

Implementation of Balanced Scorecard as a Performance Measurement Tool in Bridging Strategy with Implementation at PT PLN (Persero) Bukittinggi Generation Implementation Unit

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Abstract

PT. PLN Bukittinggi Generating Unit has a way to increase service productivity with Organizational Performance Value, Organizational Performance Value is the evaluation of real work results with quality and quantity standards produced by PT. PLN UP Bukittinggi. Basics of assessment using Key Performance Indicator, from six perspectives used as a measurement tool to assess the performance of PT. PLN UP Bukittinggi the author found that the customer perspective is not a priority in the Organizational Performance Value of PT. PLN UP Bukittinggi. In contrast to the concept of the Balanced Scorecard, the use of the Balanced Scorecard concept was found to be effective in knowing the underlying problems that exist and identifying opportunities for improvement. PT. PLN UP Bukittinggi has not implemented performance measurement using the Balanced Scorecard, but the writer wants to do research on the performance measurement system at PT. PLN UP Bukittinggi if using the Balanced Scorecard whether an increase or decrease in performance. Problems that are the object of research include: (1) the application of the Balanced Scorecard model is able to measure the performance of PT. PLN Bukittinggi Generation Unit correctly and accurately, (2) steps that must be taken in achieving the strategic targets set, (3) the application of the Balanced Scorecard in PT. PLN Bukittinggi Generating Unit in line with the Company's Vision and Mission. The method used in this research is descriptive exploratory research through a case study approach, the type of data used is primary data is data obtained through field research and secondary data, existing data and obtained from other sources that are still related to the research object collected directly or indirectly.

Keywords

company performance, organizational performance value, balanced scorecard



I. Introduction

In most companies, financial performance is still used as a measure of their success in achieving strategic goals, even though the company does not realize that they will gradually lose their customers, employee performance declines and delays accompanied by inefficiencies in their business processes. Most of these companies only see an increase in earnings per share (EPS), increased sales (incremental sales), return on investment (ROI), return on equity, and increase in net income (Growth of Net Income). While supporting aspects to achieve financial goals are often overlooked such as customer satisfaction levels, new customer acquisition, customer retention, production process efficiency to personnel performance. Many tools are used to measure company performance, one of which is the Balanced Scorecard. The Balanced Scorecard is a tool for measuring company management performance by combining financial and non-financial aspects which can ultimately improve the company's decision-making process and problem-solving process (Kaplan & Norton, 1992).

PT. PLN (Persero) Bukittinggi Generation Unit is a state-owned company engaged in the electricity sector, with operational areas in West Sumatra which is tasked with operating and maintaining Hydroelectric Power Plants (PLTA). In carrying out its main tasks, PT. PLN (Persero) Bukittinggi Generation Unit requires a management control system that can assess performance accurately and responsively to environmental changes, especially excellent service to its sole customer, UIP3B Sumatra. One of the company's strategies to achieve the company's vision is to run the electricity business and other related fields, oriented towards customer satisfaction, company members, and shareholders.

PT. PLN Persero Bukittinggi Generation Unit has a way to increase service productivity with Organizational Performance Value, Organizational Performance Value (NKO) is an assessment of real work results with quality and quantity standards produced by PT. PLN Persero Bukittinggi Generation Unit. PLN Persero Bukittinggi Generation Unit is divided into six perspectives, namely customer perspective, product and process effectiveness perspective, HR perspective, financial and market perspective, leadership perspective, and asset management implementation. However, from the six perspectives used as measuring tools to assess the performance of PT. PLN Persero Bukittinggi Generation Unit, the author found that the customer perspective was not a priority in the NKO of PT. PLN Persero Bukittinggi Generation Unit. The use of the Balanced Scorecard concept was found to be effective in identifying existing fundamental problems and identifying opportunities for improvement. The Balanced Scorecard also reveals the contribution of PT PLN (Persero) Bukittinggi Generation Unit to performance improvement, and with the Balanced Scorecard, the performance of PT PLN (Persero) Bukittinggi Generation Unit can also be measured. PT PLN (Persero) Bukittinggi Generation Unit has not implemented performance measurement using the Balanced Scorecard, but the author wants to conduct research on the performance measurement system at PT PLN (Persero) Bukittinggi Generation Unit if using the Balanced Scorecard whether there is an increase or decrease in performance.

II. Review of Literatures

2.1 Strategic Management

Strategic management actually comes from the word strategy, which is a set of interrelated actions that must be taken, determined and implemented by managers with the aim of improving company performance (Hil and Jones, 2013), while Pitt and Koufopoulos (2012) added that strategy is a pattern of decisions in a company that determines and realizes objectives, targets to be achieved, goals, produces main policies and plans in achieving these goals, and defines the scope of the company's business that must be achieved, the type of economic contribution of the organization's human resources desired, and the nature of the economic and non-economic contributions that are desired to be created for the company's shareholders, employees, staff and community. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020) Parnell (2014) added that strategy is a top management plan in developing and maintaining competitive advantage.

2.2 Balanced Scorecard as a Performance Measurement Tool

Kaplan & Norton (1996) stated that the Balanced Scorecard measures organizational performance in each of four different but interrelated perspectives derived from the

company's vision, mission and strategy. The four perspectives should be able to answer the main questions, namely:

1. Finance perspective - How is success measured by our shareholders?
This means that from a financial perspective it only emphasizes increasing shareholder value, but is able to create sustainable value for the company's owners.
2. Customer perspective-How do we create value for our customers?
In this case, how does the company try to create value for their target customers. There are several strategies that can be used in creating value for the company's target customers, namely: Operational Excellence, Product Leadership, Customer Intimacy.
3. Process-At which processes must we excel to meet our customer and shareholder expectations?
In this perspective, it describes how strategies will be executed. Furthermore, this perspective tends to emphasize the improvement of crucial internal production and business processes so that they are expected to be in line with the desires and expectations of the company's shareholders and target customers (Norton et al, 2010). For example, short cycle time and high-quality production processes are needed to achieve expected on-time delivery and low prices. Therefore, measures such as process cycle time, defect rate and yields are important measures as the time needed to convert raw materials into finished goods.
4. Learning and Growth-What employee capabilities, information systems, and organizational capabilities do we need to continually improve our processes and customer relationships

2.3 Lagging Indicator and Leading Indicator

According to Kaplan & Norton (2001) leading indicators are measures that lead to the success of achieving the main measure (lagging indicator). Lagging indicators are a consequence of various actions previously taken (Niven, 2002), while leading indicators are strategic measures that lead to or act as triggers in achieving the value of the lagging indicator. For example, sales, company market share, cost efficiency, rate of return on fixed asset investment and so on are target indicators that must be achieved. While leading indicators are a trigger in realizing the main indicator, such as sales can be achieved with the time used by customers, the company's market share can be achieved with brand awareness and so on. So, leading indicators are special factors found in certain business units, where these performance drivers reflect the uniqueness of the business unit's strategy.

2.4 Strategy Map

A map becomes a natural thing in presenting the causal relationship between strategic objectives, for example, a chain of causal relationships from strategic objectives such as: employees who are well trained in quality management tools, will be able to reduce the process cycle time and negative impacts of the process, improvement and refinement of the company's business processes lead to shorter queue times and consumer waiting times, increased on-time delivery, improvements in quality felt by consumers result in increased consumer satisfaction, increased customer retention, which will ultimately drive increased company revenue and large profit margins. All of these objectives are related in a causal relationship that starts from the company's employees, continues through business processes and customers, which ultimately has an impact on achieving better sales performance (Kaplan & Norton, 2001).

2.5 Strategic Objectives

Strategic Objectives are only formulated in units that have a strategy map. SS must meet the following requirements:

- 1) Brief and clear SS statements are not in the form of paragraphs or sentences. Explanations of SS descriptions can be explained in the KPI manual. SS statements do not have multiple understandings and are in line with SS descriptions in the KPI manual.
- 2) Reflects ideal and realistic conditions to be achieved SS statements describe the conditions that should be achieved according to potential.
- 3) Written in the form of conditional statements. SS statements are qualitative (not quantitative). For example: Optimal tax revenue (qualitative).

2.6 Performance Assessment

Performance assessment is an assessment of the performance of the organization and employees on the realization of performance compared to the targets set in the monitoring period. The output of the performance assessment is in the form of Organizational Performance Value, Employee Performance Value and Employee Work Achievement Value.

III. Research Methods

The type of research conducted is exploratory descriptive research through a case study approach. Sekaran (2010) defines descriptive research as an assessment of a problem in the form of current facts from various populations. The purpose of exploratory descriptive research is to create a systematic and accurate picture of the facts, nature, relationships between aspects both qualitatively and quantitatively. In other words, this research is conducted through a problem-solving procedure by explaining the object or subject of research in a real company, where the data collected only applies specifically to the company that is the object of research or does not apply widely. Data collection uses several methods, namely: 1) Library research. Research conducted by collecting and studying theories related to the problems discussed from literature, journals, and books; 2) Field research. This field research is used to obtain primary data directly from the object to be studied through: a) Observation, direct observation of the object being studied and the situation on the object; b) Interviews, this interview method is carried out by asking questions directly to authorized officials.

IV. Results and Discussion

4.1 Comparison of Business Processes at PT PLN (Persero)

The main business processes at PT PLN (Persero) consist of 4 parts, namely:

1. Main Development Unit (UIP) is a business unit of PT PLN (Persero) which is tasked with building power plants and transmission networks. Where the power plants built are power plants with a capacity of more than 10 MW, either in the form of Hydroelectric Power Plants (PLTA), Steam Power Plants (PLTU), Gas Engine Power Plants (PLTMG), Diesel Power Plants (PLTD). The transmission built by UIP is a large capacity transmission of 70 kV along with the Main Substation (GI).
2. Main Generation Unit (UIK) is a business unit of PT PLN (Persero) which is tasked with generating and producing electricity. This business unit carries out the operation and maintenance of power generating machines owned by PT PLN (Persero). In the Sumatra system, the Main Generation Unit (UIK) is divided into two, namely the Southern Sumatra Main Generation Unit (UIK SBS) and the Northern Sumatra Main Generation Unit (UIK SBU).

3. The Main Transmission Unit (UIT) is a business unit of PT PLN (Persero) which is tasked with regulating the distribution of electric power from the generator to the Main Substation (GI) through the High Voltage Air Duct (SUTT) 70 kV - 150 kV and the Extra High Voltage Air Duct (SUTET) 500 kV. In the Sumatra system, it is divided into three work areas, namely the North Sumatra Load Control Unit (UPB), the Central Sumatra Load Control Unit (UPB), and the South Sumatra Load Control Unit (UPB).
4. Distribution / Regional Main Unit (UIW) is a business unit of PT PLN (Persero) which is tasked with distributing electricity from the Main Substation (GI) to customers through the 20 kV Medium Voltage Air Line (SUTM), and the 380 V / 220 V Low Voltage Air Line (SUTR), as well as conducting electricity buying and selling transactions to customers. This unit is also responsible for the operation and maintenance of equipment in the SUTM and SUTR in its working area. In the Sumatra system, it is divided into UIW Aceh, UIW North Sumatra, UIW West Sumatra, UIW S2JB (South Sumatra Jambi Bengkulu), UIW Lampung.

4.2 Vision, Mission, Values and Main Tasks of PT PLN (Persero)

In Article 3 of PLN's Articles of Association in 2008, it is stated that the objectives and business fields of PLN which are the Main Tasks of PT PLN (Persero) are to organize the business of providing electricity for the public interest in sufficient quantity and quality and to foster profits and carry out government assignments in the electricity sector in order to support development by implementing the principles of a limited liability company. In relation to the Main Tasks of PT PLN (Persero) above, PLN's vision is as follows: "To be recognized as a World Class Company that is Growing, Superior and Trusted by relying on Human Potential."

To carry out the Government's assignment in meeting electricity needs and referring to the vision, PLN has set the following mission:

1. Running an electricity business and other related fields, oriented towards customer satisfaction, company members, and shareholders.
2. Making electricity a medium to improve the quality of people's lives.
3. Striving for electricity to become a driver of economic activity.
4. Running environmentally conscious business activities.

4.3 Profile of Bukittinggi Generation Implementation Unit (UPK)

Bukittinggi Generation Implementation Unit is a PLN business unit under the Southern Sumatra Generation Main Unit (UIK SBS). Where PT PLN (Persero) Southern Sumatra Generation Main Unit (PLN UIKSBS) is a reorganization of PT PLN (Persero) Generation and Distribution of Southern Sumatra which was established in 1997. PLN UIKSBS was established based on the Decree of the Board of Directors of PT PLN (Persero) Number 177.K/010/DIR/2004 concerning the Organization of PT PLN (Persero) Southern Sumatra Generation. PT PLN (Persero) Bukittinggi Generation Implementation Unit (UPK) is located in the province of West Sumatra, all of its power generation machines are Hydroelectric Power Plants (PLTA) with a total capacity of 253 MW. Where the total of 253 MW consists of 3 Power Generation Service Units (ULPL), namely ULPL PLTA Singkarak (175 MW), ULPL PLTA Maninjau (68 MW), and ULPL PLTA Batang Agam (10.5 MW). UPK BKT supplies electricity to the Sumatra Main Distribution and Load Control Unit (UIP2S). In the Sumatran electric power system, UPK BKT is tasked with generating electricity at peak load (Peak Load) namely (17.00-22.00), this is because the volume of lake water which is the source of hydropower cannot be fully controlled by humans, especially during the dry season. During the rainy season, UPK BKT will be a

priority to bear the base load (Base Load) this is due to the abundant water supply to fill the volume of the lake which is the source of its power. In supporting the success of the implementation of the Balanced Scorecard at PT PLN UPK BKT, PLN UPK BKT is required to form a team to formulate a Balanced Scorecard model that is suitable for PT PLN UPK BKT which is measured using the four perspectives/viewpoints that have been discussed in previous chapters. Therefore, its application and implementation must be communicated from top to bottom by first being clarified in the company's organizational structure.

4.4 Weighting and Determination of Strategic Targets

The weighting carried out and determining strategic objectives in designing the Balanced Scorecard uses a management contract taken from the parent strategy of PT PLN UIK SBS. The strategy is then analyzed and several main strategies are taken that are in accordance with the conditions of UPK BKT. The appropriate strategies are then discussed and ambitious targets that may be achieved are determined. After being agreed upon, they are then determined and stated in the current year's management contract. Regarding the weighting technique, management discusses the amount of ambitious targets that may be achieved and an assessment is carried out regarding the reasonableness of the target. So in this study, the weighting has been determined using the polarization technique. The total weight of each group must be 100%, in the sub-group level 1 must also be 100%, the sub-group level 2 must be 100% and so on. A priority scale is carried out on performance that has a main contribution, supporting performance, and additional performance.

4.5 Performance Evaluation using Balanced Scorecard

The main step that the author took was to describe in detail the data acquisition in evaluating the performance of PT PLN UPK BKT. The following table illustrates the distribution of data acquisition with a measurable distribution in the four balanced scorecard perspectives.

4.6 Comparison of Growth and Learning Perspectives

From the 2018 performance data of UPK Bukittinggi, it is known that employee productivity is 12,498 MWh sold/employee where the target set is 8,450 MWh sold/employee. This shows that UPK Bukittinggi employees work beyond their targets so that they can achieve 147% of their targets. And this can also happen because electricity production at UPK Bukittinggi during 2018 increased due to the maximum utilization of lake water so that water discharge during the rainy season is very minimal. This can also happen because the PLTU is out of the system, so that the PLTA can operate as a baseload which makes UPK Bukittinggi operate longer. In 2019, employee productivity achievement decreased compared to 2018, where the value was 10,432 MWh sales/employee, decreasing by almost 2,100 MWh sales/employee. This may have occurred due to the relatively short rainy season during 2019, and also the factor that the PLTU that entered the system was also able to meet the needs of the Sumatra load so that the UPK Bukittinggi PLTA was more often on standby and not operated.

4.7 Internal Business Perspective Comparison

Internal business performance where there are two main components in the performance assessment, namely Products and processes where in 2018 it had very good performance. Based on the existing data, it is known that the target and realization have a difference where the realization of EFOR Niaga is 0.24% where the target is 0.60% has a

negative polarity, this shows that the generating equipment operated by UPK Bukittinggi in 2018 worked well, did not experience disruptions that caused the machine to not operate at an unplanned time, so that electricity production by UPK BKT PLTA machines ran smoothly. And as a result of the achievement in 2018 in 2019 the EFOR Niaga UPK Bukittinggi target was tightened to 0.33%, this shows optimism in managing the generator where if this target is reduced it is expected to provide reliability in its operation. And with the maximum effort of all employees at UPK Bukittinggi, the achievement of EFOR Niaga realization in 2019 was 0.19%.

4.8 Customer Perspective Comparison

To capture ideas, problems, and possible solutions, on Monday, November 25, 2019, Mr. Firman Ramdan conducted an internal online survey using the Mentimeter application with 25 respondents from 91 UPK Bukittinggi employees consisting of a majority of 20-35 years old, this shows that they are of productive age in various fields and have sufficient experience in power plant operations and this is important for mapping communication styles when dealing with anyone when working and interacting in the field.

4.9 Financial Perspective Comparison

Based on UPK Bukittinggi performance data in 2018, it is known that the BPP achieved was IDR 183/kWh where the target was IDR 232/kWh, this shows the extraordinary performance of the existing PLTA machines so that they can generate more electrical energy than the target set. This can also be because P3BS as a customer provides a larger portion for the fulfillment of electrical energy in the central Sumatra system. By using the balanced scorecard as a bridge between strategy and implementation, it is easier to know how close the organization is to the set strategic targets, and if performance values are found that are not in accordance with the targets during measurement, they can easily be evaluated and re-synergized so that implementation is in accordance with the set strategy.

4.10 Discussion of Evaluation Results

In the performance evaluation above, secondary data was used, namely the performance assessment of UPK Bukittinggi in 2018 and 2019, coupled with interviews with the Operations Manager of UPK BKT, the KSA Manager of UPK BKT, and the Supervisor of Planning and Control of the Central Sumatra UPB System. It is known that the dominant factor in the performance assessment of PLN UPK BKT is EAF (Equivalent Availability Factor) which is an availability factor with an assessment weight of 8 in the internal business process perspective and this is confirmed from the results of interviews with internal parties of UPK BKT and customers that EAF is a very important assessment to measure the performance of PLN UPK BKT. It is suspected that this is because PLN as the holder of the Government's mandate in providing electricity services is oriented towards fulfilling the capacity of electricity supply that focuses more on social responsibility.

V. Conclusion

Based on the discussion that has been done in chapter IV, it can be concluded regarding the implementation of the balanced scorecard as a performance measurement tool that bridges strategy with implementation at PT PLN (Persero) Bukittinggi Generation Implementation Unit as follows: The implementation of the balanced scorecard at UPK

Bukittinggi with 4 perspectives is not in accordance with the balanced scorecard theory of Kaplan & Norton, due to the absence of assessment in the customer perspective. In this customer perspective, UPK Bukittinggi lost the opportunity to form a strategy to meet the needs of its customers. In the growth and learning perspective, performance decreased from 2018 to 2019 where there were 4 main performance indicator targets that were not achieved. In the internal business perspective, there was a decline from the achievement in 2018 to 2019, there were 2 main performance indicator targets that were not achieved. In the customer perspective, it is necessary to compile key performance indicators and their targets. From a financial perspective, the decline from 2018 to 2019 was due to 1 problematic target, so the organizational performance assessment in 2019 decreased compared to 2018, with a total value of 93.55 in 2019.

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