International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

Proposed Design of Performance Management Framework for 3PL (Third-Party Logistics) Aggregator

Alvin Trianto Atmojo[1], Dermawan Wibisono[2]

[1] School of Business and Management, Institut Teknologi Bandung, Jl. Ganesha No 10, Bandung, 40132, West Java, Indonesia
[2] School of Business and Management, Institut Teknologi Bandung, Jl. Ganesha No 10, Bandung, 40132, West Java, Indonesia and Faculty of Business and Economics, Pertamina University, South Jakarta, Indonesia

ABSTRACT: This white paper proposes a performance management framework for third-party logistics aggregators (3PLs) that connect e-commerce companies and logistics providers. The logistics industry has grown rapidly in recent years, and with the emergence of aggregators, performance records must be updated. Using a case study of an Indonesian startup PT P, we create a framework using qualitative and quantitative interviews with the company's C-levels. The framework is based on KPBMS, a simple and knowledge-based performance management system available in Indonesia. Traditional financial-based performance management systems have proven limited in their ability to adapt to modern organizational operating systems. A new-generation performance management system is based on the company's strategy and values, is customer-centric, long-term, and emphasizes continuous improvement. The proposed framework includes strategic objectives, key performance indicators (KPIs), objectives, initiatives and reviews. KPIs are categorized into financial, customer, internal process, and learning and growth perspectives. Goal setting is based on broader goals, and initiatives are defined on the basis of rapid outcomes and long-term projects. The review process includes monthly, quarterly, and annual reviews focused on identifying areas for improvement. The proposed framework will help 3PL aggregators like PT P to set up a performance management system to monitor the performance of logistics providers and provide recommendations to e-commerce companies.

KEYWORDS: logistics, performance management, third-party logistics, e-commerce, and KPBMS.

INTRODUCTION

Logistics is a crucial process for managing the movement of goods, parts, and finished products in inventory, from suppliers to customers with strategic management (Techtarget.com, 2023). Despite the challenges posed by the global pandemic in 2020-2022, the logistics industry has continued to grow and evolve (Expert Market Research, 2022). Today, it plays a vital role in connecting businesses and consumers by facilitating the transportation of goods, materials, and information across the globe. This includes a wide range of activities, such as transportation, warehousing, and distribution, as well as the management of these activities through the use of advanced logistics systems and technologies. The e-commerce industry has also seen rapid growth in recent years, driven by factors such as increasing internet and mobile connectivity, the expansion of the middle class, and the convenience and accessibility of online shopping (OECD, 2020). The focus on parcel delivery as well as the growth of sectors like frozen food, fresh food, furniture, and electronics have contributed to the continued potential for market expansion (Morganti, 2014). As the number of logistics companies grows, the competition in pricing becomes more intense, leading the e-commerce companies to seek integration with logistics providers. However, resource prices and quality control can present challenges in this process. To address these issues, new types of companies known as "aggregators" have emerged, connecting e-commerce companies with logistics providers. These aggregators are still in their early stages, so they must establish their own performance records. Their goal is to observe the performance of Third-Party Logistics (3PLs) and provide recommendations to e-commerce companies that are looking to use their services, while also monitoring the market conditions and user experience needs, based on various factors.

In this journal, a framework is created based on a case study of one of the startups in Indonesia that has evolved into an aggregator 3PL to facilitate e-commerce. The method used is a combination of qualitative and quantitative interviews with the C-level of the company. Theories, such as Balanced Scorecard (BSC), Performance Prism, Malcolm Baldrige National Quality Award (MBNQA), and knowledge-based performance management system (KBPMS) will be used to analyze this case.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

PT P is a startup that focuses on integrating courier services from logistic service providers in Indonesia and then helping many customers, such as e-commerce, small and medium-sized enterprises (SMEs), and corporations, cut their shipping processes, especially those sent to customers and in large scale volume. Rather than go to the courier agency, their parcel can be picked up by the logistics provider. Basically, PT P does not have to own their courier provider or logistics supply chain. With these strategies, PT P can grow massively. But, on the other hand, they have to very closely watch the third party (regular inspection) and send warnings, in case their performance is not quite good.

Problem Formulations:

1. As a startup, PT P does not yet have a performance management system
2. There is an increasing number of customer that join, but are not high in performance, like delivery delay
3. There is an increasing number of logistics services, but are low performance, such as delay and broken parcel

LITERATURE REVIEW

Corporate Performance Framework

Corporate Performance Framework refers to a set of practices and tools that help organizations measure, analyze, and improve their performance. It provides a structured approach for evaluating the effectiveness of an organization in achieving its objectives, and for identifying areas for improvement. The framework typically includes a combination of financial and non-financial measures, such as revenue growth, customer satisfaction, employee engagement, and operational efficiency (Adebanjo et al., 2013). One of the key benefits of the Corporate Performance Framework is that it provides a holistic view of the organization's performance, rather than focusing solely on financial metrics. This helps organizations identify areas where they can improve, such as in customer service or employee satisfaction, which may not be reflected in traditional financial reports (Kaplan & Norton, 2001). The framework can also help organizations align their performance metrics with their strategic objectives, ensuring that they are measuring the right things and are focused on achieving their long-term goals. This can help improve decision-making at all levels of the organization, from top management to front-line employees.

A Knowledge-Based Performance Management System (KPBMS) is a system that integrates knowledge management and performance management processes. It is designed to improve an organization's performance by identifying and leveraging its knowledge assets (Chen & Huang, 2012). KPBMS is chosen because it is simple and can be used in Indonesia. The Performance Management System is "a systematic process for improving organizational performance by developing the performance of individuals and teams." (Amstrong, 2006). Performance management refers to the knowledge and management of performance, which are related to the agreed-upon objectives, standards, and competencies of the firms. It is a technique to improve results through the cooperation of individual, team, and organizational efforts.

The financial component, or more specifically, the financial report, plays a significant role in the traditional approach to performance management. The financial report, which includes the income statement, balance sheet, and cash flow statement, was developed in the 1800s and is still in use today. The financial ratios can no longer be used as the only useful performance indicator. It is determined that the standard performance management system, which primarily bases its decisions on financial success, is no longer appropriate for the modern period.

Numerous studies have been done on the shortcomings of the traditional, financial-based performance management method. These studies' principal finding is that modern organizations' operational systems cannot be accommodated by financial-based performance management systems. The following succinct explanation and summary provide a good overview of the financial-based performance management system's limitations: the conventional performance management system that lacks relevance, has a propensity to report pass performance (lagging metrics), is short-term focused, less adaptable, relies on standard and fixed variables, does not stimulate the improvement process, and is frequently perplexed by financial considerations. Indeed, the traditional approach to performance management has relied heavily on financial reports and ratios to measure the success of an organization. However, this approach has been criticized for being too narrow and short-sighted, as it focuses solely on financial outcomes and ignores other important aspects of organizational performance, such as customer satisfaction, employee engagement, and innovation (Kaplan & Norton, 2004). Furthermore, traditional financial metrics may not be effective in assessing the

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

performance of modern businesses that rely heavily on intangible assets, such as intellectual property and brand value, which are not reflected in financial reports (Ittner & Larcker, 2003). To address these limitations, many organizations have adopted more holistic approaches to performance management, such as the balanced scorecard, which takes into account both financial and non-financial metrics (Kaplan & Norton, 2004).

According to a dissertation by Yu (2017), the shortcomings of conventional performance management systems are intended to be addressed by a new generation of performance management systems. This new generation of systems is defined as being based on the company's strategy, built on the foundation of the company's values, synchronized with the performance to be measured, customer-oriented, long-term, measures team performance, monitors improvement and development, is intended for the evaluation and engagement process, and emphasizes continuous improvement. Yu (2017) notes that the closed-loop approach used in performance management systems is based on the Plan-Do-Check-Act (PDCA) method, which was popularized by Walter Shewhart in 1930. The cycle of performance measurement, assessment, diagnosis, and follow-up from the diagnosis process is the closed-loop system for performance management. Next-generation performance management systems such as the Balanced Scorecard (BSC), the Performance Prism, and the KPBMS will be examined in this research in light of the company's requirements (Yu, 2017).

The most popular performance management tool in use today was created by Kaplan & Norton in 1996 and is known as the Balanced Scorecard (BSC) (Kaplan & Norton, 1996). The BSC is regarded as the foundational element of all performance management frameworks that have followed it. There are four viewpoints used by BSC to evaluate an organization's performance: financial, customer, internal process, learning, and growth. These four viewpoints are then used to map the company's goals, along with its variables, targets, and activities. The objectives are the intended results, the variables are the chosen variables that may be used to track the objective's progress, and the initiatives are the schedule of tasks that must be completed to meet these aims (Kaplan, 1983). Although many businesses throughout the world have adopted the BSC, the framework has certain drawbacks. One critique, for instance, is that the BSC lacks benchmarking capabilities and that the viewpoint on learning and growth could be confusing. This misunderstanding is mostly caused by the application, many interpretations, and the measuring technique from this perspective, that has not yet been clarified.

The Performance Prism is a new performance management system established in 2002 as one of the upgrades for BSC. The Performance Prism framework is built on taking into account the satisfaction of all stakeholders, including the customers, employees, interdependent suppliers, governments, community, and activists. Neely et al. (2002) criticizes BSC in one area for only covering two stakeholders, namely the shareholders and the customers. The five core questions that form the basis of the Performance Prism framework are: Stakeholder Satisfaction (who the key stakeholders are, what the people's wants and needs are, what the contribution from the stakeholders that the organization needs are, what the strategies to meet the stakeholder's wants and needs are, what important processes that the organization need to have in order to carry out its strategy, and what capabilities that the organization require in order to become better) (Neely et al., 2002).

The Performance Prism offers a broad variety of performance indicators, but this also becomes one of its weaknesses. There are several weaknesses. The Performance Prism is criticized by detractors. The Performance Prism idea is quite hard to understand, to start with, because it examines performance from five separate, interrelated perspectives. Likewise, the Performance Prism failed to give a detailed illustration of how to put the performance management system into practice in a real-world scenario. One more thing is that the framework lacks a clear explanation of the benchmarking system and process.

It is possible to think of Wibisono's Knowledge-Based Performance Management System (KBPMS) as a more sophisticated version of both the BSC and the Performance Prism. The KBPMS combines the Performance Prism's aspect of stakeholder satisfaction with the BSC's design simplicity. The KBPMS was also developed with the hope that the framework would be particularly useful for businesses in Indonesia (Wibisono, 2016). Because it divides the performance view into three perspectives - Organization Output, Internal Process, and Resource Capability - the KBPMS is significantly more straightforward than the BSC and the Performance Prism. The fact that it explains the design process from beginning to end - including how to establish the foundation of a performance management system, how to analyze the business environment, how to link the company's strategy with the performance management system, how to take a high-level view of the performance measurement framework, how to

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

implement the framework, and how to update it - can also be considered as the reason of why it is very thorough and simple to understand. Finally, the KBPMS also provides explicit instructions on how to carry out the benchmarking operation.

RESEARCH METHODOLOGY

The process of this study's research technique begins with problem identification. In this phase, the author will utilize SWOT analysis to examine the traits of the organization being used as a case study. SWOT analysis is used to identify a company's internal strengths and weaknesses as well as its external opportunities and threats. The author also points out a number of issues that the business is dealing with at this point. This identification method led to the conclusion that a management system is required in order to control the performance of the investigated organization.

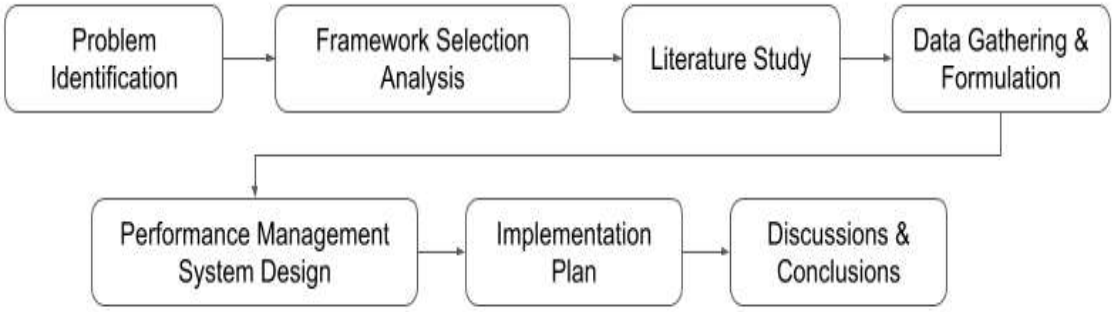

Figure 1. Research Methodology Flow

The framework selection analysis is the following stage of this investigation. Several extremely well-known performance management frameworks that have been widely employed in a variety of industries are presented, described, and analyzed by the author in this phase. The Knowledge-Based Performance Management System (KBPMS) will be selected as the study's reference framework in light of the findings of this framework analysis.

To learn more about the procedures involved in creating a performance management system based on the KBPMS framework, the next step is to do a literature review. A performance management system may be designed in five steps, according to the KBPMS framework: the Foundation, Basic Information, Design and Planning, Implementation, and Review and Update. The literature analysis led to the identification of a number of potential performance indicators for the KBPMS, including measures of organizational output, internal processes, and resource capability. Several of these indicators will be chosen and modified to fit the requirements of the firm under study.

The next stage is to collect and formulate data. Two different sorts of data are obtained as a result of this process: main data and secondary data. Interviews with the management of the company are done to gather primary data. From this interview, the business operations of the company are established, as are its requirements. Secondary data is gathered through a literature review of journals or books that are highly pertinent to Indonesia's healthcare system or performance management. The data will serve as the foundation for choosing the indicators in the KBPMS throughout these findings. The last phase is to create a conceptual framework for performance management using the KBPMS based on the information gathered, have conversations, and draw conclusions.

KBPMS-BASED FRAMEWORK DESIGN

The steps of the KBPMS Framework are separated. The foundation stage is the first. The ideas and guidelines that must serve as the basis for creating a performance management system are described in this step. Basic information is the second stage, when fundamental details about the business are identified, such as the forces that could have an impact on how the business operates. Design and Planning, the third step, is where variables that may be used as performance indicators are created and planned. The fourth stage, Implementation, describes the factors that must be taken into account while putting the KBPMS framework into

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

practice. The KBPMS Review and Update is the final step to ensure that the framework continues to be appropriate for the company's performance and maintain the relevancy of the framework.

A. Foundation

There are four guiding principles that must be taken into account while creating a performance management system:

1. Comprehensive collaboration between management, staff, and clients. Through this relationship, it is envisaged that the stakeholders would fully comprehend the value of a performance management system. Additionally, each party would have to participate in the selection of the performance metrics.
2. Empowerment of all levels of employees by firm executives. This step must be taken to guarantee that every employee is aware of and engaged in enhancing the performance of the business.
3. Integrated performance improvement refers to the linking of the performance metrics for each business division. It is believed that via this integration, employees would feel more a part of the organization and will see the company's performance improvement process as something that requires upkeep and care.
4. We need an independent performance team. This group would be in charge of developing, reviewing, and upkeep of the company's framework for performance management. This team's responsibility is to organize and choose the key performance indicators for each segment of the business. As a result, they must be given the chance and the company's full faith.

There are also five important rules that must be considered in designing a performance management system:

1. The KISS (Keep It Stupid Simple), where the designed performance management system must able to be easily understand and must be easily applied by all levels of the company
2. Long Term Oriented: The performance management system must be created to support the business's performance over the long term in order for it to remain competitive.
3. With real-time updates as soon as feasible Feedback in which the performance metrics must accurately represent what the business need right now. If there is a performance variation that is not in line with the company's performance requirements, it has to be addressed very away.
4. Focus on Continuous Improvement, where the performance management system must be able to support processes for continuous improvement, such as benchmarking and studying best practices from other companies.
5. Use a quantitative approach, where the performance management system's variables should all be numerical ones. This is so that deviating performance factors may be quickly detected, and quantitative variables are simpler to check and maintain.

B. Basic Information

Basic data is required to develop the performance management system based on the state of the organization's environment. The results of the study of the business environment using a modified version of Porter's Competitive Forces concept are shown in the figure below.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

Aspect		Scale					
Threat from new entrants		1	2	3	4	5	
Switching Cost	High						Low
Access to Customers	Hard						Easy
Required Capital	Large						Small
Access to Labor	Hard						Easy
Business Experience	High						Low
Rival/Competitors		1	2	3	4	5	
Number of Competitors	Low						High
Industry Growth	High						Low
Product Features	Win						Lose
Substitute Product		1	2	3	4	5	
Availability	Low						High
Buyer Power		1	2	3	4	5	
Number of Potential Buyers	High						Low
Service Cost	Low						High
Switching Cost	High						Low
Supplier Power		1	2	3	4	5	
Number of Supplier	Many						Few
Supplier Contribution to Profit	Small						Large
Cost Contributed to Supplier	Small						Large
Other Stakeholder Power		1	2	3	4	5	
Industry Regulation	Loose						Strict

Figure 2. Company Porter Competitive Forces Analysis

C. Design and Planning

1. Vision, Mission, and Strategy

Here is the vision of PT "To connect and simplify courier logistic service to customers" and mission "ensuring every area in Indonesia is covered by logistics couriers that are available for pickup and delivery". PT P mission and vision is quite simple due to its still early stage startup business. Their strategy only focuses on the user growth and coverage are

2. Performance Indicators

Determining performance indicators in KBPMS can be viewed in three perspectives, Organization Output, Internal Process, and Resource Capability. Each of these perspectives can be expanded into more detailed aspects.

Table 1. KBPMS Performance Perspectives and Aspects

Perspective	**Aspect**
Organization Output	Financial Non-Financial
Internal Process	Innovation Operating Process Marketing After-sales
Resource Capabilities	Human Resource Technology and Infrastructure Resource Organization Resource

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

From these aspects, more detailed performance indicators for every perspective will be identified, based on the company's vision, mission, strategy, and needs.

a. Organization Output

There are two components to the KBPMS' Organization Output perspective: financial and non-financial. In order to retain and satisfy the wants and aspirations of investors, the financial component is crucial for the organization. On the other hand, non-financial factors are directly connected to the degree of consumer happiness. These two items are crucial factors that must be taken into account. The non-financial part of performance evaluation becomes more crucial for businesses whose performance cannot be directly measured from the financial side.

Indicators of the clinic's financial performance are recognized in the financial component. Indicators for the clinic's production in addition to those for financial performance are detailed under the non-financial aspect. The financial aspect's performance metrics are shown below.

Table 2. Financial Aspect Performance Indicators, Description, and Formula.

Financial Aspect Performance Indicators		
Indicator	**Description**	**Formula**
Operating Profit Margin	To determine the operating profit margin of the clinic. Could also determine the reduction percentage of revenue due to operating expenses	(Operating Profit/Revenue) x 100%
Profit Growth	To determine the profit growth on current period compared to the previous period	(Current Period Operating Profit/ Previous Period Operating Profit) – 1
Current Ratio	To determine the ability for the clinic to pay its current obligations	Current Asset/Current Liabilities
Return on Asset	To determine the clinic's asset utilization level for gaining profit	Operating Profit/Total Assets
Market Share	To determine the clinic's market position compared to its competitors in the same industry	(Company''s Revenue/Total Industry Revenue) x 100%

Below are the performance indicators for non-financial aspects.

Table 3. Non-Financial Aspect Performance Indicators, Description, and Formula

Non-Financial Aspect Performance Indicators		
Indicator	**Description**	**Formula**
Customer Satisfaction	To determine the satisfaction level of the patient to the company's services	Customer Satisfaction Survey

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

Customer Acquisition Growth	Number of customers acquired in current period compared to previous period	(Current Period Customers Acquired/Previous Period Customer Acquired) - 1

b. Internal Process

The four facets of the internal process viewpoint are innovation, operating processes, marketing, and after-sales. Internal Process is the viewpoint that is concerned with how the organization, or in this case, the company, operates on a daily basis. Innovation, Process, and Marketing were chosen for the Internal Process component based on the information learned about Company T's business process. Innovation is a crucial component for the business to maintain its competitiveness in the market. This is due to the fact that new items or services that are introduced to the market early will have a greater chance of selling than those that are introduced to the market later. 12. The process of transforming resources such as materials, energy, and information into goods or services at a certain scale in order to satisfy the demands of customers is known as an operational process. 13. One of the most important elements of organizational strategy is this feature. Everyone in the organization inside the firm should be responsible for understanding the notion of marketing in the business strategy, rather than only marketing professionals. 14. The following performance metrics pertain to Company T's internal process performance.

Table 4. Innovation Aspect Performance Indicators, Description, and Formula

Innovation Aspect Performance Indicators		
Indicator	**Description**	**Formula**
Usefulness of new product	To measure how effective the product to answer the consumer problem	Number of user that use new product over total user
Retention Rate	Number of user that still use after product released	

Table 5. Operating Process Aspect Performance Indicators, Description, and Formula

Operating Process Aspect Performance Indicators		
Indicator	**Description**	**Formula**
GMV	Gross merchandise value (GMV) is the total value of merchandise sold over a given period of time through a customer-to-customer (C2C) exchange site.	Total transaction value
Pickup Time Service Level	How low the couriers take the parcel after order rate	Pickup datetime minus create order datetime
Shipping service	To measure how many logistics provider that already integrated with companies	Integrated provider/Total Provider

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

Coverage		
Shipping time service level	How long the couriers send the parcel from origin to destination	Arrival datetime minus pickup datetime
Shipping coverage	To measure how the company cover the logistics all over Indonesia	Number of transaction area based on province / total province

Table 6. Marketing Aspect Performance Indicators, Description, and Formula

Marketing Aspect Performance Indicators		
Indicator	**Description**	**Formula**
Marketing to Industry Count	The number of time marketing campaign done to industrial companies	Number of Marketing Campaign
Industry Campaign Effectivity	The number of patients gained from industry campaign	New Customer from Industry Campaign/Total New Customer
Marketing Medium	The number of medium for marketing that the company have	Marketing Medium Count
Social Activity	The number of social activity that the company organize or participate in	Social Activity Count
Advertising Effectivity	The effectivity of paid advertising to the profit of the company	(Advertising Cost/Revenue) x 100%
Promotion Effectivity	The effectivity of promotion to the profit of the company	(Promotion Cost/Revenue) x 100%
Conversion Rate	Number of new user based on reach marketing funneling	New user/total advertising reach

c. Resource Capabilities

The three components of the resource capability viewpoint are organizational resources, technological resources, and human resources. This viewpoint evaluates how well the firm uses its tangible and intangible assets. Based on the data collected on the company's business operations, the resource capability element chosen for this study is the combination of human and technological resources. The most crucial resource for a business to maintain its competitiveness is its human resources since they may be seen as the foundation of the system that has been created. Technological resources can support this human resource competence. An essential component of the company's long-term performance is investment in technology to raise its degree of competitiveness 15.

Performance indicators that related to Company's Resource Capability performance are as follows

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

Table 7. Human Resource Aspect Performance Indicators, Description, and Formula

Human Resource Aspect Performance Indicators		
Indicator	**Description**	**Formula**
Employee Attendance	To determine the attendance rate of the employee	Number of employee absent days compared to total working days
Employee Satisfaction	To determine the satisfaction level of the employees	Employee satisfaction survey
Employee Productivity	To determine the productivity of the employee based on the delivery of their task	Employee Job Completion Rate
Employee Participation	The number of employee participating in various company activities	Employee participation count

Table 8. Technological Resource Aspect Performance Indicators, Description, and Formula

Technological Resource Aspect Performance Indicators		
Indicator	**Description**	**Formula**
Supporting Technologies	The number of technology that can be utilize to improve and support the HR process or operating activity	Supporting technology count
Product Stability	The number of software server error in production environment	Number of return response 500 through year
Release Quality	The number of defect that found by end user	Number of defect per new released feature
Product Delivery	To measure how long product is develop and released to user	Number of on time released products over total number of product developments.

3. Variable Linkages

The corporate level, business unit level, operations management level, and day-to-day operations level are the four levels in an organization's organizational structure that are often associated with performance management. Finding the connection between the performance characteristics between these levels is necessary. The method of improving performance variables that don't meet the required standard will be simple to apply after the link between performance variables has been established. Additionally, cross-sectoral inter-departments that are not vertically connected may be involved in the interactions between performance factors. By identifying the variable linkage, the connection of the performance variable from the Resource Capability perspective to the Organizational Output can be observed.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

Improvement on the Resource Capability could affect the improvement of the Internal Process and, in the end, will result in the improvement of the Organizational Output.

The performance variable linkage for Company's performance indicators is presented below

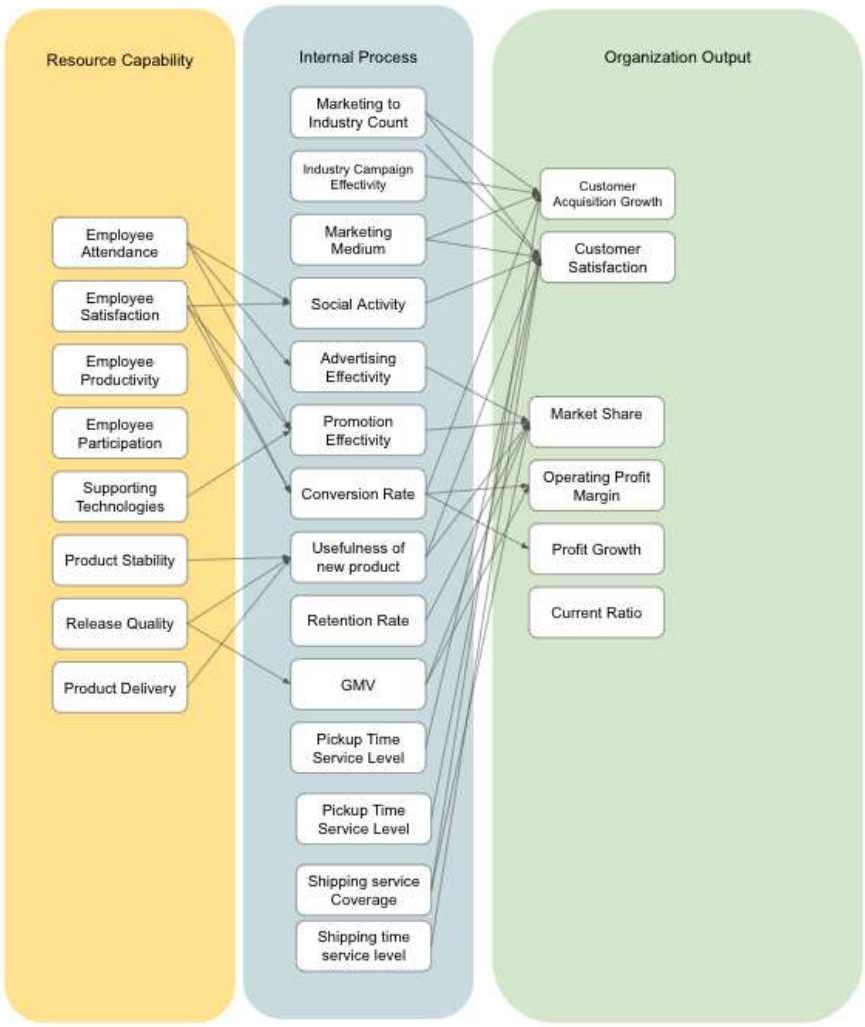

Figure 3. Performance Variable Linkage

D. Implementation, Review, and Update

Measurement, Evaluation, Diagnosis, and Follow-up are the four cyclical processes that the KBPMS's implementation component follows. Following the implementation of the performance management system, measurement is required to ascertain how the business is performing. The outcomes of these measurements might then serve as the foundation for an assessment. Evaluation is the process through which the measured performance is assessed to see how closely it adheres to the set criteria. Deviant performances are discovered from the evaluation's findings, and they are subsequently given a diagnosis.

The Diagnosis step's goal is to identify abnormal performances and ascertain their root cause. To realign these performances with the criteria established in the performance management system, Follow-Up will then be conducted.

A performance management system's communication of outcomes to the workforce is a crucial component. Publishing the company's performance measurement findings, particularly those that highlight how specific teams or employees are

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

performing, may boost employee motivation overall and foster a positive work environment. Quantitative data will be simpler to present and comprehend, as was previously stated in the Foundation section, even when the context of the data could only be known by the teams or individuals involved.

Use of Display graphics is one of the easiest ways to convey performance. The primary guidelines for developing it are that the visual must be simple to read and appealing. Large lettering and colorful display graphics can draw viewers' attention. These visualizations must also be simple to create, edit, access, and comprehend.

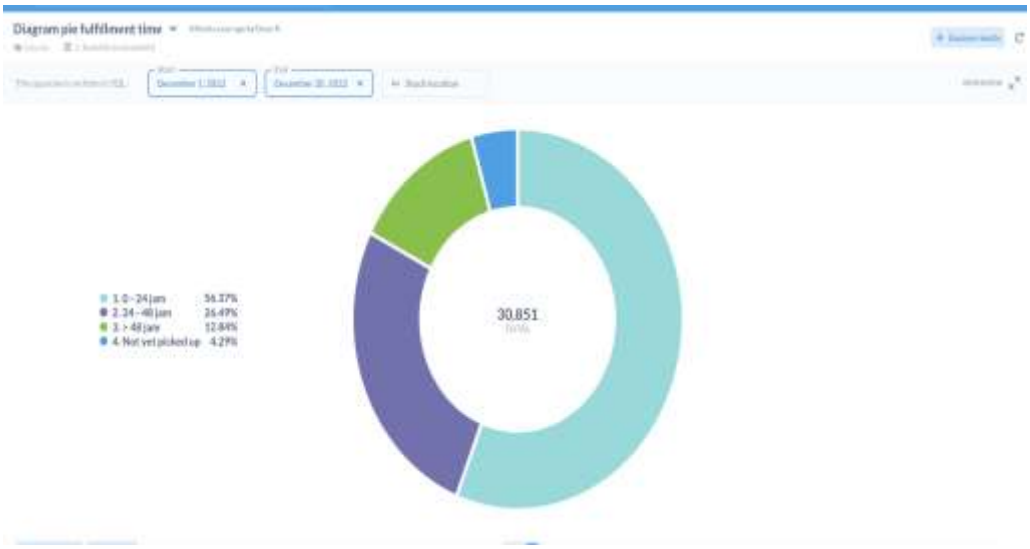

Figure 4. Example of Performance Dashboard

DISCUSSIONS AND CONCLUSIONS

A Knowledge-Based Performance Management System (KBPMS)-based framework for PT P's performance management has been presented. The three basic perspectives of the KBPMS are organization output, internal process, and resource capability. These perspectives are used to classify the performance indicators. The Financial and Non-Financial components, which make up the Organization Output viewpoint, each have five performance indicators. One performance indicator for the innovation component, seven indications for the internal process aspect, and six indicators for the marketing aspect make up the internal process viewpoint. There are seven (7) indications for the human resource component and one (1) indicator for the technological resource side of the resource capability perspective.

Logistics Aggregator is a new industry and will still be developed in the future, especially the corporate performance management system. Further studies can be carried out from another company point of view rather than focus on one company even though the respondents is the owner or C-level of the company but it does not represent the other company's condition.

REFERENCES

1. https://www.techtarget.com/searcherp/definition/logistics. Access on April 18, 2023.
2. https://www.expertmarketresearch.com/reports/logistics-market. Accessed on April 19, 2023
3. https://www.oecd.org/coronavirus/policy-responses/e-commerce-in-the-time-of-covid-19-3a2b78e8/. Accessed on April 19, 2023.
4. Adebanjo, D., Kehoe, D., & Clegg, B. (2013). A review of the literature on performance measurement systems. African Journal of Economic and Management Studies, 4(3), 300-319.
5. Aquilano, N. J., Chase, R.B., Jacobs, F. R. (2004). Operations Management for Competitive Advantage. McGraw-Hill. Boston.
6. Armstrong, M. (2006). Performance Management: Key Strategies and Practical Guidelines (3rd ed.). Kogan Page Ltd. Philadelphia, 3rd edition.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 06 Issue 06 June 2023
DOI: 10.47191/ijcsrr/V6-i6-05, Impact Factor: 6.789
IJCSRR @ 2023
www.ijcsrr.org

7. Basu, R., and Wright, N. J. (1997). Total Manufacturing Solutions, Butterworth-Heinemann. Oxford.
8. Chen, C. J., & Huang, J. W. (2012). An investigation of the relationships among knowledge management, knowledge-based resources, and firm performance. Journal of Business Research, 65(12), 1560-1567.
9. Cooper, W. K., Kingshuk K. S., and Robert, S. S. (1992). Measuring complexity in high-technology manufacturing: indexes for evaluation. Interfaces.
10. Fatima, I., Wibisono, D., & Adhiutama, A. (2019). Conceptual Framework of Performance Management System for Construction Companies in Indonesia. International Journal of Innovative Technology And Exploring Engineering (IJITEE).
11. Hooley, G.J., and Saunders, J. (1993). Competitive Positioning: The key to market success, Prentice Hall International.
12. Ittner, C. D., & Larcker, D. F. (2003). Coming up short on nonfinancial performance measurement. Harvard Business Review, 81(11), 88-95.
13. Kaplan, R. S. (1983). Measuring Manufacturing Performance: A New Challenge for Managerial Accounting Research. The Accounting Review.
14. Kaplan, R. S., & Norton, D. P. (2001). The strategy-focused organization: How balanced scorecard companies thrive in the new business environment. Harvard Business Press.
15. Kaplan, R. S., & Norton, D. P. (2004). Strategy maps: Converting intangible assets into tangible outcomes. Harvard Business Press.
16. Kaplan, R. S. and Norton, D. P. (1996). The Balanced Scorecard: Translating Strategy into Action, Harvard Business School Press. Boston.
17. Lunger, K. (2006). Why You Need More Than a Dashboard to Manage Your Strategy. Business Intelligence Journal.
18. Morganti, E., Seidel, S., Blanquart, C., Dablanc, L., & Lenz, B. (2014). The Impact of E-commerce on Final Deliveries: Alternative Parcel Delivery Services in France and Germany, Transportation Research Procedia, 4, 178-190.
19. Neely, A., Adams, C., Crowe, P. (2002). The Performance Prism – The Scorecard for Measuring and Managing Business Success, Pearson Education Limited. London.
20. Stoop, P. P. M. (1996). Performance management in manufacturing: a method for short term performance evaluation and diagnosis. Unpublished PhD Thesis, Technische Universiteit Eindhoven.
21. Skinner, W. (2002). Missing the link in manufacturing strategy, in Voss, C. A. (1992). Manufacturing Strategy: Process and Content, Chapman & Hall. London.
22. Stoop, P. P. M. (1996). Performance management in manufacturing: a method for short term performance evaluation and diagnosis. Unpublished PhD Thesis, Technische Universiteit Eindhoven.
23. Wheelen, T., & Hunger, J. (2006). Strategic Management and Business Policy (10th ed.). Pearson Prentice Hall. New Jersey, 10th edition.
24. Wibisono, D. (2016). How to Create World Class Company: Panduan Bagi Direktur dan Manajer, Penerbit ITB. Bandung, 2nd edition.
25. Yu, J. (2017). The new generation of performance management system design for public sector organizations. Doctoral dissertation, Walden University.
26. Purwongemboro, M. S, Wibisono. D, Basri, M. H. (2022). Knowledge-Based Performance Management Framework for Small Public Health Facility: A Case Study of Clinic T in City B, Indonesia. International Journal of Current Science Research and Review, 05(08), 3068-3080.