



International Conference on Economy, Management, and Business (IC-EMBus)

VOL. 1, 2023 p. 1648–1659
<https://journal.trunojoyo.ac.id/icembus>

Strategic Planning System in Company “XXX”: a Balanced Scorecard Framework in The QCX00 Department

J. Isabel Zefanya Pawira¹, Vinsensius Widdy Tri Prasetyo²

^{1,2} Industrial Engineering Program, Widya Mandala Surabaya Catholic University

INFO ARTIKEL

Abstract

Keywords:

Balanced scorecard, Framework, Financial perspective, Non-financial perspective, Strategic planning system.

Every company has the desire to continue to develop and make the company a wealth multiplier institution. Companies that are able to become wealth-creating institutions need a strategic planning system to translate the company's vision into its implementation. In general, companies only have a main focus on financial flow and management. Therefore, companies need to have and produce products and services that are able to win customer choice, win customer choice, have the ability to manage products to produce superior products through the performance of competent employees. The Balanced Scorecard is a method that can measure strategic goals from a financial and non-financial perspective. This research is a proposed framework for implementing the balanced scorecard in preparing a company's strategic planning system in developing strategy maps. The object of this research is the company "XXX" in the QCX00 department. Through the balanced scorecard strategic planning system, every employee of the "XXX" company is able to realize the company's strategic targets from a financial and non-financial perspective. Employees are expected to have targets at work so they can help achieve company goals through strategic targets that are comprehensive, coherent, balanced and measurable.

✉ Corresponden Author
(*) Author

Email:

E-ISSN: 3026-0965

osc-indeng.j.i.20@ukwms.ac.id^{1*},
vinsensiuswiddy@ukwms.ac.id²

DOI :

INTRODUCTION

Every company has the desire to continue to develop and make the company a wealth multiplier institution. Companies generally only focus on financial flow and management. Companies need to have and produce products

and services that are able to win customer choices (Mulyadi, 2001; Prasetyo 2023). In an effort to win customer choice, companies need to have the ability to manage products to produce superior products through the performance of competent and high-performance employees (Amelyawati et al., 2023; Asir, 2022; Nursam, 2017; Riyanto, 2023). Performance is the success of personnel in realizing the company's strategic targets (Kusumanto et al, 2018; Asir 2022; Riyanto, 2023; Tran & Nguyen, 2020). Companies need to have the ability to measure employee performance because they are the ones who help to manage the company (Cahyani, 2023). Employees are expected to have targets at work so they can help achieve company goals through strategic targets from these perspectives.

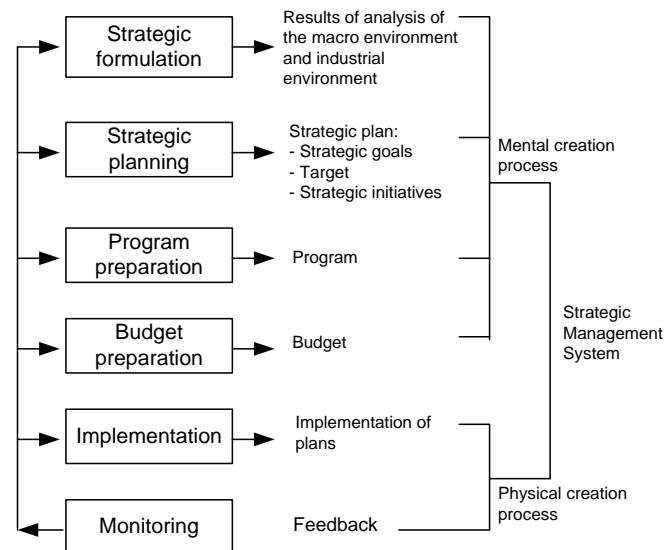
Company "XXX" is a national company engaged in manufacturing. The company "XXX" has several departments to realize its vision. Human Activity Recognition has been studied over the past few years (Victoria et. all, 2022). Previous research has found that CSR can enhance company value (Tarjo et. all, 2022). Companies must ensure quality for their sustainability (Wildan, 2020). The vision that will be achieved is only at the company level. The vision at the company level is not broken down to the department level. The QCX00 department is one of the departments in the company "XXX". The QCX00 department is required to succeed in achieving the company's vision. The QCX00 department has set stages in an effort to achieve the company's vision. The era of globalization is always marked by rapid changes in overall economic conditions, resulting in a number of demands as a response to these changes (Safrizal et. all, 2020). Focus on technologies that enable MCS (Mobile Crowd Sensing) to be implemented in smart cities, such as task management, data collection, incentive systems, monitoring, and cost-saving tools (Wildan et. all, 2023). High service quality and client-based communication with AI-enabled services are determined by Quality of Experience (QoE) (Padmapriya et. all, 2022). The strategy that has been carried out is formulating strategic targets, key performance indicators, targets and the value weight of the targets. The problem experienced by the QCX00 department is that it is still experiencing difficulties in implementing its operations in an effort to achieve the company's vision. Based on the problem description of the QCX00 department, how do you create a strategic planning system as a framework in an effort to achieve the company's vision?

Balanced scorecard

The balanced scorecard is a method that can measure strategic targets from a financial and non-financial perspective (Mulyadi, 2021). This method can help to manage and measure the performance of an organization with a balanced approach (Samihardjo & Hapsari, 2020; Budiyo, 2022; Megawati et al., 2021). This concept was first introduced by Kaplan and Norton in 1992. The Balanced Scorecard provides a framework for building competitive advantage through four perspectives: financial, customer, internal business processes, and learning & growth (Mulyadi, 2001). The Balanced Scorecard no longer has a literal meaning as a performance measure, but has an implied meaning as a framework of thinking in developing strategy maps (Suwendra & Sujana, 2018). The advantage of this method approach in a strategic planning system is that the Balanced Scorecard is able to produce strategic plans that are comprehensive, coherent, balanced and measurable (Hidayati & Nizak, 2019; Chirzun & Sulkhan, 2013; Tarigan & Widjaja, 2014; Jim, 2013).

Corporate organizations in today's competitive environment are not only wealth-creating institutions, but are also expected to be wealth-multiplying institutions. Companies in formulating steps to become a wealth-multiplying

institution are determined by managerial competence in managing human capital and management systems (Mulyadi, 2001). The strategic management system consists of several stages, which include 1) strategy formulation, 2) strategy planning, 3) program preparation, and 4) budget preparation, and second is the physical creation process which includes two stages, namely implementation and monitoring. The stages of the strategic management system are as shown in picture 1.



Picture 1. Strategic Management System
Source: Mulyadi (2001)

Strategic planning is a stage that determines the comprehensiveness, coherence and balance of long-term profit plans to realize the organization's vision into strategic targets and program preparation (Prasetyo, 2009).

The balanced scorecard has begun to be used massively in Indonesia and it can be seen that there are many evaluations that can build hospitals by adapting the strategies carried out to the vision, mission and goals they have (Audina et al., 2017). Strategies are formulated, developed and perfected is not enough at the level of Corporate Strategy, but also at the level of functional strategies that can support the implementation of corporate strategy. A good corporate strategy and functional require measurements to evaluate the performance of the strategies have been implemented. A good performance measurement strategy is the measurement that is not only a view of the financial perspective alone, but must also consider non-financial perspective (Chirzun & Sulkhan, 2013).

Balance in performance measurement using the balanced scorecard method means that if an organization or company uses this measurement method, then financial and non-financial performance measures are not only used as technical feedback and control of various shortterm operations (Budiyono, 2022). Balanced Scorecard not only emphasizes the quantitative (financial) aspects but also the qualitative (non-financial) aspects. It is in line with the public sector that places service as a key performance measure, not profit. The balanced scorecard translates the vision into strategic targets. Strategic targets are the final results that an organization wants to achieve in the long term (Mulyadi, 2001). These strategic

goals must be specific, measurable, achievable, relevant and time-oriented. To achieve operational strategic targets, the strategic planning system requires strategic initiatives. Strategic initiatives are the steps that an organization will take to achieve its strategic goals. These strategic initiatives must be realistic, implementable, and have adequate resources (Kaplan & Norton, 2000).

RESEARCH METHODS

This research is a qualitative descriptive research to find and identify problems and then design a system framework as an alternative solution to solving the problem. This research data comes from primary and secondary data. Primary data is data taken directly by researchers, namely data from interviews with experts related to strategic planning through branding at department level. Secondary data is data obtained from existing data in the company, including data about the vision and mission, strategic targets, key performance indicators and targets. Secondary data was taken at company and department levels. The research object is the QCX00 department. The analysis uses the balanced scorecard framework in the strategic planning system section. The stages of creating a strategic planning framework include determining the vision and mission, goals, strategic targets, determining outcome measures and performance boosting measures, determining targets, formulating strategic initiatives, and preparing program plans.

RESULT

The strategic planning of the QCX00 department is prepared based on the balanced scorecard framework to map out strategies to achieve the company's vision "XXX". Before preparing the QCX00 department's strategic plan, the following internal data is presented in the form of vision and mission, and targets for each strategic target from each perspective. The targets for each strategic target of the QCX00 department are as in table 1 below,

Table 1. QCX00 Department Targets

Strategy goals	KPI	Unit	Targets				Weight (%)	
			Tw1	Tw2	Tw3	Tw4	Details	Total
A. Financial Perspective								
Realization of costs against sales does not exceed the 2023 RKAP target	Realisasi Non-project Cost 2023	%	0,011	0,024	0,042	0,060	10	10
B. Customer Perspective								
Increased customer satisfaction	Quality escape by material supplier	%	0,6	0,6	0,6	0,6	15	50
	100% on time purchased order verification	Days	2	2	2	2	15	
	Quality escape by issuer inspection	%	0,6	0,6	0,6	0,6	20	
C. Internal business process perspective								
Fulfillment of applicable regulations and laws for later reporting	Quarterly and annual unit RKA realization reports	document	1	2	3	4	10	20
	Preparation of RKA proposals for 2024	%	0	0	100	100	10	
D. Growth and learning perspectives								
Developing individual competencies and company culture	Mandatory hour	%	90	90	90	90	10	
	Increasing							

	personnel competency	Hours	30	60	90	120	5	20
	Capacity utilization levels are met	%	80	80	80	80	5	

Source: QCX00 Department "XXX" Company (2023)

Formulation of Company Goals

The company vision "XXX" can be achieved based on the chosen strategy through clear achievement measures. The formulation team needs to determine the company goals to be achieved. A company goal is something that a group, organization or individual wants to achieve. In a company, goals can be short term or long term, general or specific and can be personal or group. Referring to the company mission and the results of brainstorming with experts, the objectives of the company "XXX" can be formulated as:

1. Provide superior products and services
2. Building strategic alliances with other world-class aerospace industries
3. Increase customer satisfaction and company image
4. Increase income over time

With a company goal, you can be more focused and focused in decision making. Apart from that, companies can be helped in evaluating employee performance and increasing motivation and productivity.

Formulation of Outcome Measures and Performance Encouragement Measures

Results measures or what are usually called lag indicators are indicators that measure the final results of a strategy achievement process. Meanwhile, a performance driver or lead indicator is an indicator that measures the performance of a process or activity that influences the final result. This indicator shows the factors that cause the final outcome of the goal and the desired final result. The results and performance boosting measures are obtained from the results of brainstorming with relevant experts appointed by the company.

Target Determination

After determining outcome measures and performance driving measures, target measurements are needed to be able to provide direction and focus in decision making. In the balanced scorecard targets are used to help measure the achievement of the company's strategic goals. Determining targets has temporary final results, depending on the company's needs. Targets can be changed according to company needs and conditions. Company "XXX" has targets for each quarter (TW) every year. TW 1 is in January-March, TW 2 is in April-June, TW 3 is in July-September, and TW 4 is in October-December.

Planning, progress, and review are three interrelated processes for every TW that will be and is currently running. Planning is carried out in the first month of each TW to determine goals and objectives. Progress is the process of measuring a company's progress in achieving its goals and objectives, this process is carried out in the second month of each TW. Then, review is the process of evaluating progress and making adjustments if necessary. In this research, the target used is TW 4. Researchers want to make proposals for TW 4 based on existing field conditions and assistance in decision making from related experts.

Formulation of Strategic Initiatives

A strategic goal is a future condition that is to be realized. A strategic initiative is a strategic action to realize strategic goals. Both of these have their respective roles in the balanced scorecard. Strategic goals help an organization stay focused on its goals. Meanwhile, strategic initiatives help companies achieve their strategic goals. The formulation of strategic initiatives is carried out based on the results of brainstorming and assistance in decision making with related experts.

Formulation of Program Planning

Program planning is the process used to develop and implement effective programs. Program planning can be used to develop strategic initiatives that support goals and objectives from each perspective. Program planning is formulated through brainstorming carried out together with relevant experts and assistance in decision making.

The results of the formulation of the strategic planning system for the QCX00 department of company "XXX" can be seen in table 2 below.

Table 2. Formulation of the QCX00 Departmental Strategic Planning System

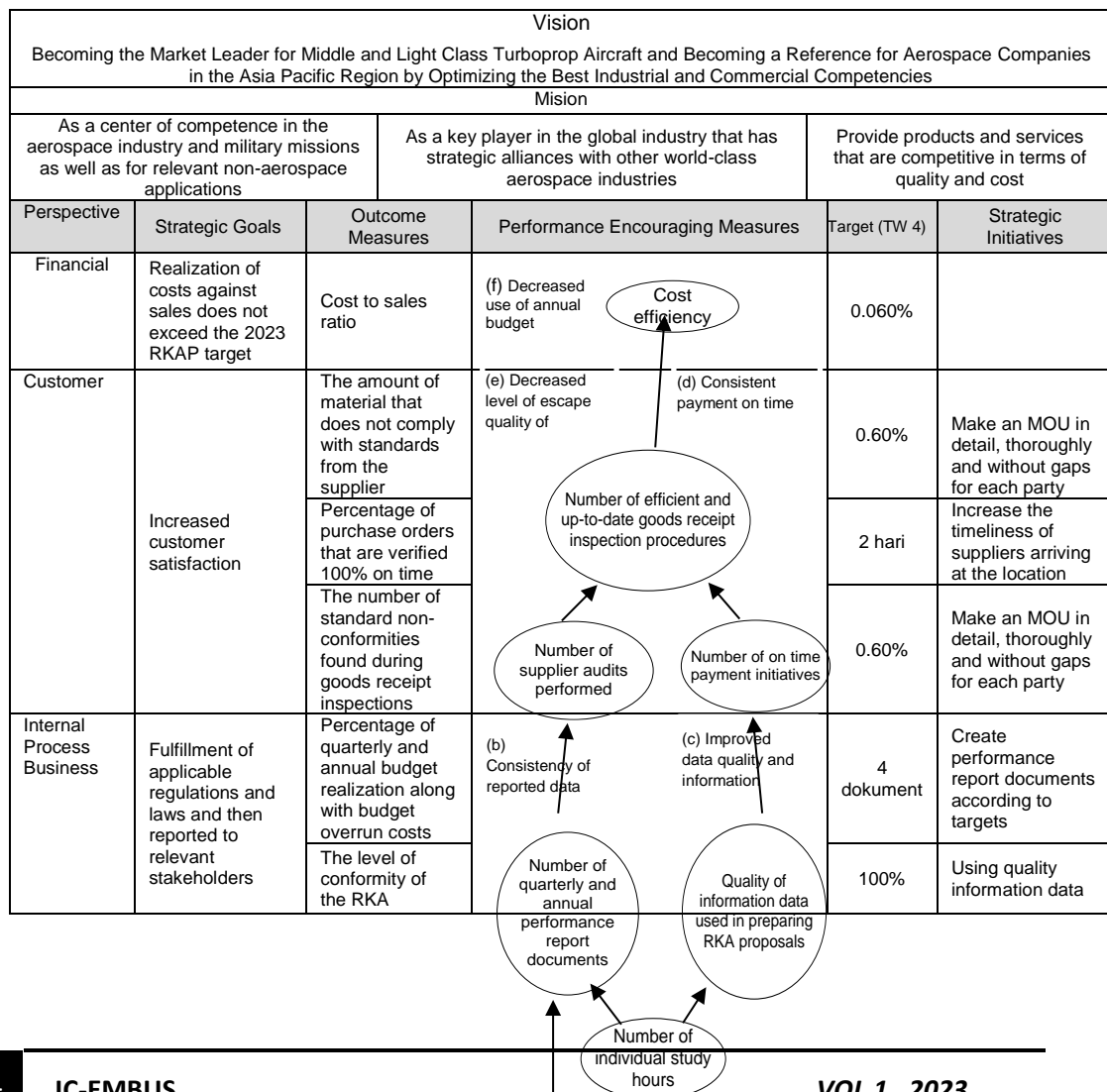
Perspective	Strategic Goals	Outcome Measures	Performance Encouraging Measures	Targets (TW 4)	Strategic Initiatives	Program
Financial	Realization of costs against sales does not exceed the 2023 RKAP target	Cost to sales ratio	Cost efficiency	0.060%		Complete the inspection process on time according to the plan from the production control function
Customer	Increased customer satisfaction	The amount of material that does not comply with standards from the supplier	Number of supplier audits performed	0.60%	Make an MOU in detail, thoroughly and without gaps for each party	Developing a data base as a material for assessing supplier performance including their products
		Percentage of purchase orders that are verified 100% on time	Number of on-time payment initiatives	2 days	Increase the timeliness of suppliers arriving at the location	Developing a data base as a material for assessing employee and supplier performance in verifying products
		The number of standard non-conformities discovered during goods acceptance inspections	Number of efficient and up-to-date goods receipt inspection procedures	0.60%	Make an MOU in detail, thoroughly and without gaps for each party	Implementation of SAP in all issuer inspection processes in storage
Internal Process Business	Fulfillment of applicable regulations and laws and then reported to relevant stakeholders	Percentage of quarterly and annual budget realization along with budget overrun costs	Number of Quarterly and Annual Performance Report Documents	4 document	Create performance report documents according to targets	Submit documents that have been validated to Stakeholders on time
		The level of conformity of the RKA proposal with the company's needs and targets	Quality of information data used in preparing RKA proposals	100%	Using quality information data	Submit documents that have been validated to Stakeholders on time

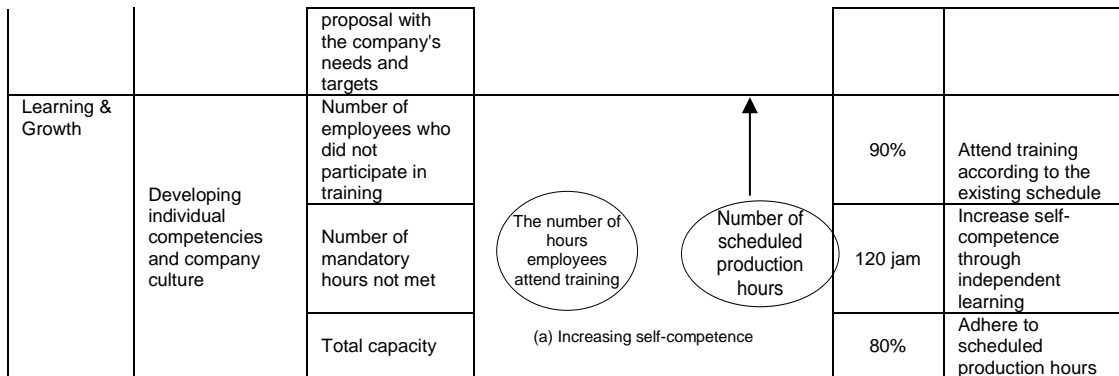
Learning & Growth	Developing individual competencies and company culture	Number of employees who did not participate in training	Number of employees who attended training	90%	Attend training according to the existing schedule	Carrying out morning briefing activities
		Number of mandatory hours not met	Number of individual study hours	120 hours	Increase self-competence through independent learning	Personnel certification in the Quality Control area
		Total capacity	Number of scheduled production hours	80%	Adhere to scheduled production hours	SAP implementation in all Process issuer Inspection in storage

Source: Analysis Results (2023)

DISCUSSION

Based on the results of the analysis, a company scorecard framework for the QCX00 department can be prepared. Company scorecard is a strategic management tool used to link strategy with performance. Company scorecard which also connects cause and effect between strategic targets in each perspective.





Picture 1. QCX000 Departmental Company Scorecard Framework

Source: Analysis Results (2023)

By implementing the balanced scorecard method, the QCX00 department can help the company realize the company's vision and mission. Based on Figure 1, it can be seen that the method used is coherent, comprehensive, measurable and balanced. Indonesia is a country rich in natural resources, human resources, and has geographically extensive land and sea areas (Wildan et. all, 2021). The QCX00 department plays an important role in achieving the company's vision. This can be seen from several strategic initiatives carried out by the QCX00 department, namely:

1. Make an MOU in detail, thoroughly and without gaps for each party. This initiative aims to ensure that suppliers provide quality products and services in accordance with established standards. This will have an impact on increasing customer satisfaction, which is an important aspect of the company's vision.
2. Increase the timeliness of the communications created. This initiative aims to ensure that important information can be conveyed in a timely manner to relevant parties. This will have an impact on increasing the efficiency and effectiveness of business processes, which is also an important aspect of the company's vision.
3. Create Quarterly and Annual Performance Report documents along with costs according to targets. This initiative aims to ensure that company performance can be monitored and measured accurately. This will have an impact on increasing the efficiency and effectiveness of company management, which is also an important aspect of the company's vision.
4. Using data with relevant stakeholders. This initiative aims to ensure that the data used in decision making is accurate and relevant. This will have an impact on improving the quality of decisions made, which is also an important aspect of the company's vision.
5. Develop personal competence. This initiative aims to increase employee capabilities and skills. This will have an impact on increasing the company's productivity and competitiveness, which is also an important aspect of the company's vision.

In addition, the QCX00 department also plays a role in reducing costs and increasing company efficiency. This can be seen from several strategic initiatives carried out by the QCX00 department, namely:

1. Reducing the level of material quality escape. This initiative aims to reduce the number of defective products produced. This will have an impact on reducing production costs and increasing customer satisfaction.

2. Consistency of timely payments. This initiative aims to ensure that payments to suppliers are made on time. This will have an impact on improving good relations with suppliers and reducing administrative costs.
3. Consistency of reported data. This initiative aims to ensure that the data reported is accurate and consistent. This will have an impact on reducing unnecessary costs.

The relationship between learning and growth and internal business processes

The relationship between learning and growth and internal business processes is a mutually supportive relationship. Learning and growth provides the foundation needed to increase the efficiency and effectiveness of internal business processes, while internal business processes provide opportunities for employees to learn and develop their competencies. Employee performance represents a stage of achievement as an indicator of an employee's work accomplishments (Safrizal et. al, 2020). Supply chain network optimization can be carried out with the goal of minimizing the distribution costs of agricultural commodities (Marita et. al, 2021). Economic growth is the process of increasing per capita output over the long term (Wildan et. al, 2021). This looks like the strategic initiative "Developing personal competence" from a learning and growth perspective can support the strategic initiative "Improving data quality and information" from an internal business process perspective. This is because employees who have adequate competence will be able to do their work better and more efficiently, which will ultimately have an impact on increasing the quality and accuracy of the reported data.

The relationship between internal business processes and customers

The relationship between internal business processes and customers is a relationship that influences each other. Effective and efficient internal business processes will produce quality products and services, which will ultimately meet customer needs and expectations. This looks like the strategic initiative "Improving data quality and information" from an internal business process perspective can support the strategic initiative "Increasing customer satisfaction" from a customer perspective. This is because accurate and quality data can be used to make the right decisions to meet customer needs and expectations.

Customer and financial relationships

The relationship between customers and finance is a relationship that influences each other. High customer satisfaction will have an impact on increasing company sales and profits. This looks like the strategic initiative "Increasing customer satisfaction" from a customer perspective can support the strategic initiative "Cost efficiency" from a financial perspective. This is because satisfied customers will tend to become regular customers and contribute to increasing sales.

Overall, these four perspectives are interrelated and support each other. Learning and growth provides the foundation needed to improve the internal efficiency and effectiveness of business processes, which will ultimately produce quality products and services that meet customer needs and expectations. This will have an impact on increasing customer satisfaction and the company's financial performance.

CONCLUSION

QCX00 department has a comprehensive business strategy. The business strategy includes all four perspectives of the balanced scorecard, which shows that the company understands that long-term success requires a balance between financial performance, customer satisfaction, efficiency and effectiveness of business processes, as well as employee competence and company culture. Company "XXX" has specific and measurable KPIs to measure the achievement of its strategic goals. This is important to ensure that the company can track its progress and make necessary adjustments if necessary. There are four perspectives on the company scorecard. Financial perspective to increase company profitability. The key performance indicators (KPI) used to measure the achievement of this goal are net profit, revenue and profit margin. Customer perspective to meet customer needs. The KPI used to measure the achievement of this goal is customer satisfaction with measurements based on the percentage of escape quality in the material that is likely to occur. Internal business process perspective to increase the efficiency and effectiveness of business processes. The KPIs used to measure the achievement of this goal are product quality, productivity and completion time which are reported in document form. Learning & growth perspective to improve employee competency and company culture. The KPIs used to measure the achievement of this goal are employee competency, innovation and company culture.

REFERENCE

- Amelyawati, Fitri, Herachwati, Nuri. Nadia, F N Dinda. 2023. Meningkatkan Daya Saing Melalui Manageman Sumber Daya Manusia (MSDM) Sebagai Strategi Peningkatan Kinerja. Jurnal Riset dan Konseptual, Vol 8 No 1. 22-37. doi:<http://dx.doi.org/10.28926/briliant.v8i1.1147>.
- Asir, Muhammad. 2022. Analysis of Competency Roles, Supportive Leadership Styles and Compensation on Employee Performance in National Manufacturing Companies. Management Studies and Entrepreneurship Journal, 3(5). 3078-3085. DOI: 10.37385/msej.v3i5.1156
- Audina, G. O., Triwibisono, C., & Aisha, A. N. 2017. Perancangan Sistem Pengukuran Kinerja Organisasi Pada PT XYZ Dengan Metode Balanced Scorecard. Jurnal Integrasi Sistem Industri, 4(2), 93-96.
- Budiyono. 2022. Employee Performance Measurement Analysis Using The Balance Score Cards. International Journal of Economics, Business and Accounting Research, 6(4). 2050-2056. <https://jurnal.stie-aas.ac.id/index.php/IJEBAR>
- Cahyani, G. Indah. 2023. Pengaruh Manajemen Evaluasi Kinerja Karyawan Terhadap Produktivitas Perusahaan. Jurnal Karimah Tauhid. Vol 2 No 5. 1708-1713.
- Chirzun, Ahmad & Sulkhan, Mohamad. 2013. Designing Map Strategy Performance Measurement Functional Units Organization Method Based on The Balanced Scorecard (Case Study Xyz University). Proceeding, 6th International Seminar on Industrial Engineering and Management
- Jim Ryan et.al 2013 Balanced scorecard Approach to Perioperative process Management (Alabama : Hawai /,Troy University: Barbara Doster And Sandra Daily university of alabama ,46 th Hawaii International Conference on system Science).

- Kaplan, R., & Norton, D. P. 2000. *Balanced Scorecard: Menetapkan Strategi Menjadi Aksi*, Erlangga, Jakarta.
- Kusumanto, Ismu. Permata, E Gilang. Harpito, Anwardi, Iglina, Putri. 2018. *Penilaian Kinerja Menggunakan Metode Key Performance Indicators Pada Bunda Bakery*. Seminar Nasional Teknologi Informasi, Komunikasi dan Industri (SNTIKI-10). Fakultas Sains dan Teknologi, UIN Sultan Syarif Kasim Riau. ISSN (Printed) : 2579-7271. ISSN (Online) : 2579-5406.
- Megawati, Masda. Setiyana, Nunung. Pekih, M Imam. Santoso, Sugeng. 2021. *Metode Balanced scorecard sebagai pengukuran indikator kinerja di PT PELNI (Persero)*. *Journal of Applied Industrial Engineering*, 13(2). 232-244.
- Mulyadi. 2001. *Balanced Scorecard, Alat Manajemen Kontemporer untuk Pelipatganda Kinerja keuangan Perusahaan*. Edisi pertama. Cetakan pertama. Yogyakarta: Salemba Empat.
- Nursam, Nasrullah. 2017. *Manajemen Kinerja*. *Journal of Islamic Education Management*. Vol 2 No 2. 167 – 175. DOI: <https://doi.org/10.24256/kelola.v2i2.438>
- Performance and Financial Performance Using Balanced Scorecard Framework: A Research in Education Context*. *Journal of Economics, Business and Management*, 2(1). 43-47. DOI: 10.7763/JOEBM.2014.V2.96
- Prasetyo, V W Tri. 2009. *Balanced Scorecard Sebagai Aplikasi Dalam Perencanaan Strategi Perguruan Tinggi (Studi Teoritis pada Program Studi Teknik Industri Universitas Widya Mandala Madiun)*. *Jurnal Ilmiah Widya Warta*, 33(1).
- Prasetyo, VWT. Ellitan, Lena, 2023. *The Role of Internal and External Environment For The Sustainability of MSMEs*. *Jurnal Cendekia Ilmiah*, Vol 2 No 2. DOI: <https://doi.org/10.56799/jceki.v2i3.1609>
- Riyanto, Ade. 2023. *Evaluasi Penilaian Kinerja Karyawan Perusahaan Keramik Manufaktur Kota Bandung*. *Jurnal Multidisiplin Indonesia*, Vol 2 No 6. 1196-1203. <https://jmi.rivierapublishing.id/index.php/rp>
- Samihardjo, Rosalin & Hapsari, W Tri. 2020. *Analysis And Design of Employee Performance Measurement System Using Balanced Scorecard Method (Case Study PT. Docotel Teknologi)*. *Palarch's Journal Archaeology of Egypt*, 17(10). 3163-3174.
- Suwendra, I Wayan & Sujana, I Nyoman. 2018. *An Analysis of Cooperative Performance Using Balanced Scorecard Method*. 3rd International Conference on Tourism, Economics, Accounting, Management, and Social Science, Vol 69. 222-230.
- Tarigan, Josua & Widjaja, D Christine. 2014. *The Relationship between Non-Financial* Hidayati, Juliza & Nisak, Khairun. 2019. *Identify the performance of government agencies for city fire prevention and firefight by the balanced scorecard method*. 1st International Conference on Industrial and Manufacturing Engineering, doi:10.1088/1757-899X/505/1/012097
- Tran, Y Thi. Nguyen, P Nguyen. 2020 *The impact of the performance measurement system on the organizational performance of the public*

- sector in a transition economy. *Cogent Business & Management*, 7(1). DOI: 10.1080/23311975.2020.1792669
- Safrizal, H. B. A., Eliyana, A., & Gunawan, S. (2020). Spirituality in The Workplace and Employee Performance: A Literature Perspective. *International Journal of Psychosocial Rehabilitation*, 24(7), 880-884.
- Wildan, M. A., Widyaningrum, M. E., Padmapriya, T., Sah, B., & Pani, N. K. (2023). Recruitment Algorithm in Edge-Cloud Servers based on Mobile Crowd-Sensing in Smart Cities. *International Journal of Interactive Mobile Technologies*, 17(16).
- Padmapriya, T., Salameh, A. A., Wildan, M. A., & Kishore, K. H. (2022). AI Enabled-6G: Artificial intelligence (AI) for integration of 6G wireless communications. *International Journal of Communication Networks and Information Security*, 14(3), 372-379.
- Victoria, A. H., Manikanthan, S. V., Varadaraju, H. R., Wildan, M. A., & Kishore, K. H. (2022). Radar Based Activity Recognition using CNN-LSTM Network Architecture. *International Journal of Communication Networks and Information Security*, 14(3), 303-312.
- Tarjo, T., Anggono, A., Yuliana, R., Prasetyono, P., Syarif, M., Wildan, M. A., & Kusufi, M. S. (2022). Corporate social responsibility, financial fraud, and firm's value in Indonesia and Malaysia. *Heliyon*, 8(12).
- Wildan, M. A. (2020). Employee's productivity at the operation of indonesian railway. *The Indonesian Accounting Review*, 10(1), 47-50.
- Wildan, M. A., Imron, M. A., & Siswati, E. (2021). Macroeconomic factors affecting natural gas export management. *International Journal of Energy Economics and Policy*, 11(1), 639-644.
- Safrizal, H. B. A., Eliyana, A., & Febriyanti, K. L. (2020). The Effect of Double Role Conflict (Work Family Conflict) on Female Worker's Performance with Work Stress as the Intervening Variable. *Systematic Reviews in Pharmacy*, 11(10).
- Marita, L., Arief, M., Andriani, N., & Wildan, M. A. (2021). Strategi Peningkatan Kesejahteraan Petani Indonesia, *Review Manajemen Strategis. Agriekonomika*, 10 (1), 1–18.
- WILDAN, M. A., IMRON, M. A., SYARIF, M., & JAKFAR, A. A. (2021). Palm oil export management and dynamic macroeconomic. *Journal of Tianjin University Science and Technology*, 54, 51-63.