

IMPROVEMENT OF PERFORMANCE MANAGEMENT SYSTEM USING THE BALANCED SCORECARD AT BUMA SITE ADARO PARINGIN

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ABSTRACT : *Since the pandemic situation occurred in 2019, the global and national economies have experienced a decline. In 2020, the global and national economy slowly began to rise. PT Bukit Makmur Mandiri Utama (BUMA) is one of the largest mining contractor service providers in Indonesia. In Q1 2022, Adaro Parangin's BUMA Site experienced an increase in revenue, but the expenditure was still considered quite large. One of the causes is the ineffectiveness of using heavy equipment haulers, which are the most common units. To monitor and evaluate company performance, companies need a tool to measure performance. The method that can be used is to implement a Performance Management System (PMS). In this study, the PMS used is the Balanced Scorecard (BSC). The BSC is an approach to measure company performance by being a bridge to eliminate the gap between strategy and execution. Determination of objective strategies for each perspective is carried out based on literature review, focus group discussions (FGD), and interviews with expert practitioners in their field. Determination of KPI targets and initiatives is done based on benchmarking with other companies and also interviews with the company. To classify the achievement of KPI targets using the Traffic Light System. The researcher added a new objective strategy, namely Cost Management. This is done considering the problems faced by the company related to inflated costs are expected to be resolved. In addition to adding objective strategies, the researchers also carried out the cascading process from the Business Unit Level (tier 1) to the Individual Level (tier 3). The cascading process is deemed necessary so that the company's vision, mission and strategy are clear, down to the employee level. The results of this cascading resulted in 108 objective strategies and 111 KPIs for the 12 divisions at the BUMA Site Adaro Parangin. The cascading scorecard for tier 3 is only carried out in the Engineering division. Implementation of the proposed new Balanced Scorecard design for the company took approximately one year and five months from the performance evaluation stage in the previous year to the implementation and monitoring of the new design. Suggestions for future research, it would be better if the research carry out a cascading process to all individual levels in each division.*

KEYWORDS -Balanced Scorecard (BSC), Coal, Mining, Performance Management System (PMS), Strategy

I. INTRODUCTION

The rise in energy requirements, including the need for coal as a fuel, has been delayed by this recovery. On the other hand, the dynamic issues that the coal industry faced in 2021, such as weather and logistical problems, contributed to an energy crisis and a sharp rise in coal prices[1]. PT Bukit Makmur Mandiri Utama (BUMA) thrives to take advantage of this circumstance as a mining contractor services organization. BUMA will face a problem in deciding on the short- and long-term strategies to implement in order to fulfill the company's vision and goal. To assess and improve its business plans in uncertain times and after pandemic events have passed, BUMA needs a performance management system. The business must expand to compete with current and upcoming competitors in the mining sector. Therefore, the performance management system method is extremely necessary and significant as a combined tool to convey goals and successes and as a crucial instruction to assess the effectiveness of the organization (Wibisono, 2012)[2]. Therefore, additional research is required in order to analyze and improve the performance management system now in use at BUMA.

II. LITERATURE REVIEW

System of Performance Management The Balanced Scorecard will be used to diagnose the underlying causes of the problems and provide business solutions. The Balanced Scorecard, according to Kaplan and Norton (1996), is a management tool for overseeing strategy execution, measuring success beyond only financial metrics, and conveying stakeholders' expectations for performance[3]. As a result, the Balanced Scorecard is a tool for measuring corporate performance. It does so by looking at the business from four different perspectives: financial view, customer perspective, internal business perspective, and learning &

growth perspective. The four perspectives contain in the Balanced Scorecard provides the framework of the Balanced Scorecard, as seen in the following figure.

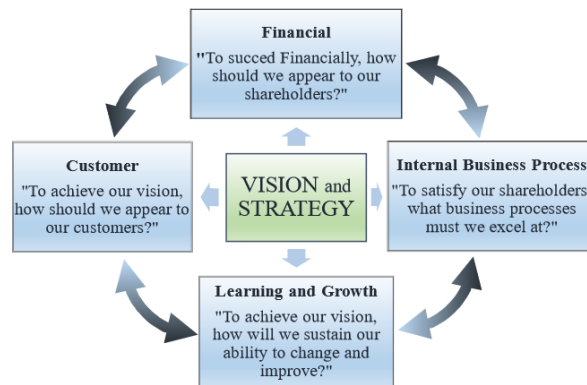


Fig.1 The Balanced Scorecard Framework

The set of business unit objectives on the Balanced Scorecard goes beyond summary financial measurements, claim Kaplan and Norton in their book *The Balanced Scorecard* (1996)[4]. The important value-creation activities carried out by capable, driven organizational members are documented by the balanced scorecard. The Balanced Scorecard clearly identifies the value drivers for greater long-term financial and competitive success while maintaining, via the financial perspective, an interest in short-term performance.

A company main purpose is for making money, especially a profit oriented company. Thus, financial measures are critical in the Balanced Scorecard. The company could focus all of resources and capabilities on improving equipment usage, optimizing operational process, or coal product quality match with customer demand, but if all these improvement programs must give an indication of their effect on financial performance.

Financial objectives represent the long-term goal of the organization: expanding and strengthening BUMA’s business portfolio. The drivers in the financial perspective will be customized to the industry, the competitive environment, and the strategy of the business unit. Kaplan and Norton suggested a classification scheme where business can choose financial objectives from themes relating to revenue growth, create shareholders value, and improve financial strength.

All objectives and measures in the other scorecard perspectives should be linked to achieving one or more objectives in the financial perspective.

Customer is crucial for BUMA. As explained in BUMA's mission, one of which is that BUMA has a mission to provide added value to customers through strategic and long-term partnerships. Therefore, BUMA is trying to establish cooperation with customers as has been done in 2021, namely to collaborate with one of the major coal companies in this country, namely Adaro.

In addition to building strategic partnerships, what needs to be emphasized is to build excellent service quality. Build excellent service quality will provide operational excellence. Apart from operational excellence, there is product leadership as well as customer intimacy. These three perspectives will lead to the customer value proposition.

In the internal business perspective, the company identifies the key process where the company must excel at in order to continue adding value for customers and ultimately for shareholders. The task here is to identify the internal processes to achieve efficient operation and develop objectives and measures which can track the progress and achievement of the goal aforementioned.

The operations process remains important and organization should identify the cost, quality, time, and performance characteristics that will enable it to deliver superior products and services to its targeted current customers.

Even though a company have good system and technology but if not supported by employees who have the good skill and capabilities, it does not mean anything. The objectives and measures in this perspective are the enablers of the other perspectives in the Balanced Scorecard. When the team has identified objectives and measures for customers and internal perspectives, the team might discover some gaps between the current organizational infrastructure of employee skills (human capital), information systems (informational capital), and the environment required to maintain success (organizational capital).

The objectives and measures in this perspective will help the company close the gaps and ensure sustainable performance for the future. Strategies for superior performance will generally require significant investments in people, systems, and processes that build organizational capabilities.

Cascade is a strategy target derivative in a firm. Cascading, according to Hikmat (2016), is the process of creating a Balanced Scorecard at every level of the organization or company as a means of disseminating

strategic goals and initiatives from the highest level of the organization or company to the lowest level of the organization or company.[5]

Using a balanced scorecard in a cascading manner entails translating the corporate scorecard (also known as Tier 1) down to first business units or departments (Tier 2), and then teams or individuals (Tier 3)[6]. Consistent concentration at all organizational levels should be the ultimate outcome. Through strategy, including the strategy map, performance measurements and targets, and activities, the organization alignment should be readily apparent. Through objective and performance measure ownership, scorecards should be used to increase accountability, and desired employee behaviours should be encouraged with praise and awards.

A cascading strategy concentrates all organizational efforts on strategy and establishes a link between daily operations and strategic goals. The objectives and performance measures change as the management system cascades down through the company, becoming more operational and tactical. As ownership is established at each level, accountability follows the objectives and metrics. Throughout the business, a focus on results and the tactics required to create success is communicated. For an organization to become strategy-focused, this alignment phase is essential.

III. RESEARCH METHOD

This study uses a qualitative method. The tool used in this qualitative method is an interview. According to Esterberg in Sugiyono, an interview is a meeting conducted by two people to exchange information or an idea by way of question and answer, so that it can be used as a conclusion or meaning in the topic[7]. Interviews were conducted with Mining Managers, Business Excellence Superintendents, and Production Superintendents. This approach allows researchers to understand more deeply and in detail the business issues faced by the company from the perspective of the object of the interview.

This study used structured and unstructured interviews with some of the managers to obtain relevant information for collecting primary data. The interview technique for structured interview was in-depth interview, where in principle this interview was conducted with the aim of obtaining information from respondents regarding the problem being studied, which could not be revealed through the use of questionnaire techniques. This research combines primary data with interviews and focus group discussion (FGD) with the Project Manager, Manager Mining, Superintendent of Business Excellence Division, Engineer Mine Plan of Engineering division. Other than interview, analyzing data such as company’s historical data, researches related to this topic, and journals was required to obtain secondary data. The research methodology in this research can be seen in the following figure.

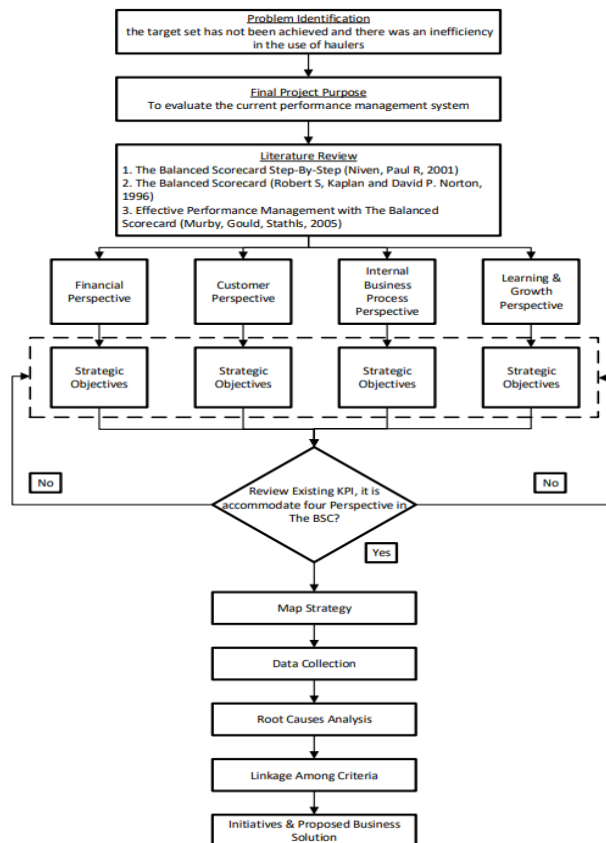


Fig.2 Research Methodology

IV. RESULT AND DISCUSSION

Vision and Mission

Vision: "To be a world-class mining service partner who is environmentally responsible."

Mission: "Deliver sustainable social impact and shareholder value, unleash employee potential, use technology, and empower communities; actively advancing the Indonesian generation."

Strategic Plan

With the recovery of global and national economy, the surge in demand for coal which resulted in an increase in coal prices give a confidence to the Company's business. The rapid development dynamic requires the Company to develop more adaptive strategies and work more creatively and efficiently in capturing opportunities and dealing with various challenges in order to maintain sustainable business. The strategic steps prepared by the Company are:

1. To implement a more productive, effective and efficient mining operational strategy.
2. To develop digitalization programs and various innovations through the use of technology for achieving operational excellence.
3. To increase and strengthen its mining services business portfolio and customer base.
4. To diversify the Company's core business geographically.
5. To diversify the Company's core business into non-thermal coal mining.
6. To diversify the Company's business portfolio into non-coal commodities such as nickel, copper, gold, etc.
7. To improve the capability of supporting mining services business.

The business strategy that was formulated above is inseparable from the strategic framework set by the Company for realizing its vision and mission, which consists of six main pillars, namely:

- Cost and capital expenditure management
Maintaining cost efficiencies in order to deliver competitive rate and profitability, and applying prudent capital management that optimize resources to deliver best results.
- Operational excellence
Optimizing all resources at hand, including all equipment, people, materials and processes, in order to provide highest quality which delivers results that exceed expectation.
- Community relations
Engaging surrounding community by building long-lasting relationship that develops supportive environment.
- Technology
Implementing and integrating the right technology that supports and enhance the Company's operational excellence to the highest standard of efficiency and effectiveness.
- Partnership relations
Developing reliable, trustworthy, long-term partnerships with various business partners and stakeholders that translate into value creation.
- People development
Continuously training and developing its human resources to produce highly-skilled talents that serve to bring incremental value to the current operations and grow the Company onto brighter future.

The six main pillars of the company act as supporters of the company to achieve the company's vision and mission. BUMA's strategy business is already in line with their vision and mission. BUMA's vision is to become a benchmark for companies in terms of mining contractor service providers. To achieve this, it is necessary to optimize the values that have been set by the company. Those values are then elaborated on the company's mission. Mission is the target set by the company so that the vision they create can be realized. To achieve the mission that has been set, a strategy is needed to set the required objectives.

Proposed Framework of the Balanced Scorecard

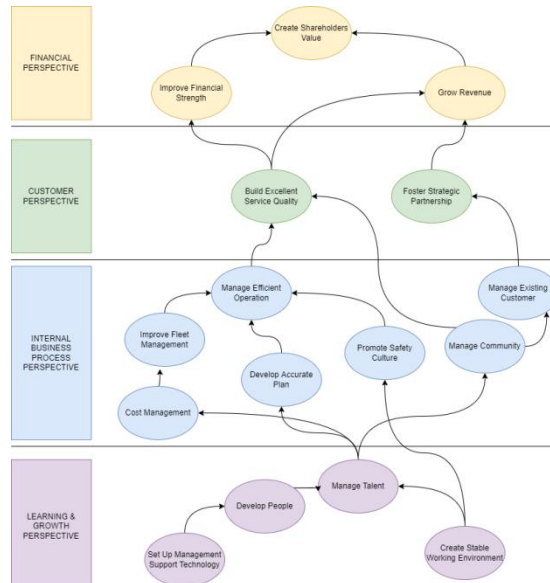


Fig.3 Proposed Strategy Map

As can be seen in the **Figure 3** above, the proposed strategy map has a cause-end-effect relationship for each of its objectives with the final goal, namely Create Shareholder Value. This strategy map is divided into four perspectives, namely financial perspective, customer perspective, internal business process perspective, and learning & growth perspective. A total of 16 objectives consist of three objectives for the financial perspective, three objectives for the customer perspective, seven objectives for the internal business process, and four objectives for the learning & growth perspective.

Table 1. Proposed Objective & Measure

BSC Perspective	Objective	Measures
Financial Perspective	Create Shareholders Value	EBITDA FCF
	Grow Revenue	Revenue Growth
	Improve Financial Strength	Cost/bcm
		HO Cost
Customer Perspective	Build Excellent Service Quality	Customer Loyalty Index
	Foster Strategic Partnership	Vol. New Customer
		Revenue New Business
Internal Business Process Perspective	Manage Efficient Operation	% UA Productivity
	Improve Fleet Management	% PA MTBS
	Develop Accurate Mine Plan	Mine Plan Accuracy
	Cost Management	Fuel Cost
		Repair and Maintenance Cost
	Promote Safety Culture	Total Injury Frequency Rate
		Vaccination Rate
	Manage Existing Customer	Target Fulfilled
Manage Community	Community Handled	
Learning & Growth Perspective	Manage Talent	Right Sizing Man Power
		Employee Satisfaction
	Develop People	Training per Employee
		Leadership Development
	Set up Management Support Technology	Technology Used per Employee
Create Stable Working Environment	Employee Turnover Rate	

Cascading Tier 1 to Tier 2

Improvement of Performance Management System Using The Balanced Scorecard at...

The objectives and measures from previous explanation are based on the Business Unit level scorecards. To get a clear flow for each implementation of the strategy that has been set, objectives and measures are needed for each division led by the Superintendent. Objectives and measures for every Superintendent needed to be in line with the business unit's objective. BUMA Site Adaro Paringin has twelve divisions, which means there are twelve superintendents.

Table 2. Superintendent Business Excellence Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Increase Revenue	%	20	Achieve contractual target
Customer	Improve Service Quality	%	20	Comply with the policies and rules that have been made
Internal Business Process	Project Result	%	20	Ensure and monitor the implementation of the improvement process carried out on site
	SOP Compliance	%	90	Ensuring that a compliance audit process is carried out on site to ensure that every process carried out at the site is in accordance with applicable SOPs
	Follow-up Audit	%	80	Ensure the follow-up process for each review result by all divisions
	Compliance to K3LH	%	80	Ensure all activities on site are in accordance with K3LH policy
Learning & Growth	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training
	Fulfillment Manpower	%	90	Calculating the need for manpower planning
				Monitor the manpower fulfillment process
Coaching & Mentoring	times	minimum at PA execution time	Motivate subordinates Develop subordinates Evaluate subordinates	

Table 3. Superintendent Engineering Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Cost Reduction	%	15	Ensure there are no unnecessary costs
	Revenue Growth	%	25	Exceed contractual target
Customer	Target Fulfilled	%	90	Increase production
Internal Business Process	Mining Design	%	90	Evaluate mine design
				Plan and revise mine design
	Strategic Plan	%	90	Design strategic plan
				Design yearly budget
				Design resources requirement
	Equipment Plan	%	90	Make detailed calculation of production targets
	Sequences Order	%	100	Make work orders
				Make weely plan detail
Productivity	bcm/hour	750 for loader	Evaluate loader productivity	
		150 for hauler	Evaluate hauler productivity	
Utility	%	90	Monitoring control fuel cost	
			Monitoring control activity cost	
			Monitoring control usage of consumable goods	
Learning	Fulfillment	%	90	Calculating the need for manpower planning

& Growth	Manpower			Monitor the manpower fulfillment process
	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training

Table 4. Superintendent Finance Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Cost Reduction	%	25	Ensure there are no unnecessary costs
	Tax Compliance	%	100	Monitor to ensure the implementation of taxation on the site in accordance with the provisions
	Cash Flow Control	%	100	Planning and controlling the company's cash flow Ensure the availability of funds for company operations Ensure the health of the company's financial condition
Customer	Inventory Control	%	80	Coordinating the implementation of stock taking
Internal Business Process	Budget Forecasting	%	90	Finalizing the site budget proposal Ensure the preparation of the budget in accordance with the provisions
	Cost Control	%	80	Overseeing the allocation of budget usage
Learning & Growth	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training
	Fulfillment Manpower	%	90	Calculating the need for manpower planning Monitor the manpower fulfillment process

Table 5. Superintendent Human Resource and General Affairs Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Increase Revenue	%	20	Achieve contractual target
Customer	Improve Service Quality	%	80	Improve employee performance
Internal Business Process	Right Sizing Manpower	%	90	Coordinate the collection of man power planning data from each division Supervise and coordinate personnel administration Monitor the mapping of workers across all functions on the site
	Labor Cost	%	100	Supervise and coordinate payroll and benefits management Supervise and coordinate attendance and overtime data
Learning & Growth	Employee Training	%	100	Supervising the implementation of the training Ensure that training objectives are carried out according to plan
	Employee Recruitment	%	80	Ensure that workers are recruited according to their needs and capacities
	Employee Turnover	%	10	Evaluate the causes that make employees leave the company
	Complaints Handled	%	90	Coordinate and resolve complaints submitted by employees

Table 6. Superintendent Industrial and External Relation Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Increase Revenue	%	20	Achieve contractual target

Customer	Improve Service Quality	%	20	Ensure a conducive and supportive work environment from the environment around the site
Internal Business Process	Legal Compliance	%	100	Supervise the fulfillment of labor permits
	Conducive Environment	%	90	Suitability of the application of labor regulations
				Socialization and conformity of the application of the collective labor agreement
				Monitor violations and their follow-up across divisions
	Dispute Handling	%	90	Resolve differences of opinion/disputes between employees/labor unions
	Community Handling	Personal Contacts		all contacts of figures and officials in ring 1 and ring 2 around the company
Development Program	%	100	Coordinate the planning, implementation and evaluation of development programs	
	Information Board	%	100	Management of information boards according to the standards used
Learning & Growth	Fulfillment Manpower	%	90	Calculating the need for manpower planning
				Monitor the manpower fulfillment process

Table 7. Superintendent IT Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Increase Revenue	%	20	Achieve contractual target
Customer	Improve Service Quality	%	20	Ensure the use of technology on the site makes a positive contribution
Internal Business Process	Service Ticket Close	%	90	Ensure the completion of the service ticket on the jobsite
				Maintain IT service lead time
	Documents Availability	%	90	JSA document management
				IBPR document management
				Licensing radio communicating document management
				Project IT document management
	Accident Report	%	100	Check list maintenance document management
				Carry out incident analysis
				Look for patterns of occurrence of incidents
	Service Level Agreement	%	90	Problem solving and prevention
IT infrastructure requirements analysis and planning				
IT Budget	%	90	Create business requirements specifications	
			Availability of annual OPEX & CAPEX IT budget draft	
Learning & Growth	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training
	Fulfillment Manpower	%	90	Calculating the need for manpower planning
Monitor the manpower fulfillment process				

Table 8. Superintendent Learning Center Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Cost Reduction	%	20	Ensure there are no unnecessary costs
	Increase Revenue	%	20	Achieve contractual target
Customer	Improve Service Quality	%	20	Improve employee's skill and knowledge
Internal Business Process	Training Budgeting	%	90	Create and budget for training needs
	Audit Compliance	%	80	Ensure all systems and procedures are carried out properly
Learning & Growth	Training Fulfillment	%	80	Coordinate with other divisions in the development plan
				Ensure that all development plans run according to COE
	People Assessed	%	80	Ensure the implementation of the assessment goes well in accordance with the COE
				Coordinate with the other division related to the review of the assessment results
Employee Performance	Performance Index		1.0	Ensure that training activities contribute to performance
				Provide recommendations for improvement

Table 9. Superintendent Logistics Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Cost Reduction	%	20	Ensure there are no unnecessary costs
	Increase Revenue	%	20	Achieve contractual target
Customer	Improve Service Quality	%	20	Ensure the availability of all logistics needs
Internal Business Process	Availability Item	%	90	Verify the results of the analysis of the availability of raw material items
				Verify the results of the analysis of the availability of non-raw material items
				Follow up on PICA results if availability is not reached
	Planning Order	%	100	Validate planning order
				Adjustment planning order with re-order and economic order quantity
				Review of lead time achievement analysis results
	Discrepancy	%	+/- 0.35	check the transactions entered into SAP so that there are no deviations
			\$ 40,000	
		%	90	Check and verify so that parts discrepancy can be minimized
				Make minutes of filing for inventory asset whitening for discrepancy on inventory quantity in case of discrepancy
Dead Stock	%	<5	Provide a policy on the results of the analysis of aging parts and dead stock	
Minimum	%	60	Ensure the availability of spare parts in	

	Stock			accordance with the population of the unit
Learning & Growth	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training
	Manpower Fulfillment	%	90	Calculating the need for manpower planning Monitor the manpower fulfillment process

Table 10. Superintendent Mine Control and Dispatch Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Increase Revenue	%	20	Achieve contractual target
Customer	Improve Service Quality	%	20	Optimizing the use of the fleet management system
Internal Business Process	Lifetime Performance	% Prod Actual vs Plan	90	Perform hardware and software maintenance
				Perform hardware and software repairs
				Conduct periodic audits of hardware and software
	Lead Time Delivery	%	90	Perform fleet management system data processing Modification of logic and reporting system as needed
Productivity	%	Prod Actual vs Plan	-20	Validation of production data or other supporting data Ensure the achievement value and efficiency generated by Dispatch
				Dispatch Evaluation
Learning & Growth	Training Delivery	%	80	Regular monitoring and evaluating related to the implementation of training
	Fulfillment Manpower	%	80	Calculating the need for manpower planning Monitor the manpower fulfillment process

Table 11. Superintendent Plant (Maintenance) Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Cost Reduction	%	20	Ensure there are no unnecessary costs
	Revenue Growth	%	20	Achieve contractual target
Customer	Target Fulfilled	%	90	Ensure the availability of heavy equipment
Internal Business Process	Maintenance Strategy	%PA	95	Develop and implement preventive maintenance
				Develop and implement corrective maintenance
				Develop and implement predictive maintenance
				Develop and implement action plan maintenance
	Premature Failure Equipment	%PA	95	Analysis of the redo job / redo work
				Analysis of accident
				Analysis of mis-maintenance Analysis of mis-operation
Maintenance Compliance	%	70	Determine the priority of work to the unit Make maintenance schedule Review maintenance & repair activity	
			Maintenance Cost	\$

			cost	
Learning & Growth	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training
	Fulfillment Manpower	%	90	Calculating the need for manpower planning
				Monitor the manpower fulfillment process

Table 12. Superintendent Production Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Cost Reduction	%	20	Ensure there are no unnecessary costs
	Revenue Growth	%	20	Exceed contractual target
Customer	Target Fulfilled	%	90	Increase production
Internal Business Process	Production Plan	times	weekly	Coordination with the engineering division in a weely meeting to determine operational plans
	Work Efficiency	% Daily Production	90	Control and evaluate unproductive time
				Ensure the utilization and productivity of tools are on target
	Productivity Evaluation	%	10	Evaluate unachieved hourly production via mcc
				Review and evaluate material reports
				Review and evaluate report front
				Review and evaluate haul road reports
Review and evaluate the disposal report				
Fuel Cost	%	90	Evaluate and control fuel consumption based on daily reports	
			Ensure appropriate fuel consumption	
Fatigue Check	times	Two times per day	Random check heavy equipment operator	
Learning & Growth	Training Delivery	%	90	Regular monitoring and evaluating related to the implementation of training
	Fulfillment Manpower	%	90	Calculating the need for manpower planning
Monitor the manpower fulfillment process				

Table 13. Superintendent Safety Health Environment Scorecard

Perspective	Objective	Measurement	Target	Initiatives
Financial	Revenue Growth	%	20	Exceed contractual target
Customer	Improve Service Quality	%	20	ensure that all mining activities on the jobsite comply with the K3LH policy
Internal Business Process	Kesehatan, Keselamatan, Kerja dan Lingkungan Hidup (K3LH)	% TIFR	90	Monitoring and analyzing the performance of K3LH site
		%CMR	90	
		%SA	90	
	K3LH Strategy	%	100	Make K3LH planning recommendations
				Follow-up verification of K3LH improvements at the site management level
	Preventive	%	100	Implementation of K3LH committee

	Strategy			activities Determine K3LH non-conformance control Determine preventive and corrective actions
	Site Control	%	75% IBPR followed up	Facilitate all divisions at work sites in conducting hazard identification and risk assessment
		%	100% IBPR meet standars	
	Emergency Control	times	Once per year	Facilitate site management to implement emergency response systems
	Vaccination Rate	%	100	Facilitate and schedule vaccine activities
Learning & Growth	Knowledge Transfer	%	100	Facilitating socialization activities and worker guidance related to K3LH

Cascading Tier 1 to Tier 2

For this research, the cascading of individual level is only for the Engineering division. The Engineering Division is a crucial division for the company where they act as the 'brains' of mining activities. In addition, from several issues owned by the company, most of them lead to mine plan problems which are part of the responsibility of the Engineering division. Therefore, cascading individual levels in this research are only for the Engineering division.

Table 14. Engineer-Mine Plan Scorecard

No	Objective	Measurement	Target	Action Plan
1	Mine Planning	%	90-95	<ul style="list-style-type: none"> • Make a checklist of mine plan data requirements and stage plan • Yearly Budget • Yearly Mine Plan • Annual design in accordance with production and application targets
2	Three Months Rolling Mine Plan	%	90-95	<ul style="list-style-type: none"> • Make 3-months rolling plan • Forecast production schedule
3	Pit Design	%	90-95	<ul style="list-style-type: none"> • Provide infrastructure layout • Plan general activites and use the tools
4	Plan Compliance	%	90-95	<ul style="list-style-type: none"> • Perform compliance & reconcile plan every month in the form according to SOP • Design Implementation
5	Productivity	bcm/hour	700-750 for loader and 100-150 for hauler	<ul style="list-style-type: none"> • 3-months rolling mine plan review • 3-months rolling mine plan forecast
6	Coordination	%	95-100	<ul style="list-style-type: none"> • Provide event details about pit instructions from customer • Provide event details about design revision • Provide event details about letter of acceptance related to operational • Risk assessment • IBPR
7	Billing Responsibility	%	90-95	<ul style="list-style-type: none"> • Provide monthly production invoices • Provide rental invoices • Provide productivity incentives

V. CONCLUSION

The Balanced Scorecard is a performance management system framework that is expected to close the

gap between strategy and execution. The Balanced Scorecard aims to communicate the company's vision, mission and strategy so that employees can understand the company's direction and goals so that they can make it happen. The results of the proposed new balanced scorecard framework resulted in 16 strategic objectives for the BUMA Site Adaro Paringin. Then a cascading process is carried out so that strategic communication from the business unit level (tier 1) can be conveyed properly to the division level (tier 2) and individual level (tier 3). The total of the results of cascading tier 2 resulted in 108 strategic objectives and 111 strategic initiatives for 12 divisions. Furthermore, for tier 3 produces 7 strategic objectives and 18 action plans. There is a limitation of this research is cascading for tier 3 is only done in the engineering division. With a clear description of strategic objectives and strategic initiatives for the individual level, it is hoped that employees can understand what they have to do in order to be in line with the company's vision and mission.

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