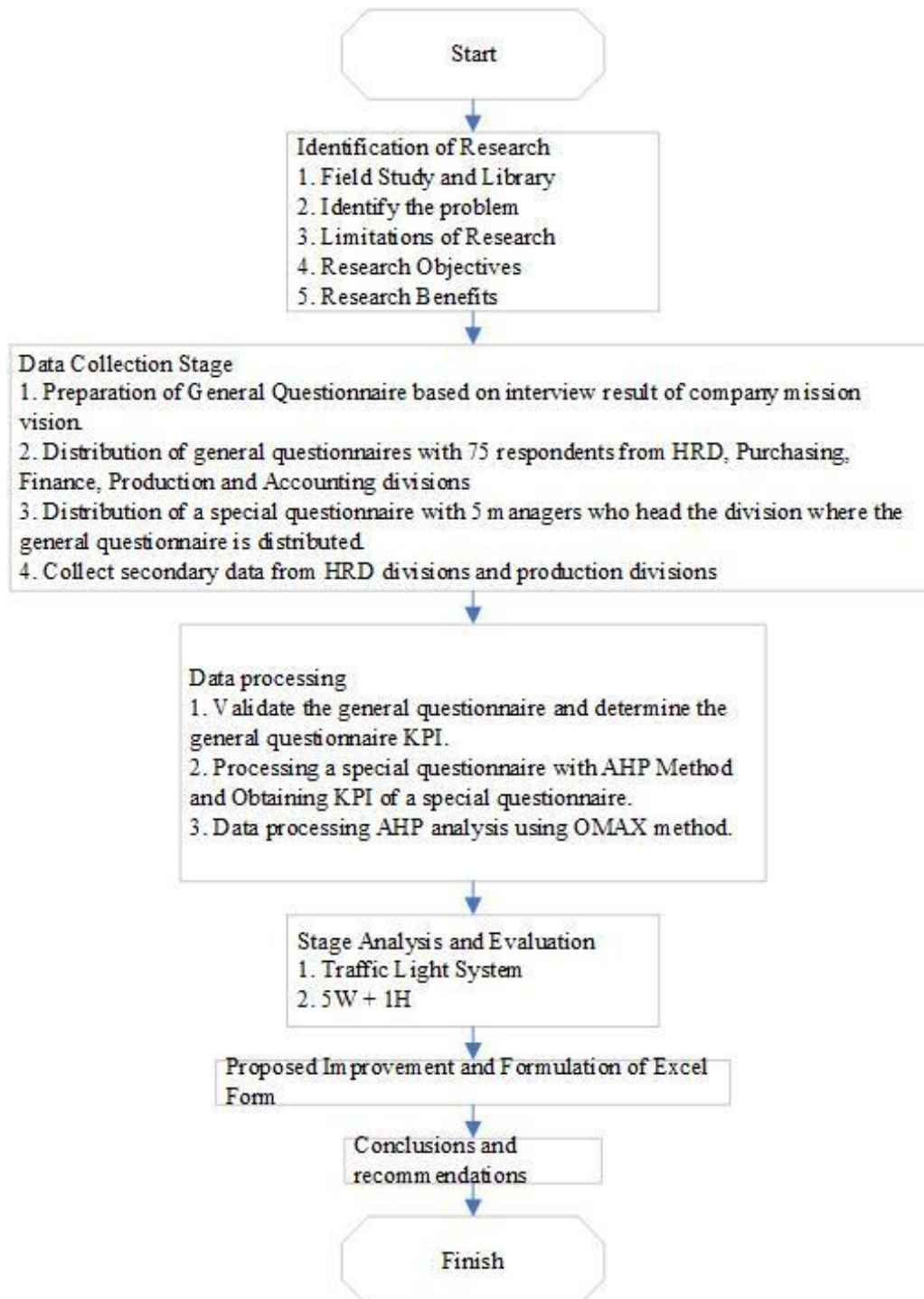


Figure 5 Flowchart of Research Methodology

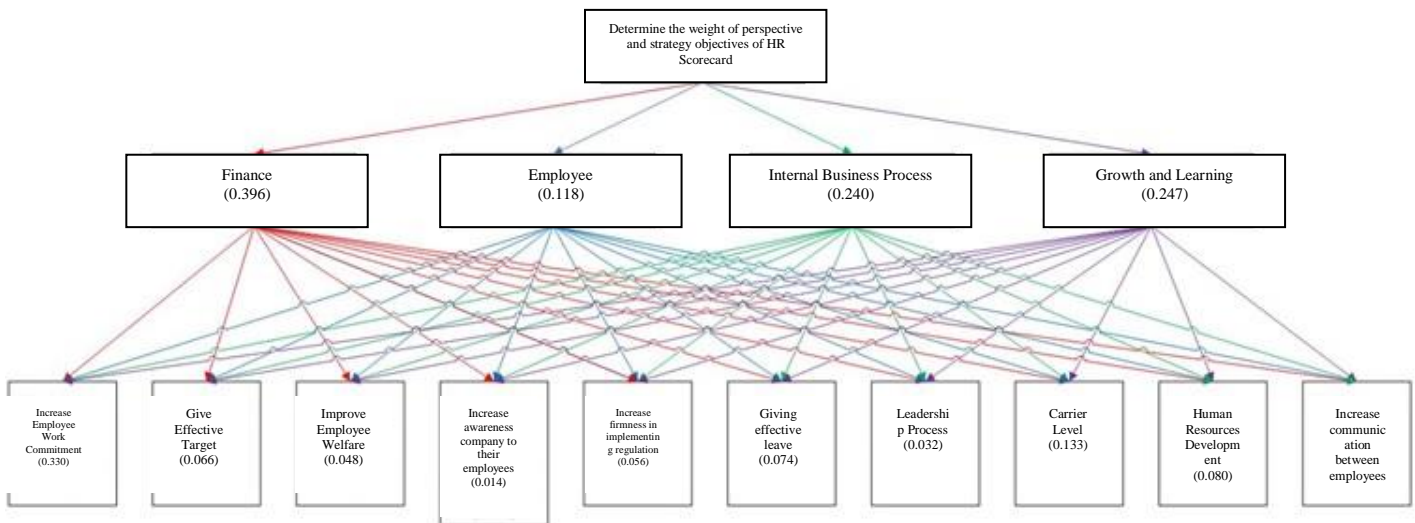


Figure 7. Weighting Result of Human Resource Scorecard using AHP

Table 3. Weighting AHP Perspective

Comparison of Perspective	Weight	Consistency Ratio
Finance	0.396	0.0262
Customer (Employee)	0.118	
Internal Business Process	0.240	
Learning and Growth	0.247	
Financial Perspectives	Weight	Consistency Ratio
Increase Employee Commitment	0.330	0
Targeting Effectively	0.066	0
Personnel Perspective	Weight	Consistency Ratio
Improve Employees' Welfare	0,048	
Increased Awareness of Companies Affected Employees	0,014	0,0157
Improving Assertiveness in Enforcing Rules	0,056	
Internal Business Processes	Weight	Consistency Ratio
Provision of Effective Leave	0,074	
Leadership Process	0,032	0,0027
Career path	0,133	
Learning and Growth Perspective	Weight	Consistency Ratio
Human Resource Development	0.080	0
Improve open communication among employees	0.167	

Overall KPI has CR value below 0.1. This shows that the value is consistent because it is below the maximum limit of the allowable CR value of 0.1.

3.3. Scoring System with OMAX Method and Traffic Light System

In OMAX measurements, the maximum target is filled at level 10, while level 0 is the minimum target that the company can achieve in the worst of circumstances. By using AHP calculation result made omax calculation table and following is table result of omax calculation which can be seen in Table 4.

Table 4. Result of OMAX Calculation

Employee Productivity	Achieving Target Company	Employee Satisfaction Index	Corporate Awareness Index	Employees Receiving Sanctions	Employee Attendance Level	Leadership Index	Promoted Employee	Training of Human Resources	Communication Support Facilities	KPI
86.41	13.59	3.12	3	4	117	2.91	14	28	66.67	Performance
100	0	5	5	0	125	5	15	100	100	10
98.57	1.43	4.86	4.86	0.71	120.00	4.86	13.86	92.86	94.29	9
97.14	2.86	4.71	4.71	1.43	115.00	4.71	12.71	85.71	88.57	8
95.71	4.29	4.57	4.57	2.14	110.00	4.57	11.57	78.57	82.86	7
94.29	5.71	4.43	4.43	2.86	105.00	4.43	10.43	71.43	77.14	6
92.86	7.14	4.29	4.29	3.57	100.00	4.29	9.29	64.29	71.43	5
91.43	8.57	4.14	4.14	4.29	95.00	4.14	8.14	57.14	65.71	4
90.00	10.00	4.00	4.00	5.00	90.00	4.00	7.00	50.00	60.00	3
86.67	13.33	3.67	3.67	6.67	76.67	3.33	5.33	41.67	56.67	2
83.33	16.67	3.33	3.33	8.33	63.33	2.67	3.67	33.33	53.33	1
80.00	20.00	3.00	3.00	10.00	50.00	2.00	2.00	25.00	50.00	0
1.92	1.92	0.36	0	4.40	8.40	1.36	9.12	0.36	4.17	Score
0.33	0.066	0.048	0.014	0.056	0.074	0.032	0.133	0.08	0.167	Bobot
0.63	0.13	0.02	0.25	0.25	0.62	0.04	1.21	0.03	0.70	Value
	0.21		0.26			1.94			0.73	Index
										Performance

3.4. Analysis and Proposed Improvement

Analysis of improvements based on interviews with production managers, head units in production, Production Staff, and HRD staff. Based on the result of the clustering of indicators in each KPI, it can be evaluated to KPI which have "Red" category. For more details, the causes can be analyzed in the Matrix of conclusions. The analysis is used by brainstorming the possible causes of a problem (effect). From the brainstorming can be compiled Matrix analysis formulation that can be seen in Table 5.

Table 5. Matrix Analysis Formulation

Time Occurs (When)	What Happened (What)	Source Happened (Where)	Root of the Problem (Why)	Proposed Improvement (How)	PIC (Who)
When production activities take place	Employee productivity is low	Production area	Working commitment of employees less	Conducting motivational briefings such as giving motivation of production targets that must be achieved and if achieved what bonuses can be obtained by employees	Production manager
When production activities take place	Production targets are difficult to achieve	Production area	Less planning production capacity	Evaluate the number of achievements of production targets with reference to the amount of production achieved in the previous period	Production manager
When production activities take place	Employee satisfaction index is low	Production area	Employment is less appropriate with employees	When an employee shows signs of unsuit with his work like a long time at work, always wrong in doing his job, then his boss should anticipate it by moving the employee to a more suitable unit	Head Unit
The company's awareness of its employees is low	Employees become unproductive and there is no work motivation	Production area	Aspirations, opinions and the physical and mental condition of employees are not paid attention by the company	Companies must be objective and comprehensive in the process of discussion and decision-making process, and companies should be more aware with the physical and mental condition of employees	Production manager
Improper communication between leaders and subordinates	Employees become unable to execute their superior orders properly	Production area	Unit leaders should have communications training with their subordinates	Companies must create leadership training programs designed to help leaders and aspiring leaders to manage and lead their subordinates well	HRD
While the training is in progress	HR training is less effective	Training venue	Training does not attract employees	In providing training, there is an interactive talk that triggers employee participation	HRD

3.5. *Excel system formulation*

Excel system formulation is made to facilitate the company in the process of performance appraisal and process improvement work system in the next period. This system is created with limits:

1. The system must be modified to be able to adjust to the goals, needs of the company, as well as the achievement of the company in that period.
2. The system shall be subject to change in accordance with the achievements and assessments made by the company for each rating category in the new period
3. The system should be easy to access, read, and use by the company.
4. The system must be able to produce results that function in real time according to changes entered by the company.

Here is an excel view of the scoring system of PT. OCM that can be seen in Table 6.

Table 6. Scoring System of PT. OCM

No.	KPI	Measurement	Value	Performance	Maximum Target	Minimum Target	Company Target	Score
Finance Perspective			0.396					3.85
1	Employee Productivity	%	0.33	86.41	100	80	90	1.92
2	Company Target Achievement	%	0.066	13.59	20	0	10	1.92
Employee Perspective			0.118					4.78
3	Employee Satisfaction Index	Range 1-5	0.048	3.1	5	3	4	0.36
4	Company Awareness Index	Range 1-5	0.014	3.00	5	3	4	0.01
5	Employement's Punishment	People	0.056	4.00	10	0	5	4.40
Internal Business Process Perspective			0.24					
6	Employee Absenteism	People	0.074	117.00	125	50	90	0.402
7	Leadership Index	Range 1-5	0.032	2.91	5	2	4	0.402
8	Achievement of Employee	People	0.133	14.00	15	2	7	0.402
Growth and Learning Perspective			0.247					
9	Human Resources Training	%	0.08	28.00	100	25	50	0.402
10	Communication Facilities	%	0.167	66.67	100	50	60	0.402

4. Conclusion

1. Based on the processing and analysis that has been done before it can be drawn conclusions that can be recommendations that help the company or to further researchers. From the research result get the design of Human Resources Sorecard PT. OCM which is based on the company's vision and mission interview is formed of 10 KPIs which become the reference on employee performance measurement, which are: Employee Commitment, Effective Target, Employee Satisfaction Index, Corporate Awareness Index, Number of Employee Affected, Effective Employee Leadership Index, Promotion of Human Resources, and Communication Support Facilities.
2. The result of Human Resource Performance Measurement with OMAX measuring instrument and traffic light system is divided into 3 indicators, namely green, red, yellow and still need improvement on red indicator that is: Employee Productivity, Achievement of company target, Employee Satisfaction Index, Corporate Awareness Index, leadership indices, and human resource training.

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