Balanced scorecard method as measurement of key performance indicators at PT PELNI (Persero)

(*Metode Balanced scorecard sebagai pengukuran indikator kinerja di PT PELNI (Persero)*)

Masda Megawati[1], Nunung Setiyana[2], Mufti Imam Pekih[3] & Sugeng Santoso[4]

[1,2,3]Fakultas Ekonomi & Bisnis, Universitas Mercu Buana, Jakarta
[4]Program Sudi Magister Manajemen, Universitas Mercu Buana, Jakarta

Corresponding author: jictmufti@gmail.com

Abstrak. *PT PELNI (Persero) bergerak di bidang transportasi laut dan berupaya merancang sistem pengukuran kinerja yang komprehensif. Tujuan penelitian tersebut adalah untuk mengidentifikasi indikator yang digunakan PT PELNI (Persero) sebagai pengukuran kinerja karyawan, menyusun konsep sistem kartu skor yang seimbang sesuai dengan pengukuran kinerja perusahaan, dan mengembangkan desain simulasi kartu skor yang seimbang sesuai dengan visi, misi, dan strategi PT PELNI (Persero). Mengukur kinerja perusahaan menggunakan metode Balanced Scorecard (BSC) dimulai dengan analisis SWOT. Analisis ini bertujuan untuk menentukan faktor internal dan faktor eksternal perusahaan. Dari hasil analisis ini akan diketahui posisi perusahaan saat ini dan strategi apa yang harus diterapkan. Hasil penelitian menunjukkan bahwa perusahaan dalam kondisi yang baik, tetapi menghadapi tantangan, sehingga strategi yang harus dipilih adalah strategi diversifikasi. Hasil akhir penelitian ini adalah pemilihan beberapa KPI dan 7 (tujuh) program kerja yang harus dilakukan, antara lain peningkatan efisiensi penggunaan aset, mempromosikan tiket murah selama pandemi covid-19, efisiensi dan pemanfaatan pengendalian selama pandemi covid-19, mengembangkan aplikasi instansi dan otomatisasi sistem layanan perjalanan, untuk memastikan dan memantau On-Time Performance (OTP) per kapal , pengembangan aplikasi akun pelayaran, peningkatan program pendidikan dan pelatihan untuk pengembangan diri karyawan.*

Kata kunci: *Balanced Scorecard, PT PELNI, SWOT, Indikator Kinerja Utama*

Abstract. *PT PELNI (Persero) is engaged in sea transportation and strives to design a comprehensive performance measurement system. The purpose of the research was to identify the indicators used by PT PELNI (Persero) as a measurement of employee performance, draft the concept of a balanced scorecard system in accordance with the measurement of the company's performance, and develop a balanced scorecard simulation design in accordance with the vision, mission, and strategy of PT PELNI (Persero). Measuring the company's performance using the Balanced Scorecard (BSC) method begins with SWOT analysis. This analysis aims to determine internal factors and external factors of the company. From the results of this analysis will be known the current position of the company and what strategies should be applied. The results showed that the company is in good shape, but facing challenges, so the strategy to choose is a diversification strategy. The final result of this study is the selection of several KPIs and 7 (seven) work programs that must be done, including improved efficiency of asset use, promoting cheap tickets during the covid-19 pandemic, efficiency and control utilization during the covid-19 pandemic, developing agency applications and automation of travel service systems, to ensure and monitor On-Time Performance (OTP) per ship, voyage account application development, improving education and training programs for employee self-development.*

Keyword: *Balanced Scorecard, PT PELNI, SWOT, Key Performance Indicator*

1 Introduction

The results of the study in 2018 showed that Indonesia obtained an index of 3.15, an increase of 0.07 points from 2016 of 2.98, ranked 46th, or an increase of 17 levels from 2016 Global

Rank Logistics Performance Index (LPI) issued by the World Bank reports every 2 years as a statistical measure of logistics (Logistic Performance Index, World Bank, 2018) (Permata & Santoso, 2020). Mode of sea transportation is a means of transportation that until now is still in demand by some people who have excess time and considered a pro mode of transportation to the community, which is desirable and for the general public sea transportation is the main alternative as a means of support in daily life this is behind the thought of the community that sea transportation becomes a solution in travel (Astri, 2020). Companies have long known that to compete, they must develop good strategies, implement appropriate tactics to support that strategy, and measure the results of initiatives towards strategic goals (Taufik, Purba, & Hasbullah, 2021)

Green Operations Management has a positive influence on the company's green business, therefore when the company conducts its business operations with attention to the concept of the environment will produce a green business with many opportunities that can be developed. Similarly, companies that apply the concept of green business will improve green marketing as well. Companies in Indonesia can improve operational management by using the company's facilities in an environmentally friendly manner and managing supply chain systems that carry the green concept. This will make green businesses and green marketing companies better (Nusraningrum, Santoso, Gunawijaya, & Gading, 2021).

The BSC method has succeeded in providing empirical evidence in several journals studied and providing improvements the company's performance in various tourism sectors, both in the fields of hospitality, recreation parks, tour & travel and restaurant (Putri, Hayyin, & Saefulah, 2020).

PT PELNI (Persero) is one of the state-owned transportation sector.The company provides sea transportation services including passenger transport services and inter-island freight services. Changes in the service sector can be seen from the development of various service industries such as banking, insurance, aviation, telecommunications, retail, tourism, and professional service companies such as accounting firms, consultants and lawyers, so it can be said that the orientation of services to consumers/passengers needs to be improved in order to face competition in the transportation services industry, therefore transportation service providers must use strategies to seize the market.

The legal basis for the implementation of performance measurement and management, as a form of government accountability implementation, based on Presidential Regulation of the Republic of Indonesia Number 29 of 2014 concerning the performance accountability system of government agencies. Article 1 states that SAKIP is a series of systematic activities, tools, and procedures designed to determination and measurement purposes, data collection, classification, report performance to government agencies, based on liability and performance of government agencies (Marzuki, Laksmono, & Subroto, 2020).

In addition to being used to assess the company's success, performance measurements can also be used as a basis for evaluating the work of the past period. In connection with this, performance measurement should be conducted comprehensively, so that decision making related to the strategy can be done thoroughly. Thus the strategy will be able to accommodate every perspective involved in determining the success of the company (Permatasari & Dwiarti, 2016). Performance assessments are generally based on financial ratios. With the presence of competition as outlined earlier, the company in this case the cooperative is required to be able to think and develop the management of strategic objectives to achieve strategic objectivess in achieving objectives in the results of in the short and long term. Strategy planning requires information about the company's performance in previous periods. Currently, the company only conducts evaluations based on financial factors only in looking at the achievement of the company, while it is not enough.

The basis of Performance Management is the effective use of resources, as measured by measuring processes and results using indicators that measure the performance of organizations in a particular field. This strategy relies in part on proper use of a myriad of information technologies, from high-speed network database management systems to software and hardware for data analysis and display (Bryan P. Bergeron, 2018).

According to (Kaplan & Norton, 2000), balance scorecard is a tool management instruments to measure the balance between financial and non-financial factors. The objectives to be achieved by this study are: 1) identifying the indicators used by PT PELNI (Persero) as a measurement of organization performance; 2) create a balanced scorecard simulation design in accordance with the vision, mission, and strategy at PT PELNI (Persero).

2   Literature Review

Performance measurement is continuous monitoring of the achievement of a program. From the long-term objectivess can be obtained its development. Performance measurement is directed by management, as well as activities related to the program, program output in the form of products and services, and the outcome of the product or service. A program can be an activity, function, project, or policy that has an identifiable purpose (Artley, Ellison, & Kennedy, 2001).

Balanced Scorecard
Balanced scorecard (BSC) can be used as the right choice to assess more objectively the company's performance level. Following (Kaplan & Norton, 1996) definition, the BSC creation process begins with a vision statement, leading to stakeholder analysis across four perspectives. This, in turn, leads to identifying critical success factors, which then determine critical measurements or KPIs. In this case, BSC is a form of reengineering process.

Balance Scorecard approach is intended to answer the main question (Kaplan and Norton, 1996):
1)   How the company looks in the eyes of the Shareholders? (financial perspective)
2)   What are the views of customers on Company? (customer perspective)
3)   What are the advantages of the company? (internal business perspective)
4)   What companies should continuously make improvements and create value continuously? (perspective growth and learning)

Balanced scorecards were originally created to address the problem of weaknesses in the executive work measurement system that focuses on financial aspects. As a result, the focus of attention and efforts of executives in realizing financial performance, so that there is a tendency of executives not to pay attention to non-financial performance, such as productivity and cost-effectiveness processes used in producing products and services, and commitment and empowerment of employees in producing products and services to achieve customer satisfaction (Audina, Triwibisono, & Aisha, 2017).

In addition, Balanced Scorecard also provides a frame of mind to describe the company's strategy into the operational side. With a Balanced Scorecard, the objectives the company is not only expressed in financial size only, but expressed In the measure in which the company creates value for existing and future customers, and how the company should improve its internal capabilities including investments in humans, systems, and procedures necessary to achieve better performance in the future upcoming. Through a Balanced Scorecard it is expected that the measurement of financial and non-financial performance can be part of the information system for all employees and levels in the organization. Currently balance scorecards are no longer considered performance gauges, but have become a thought tool in strategy development (Zuniawan, Julyanto, Suryono, & Ikatrinasari, 2020).

The balance scorecard should translate a business unit's mission and strategy into tangible objectives and measures.The measures represent a balance between external measures for shareholders and customers, and internal measures of critical business processes, innovation and learning and growth. The measures are balanced between the outcome measures, the results from past efforts, and the measures that drive future performance. The company's system serves as a director for the business division, strategically functional units and scorecards or variations there. For more conventional users of Balanced, Tiered Scorecards (which, as we explain below, are not identical alignment) is usually delivered through a Balanced building (Wiraeus & Creelman, 2018).

Figure 1 Balanced scorecard framework
(Source: Zuniawan, Julyanto, Suryono, & Ikatrinasari, 2020)

Key Performance Indicators
KPIs are defined as strategic and measurable measurements that reflect important business success factors (ISO 22400, 2014). Is also a financial and non-financial indicator used by organizations to estimate and strengthen how successful they are, which aims to achieve the long term objectivess set out in advance (Simbolon & Santoso, 2021).

KPIs represent a set of steps that focus on the most important aspects of an organization's performance and future success. Rare KPIs are new in your organization. They have not been recognized or "collected dust" somewhere unknown to the management team at this time (Parmenter, 2020). Many companies work with the wrong steps, many of which are incorrectly called key performance indicators (KPIs). Very few organizations actually monitor their actual KPIs. The reason is that it is very several organizations, business leaders, writers, accountants, and consultants have explored what KPIs really are.

SWOT Analysis
SWOT analysis (Strength, Weaknes, Opportunity, Threats) is an identification used in systematically formulating strategies in a decision making related to very important matters in a government and also companies, to maximize performance and also targets that have become the main focus yes it's the vision and mission of both government agencies and private agencies (Nggini, 2019).

3   Methods

PT PELNI (Persero) is an Indonesian state-owned company, where ownership is controlled by the Government of Indonesia. PT PELNI (Persero) performance improvement efforts seek to improve the company's performance to become the leader in a highly competitive business environment. Steps taken to make this happen by applying BSC performance measurements. Balanced scorecard performance measurement begins with strategic planning by determining indicators, sizes relevant to each target in each BSC perspective, followed by target determination, then formulated strategy initiatives. Based on the description above can be described conceptually framework in Figure 2.
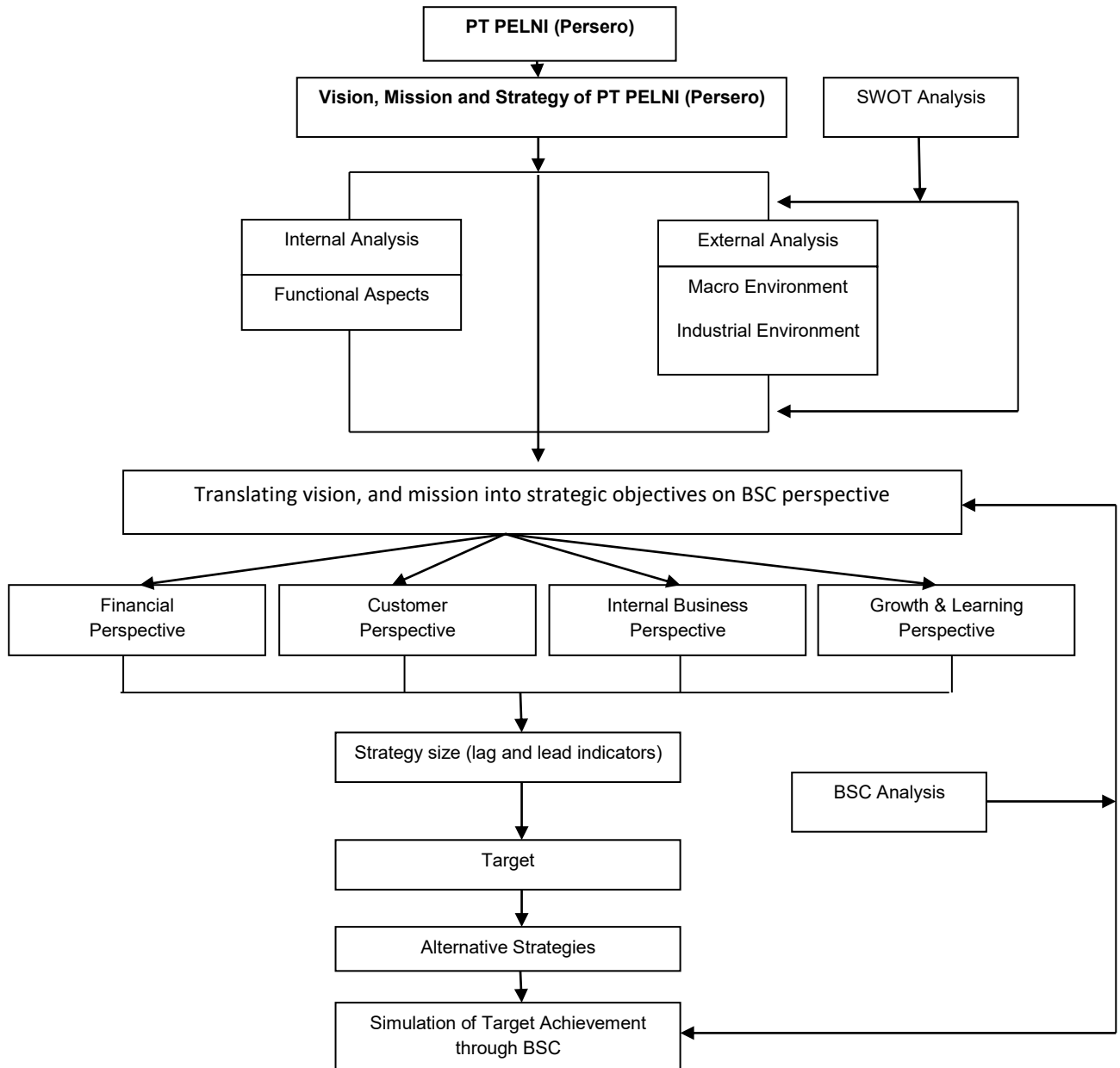
```
                              ┌──────────────────────┐
                              │   PT PELNI (Persero) │
                              └──────────┬───────────┘
                                         ▼
      ┌───────────────────────────────────────────────┐   ┌──────────────────┐
      │ Vision, Mission and Strategy of PT PELNI (Persero) │   SWOT Analysis   │
      └───────────────────────────────────────────────┘   └──────────────────┘
```


Figure 2 Framework

Figure 2 shows the framework of research thinking on the design of a balanced scorecard as a measurement of performance. This study began by analyzing the risks using SWOT analysis. SWOT analysis is used to determine the strengths, and weaknesses of the company, as well as to estimate the strategic map of competitor companies in the insurance industry, so that companies can compete in the industry. The second analysis uses BSC analysis to measure employee performance objectively, looking at the two most important aspects: financial aspects, and non-financial aspects.

The results of this study are qualitative. This research was conducted at PT PELNI (Persero) at the Directorate of Business and Passenger Transport from March to April 2021. The type of data used is secondary data. Secondary data comes from the study of libraries both from books, thesis, thesis, journals, the internet, as well as internal data and company reports. Data processing in this study using SWOT analysis method and BSC analysis method. From the existing problems and the need to measure the company's performance, KPI is set as a measurement benchmark based on the strategic objectives of the company's BSC design (Setiawan & Farmansyah, 2016); (Pekih, I.M.; Sembiring, A.; Santoso,S., 2021).

4 Results and Discussion

Company Overview of PT PELNI (Persero)

a. PT PELNI (Persero) vision: Become a Leading Maritime Shipping and Logistics Company in Southeast Asia.

b. PT PELNI (Pesero) mission:

- Ensuring the accessibility of the community by managing sea transportation to support the realization of Wawasan Nusantara
- Managing and developing maritime logistics businesses in Indonesia and Southeast Asia
- Increasing the company's value through creativity, innovation, digitization of business processes, and human resource development to achieve sustainable growth
- Conducting business fairly by paying attention to the benefits for all stakeholders by applying the Principles of Good Corporate Governance (GCG)
- Contribute positively to the country and its employees, as well as play an active role in the development of the environment and services to the community

c. PT PELNI (Persero) strategy:

- Market Development
- Business Model Innovation
- Technology Utilization
- Resources Improvement
- Talent Development

d. Corporate Values of PT PELNI (Persero) is called AKHLAK:

- Amanah: Upholding the Trust Given
- Kompeten: Keep Learning and Developing Capabilities
- Loyal: Dedicated and Putting the Interests of The Nation and Country First
- Adaptif: Continue to Innovate and Enthusiastic in Moving or Facing Change
- Kolaburatif: Building Synergistic Cooperation

Organization Structure of PT PELNI (Persero)

The Organizational Structure is ratified in the Decree of the Board of Directors Number: 03.19/01/SK/HKO.01/2019 concerning the Organizational Structure, Main Duties and Functions of the Head Office of PT Pelayaran Nasional Indonesia (Persero) as seen in Figure 3.
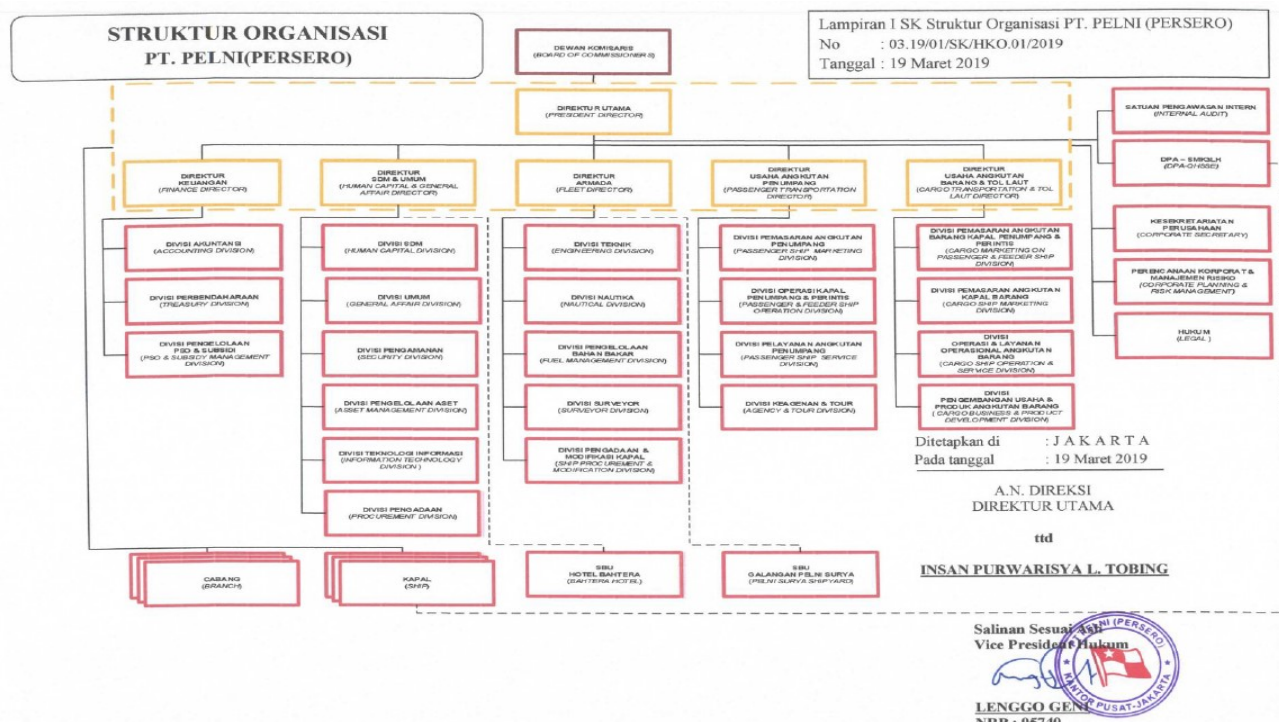

Figure 3 Organization Structure of PT PELNI (Persero)

SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats)
Good strategic planning will lead the company to achieve advantages of competing with other companies, and having products that meet consumer expectations. The Company must also look at internal and external objective conditions so that the company can anticipate the ever-changing environmental conditions.

Table 1 Interpretation of the impact of internal and external environmental analysis results of PT PELNI (Persero) with balance scorecard measurement

	BSC PERSPECTIVE			
	FINANCIAL	**CUSTOMER**	**INTERNAL BUSINESS**	**LEARNING & GROWTH**
STRENGTHS	State-owned companies and have a sizable capital ratio	Services that provide convenience to consumers	Quality products and international standards	Periodic training provided by the company in improving skills in the work
WEAKNESSES	Adjustments with regulators regarding policy with the government	Lack of promotional activities	The service life of the ships is relatively old	Opportunities for promotion, and difficult career advancement.
OPPORTUNIY	Financial support from shareholders	Get a wide range of service awards that are useful in improving promotions, and services.	Has a wide distribution channel throughout Indonesia	Have an external training development team, and professional external expertise
THREATS	Economic conditions are not passionate in the pandemic covid 19	Ticket prices are in accordance with government regulatory policies and low market share.	Competition with Air Transport that offers cheap tickets	Adoption process of high competitor technology development, and fast

SWOT analysis relates to the formulation of strategies tailored to the vision, and mission of the company. Formulation of strategies translating the vision, mission, and strategy of PT PELNI (Persero) against the perspective of balanced scorecards (BSC) into strategic targets, through SWOT analysis, PT PELNI (Persero) can know its influence on the perspective of BSC.

Strategy Objectives
Based on the strategy set by the company, the next step is to place each strategy into 4 (four) Balanced Scorecard perspectives. The perspectives in question are financial perspectives, customers, internal business processes, and learning and growth. The division of the strategy is as follows:

1) Financial Perspective
    • Optimizing revenue in passenger transport, agency and lifestyle business lines
2) Customer Perspective
    • Customer satisfaction, trust, and acquisition
3) Internal Business Process Perspective
    • Improving utilization and productivity of passenger transport capacity
    • Optimizing agency and lifestyle business production
    • Improving operational effectiveness and passenger transport services
    • Ensuring fulfillment of passenger and pioneer ship assignments
4) Learning and Growth Perspective
    • Improving human and organizational capital
    • Digitization of passenger transport business process

Strategy Map

Every perspective in a Balanced Scorecard must be interconnected. The interconnectedness of each of these perspectives is shown on the strategy map. The strategy map provides an overview of the relationship between one perspective and another that is interrelated and has a causal relationship that communicates the meaning of the strategy to all parts of the company as seen in Figure 4.
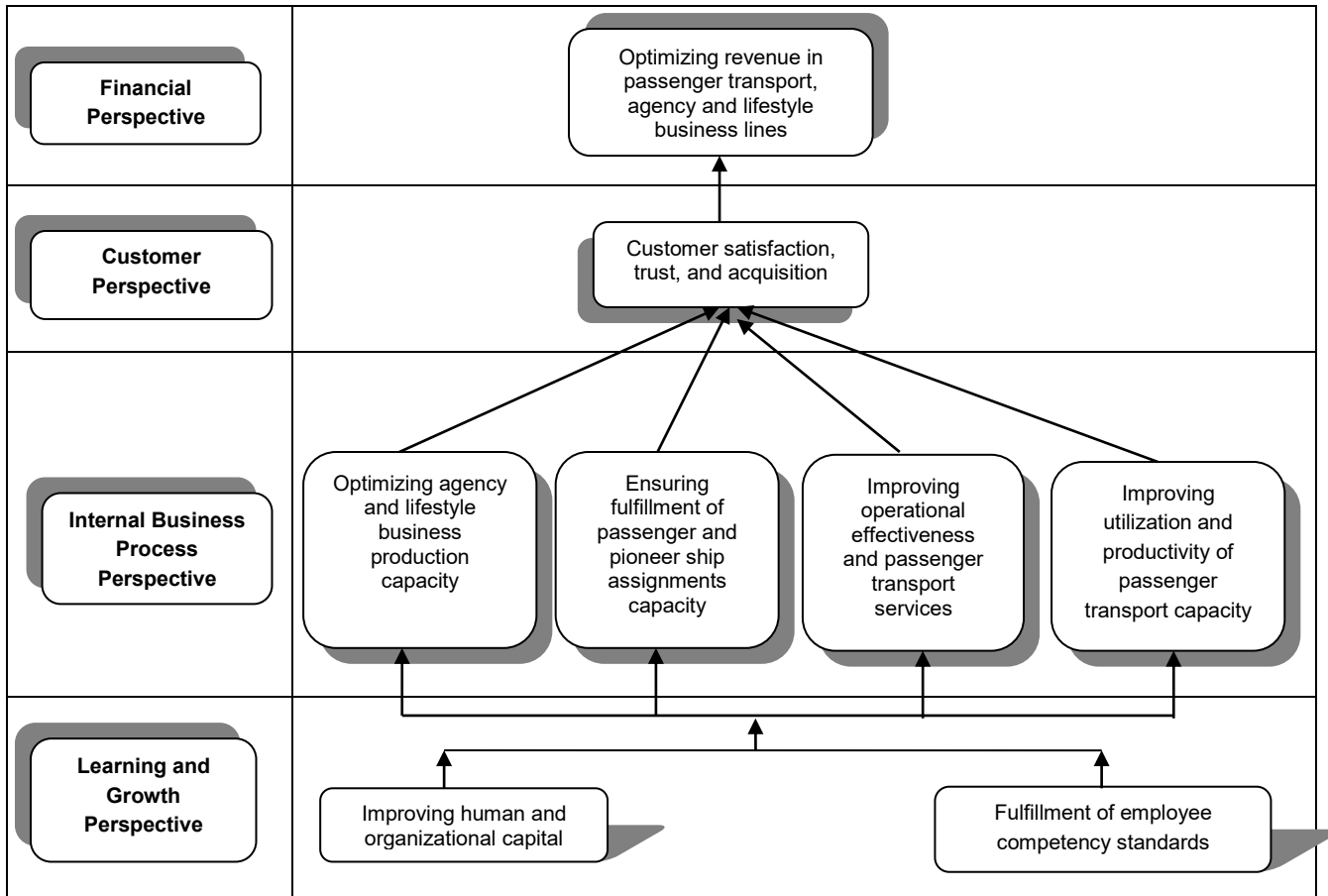

Figure 4 Strategy Map of The Directorate of Passenger Transport of PT PELNI (Persero)

Balanced Scorecard

There are two types of measurement in balanced scorecard, namely outcome lagging measurement and performance leading measurement. Tables 2, 3, 4, and 5 are measurement indicators performed for each objective on each Perspective balanced scorecard.

Table 2 Financial Perspective

Strategy	Measure	
	Lag Indicator	Lead Indicator
Optimizing revenue in passenger transport, agency and lifestyle business lines	Revenue operating growth	-

Table 3 Customer Perspective

Strategy	Measure	
	Lag Indicator	Lead Indicator
Customer satisfaction, trust, and acquisition	Passenger Satisfaction Index	-

Table 4 Internal Business Process Perspective

Strategy	Measure	
	Lag Indicator	**Lead Indicator**
Improving utilization and productivity of passenger transport	Pax factor passenger ship	-
Optimizing agency and lifestyle business production	Number of agency calls	-
Improving operational effectiveness and passenger transport services	-	OTP (On Time Performance) passenger ship
Ensuring fulfillment of passenger and pioneer ship assignments	Fulfillment of Voyage Number of passenger and pioneer ships	-

Table 5 Learning and Growth Perspective

Strategy	Measure	
	Lag Indicator	**Lead Indicator**
Improving human and organizational capital	Employee Engagement Index	-
Fulfillment of employee competency standards	Percentage of Employee competency standard fulfillment	-

Key Performance Indicator (KPI)

The KPI determination for each Strategy Objectives is as follows:

Table 6 KPI Financial Perspective

Strategy	KPI	Unit	Realization		Target	Initiative Strategy
			2018	**2019**	**2020-2021**	
Optimizing revenue in passenger transport, agency and lifestyle business lines	Percentage growth in operating profit	%	14,76	12,01	Increase 10%	Improved efficiency of asset use

Table 7 KPI Customer Perspective

Strategy	KPI	Unit	Realization		Target	Initiative Strategy
			2018	**2019**	**2020-2021**	
Customer satisfaction, trust, and acquisition	Passenger satisfaction level	%	90,70	98,10	99	Promoting cheap tickets during the covid-19 pandemic

Table 8 KPI Internal Business Process Perspective

Strategy	KPI	Unit	Realization		Target	Initiative Strategy
			2018	**2019**	**2020-2021**	
Improving utilization and productivity of passenger transport	The level of passenger fulfillment to the capacity of the ship	%	61	77	65	Efficiency and control utilization during the covid-19 pandemic

Table 8 Continue

Strategy	KPI	Unit	Realization		Target	Initiative Strategy
			2018	2019	2020-2021	
Optimizing agency and lifestyle business production	The level of achievement of the number of agencies	%	(20,98)	(3,41)	Increase 5%	Developing agency applications and Automation of travel service systems
Improving operational effectiveness and passenger transport services	The level of accuracy of arriving the ship reaches its destination	%	94,59	90,22	90	Monitor On-Time Performance (OTP) per ship
Ensuring fulfillment of passenger and pioneer ship assignments	Voyage fulfillment level of passenger ship assignment contract	%	98,84	114,39	115	Voyage Account Application Development

Table 9 KPI Learning and Growth Perspective

Strategy	KPI	Unit	Realization		Target	Initiative Strategy
			2018	2019	2020-2021	
Improving human and organizational capital	Level of employee engagement in the company	%	97,32	95	97	Education and training for employee self-development
Fulfillment of employee competency standards	The level of fulfillment of employee competency standards	%	67,79	97,05	98	Putting employees in the right position

Managerial Implications

Key Performance Indicator (KPI) for optimizing revenue in passenger transport, agency and lifestyle business lines strategy is percentage growth in operating profit. This can be demonstrated by the company's profit growth in 2018 and 2019 of 14.76% and 12.01%. Therefore, during the covid-19 pandemic, growth is expected to increase by 10% from previous years. The action program is improved efficiency of asset use. The state of having a Covid-19 Pandemic and not having a Covid-19 Pandemic is different (Putro et al., 2021)

KPIs for passenger satisfaction levels show that by 2020-2021 the target customer satisfaction rate should reach 99%. This target is an optimistic target by realizing a service improvement program to customers. Based on the survey results in 20118 and 2019 customer satisfaction reached 90.70 and 98.10%. Therefore, the initiative or program of action taken to achieve this target is to promote cheap tickets during the covid-19 pandemic. The action program is promoting cheap tickets during the covid-19 pandemic.

KPI for improving the utilization and productivity of passenger transport is the level of fulfillment of passengers to the capacity of the ship. Based on (PELNI, 2018) and (PELNI, Annual Report, 2019) the data of the Company's Annual Report 2018 and 2019, the level of passenger fulfillment to ship capacity reached 61% and 77%. Thus, it is expected that during this pandemic can be targeted to reach 65%. The action program is efficiency and control utilization during the covid-19 pandemic. The quality control process must also always be ensured that it is compliance with applicable standard procedures (Putro and Santoso, 2021).

The second strategic objectives is to optimize the production of agency and lifestyle businesses. The KPI for these objectives is the level of achievement of the number of agents. Currently, the company recorded negative growth in the number of agents in 2018 and 2019 minus 20.91% and 3.41%. It is expected that in 2020-2021 the number of agencies will increase by 5% to achieve positive growth above 1%. The action program is developing agency applications and automation of travel service systems. A simplification process needs to be carried out so that it will not hamper other activities in the business process (Yuliana and Santoso, 2021)

The third objectives is to improve the operational effectiveness and passenger transport services. The level of accuracy of arriving the ship reaches its destination is this strategic objectives KPI. The Company recorded in 2018 the achievement of OTP (On-Time Performance) of 94.59%, but in 2019 decreased to 90.22%. And during the pandemic covid-19 is targeting by 90%. The action program is to ensure and monitor On-Time Performance (OTP) per ship.

The final objectives in the learning and growth perspective is to ensure the fulfillment of passenger and pioneer ship assignments. The KPI of this objective is the level of fulfillment of the number of voyages of passenger and pioneer ships. The targets achieved in 208 and 2019 are 98.84% and 114.39%. The target to be achieved is the fulfillment of the number of voyages of passenger ships and pioneer ships can reach 115%. The action program is voyage account application development.

KPI for the first strategic objectives is to improve human and organizational capital. The KPI for the first objectives is the level of employee engagement in the company. Based on 2018 data, the achievement was 97.32%, but in 2019 it decreased by 95%. And targeted in 2020-2021 for employee engagement of 97%. The action program is improving education and training programs for employee self-development.

5   Conclusion

Based on the research objectives to be achieved, it can be concluded that PT PELNI (Persero) Indonesia has indicators in terms of performance measurement used as well as annual financial statements as the basis of performance measurement data, overall performance measurement indicators through financial perceptions used by PT PELNI (Persero) show positive things , because all the indicators that become measurements have resulted in a good improvement, which indicates the productivity of employee performance is getting better.

PT PELNI (Persero) as the party appointed as the Public Service Obligation (PSO) at sea have been able to carry out their duties well and remain focused on the strategic measures that have been set by the company, including increase passenger transport sales on passenger ships and pioneer ships.

The work program that must be done is a) improved efficiency of asset use, b) promoting cheap tickets during the covid-19 pandemic, c) efficiency and control utilization during the covid-19 pandemic, d) developing agency applications and automation of travel service systems, e) to ensure and monitor On-Time Performance (OTP) per ship, f) voyage account application development, g) improving education and training programs for employee self-development.

Balanced scorecard simulation that becomes the determinant In achieving maximum results, the results of the overall balanced scorecard simulation shows the optimal results in achieving the target that has been determined by the company, and based on the assessment scale, the performance of PT PELNI (Persero) is at a good stage, this makes the company can be more competitive in the transportation industry, especially sea transportation, and the opportunity to remain a market leader in the maritime industry in Indonesia.

Referensi

Agustina, L., & Retnani, E. D. (2015). Implementasi Strategi Dengan Menggunakan Balanced Scorecard Dalam Mengukur Kinerja Manajemen. *Jurnal Ilmu & Riset Akuntansi*, 4(11), 1-20.

Alharbi, F., Atkins, A., Stanier, C., & Al-Buti, H. (2016). Strategic Value of Cloud Computing in Healthcare Organisations Using the Balanced Scorecard Approach: A Case Study from a Saudi Hospital. *Procedia Computer Science; Volume 98*, 332-339.

Artley, W., Ellison, D., & Kennedy, B. (2001).*: Estabilishing and Maintaining a Performance-Based Management Program,* The Performance - Based Management Handbook, California.

Astri, F. (2020). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Penumpang PT PELNI Pelabuhan Dede Tolitoli. *Jurnal Penelitian Tolis Ilmiah*, 2(2), 132-139.

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.

Bryan P. Bergeron, M. (2018). *Performance Management in Healthcare From Key Performance Indicators to Balanced Scorecard*, 2nd Edition, HIMSS, Chicago.

Kaplan, R. S., & Norton, D. P. (1996). *The Balanced Scorecard: Translating Strategy into Action.* Harvard Business Press.

Kaplan, R., & Norton, D. P. (2000). *Balanced Scorecard: Menetapkan Strategi Menjadi Aksi,* Erlangga, Jakarta.

Marzuki, S., Laksmono, B. S., & Subroto, A. (2020). Improving Government's Performance Management by Using the Balanced Scorecard on Stakeholders Perspectives. *Journal of Community Development in Asia*, 3(3), 29-47.

Mulyadi, A. F., Wijana, S., Dewi, I. A., & Putri, W. I. (2015). Karakteristik Organoleptik Produk Mie Kering Ubi Jalar Kuning (Ipomoea Batatas)(Kajian Penambahan Telur dan CMC). *Jurnal Teknologi Pertanian*, 15(1), 25-36.

Nggini, Y. H. (2019). Analisis SWOT (Strenght, Weakness, Opportunity, Threats) Terhadap Kebijakan Pengembangan Pariwisata Provinsi Bali. *Jurnal Ilmiah Dinamika Sosial*, 3(1), 141-152.

Niven, R. (2002). *Balanced Scorecard Step by Step: Maximizing Performance and Maintaining Results,* John Wiley & Sons, Inc., New York.

Nurzaki, A., Santoso, A., Benawan, C., Wahyudin, D., & Santoso, S. (2021). Improvement of DEET level of product X using Deming cycle (PDCA Method) in PT Z. *IOP Conf. Series: Materials Science and Engineering*, doi:10.1088/1757-899X/1034/1/012110.

Nusraningrum, D., Santoso, S., Gunawijaya, J., & Gading, D. K. (2021). Green Operations Management with Green Business and Green Marketing Perspective. *Psychology and Education Journal*, 58(2), 4526-4535, DOI: https://doi.org/10.17762/pae.v58i2.2841.

Parmenter, D. (2020). *Key performance indicators : developing, implementing, and using winning KPIs,* John Wiley & Sons, Inc., New York.

Pekih, I. M., Sembiring, A., Santoso, S. (2021). Key Performance Indicators Analysis for Quay Container Crane Performance Assessment (Case Study at Jakarta International Container Terminal), *MECHTA: International Journal of Mechanical Engineering Technologies and Applications*, 2(2), 115-125. https://doi.org/10.21776/MECHTA.2021.002.02.5.

PELNI, P. (2019). *Annual Report.* Jakarta: PT PELNI (Persero).

PELNI, P. (2020). *Annual Report.* Jakarta: PT PELNI (Persero).

Permata, A. L., & Santoso, S. (2020). Approaching Time Service Information System Planning As an Effort to Reduce National Port Logistic Cost (Case Study: Tanjung Priok Port of PT. Pelindo II, Tbk). *International Journal of Innovative Science and Research Technology*, 5(1), 170-181.

Permatasari, N. C., & Dwiarti, R. (2016). Mengukur Kinerja Unit Simpan Pinjam Kopari Catra Gemilang Magelang Tahun 2014 dengan Analisis Balanced Scorecard. *Jurnal Perilaku dan Strategi Bisnis,* 4(2), 108-122.

Putri, E. Y., Hayyin, F., & Saefulah. (2020). Penerapan metode Balanced scorecard dalam industri pariwisata pasca pandemi Covid-19: Literature review. *Operations Excellence: Journal of Applied Industrial Engineering, 12* (2), 240-247.

Putro, S, S; Santoso, S. (2021). Desain Konseptual Digitalisasi Manajemen Mutu Pada Industri FMCG, *Jurnal Mix: Jurnal Ilmiah Manajemen,* 11(2), 147-162. DOI:10.22441/mix.2021.v11i2.001.

Santoso, S., Aulia, M. I., Harahap, R. S., Sitorus, R. S., & Waskita, D. S. (2021). Improvement of cooling time performance in TAD 20t mixing vessel using root cause analysis and PDCA cycle in TAD 20t mixing vessel maturity. *IOP Publishing. IOP Conf.Series: Materials Science and Engineering, Vol.1034*, doi:10.1088/1757-899X/1034/1/012126.

Santoso, S.; Putro, S.S.; Fatmawati, A.A; Putri, C.G.; Sa'dillah (2021). Disain Mitigasi Risiko Penularan Covid-19 di Lingkungan Industri Padat Karya Dengan Metode FMEA, *JKBM (Jurnal Konsep Bisnis dan Manajemen)*, 7(2), 149-166. https://doi.org/10.31289/jkbm.v7i2.4674.

Setiawan, N., & Farmansyah, A. (2016). Desain Key Performance Indicator Untuk Pengukuran Kinerja Industri Jasa Berdasarkan Budaya Organisasi Dengan Menggunakan Metode BSC-AHP. *Jurnal Teknologi Industri*, 22(1), 53-59. DOI: https://doi.org/10.20885/teknoin.vol22.iss1.art7.

Simbolon, R., & Santoso, S. (2021). Product and Service Quality Improvement in Manufacturing: Study of Optical Lens Manufacturing in Indonesia. *Jurnal Media Ekonomi dan Manajemen*, 36(1), 76-78. htpps://doi.org/10.24856/mem.v36i1.1726, 2021.

Taufik, D. A., Purba, H. H., & Hasbullah. (2021). Balanced Scorecard: Literature Review and Implementation in Organization. *Operations Excellence*: *Journal of Applied Industrial Engineering, 13*(1), 111-123.

Wiraeus, D., & Creelman, J. (2018). *Agile Strategy Management in the Digital Age How Dynamic Balanced Scorecards Transform Decision Making, Speed and Effectiveness.* Springer Nature Switzerland AG.

Zuniawan, A., Julyanto, O., Suryono, Y. B., & Ikatrinasari, Z. F. (2020). Implementasi Metode Balanced Scorecard Untuk Mengukur Kinerja di Perusahaan Engineering (Study Case PT. MSE). *Journal Industrial Services*, 5(2), 251-256, DOI: http://dx.doi.org/10.36055/jiss.v5i2.8008.