

STRATEGY MAP FORMULATION FOR DESIGNING STRATEGIC PLAN IN INDONESIAN TRANSPORTATION ORGANIZATION

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Abstract

This research describes a tool for identifying objectives as a part of the design of strategy maps, based on the Balanced Scorecard (BSC). Strategy map is a simple tool in strategic planning to translate strategy from organization's vision and mission. This paper constructs the simple strategy map from Balanced Scorecard, due to the difference performance measurement from individual level to corporate level that applied in transportation organization in Indonesia. The result of this paper defines variables and indicators from strategic objectives in strategy map.

Keywords: Balanced Scorecard, Strategic objectives, Strategy map

1. Introduction

Robert Kaplan and David Norton believed that measurement was as fundamental to managers, as it was for scientists. Performance measurement is only one way of managing performance (Halachmi, 2005). The subject of performance measurement has attracted a lot of attention in the literature of business and operations strategy (Neely, 1999; Avella, Fernandez&Vazquez, 2001; Unahabhokha, Platts&Tan, 2006; Quezada et al., 2009). When you can measure what you are speaking about, and express it in numbers, you know something about it. (Kelvin, 1883).

The purpose of using performance measurement framework is to provide a consistent approach for systematically collecting, analyzing, utilizing and reporting on the performance of organization (Canadian Transportation Agency, Performance Measurement Framework). To ensure the organization agreed-upon objective will lead to the desired result and can be measured and/or evaluated, it is supposed to use five criteria of good measurement of performance indicators; *specific, measurable, achievable, realistic/responsible, time based* (SMART). (Doran, 1981).

The benefits of conducting performance measurement in an organization are to identify whether the organizations performance are align to organization's vision and mission, determines which improvement needs to be made, etc.

One of the State-owned Enterprises in transportation industry, has been increased the total profit of organization significantly from the previous year. The increase was resulted from the successful implementation of innovations aimed to improving customer service. The organization has been transforming their performance by adapted the organization's culture to the transformational leadership action in order to improve the performance of the organization. Factors which influence the performance in transportation industry are employee's involvement, organizational culture, organization reputation, etc. Several tools have adopted by many organizations to measure their performance for instance, Balance Scorecard (BSC), Malcolm Baldrige, IPMS.

2. Literature Review

Strategic planning is key success for company to achieve its vision and mission. Robert Kaplan and David Norton was proposed Balanced Scorecard (BSC) as strategic management tools to translate vision and mission into strategy for the organization. According to Kaplan and Norton (2007), the BSC relies on four processes to bind short-term activities to long-term objectives. The four processes and advantages from each process explained below.

1. Translating the vision
Helps managers build a consensus around the organization's vision and strategy
2. Communicating and linking
Let managers communicate their strategy up and down the organization and link it to departmental and individual objectives
3. Business planning
Enables companies to integrates their business and financial plans
4. Feedback and learning
Gives companies the capacity for strategic learning

It is important for organization to define its vision and mission clearly in order to translate the strategy easily. Furthermore, strategic planning could drive organization's performance through implementation of the strategy. Generally, the creation basis of all strategic planning methods is competitive environment and strategic planning is used to achieve goals and vision, while the organization is competing with its competitors (Tohidi, Jafari&Afshar, 2010).

Strategy map is a tool for communicating organization's strategy to all stakeholders. Moreover, strategy map is description of strategic objective in each perspective of BSC that has cause-and-effect each other and could drive organizational performance. They give employees a clear line of sight into how their jobs are linked to the overall objectives of the organization, enabling them to work in a coordinated, collaborative fashion toward the company's desired goals (Kaplan & Norton, 2000). The importance of measuring the performance from a strategic perspective has motivated the improvement of the process of implementing a balanced scorecard. The significance of this work is that it proposes a simple tool that helps the creation of a strategy map (Quezada et al., 2009).

Werner and Xu (2012) argued that the balanced scorecard helps enterprise leaders manage their operations and helps them execute their strategy and strategy maps help inform employees of the company's strategy and objectives. Mišanková and Kočíšová (2014) point out that Definition of a good strategy is not easy, formulation of the strategy and related objectives is a difficult process, as well as the process of implementation of the strategic objectives into the business plan.

3. Methodology

Initially, survey and discussion were conducted with key personnel to the company concerned with gaining an insightful view and knowledge about the organization. Based on the survey, discussion and Management Contract review, the researcher define that the company conduct performance management system with different tools between the company and individual measurement. For the organization, the performance measurement used is Malcolm Baldrige and for the individual, performance measurement used is Balanced Scorecard. The researcher found the barrier from the performance measurement applied that the strategy not linked to the departmental, team, individual and organizational goals.

The steps used is composed of the following (Quezada et al., 2009):

1. *Definition of vision and mission*: in this step the company establishes the organizational identity (vision) and where it wants to go (mission).
2. *Identification of strategic themes*: they provide vertical links through the four dimensions of the Balanced Scorecard, seeing the strategy as a parallel and complimentary theme (Kaplan & Norton, 2006).
3. *Definition of general objectives*: They are generated from the vision and mission of the company.
4. *Internal and External Analysis*: strategic internal and external analysis is carried out, through a SWOT analysis.
5. *Generating of specific objectives*: Specific objectives are derived from a modified SWOT matrix. The consistency between the specific strategic objectives with the organizational strategy and the general objectives derived from the vision and mission should be revised.

Data

Balanced Scorecard translates an organization's vision, mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system.

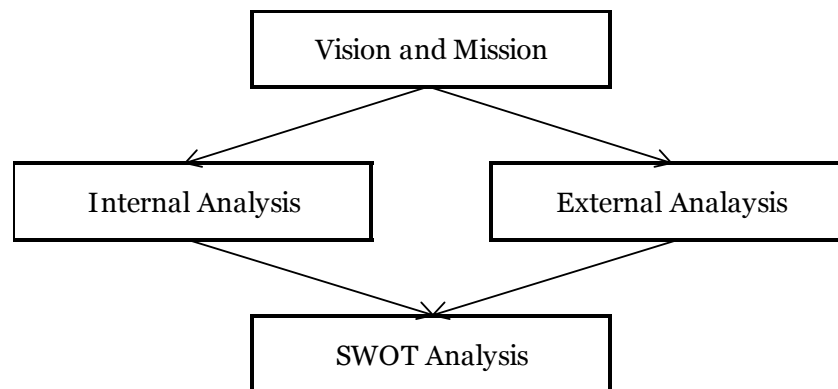


Figure 1 Identify SWOT Analysis

Vision and Mission

Literally, vision describes what the organization wants to be and mission describes why the organization existed. According to the company vision and mission, the organization mainly focused on customer service, stakeholder's expectation, safety, punctuality and comfort. Furthermore, the researcher can derive the indicators used in Balanced Scorecard based on the main purposes from vision and mission of the organization.

Internal Analysis

The internal analysis is useful as it determines what the organization's capability, competencies, core competencies and competitive advantages. Internal analysis also defines the key success factor, strengths and weaknesses of the organization. (See Appendix 1)

External Analysis

PEST Analysis (Political, Economic, Sociocultural and Technological) are part of the business unit strategy to analyze the external environment or macro environment (Wheelen et al., 2012, p. 101). (See Appendix 2)

SWOT Analysis

SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis undertaken from definition of vision and mission, internal and external analysis of the organization. The SWOT has many benefits. It is easy to use, it is proposition oriented and it is integrative. The SWOT analysis can be used for generating both the strategies and the strategic objectives in a consistent way (Quezada et al., 2009).

Table 1: SWOT Analysis

SWOT	
Strengths	Summarized from
In 2013 the company total profit increase 32% from 2012	Company Resource
Healthy capital structure	
Decentralized financial report	
Monopoly in the field of railways as the largest one in Indonesia	
One of the stated owned company that at least 51% of the stock owned by Government	
Wide coverage that connecting several cities and provinces in Indonesia	
Known as the the economical and free from traffic in-land transportation	
In cooperation with several travel agents and facilitate easy payment	
Integrity, Responsive and Service oriented employee	
Weaknesses	Company Resource
Having problem in on time arrival and departure of the fleet	
Number of accident still high and can not provide zero accident	
Opportunities	PEST Analysis
The willingness of Government to develop public transportation infrastructure	
The increase of human population	
The growth of industrialization	
The increase of Information and Technology users	
Threats	PEST Analysis
Many strong competitors in land transportation business area	

4. Analysis

Balanced Scorecard translates an organization's vision, mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system. After cascading from the vision and mission, to the internal and external analysis, the researcher derives the strategic objectives as the output of Balanced Scorecard.

Based on the perspectives applied in Balanced Scorecard, the strategic objectives defined begin from Learning and Growth where the company had to increase the ability to the employees. Since the organization core business is on services, the objectives must in-line with the core business of the organization for instance create customer-focused culture and develop strategic competencies by providing proper training and development to the employee frequently. Besides that, by attracting and retaining top talent, this increases employee satisfaction and they are able to make employees more engaged to the organization.

As one of important capital in the organization, enhance and empowering employee able to increase the performance in internal process. Having enough knowledge and insight about the business, the organization able to delivered service excellent to the customers. As the one of the largest transportation organization, the researcher found that the organization was able to delivered service with zero accident and on time departure and arrival as a part of Internal Process perspective.

The aim of the organization is to gain profit by fulfilled the customers need. Conduct service excellent in the internal process able to increase customer satisfaction and relationship between the organization and the customer. The result is that the customer becomes loyal to the organization and conducts the customer retention.

Initially, the researcher found that providing service excellence to the customers able to increase the sales and also capture new customers from review the loyal customers that satisfied to the service of the organization. Combine with the efficiency from the internal able to conduct higher profit to the organization.

Table 2: Strategy Map

Perspective	Strategic Objective	Variable	Indicator
Financial Perspective	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Reduce Operational Cost</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Increase Sales</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Capture New Customers</div> </div>	Profitability	Revenue Growth Asset Growth EBITDA Margin
Customer Perspective	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Service Excellence</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Increase relationship with customers</div> </div>	Customer Satisfaction	Customer Satisfaction Index (CSI) Customer Complaint
Internal Process Perspective	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Deliver service with zero accident</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Deliver service with on-time departure & arrival</div> </div>	Operational	Average On-time Departure Average On-time Arrival Number of Fleet Number of Accident
Learning & Growth Perspective	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Create customer-focused culture</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Develop strategic competencies</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Attract & retain top talent</div> </div>	Employee Improvement Employee Satisfaction	Number of Training Innovation Employee Satisfaction Index Employee Productivity

Conclusion

- The Balanced Scorecard (BSC) applied in organization to construct and execute their strategy. The organization communicates the strategy objectives through strategic map to the stakeholders.
- The aim of using Balanced Scorecard (BSC) in this research is to link performance measurement tool from the individual level to corporate level, since the organization has been applied Balance Scorecard for individual level and Malcolm Baldrige in corporate level. Furthermore, the difference perspectives between both of tools become a barrier to communicate the strategy to the employee.

References

- i. Avella, L., Fernandez, E.&Vazquez, C.J., 2001. Analysis of Manufacturing Strategy as an Explanatory Factor of Competitiveness in the Large Spanish Industrial Firm. *International Journal of Production Economics*, 72, pp. 139–157
- ii. Halachmi, A.,2005. Performance Measurement is Only One Way of Managing Performance. *International Journal of Productivity and Performance Management*, 54(7), pp. 502-516.
- iii. Kaplan, R. & Norton, D.P.,2000. Having Trouble With Your Strategy? Then Map It. *Harvard Business Review*, pp. 167-176.
- iv. Kaplan, R.S. &Norton, D.P., 2006. *Alignment: Using the Balanced Scorecard to Create Corporate Synergies*. Harvard Business School Press
- v. Kaplan, R. S. & Norton, D. P.,2007. *Using the Balanced Scorecard As A Strategic Management System*. Harvard Business Review.
- vi. Kelvin, L.,1883. Electrical Units of Measurement. *PLA*, 1, pp. 18-83.
- vii. Neely, A.,1999. The Performance Measurement Revolution: Why Now and What Next. *International Journal of Operations & Production Management*, 19(2), pp. 205–228.
- viii. Quezada, L. E., Cordova, F. M., Palominos, P., Godoy, K. & Ross, J.,2009. Method for Identifying Strategic Objectives in Strategy Maps. *Int. J. Production Economics*, 122, pp. 492-500.
- ix. Tohidi, H., Jafari, A. & Afshar, A. A., 2010. Strategic Planning in Iranian Educational Organizations. *Procedia Social and Behavioral Sciences*, 2, pp. 3904–3908.
- x. Unahabhokha, C., Platts, K. &Tan, K.,2006. A Framework For Developing and Using A Predictive Delivery Performance Measuremet System. *International Journal of Manufacturing Technology and Management*, 8(4), pp. 308–329.
- xi. Werner, M. L. &Xu, F., 2012. Executing Strategy with the Balanced Scorecard. *International Journal of Financial Research*, 3(1).

APPENDIX 1

No	Resources						
	Tangible				Intangible		
	Financial	Organizational	Physical	Technological	Human	Innovation	Reputational
1.	In 2013 the company total profit increased 32% from 2012	Monopoly in the field of railways as the largest one in Indonesia	The company already has a fairly wide rail that connecting many city and province in Indonesia	In the next few years, the company will add the fleet with the electric trains by having consortium with China	Customer Service Oriented	In cooperation with several online travel agents in order to give benefit to the customer	Known as the the economical and free from traffic in-land transportation
2	The annual budget plan area decentralized to each operating area in order to make the job does not accumulate in headquarter	One of the stated owned company that at least 51% of the stock owned by Government	The company provide fleet for passengers, cargo and tourist.	The company plan to develop airport train in several big cities in Indonesia	Enhance employee capabilities through development program	Facilitate easy payment as can be done at the nearest ATM and minimart	The trust from the customers increase after the transformation of the company
3	Healthy capital structure	Provide better service in railway transportation after transformation in 2013.	The company has enough fleet to give better service in railway transportation.		Have a clear job description and responsibility for each line and position		
4	Has other assets in the form of Government Land, Company Land, Potential Land, Managed Land.						
5	A Stated Owned Company that the assets own by government.						

APPENDIX 2

No	Perspective	Fact and Prediction	Impact	Summary	Industry Key Success Factor
1	Political	1. The willingness of Government to develop public transportation infrastructure	1. Giving opportunity to invest in fleet	Government has supported public transportation by developing public transportation infrastructure	1. Government Regulation. 2. Fuel efficiency . 3. Improving service quality level to fulfill customer needs.
2	Economic	1. The growing of industrialization 2. World oil price fell in recent month due to over production of oil and weakening demand of world oil	1. Highly needs of transportation 2. Efficiency of operational cost	The market of transportation business is potential but is has challenge in the operation of the business	
3	Sociocultural	1. The growth of the population increase rapidly 2. Public transportatin not popular in Indonesia	1. Highly needs of transportation facility and increasing competition between competitors 2. Low of use of public transportation	Welfare equality and increase of lifestyle needs increase the production and distribution of goods.	
4	Technology	1. The rapid growth of IT users	1. Easy to get information and transaction activity	Competition in this industry will lead the company to improve the technology	

