

Balanced scorecard: Performance measurement of state-owned enterprises

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ABSTRACT

This study aims to determine the effect of balance scorecard on the performance of PT Antam Tbk. The financial statements used in this study are balance sheet and income statement for 10 years (quarterly). There is 1 indicator for each perspective. Data processing using Spss version 26. The results obtained are a financial perspective, a consumer perspective and an internal business process perspective that positively affect PT Antam's company performance. However, the results show that the growth and learning perspective negatively affects PT Antam's company performance. The benefit of this research for science is that the use of each assessment perspective in balanced scorecard analysis cannot be separated from each other so that cooperation between several fields of science is needed in the implementation of research.

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1. Introduction

Companies, creditors, and investors, all conduct financial analysis. For the company, financial analysis is carried out for one purpose, namely assessing how well the company performs in a certain period of time. For creditors (as short-term money lenders) will be interested in the company's liquidity level or the company's ability to pay off its short-term obligations. Investors (as long-term money lenders, such as bonds) will be interested in evaluating cash flows to pay off long-term obligations, in other words investors will assess the company's ability by analyzing capital structure, source and use of funds, and profitability projections. As for investors for common stock, they will be more interested in looking at current earnings, expected income, and the company's ability to pay dividends (Madsen & Stenheim, 2015).

The functioning of the financial department is a condition for the smooth implementation of activities in other sections. A company's financial statements will be useful if it can provide information needed by internal and external parties of the company for the present and able to predict the future. Financial information comes from two parts, namely management accounting information and financial accounting information. The better the quality of the financial statements presented, the more convincing external parties will be in seeing the company's financial performance. Therefore, some important suggestions that must be considered by them in avoiding inaccuracies in the recommendations of a company's analysis are to understand the form of the company and its scope of work, place a finance analysis that has high independence in work, provide appropriate and fair rewards for the finance analysis if it has finished working even though the results of the recommendations are considered not to have a high level of accuracy, Understand financial and non-financial information as a synergy of decisions, comprehensively study the results of financial statements, financial analysis recommendations, and other information and compare it with the reality that occurred at that time.

Understanding of performance appraisal today is no longer only on the financial side, but there are three (3) other important sides that contribute to the success of a company or organization, namely customer perspectives, internal business processes and growth and learning. The concept is the Balanced Scorecard (BSC) introduced by Robert Kaplan and David Norton in 1992 where they provide more information for the success of companies in implementing the right strategy. The four advantages when implementing BSC are comprehensive, coherent, balanced and measurable (Humphreys & Trotman, 2011).

This research was conducted on one of the companies engaged in mining because it is one of the important sectors that contributes the most to economic growth in Indonesia. According to data from the Central Statistics Agency (BPS), the contribution of the mining and quarrying sector is 12.22% to national economic growth in 2022 which increases by 6.44% from 2021 (Nasional.kontan, 2023). In North Kalimantan Province, in the fourth quarter of 2020, there was economic growth of 7.08% where in terms of production the highest growth was achieved by the mining and quarrying business field of 14.96% (Prov Kaltara, 2022). In 2017-2019, East Kalimantan Province has the highest GDP value from the mining and quarrying sector, which is Rp 215.2 trillion and increased by 3.44% in 2019 of Rp 233.8 trillion (Databoks.katadata, 2019). The object of this research is PT. Aneka Tambang Tbk, one of the largest state-owned enterprises in Indonesia was established in 1968 which excavates gold from mines in Pongkor, West Java. The progress of PT. Aneka Tambang Tbk in competition is certainly inseparable from the four (4) perspectives of the Balanced Scorecard (BSC).

The benefits of performance measurement according to (Capelo & Dias, 2009) are as follows: a) Manage organizational operations effectively and efficiently through personnel motivation to the maximum; b) Assist in decision making related to personnel awards such as: promotions, transfers and dismissals; c) Identify training and personnel development needs and to provide selection criteria and evaluation of personal training programs; d) Provide personal feedback regarding how superiors assess their performance; e) Provide a basis for distribution appreciation. State that the weakness of performance measurement The emphasis on financial performance is: a) Inability to measure performance of intangible assets and intellectual property of the company (human resources); b) Financial performance tells little The company's past and not being able to fully lead the company in that direction better (Makarov et al., 2016). The company's performance measurement will use a Balance Scorecard where the 4 perspectives (financial, consumer, internal business processes as well as growth and learning) used have the advantages of being comprehensive, coherent, balanced and measurable.

Balanced scorecard is a contemporary management tool designed to improve a company's ability to multiply its outstanding financial performance in a sustainable manner, sustainable outstanding financial performance (Sagala & Siagian, 2021). Sustainable financial performance achieved by increase attention to customers, increase productivity, efficient and effective processes, and increase the ability and commitment of human resources. The balanced scorecard is based on a series of causal relationships arising from strategy, which include, among others, estimation of response time and magnitude of linkages among various scorecard measures (Kaplan and Norton, 2000). In the balanced scorecard, the commitment of the organization and members of the organization is needed in achieving the vision and strategy that has been previously set. Comprehensively and balancedly, Balanced Scorecard measure the performance of the organization in achieving the vision, mission and strategy. The balanced scorecard translates mission and strategy into goals and measures organized into four perspectives (Dewi Fitriyani, 2014).

Outlining the economic consequences of actions taken in all three another perspective, There are 3 company classifications stages of industrial development, namely: growth, sustain dan harvest. The growth stage is the initial stage in the business cycle (M. M. Wutun, 2021). At the stage of this, the company is expected to have new products that are considered very potential for business. The second stage is the survival stage. At this stage, it will be determined whether the investment that a business has spent will be withdrawn or on the contrary, reinvestment will be made which of course after consider the rate of return of the investment that has been issued company. Next at the stage the third is the harvest stage. At this stage, an enterprise will strive to maintain his business. The financial goals of this stage are to: increase cash flow and reduce fund flow. The gap between this study and previous research is the use of assessment indicators for each perspective which is only one, namely return on equity, customer profitability, administrative costs to total revenue and employee retention. In addition, this study also wants to prove whether it is true that 4 perspectives in the balanced scorecard have a positive effect on the results of (Tuan, 2020).

Balanced scorecard uses financial performance benchmarks, such as net profit and ROI (Return On Investment) because the benchmark is generally used in profit-seeking organizations. Financial benchmarks provide a common language for analyzing and comparing companies. Financial benchmarks are important. However, it doesn't quite direct performance in creating value. Non-financial benchmarks are also inadequate to state the bottom line (Zuniawan et al., 2020). Balanced scorecard, seeks a balance of multiple performance benchmarks – both financial and non-financial to direct organizational performance (Mariza, 2003; Wutun et al., 2023). H₁: financial perspective have a positive effect on company performance.

Describe customer segments and market segments to be targeted by company, (Harningrum & Aisyah, 2021) provide an opinion that the customer is a party who actual provides sales revenue to the company. In this perspective, measurement is carried out with five main aspects, namely: 1) measurement of market share, measurement of the size of the company's market share reflects the proportion of businesses in one particular business area stated in terms of money, number of customers, or volume sold for each unit product, 2) customer retention, measurement can be done by knowing the magnitude percentage of business growth by the number of customers currently owned by company, 3) customer acquisition, measurement can be done by calculating percentages number of new customer additions and comparison of total sales with the number of new existing customers 4) customer satisfaction, this measurement of customer satisfaction levels can be carried out with various techniques including surveys by mail, telephone interview, or personal interview 5) customer profitability, customer profitability analysis can help managers to identify the individual or group of customers who provide contribution to the profitability of the company as a whole.

Perspective customers are focused on how the organization pays attention its customers in order to succeed. Knowing your customers and their expectations is not enough. An organization must also provide incentives to managers and employees that can meet customer expectations. Bill Mariot says "Take care of your employee and they take care of your customer". The Company among others uses the following performance benchmarks, consider the customer's perspective (Riyana, 2017): Customer satisfaction, Customer retention, Market share and Customer profitability

Customer satisfaction benchmarks show whether the company is meeting expectations customers or even cheer it up. Benchmarks measure customer retention or loyalty shows how well the company is trying to retain its customers (Menna & Temesvari, 2022). H₂: customer perspective have a positive effect on company performance.

Describe the internal processes needed to generate value for the people. customers and owners. In this perspective, the company focuses on two (2) processes the main businesses, namely: 1) the innovation process. In the process of value creation for customers, the process of innovation is one of the important processes. Efficiency and effectiveness as well as accuracy the timing of this innovation process will drive cost efficiency in Value Added Creation Process for Customers (Putu et al., 2013). Broadly speaking, The innovation process can be divided into two, namely, (1) measurement of the process innovations that are basic and applied research, (2) measurement of processes product development. 2) Operation process. The operation process carried out by each company is more focuses on process efficiency, consistency, and timeliness of goods and services provided to customers. Some performance measures that can be used in this perspective include: sale of new products, timely delivery, time to resolve complaints customers, number of defective products, raw material inventory, availability turnover, quality control cost, setup time and amount of inventory damage (Banker et al., 2011). H₃: Internal business process perspective have a positive effect on company performance.

Describe the capabilities required by the company to creating long-term growth and improvement. This perspective relates with three (3) important factors that must be considered to make measurements, that is: 1) Employee capabilities. Measurement of employee ability is carried out using three the following factors, namely measurement of employee satisfaction, measurement to employee turnover within the company, and measurement of employee productivity. 2) Employee Retention, Represents the company's ability to retain potential employees that the company has to remain loyal to the company. Retention goals employee is to retain employees who are considered qualified who owned by the company as long as possible, because qualified employees are intangible assets are priceless to the company. So if there are qualified employees who leave the company of their own volition, then this hurts the company because it loses intellectual capital (Galib & Hidayat, 2018) 3) Information system capabilities, improving employee quality and employee productivity is also influenced by ease of access obtained by employees to information systems so that employees will have better performance. 4) Motivation, authorization, and limitation of

employee authority. Even though employees have been equipped with access to such good information but if employees do not have the motivation to improve their performance then all that will be in vain. So it is necessary to make various efforts to increase employee motivation at work (Cohen et al., 2008). H₄: growth and learning perspective have a positive effect on company performance.

2. Research Method

This study used quantitative research methods to determine the impact of the Balanced Scorecard on the performance of PT. Antam, Tbk. The main data used is the financial statements of PT. Antam, Tbk obtained from <https://www.antam.com> website. The downloaded financial data is then analyzed using Microsoft Excel to calculate the percentage from each perspective, then processed using IBM SPSS Statistic version 26. The model can be generalized as follows:

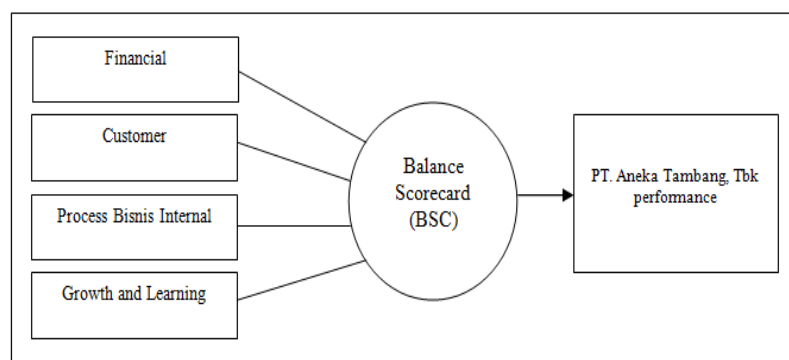


Figure 1. Research model

3. Results And Discussions

Tabel 1. Descriptive statistics

	Mean	Std. Deviation	N
Company Performer	17.4904%	12.60830%	32
PP	8.0255%	4.31852%	32
CP	5.1717%	2.43862%	32
PBI	4.1867%	4.27389%	32
GLP	2.3910%	0.93986%	32

Table 1 provides information that the highest average variable prediction is in company performance which is 17.49% and the lowest is the growth and learning perspective variable which is 2.39%. In the standard deviation column, the highest value is in company performance which is 12.61% and the lowest is the growth and learning perspective variable which is 0.94%. The amount of data used in this study was 32.

Tabel 2. Model summary^b

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.796 ^a	.634	.579		8.17730%	1.821

a. Predictors: (Constant), GLP, PBI, CP, FP

b. Dependent Variable: Company Performance

The meaning of R Square values is financial perspective, internal business perspective, customer perspective as well as growth and learning perspective affects performance by 63.4% while 36.6% is influenced by other factors like return on assets (ROA), return on investment (ROI), customer satisfaction, customer acquisition, customer retention, innovation and operation process, employee capabilities, information system capabilities and motivation (Alimudin et al., 2019). The DW value obtained is close to 2 meaning there is no autocorrelation.

Tabel 3. ANOVA^a

Sum of Squares	Df
68.675	4
61.063	27
132.760	31

a. Dependent Variable: Company Performance

b. Predictors: (Constant), GLP, PBI, CP, FP

The significant level of the anova test shows that together the financial perspective, internal business perspective, customer perspective and growth and learning perspective have an effect on performance. This means that the regression model in the study made is significant, where the sig value $F < 0.05$ i.e. reject H_0 and accept H_a . The results of this study are revealed by (Tuan, 2020).

Tabel 4. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1	(Constant)	.374	5.472		.251	.804
	FP	1.849	.900	.633	2.054	.040
	CP	.683	1.453	.132	1.470	.002
	BIP	.238	.480	.081	3.495	.024
	GLP	-.210	1.914	-.016	-.110	.413

a. Dependent Variable: Company Performance

The results shown in table 4 show the test results on each variable independent of the company's performance. The results of the first test show that there is a positive influence between the financial perspective and the performance of PT. Antam, Tbk where the sig t value $<$ the alpha value used or $0.040 < 0.05$. From a financial perspective, the indicator used is Return on Equity (ROE) where ROE is the result of a comparison between net income after tax and total capital. The second test result shows a positive influence between the consumer's perspective and the performance of PT. Antam, Tbk where the sig t value $<$ alpha value is $0.002 < 0.05$. The indicator used to assess this perspective is customer profitability derived from the comparison between net profit after tax and total revenue. The third test result shows a positive influence between the perspective of internal business processes and the performance of PT. Antam, Tbk where the sig t value $<$ alpha value is $0.024 < 0.05$. The indicator used to assess this perspective is Administrative Expense to Total Revenue (Amaral & Wutun, 2022) which is obtained from the comparison between administrative expenses and total revenue. These three test results are supported by research conducted by (Rahmawati et al., 2011) and (Gamal, 2017). The latest test results show a negative influence between the growth and learning perspective and the performance of PT. Antam, Tbk where the sig t value $>$ alpha value is $0.413 > 0.05$. The indicator used to assess this perspective is employee retention obtained from a comparison between the total number of employees and the number of employees who leave. The large number of employees has no effect on the number of employees who leave where every year the average exit is only 2%-3%. From the results of the t test, we can make the regression equation as follows:

$$Y = 0.374 + 1.849 X1 + 0.683 X2 + 0.238 X3 - 0.210 X4 \dots\dots\dots (1)$$

4. Conclusion

This study examines the company's performance appraisal using a balanced scorecard. The results obtained are a financial perspective, a consumer perspective and an internal business process perspective that positively affect PT Antam's company performance. However, the results show that the growth and learning perspective negatively affects PT Antam's company performance.

In the future, PT Antam needs to increase sales, the company needs to pay attention to the costs incurred so that the profit obtained remains stable and even increases. The results of this study can be used as recommendations for PT Antam, especially those related to performance appraisal using a balanced scorecard. The implementation of a good balanced scorecard will make the performance of managers represented in this study by middle managers better, so that the performance of PT Antam companies will increase better. The limitation in this study is that it only uses one indicator for each perspective, so that future researchers can use all existing assessment indicators for better results. The contribution of the results of this research is expected, PT. Antam, Tbk must always pay attention to 4 main perspectives in the

company both financial and non-financial to be able to always achieve the company's vision and mission that has been made.

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