

DESIGNING PERFORMANCE MEASUREMENT INSTRUMENT WITH BALANCED SCORECARD FRAMEWORK AND AHP METHOD (CASE STUDY AT PT. BINA KARYA PERSERO)

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Abstract: PT Bina Karya Persero is a company's State-Owned Enterprise (SOE) engaged in the field of multidisciplinary engineering and consultancy management. The company currently has implemented “*Kriteria Penilaian Kinerja Unggul*” (KPKU) to measure their performance that tends to be too general and not necessarily in line with the company’s goals. KPKU based on this measurement, the financial performance of the company experienced a fluctuation financial target have not been achieved. Therefore, this study aimed to design a performance measurement system using BSC method focusing on Financial Perspective, Customer Perspective, Internal Business Process Perspective, and Learning and Growth Perspective. The result showed that there are nine strategies, 13 strategic objectives, and 19 Key Performance Indicators (KPI). After implementing the weight for each BSC’s criteria, the Financial Perspectives made 30% of all criteria. Meanwhile the weight of the Customer Perspective is 21%, the weight of Internal Business Process Perspective is 29% and the weight of Learning and Growth Perspective is 20%. The BSC designed in this study should be implemented in the following year to improve the company’s performances.

Keywords: *Balanced Scorecard (BSC), Key Performance Indicator, State-owned enterprises (SOEs), Analytical Hierarchy Process (AHP)*

Keywords: *Balanced Scorecard, Performance, SWOT, Strategy Map, KPI, AHP*

I. Introduction

In today's globalization age has created a business environment that causes the need to review the management principles used by companies to survive and grow in world-class competition. In a competitive business environment, products and services produced by the company will only be chosen by the customer if they have certain advantages over competitors (Mulyadi, 2001). Therefore, an analysis of the internal organizational condition is needed, the strengths and weaknesses of the organization and the external analysis of the opportunities and threats to the organization. (Koesomowidjojo, 2017)

Construction sector is one of sector that has impact in the national development. The activity of the construction sector also faced with the competitive business area shows in figure I.1:

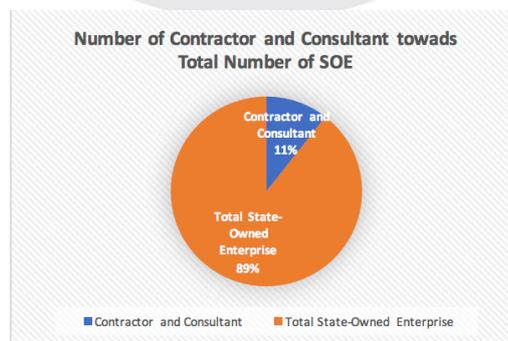


Figure I.1 Number of SOE company in Contractor and Consultant Sector

As a company that still compete with other state-owned and private consulting company, PT. Bina Karya Persero try to optimize their productivity in order to compete and achieve their profit target. It shows with the data result of Net Profit Margin from PT Bina Karya Persero as shown below (Source: PT Financial Report):

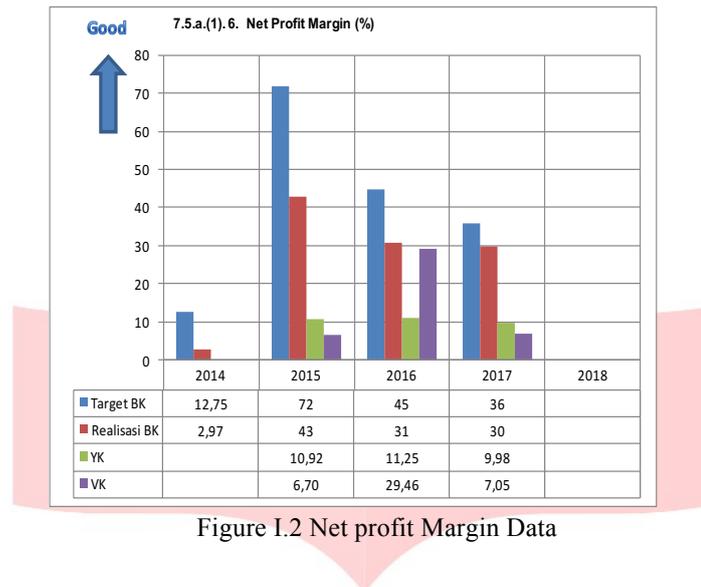


Figure I.2 Net profit Margin Data

Net Profit Margin of PT Bina Karya Persero in a past 4 years shows in figure I.2 has been fluctuated and decreased in year 2015-2016. In 2014 PT Bina Karya Persero only have 2,97% but in the next year which 2015 PT Bina Karya Persero experience an increased net profit margin until reach 43% and It was triggered because of the change on top management level. In the year of 2016 -2017 PT Bina Karya Persero experienced again decrease in term of net profit margin that become 31% in 2016 and 30% in 2017

Based on past performance measurement result, PT Bina Karya Persero use Statement of Corporate Inten which contains the statement of the Board of Directors to meet all targets set by the General Meeting of Shareholders (AGM) / Minister of State-Owned Enterprises of the Republic of Indonesia there still a chance of company to improve their performance in order to achieve company's target. Statement of Corporate Inten of PT Bina Karya Persero in year 2017 was influenced from "*Kriteria Penilaian Kinerja Unggul*" (KPKU). That divided into 5 category of measurement perspective which are Financial and Market, Focus on Customer and Market, Production Process Result, Focus on Work Force, Leadership and Corporate Governance Result

According to (Koesomowidjojo, 2017) organizational performance will be measured and evaluated in order to know whether the organization's strategy has been run well or not. Therefore, organizational measurement should come from strategy that company have in order to achieve their vision and mission. According to (Parmenter, 2010) in several cases there was a fundamental misunderstanding that organization often being to develop a measurement indicators without considering strategic preparation.

Therefore, PT Bina Karya Persero could use internal performance measurement that consider their strategic planning in order to achieve their vision and mission. Using Balanced Scorecard framework that proven effectively implemented. Balanced Scorecard as performance measurement framework implementation in State Owned Company that use 15's of 70's State Owned Company as a sample, the respond rate is 21%. The study result of sample t test shows that State Owned Company managerial performance that use BSC is better than State Owned Company managerial performance in traditional performance measurement (Andriyanto & Metalia, 2010)

II. LITERATURE STUDY

1. Work Performance

Performance (work performance) is the result of work in quality and quantity achieved by an employee in performing their duties in accordance with the responsibilities given to them (The success rate of a performance includes both quantitative and qualitative aspects) (Mangkunegara, 2005)

2. Performance Measurement

Performance Measurement is a measurement that conduct in a systematical way to know the result of a performance. Is a management tool to increase quality of decision making and accountability (Simamora, 2004)

3. Balance Scorecard (BSC)

Balanced Scorecard framework is a performance management tool that sees a management system more than one perspective which are financial, customer, internal process, learning & growth that see the interrelationship of those 4 aspects. (Kaplan & Norton, 1996)

4. TOWS Matrix

SWOT matrix is a tool for match up an internal and external conditions to produce combined strategies that can help companies identify the suitable strategies into 4 types of strategy. (David, 2009)

5. Strategy Objectives

Strategic objectives are conditions that will be realized in the future and are the result of the elaboration points of the chosen strategy (Mulyadi, 2001).

6. Strategy Map

Strategy Map is the linked hypotheses of the strategic objective chosen as translation of the strategy on one page document outlining that contain critical objective to execute the strategy (Niven, 2003)

7. KPI

KPIs (key performance indicators) a set of measures that focus on key organizational performance aspects (key) for the success of the organization today and in the future KPIs financial or non-financial metrics used to help an organization determine and measure progress toward organizational goals. KPIs are used in business intelligence to assess the present state of a business and determine an action against the situation. KPI is automated for use by companies, but there are some KPIs that are used overlap in one organization. (Minns & McLean, 2016)

8. Analytic Hierarchy Process

AHP method was developed by Thomas L. Saaty as a tool of decision support systems to solve complex problems caused by the qualitative data based on perception, experience and intuition. (Pin Fu & Wei Lin, 2009)

III. RESEARCH METHODOLOGY

The purpose of conceptual model is to describe conceptual perspective of process and observation in this research. Reason of the research methodology is that it will make this research more structured so it can be reviewed more easily throughout the method and step that has been conducted. With this research methodology, it is expected to help identify and analyze problem then to find the proper solution for PT Bina Karya Persero.

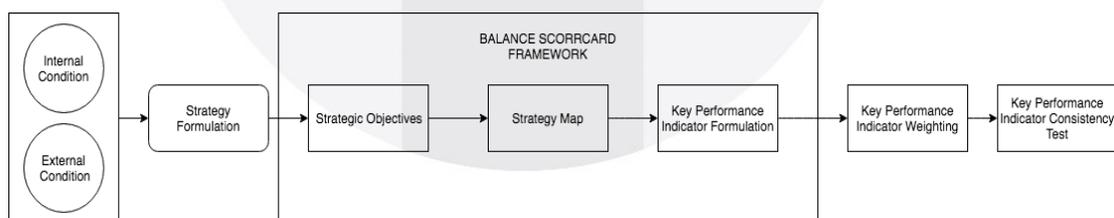


Figure III.1 Conceptual Model

In Figure III.1 this conceptual model shows that internal and external condition are initial state that can result a chosen strategy by formulating it with TOWS matrix. Strategies are translated in each of the four Balanced Scorecard perspectives in the form of strategic targets. The four perspectives of Balanced Scorecard are financial perspective, customer perspective, internal business process perspective, and growth and learning perspective. The strategic objectives that have been formulated are then described in a strategic map. The strategic map describes the interrelationships between strategic objectives and causal relationships that have been grouped based on the balanced scorecard perspective to achieve the main priorities of the strategy. Strategic objectives are then formulated into the Key Performance Indicator as a performance measurement indicator that still categorized in the Balance Scorecard perspective. Next, the formulated KPI will be given weight according to priority level using AHP. After all KPI given weight next is the consistency test of the weight on each KPI to see the consistency of answer from respondents.

III.1 Data Processing

The following is Table III.1 shows the internal factors of the company's based on SWOT analysis on PT Bina Karya Annual Work Report.

Table III.1. Company Internal and External Condition

	STRENGTH	WEAKNESS
INTERNAL	<ol style="list-style-type: none"> 1. Experienced in particular for the work of services: Planning, Supervision, Construction Management & Studies mainly on areas: Building & Transport. 2. Standardization of Work Procedures ISO 9001:2015 & OHSAS 18001: 2007. 3. Has a definite organizational structure (clear command and responsibility lines). 4. Company already has no tax debt. 	<ol style="list-style-type: none"> 1. High overhead cost because of majority of permanent employees are in the supporting area. 2. The company's experience in the field of water resource is not enough. 3. The number of certified weirs, dams and roads owned by the company is not enough.
	OPPORTUNITY	THREATS
EXTERNAL	<ol style="list-style-type: none"> 1. Increased in infrastructure budget fund from 2017 to 2018. 2. Early start on pre-auctions projects and activities in 2018. 3. Economic growth prompted private sector to invest. 4. Standard guidelines RAB 2017 as a reference covering direct cost. 5. Increased in remuneration of personnel direct cost. 6. Synergy utilization of BUMN companies. 7. Targets in infrastructure development in year 2018. 	<ol style="list-style-type: none"> 1. Free competition with foreign consultant. 2. Growth In terms of number and qualifications in consultant business.

III.1.1 Strategy Formulation

Strategy formulation is form based on SWOT analysis that has been conducted by combining indicators contained in Strength, Weakness, Opportunity and Threat. TOWS Matrix is used to combine those indicators to produce strategies. The resulting strategy will be used as a reference to formulate the strategic objectives. The following strategies are the result of Matrix TOWS shows in table III.3:

Table III.1 TOWS Matrix

<p style="text-align: center;">INTERNAL</p> <p style="text-align: center;">EXTERNAL</p>	<p>Strength</p> <ol style="list-style-type: none"> 1. Experienced in particular for the work of services: Planning, Supervision, Construction Management & Studies mainly on areas: Building & Transport. 2. Standardization of Work Procedures ISO 9001:2015 & OHSAS 18001: 2007. 3. Has a definite organizational structure (clear command and responsibility lines). 4. Company already has no tax debt. 	<p>Weakness</p> <ol style="list-style-type: none"> 1. High overhead cost because of majority of permanent employees are in the supporting area. 2. The company's experience in the field of water resource is not enough. 3. The number of certified weirs, dams and roads owned by the company is not enough.
<p>Opportunity</p> <ol style="list-style-type: none"> 1. Increased in infrastructure budget fund from 2017 to 2018 2. Early start on pre-auctions projects and activities in 2018 3. Economic growth prompted private sector to invest 4. Standard guidelines RAB 2017 as a reference covering direct cost 5. Increased in remuneration of personnel direct cost 6. Synergy utilization of BUMN companies 7. Targets in infrastructure development in year 2018 	<ol style="list-style-type: none"> 1. Expand profitability opportunities (S1, O1) 2. Expanding market share and increasing market research (S1, O3) 3. Develop diversification and innovation of services in order to meet the 2018 infrastructure development target. (S1, O7) 	<ol style="list-style-type: none"> 1. Improve cost efficiency by cooperating with other State-owned enterprises (W1, O6, O7) 2. Establish partnership with other State-owned companies to meet target infrastructure development in 2018. (W2, O6, O7)
<p>Threat</p> <ol style="list-style-type: none"> 1. Free competition with foreign consultant 2. Growth In terms of number and qualifications in consultant business 	<ol style="list-style-type: none"> 1. Maintain customers by making excellence as a competitive strategy. (S2, T1) 2. Improve operational service quality as a competitive strategy (S2, T2) 3. Manage brand corporate image as competitiveness (S1, T1) 	<ol style="list-style-type: none"> 1. Developing quality and capability of employees in accordance with the development of the industry in national and international scale. (W3, T1, T2)

The results of the company's internal and external conditions that have been formulated into a strategy using the TOWS matrix can be further identified by categorizing these strategies based on four perspectives on the balanced scorecard shows in table III.4:

Table III.2 Strategy on BSC perspective

Perspectives	Strategy Code	Strategies
Financial	SF.1	Expand Profit opportunities
	SF.2	Improve cost efficiency by cooperating with other State-owned enterprises
Customer	SC.1	Expanding market share
	SC.2	Maintain customers by making excellence as a competitive strategy.
	SC.3	Manage brand corporate image as competitiveness with other companies
Internal Business Process	SI.1	Develop diversification or innovation of services in order to meet the 2018 infrastructure development target
	SI.2	Held in a partnership with other State-owned companies to meet target infrastructure development in 2018
	SI.3	Improve operational service quality as a competitive strategy
Learning and Growth	SL.1	Developing quality and capability of employees in accordance with the development of the industry in national and international scale

III.1.2 Strategic Objectives Formulation

Based on the resulting strategy and then has been grouped into four perspectives in the balance scorecard, the strategy has been subsequently determined strategic objectives to define the points to be achieved and be the top priority in each strategy.

To make ease and facilitate the identification of strategies and strategic objectives, a coding system was developed. The code is to show links from perspective until KPI later. For example, SF.1 where S is stands for strategy and F stands for Financial perspective. It means that SF.1 is the first strategy financial. For strategic objectives the code use is SOF.1.2 means that SOF is strategic objectives financial, the number 1 it refer to the first strategy from financial perspectives, the number 2 refer to second strategic objectives from the first strategy in financial perspectives

III.1.3 Strategy Map

Based on strategic objectives that has been grouped according to four perspectives in balanced scorecard, next is to formulate the strategy map. Strategy map is a figure that will give conception of main priority for every strategy in form of strategic objectives displayed in a cause and effect relationship between each strategy. According to (Mulyadi, 2001) in strategy map show the process of intangible assets that will affect the tangible assets such as employee competences, customers and internal process business towards tangible assets which is financial aspect. Here is the strategy map formulated shows in figure III.2:

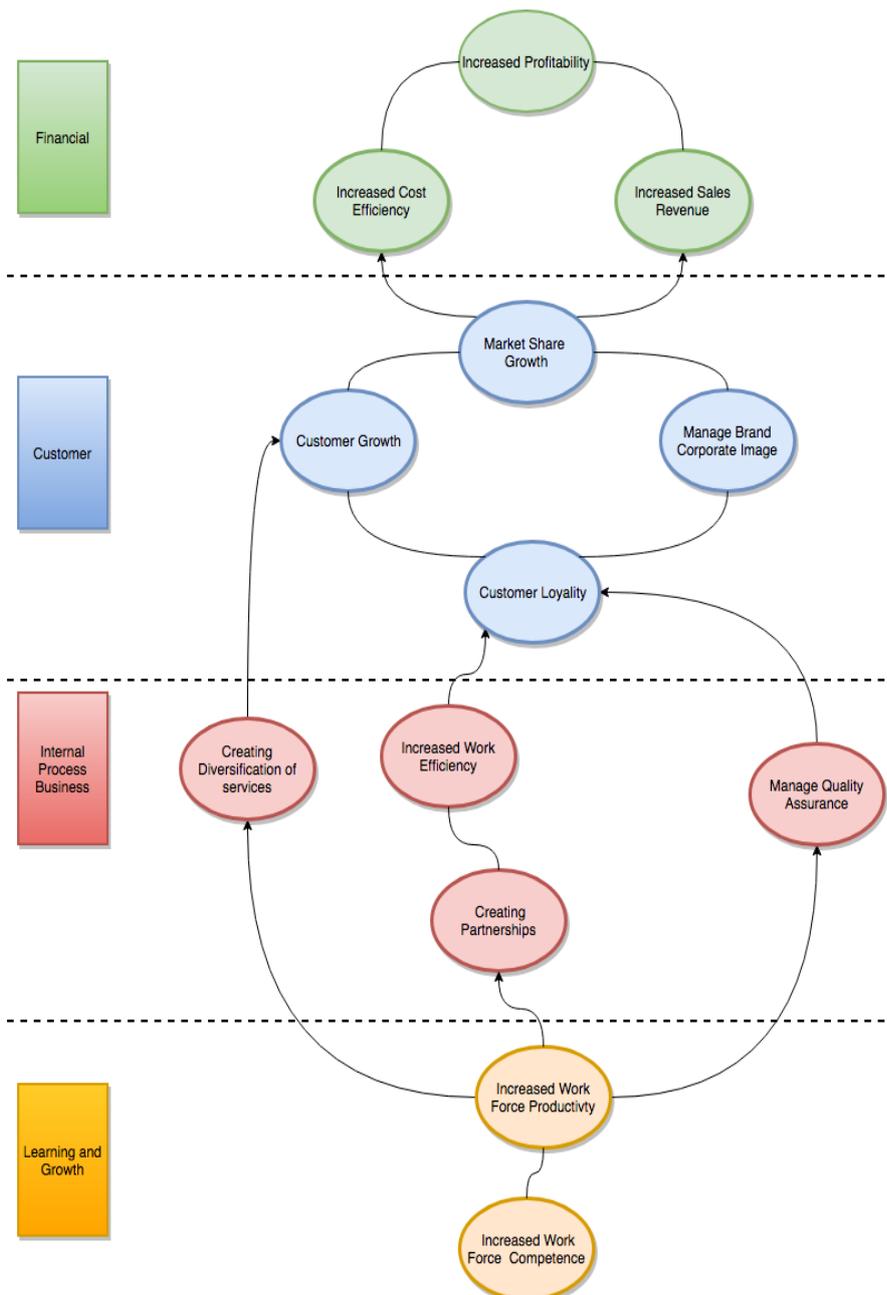


Figure III.2 Strategy Map

III.1.4 Key Performance Indicator Formulation

KPI is a key indicator of quantitative measures used to measure and compare performance in order to achieve the vision and mission of the Company. KPI is formulated based on strategic objectives. The formulated KPI should be relevant to the pre-defined strategic objectives.

Financial perspectives

According to (Kaplan & Norton, 1996) the core financial measures on financial perspective are Return-on-investment/economic value-added, profitability, revenue growth and cost reduction productivity those are align with the strategic objectives chosen in financial perspective which are increased profitability, increased sales revenue and increased cost efficiency. Here are the indicators to measure company’s performance based on strategic objective:

For strategic objective increased profitability, the main measure indicators are net profit margin, Return on Investment, Return on Equity and Return on Assets. Those indicators will be measure yearly. These indicators

calculate the rate return on towards company's investment, Owner's Equity and Company's Assets. These indicators also used in study of performance management that has been conducted in PT Adhi Karya persero by (Christina & Sudana, 2013)

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Net Sales Revenue}} \times 100\% \dots \dots \dots (1)$$

$$\text{Return on Investment} = \frac{\text{EAT}}{\text{Investment}} \times 100\% \dots \dots \dots (2)$$

$$\text{Return on Equity} = \frac{\text{EAT}}{\text{Owner's Equity}} \times 100\% \dots \dots \dots (3)$$

$$\text{Return on Assets} = \frac{\text{EBIT}}{\text{Total Assets}} \times 100\% \dots \dots \dots (4)$$

For strategic objective increased sales revenue, the main measure indicator is the sales revenue current year. This indicator will be measure yearly and it is also used in the study of performance management that has been conducted in PT Adhi Karya persero by (Christina & Sudana, 2013)

For strategic objective increased cost efficiency, the main measure indicator that represent the strategic objective is the Cost of Goods Sold ratio that measure COGS value towards company revenue with the reduction of cost productivity that suggested by (Kaplan & Norton, 1996)

$$\text{Cost of Goods Sold Ratio} = \frac{\text{Current Cost of Goods Sold}}{\text{Total Business Revenue Current Year}} \times 100\% \dots \dots \dots (5)$$

Customer perspectives

According to (Kaplan & Norton, 1996)the core customer perspective measurements are market share, customer acquisition, customer retention and customer satisfaction. Here are the indicators to measure company's performance based on strategic objective:

For strategic objective market share growth, the main measure indicator is the market share of the company itself. The market share represents the company position in customer perspective. This indicator is generic measurement (Kaplan & Norton, 1996)

$$\text{Market Share} = \frac{\text{Amount of contract won}}{\text{Amount of tender participated}} \times 100\% \dots \dots \dots (6)$$

For strategic objective customer loyalty, the main measure indicator is the customer retention rate to see the percentage of re-order project from customers. This measurement is also stated as generic measurement in core customer measure (Kaplan & Norton, 1996)

$$\text{Customer Retention Rate} = \frac{\text{Amount of customer current year}}{\text{Amount of customer previous year}} \times 100\% \dots \dots \dots (7)$$

For strategic objective customer growth, the main measure indicator is the customer acquisition rate to see the percentage of new customer that use service offered by the company (Kaplan & Norton, 1996)

$$\text{Acquisition Rate} = \frac{\text{Amount of customer current year} - \text{customer previous year}}{\text{Amount of customer previous year}} \times 100\% \dots \dots \dots (8)$$

For strategic objective manage brand corporate image, the main measure indicator is the awards achieved by the company. This indicator will show how well the company keep and improve their performance in order to resulting good brand image of the company. According to (Christina & Sudana, 2013)If the awards received by the company increase each year, then it can reflect the customer satisfaction served by PT Bina Karya Persero as a professional company that can maintain the quality as promised. Conversely, if the amount of award decreased, then this shows a diminished image and reputation for PT Bina Karya Persero.

Internal Process Business perspective

In internal process business perspective based on (Kaplan & Norton, 1996) there are three principle business process: innovation, operation and post-sale service. Here are the indicators to measure company's performance based on strategic objective:

For strategic objective development diversification of services, the main measure indicator is the amount of service diversification that company can provide which align with infrastructure target 2018. This development includes innovation of service that will trigger company to improve their operation process. The more innovations the company makes, then this can be a sign that the company is always looking for new breakthroughs that have never done by competitors. Furthermore, more new breakthroughs made by the company, it will further strengthen the company's position to get a patent on innovations made. (Christina & Sudana, 2013)

For strategic objective creates partnerships, the main measure indicator is the number of partnership established with other state-owned company. The indicator exists in order to support the policy of state owned utilization and also can help company to learn from other company in order to improve company operational performance.

For strategic objective manage quality assurance, the main measure indicator is the amount of complain received by the company from the customer. This indicator indicates the customer response towards services given by the company. The less complain received means that the services given was meet the customer expectation.

For strategic objective increased work efficiency, the main measure indicator is the rate of punctuality. Which means the percentage of work that has been completed on time due to the agreement with customer. If the rate of punctuality is high it reflects that the company work efficiently to complete the project.

$$\text{Punctuality Rate} = \frac{\text{Number of project completed on time}}{\text{Total project}} \times 100\% \dots \dots \dots (9)$$

Learning and Growth Perspective

In Learning and Growth perspective the objective is provide source to support and achieve objectives in the three scorecard perspectives (Kaplan & Norton, 1996) Therefore, in learning and growth perspective most common indicator used are employee productivity, employee satisfaction and employee retention. Here are the indicators to measure company's performance based on strategic objective:

For strategic objective increased work force productivity, the main measure indicator is the employee productivity itself toward sales revenue that company gained in current year. The simple way to measure productivity is business revenue towards number of employee (Kaplan & Norton, 1996). As employees and the organization increase their effective in selling a higher volume and higher value-added set of products and service the revenue per employee should increase as well.

$$\text{Employee Productivity} = \frac{\text{Sales Revenue}}{\text{Number of Employees}} \dots \dots \dots (10)$$

For strategic objectives increased in work force competences the measurement indicators are certified employee in international scale, certified employee in national scale, employee retention rate and the amount of training provided by the company that align with company needs. Those indicators are method to developing work force to support the previous indicator employee productivity.

Next is the recapitulation on weighting calculation for every criterion using AHP. Weights and consistency tests are conducted on each perspective, strategy, strategic objectives, and KPI. This is done because each perspective, strategy, strategic objectives, and KPI have different importance level. The weighting and consistency test for each instrument is done by using AHP pairwise comparison ratio. Weighting is done by filling out questionnaires by 6 (six) people who are Senior Managers in the company. The result of the weighting is then processed using Microsoft Excel software. The calculation recapitulation result as follows:

Table III.3 Normalization Weight

Normalization Weight							
Perspectives	Weight	Strategy	Weight	Strategic Objectives	Weight	KPI	Weight
Financial	30%	Expand Profit Opportunities	19%	Increased Profitability	12%	Net Profit Margin	2%
						Return on Investment	3%
						Return on Equity	4%
				Return on Assests	3%		
		Increased Sales Revenue	7%	Sales Rvenue	7%		
Improve cost efficiency by cooperating with other State-Owned Enterprises	11%	Increased Cost Efficiency	11%	Cost of Goods Sold Ratio	11%		
Customer	21%	Expanding market share	9%	Market Share Growth	9%	Market Share	9%
		Maintain customers by making excellence as a competitive strategy	6%	Customer Loyalty	3%	Customer Retention Rate	3%
				Customer Growth	3%	Customer Acquisition Rate	3%
		Manage brand corporate image as competitiveness with other companies	6%	Manage Brand Corporate Image	6%	Amount of Awards Received	6%
Internal Business Process	29%	Develop diversification or innovation of services in order to meet the 2018 infrastructure development target	10%	Develop Diversification of Service	10%	Amount of Service Diversification	10%
		Establish partnership with other State-owned companies to meet target infrastructure development in 2018.	7%	Create Partnerships	7%	Amount of Established Partnership	7%
		Improve operational service quality as a competitive strategy	12%	Manage Quality Assurance	5%	Amount of Complain Received	5%
				Increased in Work Efficiency	7%	Punctuality Rate	7%
Learning and Growth	20%	Developing quality and capability of employees in accordance with the development of the industry in national and international scale	20%	Increased Work Force Productivity	10%	Employee Productivity	10%
				Increase Work Force Competence	10%	Amount of Training Provided	3%
						Employee Retention Rate	2%
						Amount certified employee in international scale	2%
						Amount certified employee in national scale	3%

Table III.5 shows that the weighting result for every perspective, strategy, strategic objectives and KPI. For perspective, the financial perspective has the highest weight. It means that the company emphasizes financial aspect that relates with achieving financial target of the company.

Next for the strategy shows that the strategy developing quality and capability of employees in accordance with the development of the industry in national and international scale has the greatest weight that is 20%. This means that the company put high priority on this strategy to help achieving their vision and mission.

For strategic objectives shows that strategic objectives increased profitability has the highest weight 12% among another strategic objective. It means that the company considers increased profitability give most significant impact as strategic objective on company effort to support achieving their vision and mission.

The result of KPI weighting shows that KPI Cost of Goods Sold Ratio is the KPI that has the highest weight 11%. Means that company should prioritize the success of achieving this KPI. This indicator measures efficiency ratio of how much cost that company must pay to earn sales income.

Next, table III.6 shows the comparison between indicator existing that came from Statement of Corporate Intent. The number of indicators that exist are 25 that categorized into five perspectives that are Financial and Market, Customer and Market, Production Process, Work Force and Leadership and Governance. For the suggestions, the total number of indicators are 19 that categorizes into four perspectives in BSC framework.

Table III.4 Indicator Comparison

Existing		Suggestion	
Perspectives	KPI	Perspectives	KPI
Financial and Market	Business Revenue	Financial	Net Profit Margin
	Business Profit		Return on Investment
	Net Profit before comprehensive		Return on Equity
	TATO		Return on Assets
	ROI		Sales Revenue
	ROA		Cost of Goods Sold Ratio
	ROE	Customer	Market Share
	EBITDA Margin		Customer Retention Rate
	Net Profit Margin		Customer Acquisition Rate
Current Ratio		Number of Awards Received	
Customer and Market	Punctuality	Internal Business Process	Amount of Service Diversification
	Customer Satisfaction		Amount of Established Partnership
Production Process	EBITDA/ Interest		Amount of Complain Received
	COGS ratio towards Sales		Punctuality Rate
Work Force	Number of Certified Employee	Learning and Growth	Employee Productivity
	Employee Productivity		Amount of Training Provided
	Net Profit per Employee		
Leadership and Governance	Good Corporate Governance		Employee Retention Rate
	KPKU score		Amount certified employee in international scale
	Compliance level within Portal BUMN		
	Capital Expenditure		Amount certified employee in national scale
	Synergy BUMN		
	Distribution of Partnership Program Fund		
	Distribution of Environmental Development Fund		
Return rate of partnership program			

For perspectives on suggestion author purpose the perspective according to BSC frame work that relates the intangible aspect to support the achievement of tangible aspect in the financial perspective that as said above already proven in many companies can increase the managerial performance.

For indicator measures, there are several new indicators that derived from strategic objective for example in the customer perspective the suggestion measurement describes and measure the importance of market share, customer retention, customer acquisition, and number of awards received that will affect the financial perspective in a way of company position in the market. In business process suggestion, the indicator measure on how the company diversify, established partnerships, receive complain and punctuality rate that will reflect company's performance on running business process in terms of innovation, built partnership, minimize complain and punctuality on project completion. But, in the existing production process perspective it measures the utility on cost usage.

Next, the deference between suggestion performance measurement and existing is between learning and growth and work force perspective. In the learning and growth perspective the employee retention rate and is measure assure that employee that has been trained did not resign immediately. Also, it measures the certified employee based on the international or national certification that employee followed so it can help employee to develop their skill and increase their competence based on external condition against national and international competitor.

IV. CONCLUSION

The strategy formulated from internal and external conditions of PT Bina Karya Persero as much as nine strategies. Based on the strategy formulation, those strategy resulting 13 (thirteen) and then those strategic objectives derived into 19 (nineteen) quantitative indicators that become KPIs. Based on AHP calculation the Financial perspective is perspective that has the highest weight 30% means that financial perspective is the priority for perspective criteria. Support by strategic objectives, the strategic objectives increased profitability is the strategic objective that has the highest weight 12% means that increased profitability is the objective that most affecting company's conditions. For KPI, indicators that has the highest value 11% is COGS ratio means that by minimizing the ratio of COGS towards sales revenue will mostly affecting company's effort in achieving company's vision and mission.

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