Proceedings of the International Conference on Agricultural Strategy for Sustainability (ICASS)
October 15–16, 2024 – Pekanbaru, Indonesia
Volume 1, Number 1 (2025): 107-116

Stakeholder-Centric KPIs: Enhanching Company Performance Evaluation

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Abstract. In process of performance evaluation performance measurement ir is important to define the needs, capacities and contributions of stakeholders. The object of this paper is a service and consulting company, namely PT. X. For the present, the company only carry out performance evaluations based on a financial perspective without considering a more comprehensive point of view. Therefore, performance measurement or benchmarking in this research requires appropriate components and meaningful key performance indicators (KPIs). To obtain comprehensive measurement results, this research used four perspectives from Performance Prism (PP) Model. These perspectives consist of company investors, employees and suppliers and customers. This research begins by identifying KPIs for each perspective based on in-depth interview with top manager and the owner of the company. Analytical Hierarchy Process (AHP) model was used to sort and ensure that each KPI was assessed objectively and its weight reflects its importance in the context of the company's goals. To provide the company with and help measure the performance of areas that need to be improved (weaknesses) and those that are working well (strengths), the Objective Matrix (OMAX) method is used. OMAX can also be an approach that can provide useful information for companies in making strategic decisions, such as business planning and development. This research result offers a good and implementable performance measurement metrics that it can be used by a researcher, manager or company owner in certain companies, especially service and consulting companies in the same or different countries.

1. Introduction

In today's highly competitive business landscape, companies must continually adapt and refine their strategies to achieve sustainable growth and success. A critical tool in this process is performance measurement, which goes beyond mere financial metrics to encompass a comprehensive view of a company's overall health and effectiveness. This is particularly relevant for PT X, which has yet to conduct a thorough evaluation of its operations. PT X, a service and consulting company is still relying solely on monthly financial statements limits the understanding of the company's true performance and potential. According to Neely et al. (2002), traditional performance measurement systems often focus predominantly on financial metrics, which can lead to a narrow understanding of organizational performance.

Every organization defines success differently, and effective performance management depends on the unique visions and strategies of each business (Kopia, Kompalla, Buchmüller, & Heinemann, 2017). PT X's focus on financial indicators alone fails to capture the multifaceted nature of its operations. While financial performance is undoubtedly important, it does not provide insights into other crucial areas such as investor, customer satisfaction, supplier efficiency, and employee engagement. The four stakeholders mentioned above are reflected in the performance measurement method known as the Performance Prism (PP) approach.

PP model enables organizations to align their objectives with stakeholder needs, fostering a culture of accountability and continuous improvement by incorporating five key facets:

stakeholder satisfaction, strategies, processes, and capabilities, which collectively offer a more holistic view of performance (Bourne, Neely , Mills, Platts, & Richards, 2000). This performance prism approach can obscure underlying issues that may hinder growth and innovation, preventing the company from identifying satisfaction and contributions of investor, supplier, employee and customer for improvement and strategic realignment.

PP has been used by many organizations and researchers. Previous studies used this concept such as Elizandra, et al (2017), they optimazed business performance through satisfaction and contribution of stakeholders from the PP model. The PP model suggests that company stakeholder satisfaction shows how the organization aligns and ponders custome. Another research used AHP to optimizing business performance through Key Performance Indicator (KPI) alignment such as Mtau & Rahul (2024). The study employs a comprehensive analysis, integrating qualitative and quantitative methodologies to investigate the intricate relationship between KPIs and strategic goals. Therefore, this research outcomes will yield an appropriate Key Performance Indicator (KPI) system from PP's perspectives, which will subsequently be enhanced by applying the Analytical Hierarchy Process (AHP) method to assign weighted values. Utilizing the AHP method is anticipated to facilitate the determination of the value of each perspective. Following the establishment of the weighted values for each perspective, a performance evaluation will be conducted using the Objective Matrix (OMAX) in conjunction with the Traffic Light System. The Objective Matrix serves to integrate corporate objectives and strategies while assessing the organization's performance in relation to achieving these goals.

Ultimately, this study integrates various performance indicators—combaning PP, AHP and OMAX to understand Company's KPIs. These methods ranged from operational metrics to qualitative assessments of investor (I), supplier (S), customer (C), and employee (E) experiences. Moreover, this study allows the company to gain a more nuanced understanding of its strengths and weaknesses. This comprehensive perspective is essential for informed decision-making and for crafting strategies that are responsive to both internal dynamics and external market shifts.

2. Research Methods

Data collection was based on primary data collected throuh semi-structured interviews with experts and company representatives, including top management and owners. Performance Prism (PP) is a conceptual tool designed to unify five interconnected perspectives and offer a framework that helps executives consider what the company wants and needs. Collectively, these five perspectives provided a thorough and cohesive framework for managing organizational performance, enabling organizations to develop a structured business performance model by addressing the associated questions. It depicted in Figure 1 as follows:

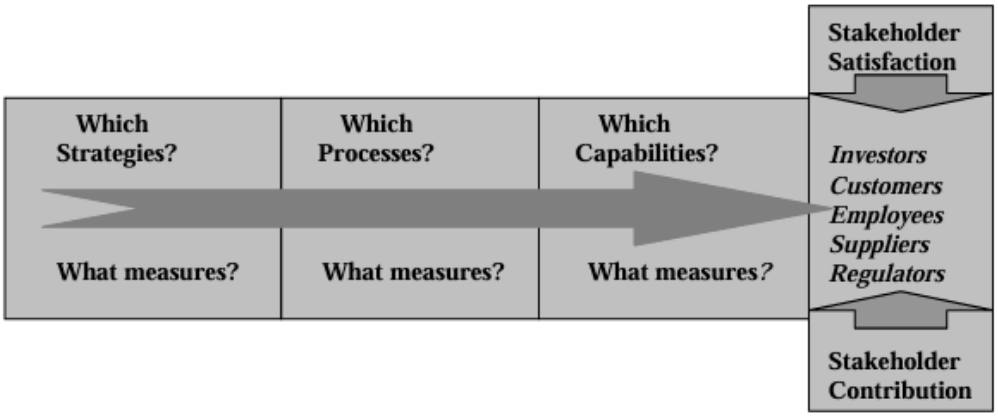

Figure 1. Five fundamental questions (Neely, Adams, & Kennerley, 2002)

In addition, there are five stakeholders who are generally interrelated in the PP model; however, due to research limitations this research focused only on four stakeholders: investors, suppliers, employee and customers.

This study also combined AHP and OMAX to asses PT. X performance. AHP is a method that help researcher to understand the organization's key performance indicators (Seungbun, Brownlee, Yongjae, & Soonhwan, 2017). The KPI identification and validation consist of few processes as follows:

1. The stakeholders of the company under investigation were classified, including the CEO, executive management, clients, customers, and employees.
2. The satisfaction, contributions, strategies, processes, and capabilities of each stakeholder were identified.
3. KPIs were designed to align with the business goals of each stakeholder.
4. The KPIs were validated through discussions with competent management, ensuring their accuracy and relevance. Thus, the KPIs that were designed were able to accurately reflect the overall performance of every aspect of the company.

Objective Matrix (OMAX) is a performance measurement method using achievement indicators and a weighting procedure to obtain a total productivity index (Irwansyah, et al., 2022). OMAX is a measurement system that helps monitor productivity for each KPI that has been previously selected using AHP. The description of this research framework explained the relationships and interrelationships between research variables logically and systematically, depicted in Figure 2 as follows:

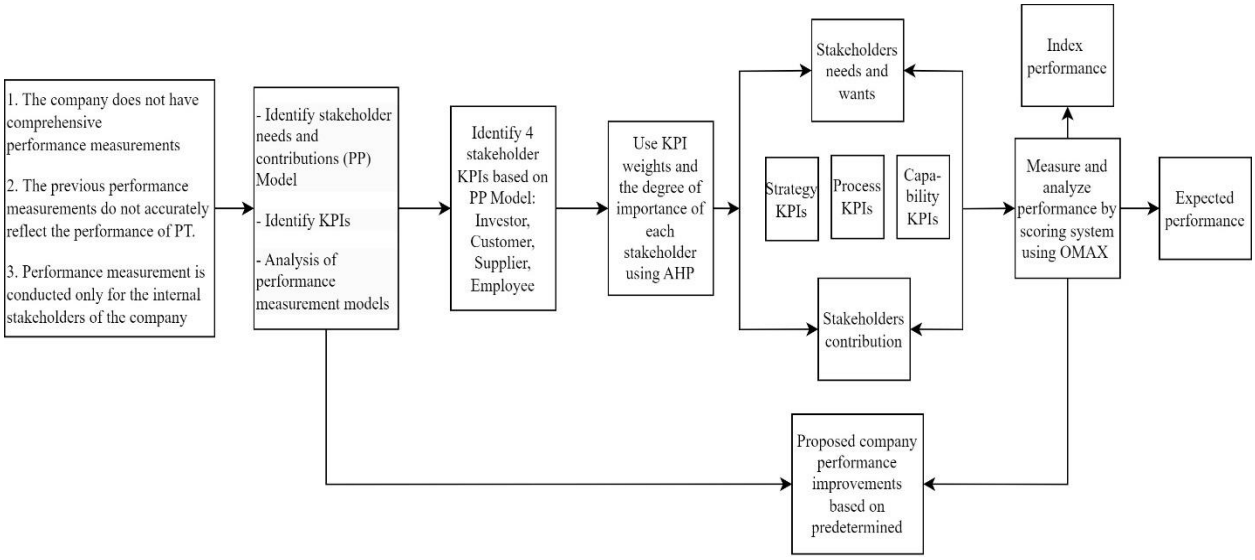

Figure 2. Framework of thinking

After identifying the satisfaction and contributions of the four stakeholders through an open questionnaire, the next step was to determine the Key Performance Indicators (KPIs) using the Analytical Hierarchy Process (AHP). According to Saaty (1993), the primary tool of AHP is a functional hierarchy, with the main input being human perceptions. The KPIs data used are the results of literature studies and interviews with company owner. Next, the kpi weighting was carried out by distributing a questionnaire pair comparison between main criteria and sub-criteria in determining KPI weighting specifically for experienced employees and owner. Thus, overall priority was obtained for each element at the hierarchical level. To measure the KPI weights, a preference scale was used, based on research from the AHP respondents. The advantage of this preference scale was that it provided uniformity of scores (variability of scorers) due to the use of a scale ranging from 1 to 9. The point is AHP was utilized to assess the importance

of each proposed KPI, ultimately leading to the development of a final KPI design that aligns with the company's needs.

OMAX was utilized as a scoring system to evaluate the performance of each identified KPIs that has been previously selected using AHP. Furthermore, OMAX allows organizations to systematically assess how well each KPI aligns with strategic objectives, providing a clear framework for performance measurement and improvement (Mardani & et al, 2017). The calculation scheme using Omax formulations can be summarized as follows:

- The productivity measurement standard is used to establish the value of the initial phase, where the Target Matrix is set at the third level. To determine this initial value, the average ratio from each period is calculated. The final target or targets to be achieved are based on the company's guidelines.
- The weighting of the initial productivity value is based on the importance of the value—whether it is significant or not, critical or not—and its impact on the firm's performance ratio.
- In uniform weighting criteria, it is necessary to apply them in both score calculations and productivity scales. The weighting for productivity is expressed as a percentage to assess changes in the increase or decrease of the Elmen (ratio) in relation to others.
- The next step involves interpolating or extrapolating from the existing data to fill in all the elements of the score for each respective ratio. The formulation and extrapolation interpolation are presented as follows:

$$Y_3 = \frac{(X_3 - X_1) * (Y_3 - Y_1)}{(X_2 - X_1)} + Y_1$$

Y1 = value the actual average current performance.
Y2 = value targets expected productivity management.
Y3 = value productivity performance interpolation / extrapolation.
X1 = mean score level position – the actual average performance in objective analysis matrix.
X2 = the position of the target score level expected productivity management
X3 = the score level position that will be interpolated / extrapolation

- The productivity value for each ratio is calculated by multiplying the initially determined productivity score by the weighting analysis. The selected score level is based on the approach that aligns most closely with the data elements of the score. Productivity value = Score
- The total productivity value is the sum of all productivity ratios within the specified time frame.

In OMAX scoring system, the productivity of each ratio provides specific insights into one another. A high level of repeatability may indicate poor implementation and mediocre performance. Traffic light system (TLS) was also used to determine the level of each of the company's key performance indicators. Ratios that reflect poor levels necessitate that management concentrate on these areas to optimize productivity values and enhance performance levels.

3. Results and Discussion

The data collected consists of questionnaire responses from the respondents and information obtained through interviews with key informants. Before distributing the questionnaires, the informants were first selected. As outlined in the previous chapter, the technique used for selecting informants was non-probability sampling, specifically the Judgment Sampling method (based on certain criteria). The selected informants were employees from various divisions of PT X. This sampling technique was chosen because these employees, particularly those in leadership positions considered to be competent experts within the company.

3.1 KPI validation and weighting using the AHP

The KPIs were validated through discussions with competent management, ensuring their accuracy and relevance. Thus, the designed KPIs were able to accurately reflect the performance of each aspect of the company which being categorized based on the satisfaction, contributions, strategies, processes, and capabilities of each stakeholder in performance prims model. The results of the paired interest level calculations between KPIs revealed a consistency ratio (CR) of ≤ 0.1, leading to the conclusion that the respondents in the questionnaire were consistent in their answers.

In addition to the consistency ratio, weight values were also obtained for each KPI. These weights were later used to calculate the values in the OMAX scoring system. Design and results of KPIs weighting are obtained as Table 1 as follows:

Table 1. Summary of KPI's Weight Calculation Results

Weight of Each Level						KPIs weight
Level 2		Level 3		Level 4		
Criteria	Weight of criteria	Nama sub criteria	Weight of sub criteria	KPIs	weight	
Investor	0.33657	*Satisfaction* dan *Contribution*	0.530599	I-1	0.191885	0.034268
				I-2	0.079783	0.014248
				I-3	0.052381	0.009354
				I-4	0.67595	0.120714
		Strategy	0.244465	I-5	0.178239	0.014665
				I-6	0.821761	0.067614
		Process	0.153146	I-7	0.661869	0.034116
				I-8	0.338131	0.017429
		Capability	0.07179	I-9	0.213491	0.005158
				I-10	0.786509	0.019004
Customer	0.37901	*Satisfaction* dan *Contribution*	0.246138	P-1	0.400994	0.037408
				P-2	0.599006	0.05588
		Strategy	0.324819	P-3	0.386488	0.04758
				P-4	0.613512	0.075529
		Process	0.292494	P-5	0.191675	0.021249
				P-6	0.808325	0.089609
		Capability	0.136549	P-7	0.330316	0.017095
				P-8	0.669684	0.034658
Employee	0.16958	*Satisfaction* dan *Contribution*	0.23943	K-1	0.191675	0.007782
				K-2	0.808325	0.03282
		Strategy	0.152909	K-3	0.116974	0.003033
				K-4	0.333843	0.008657
				K-5	0.549183	0.014241
		Process	0.411595	K-6	0.484811	0.033839
				K-7	0.515189	0.035959
		Capability	0.196066	K-8	0.219448	0.007296
				K-9	0.780552	0.025952
Supplier	0.13478	*Satisfaction* dan *Contribution*	0.522684	S-1	0.584969	0.041209
				S-2	0.415031	0.029238

Weight of Each Level						KPIs weight
Level 2		Level 3		Level 4		
Criteria	Weight of criteria	Nama sub criteria	Weight of sub criteria	KPIs	weight	
		Strategy	0.247394	S-3	0.400994	0.013371
				S-4	0.599006	0.019973
		Process	0.157926	S-5	0.523955	0.011153
				S-6	0.476045	0.010133
		Capability	0.071996	S-7	0.568957	0.005521
				S-8	0.431043	0.004183

3.2 Scoring system using OMAX

The next step was to determine the actual score and performance value of the company. For example, when calculating KPI Investor-1 (I-1), the company's actual performance was 26%. Therefore, Key Performance Indicator I-1 is categorized at a level that closely corresponds to 26%. In this case, it was at level 4, with a value of 25.71%, meaning that Key Performance Indicator I-1 (Net Profit Margin) was optimally assigned a score of 4.

The formula for calculating productivity indicators or values involved multiplying the level (score) by the weight. The weight represents the weight of the company's KPI, which had been calculated using the AHP method in Table 1 before. The complete formula for the value is as follows:

$$\text{Value} = \text{Level (score)} - \text{Bobot(weight)}$$

Therefore, the value for KPI I-1 is:

$$\text{Value} = 4 - 0.3427 = 0.13707$$

The complete results of the scoring system used to determine the actual score and performance value of investor stakeholders with the help of an objective matrix (OMAX) were presented in Table 2 below. To enhance readability, a traffic light system was employed. If the realized value exceeded the set target, it was colored green; conversely, if the realized value fell below the target and outside the tolerance limit, it was colored red. If the realized value was below the target but still within the company's tolerance limit, it was colored yellow.

Table 2. Scoring OMAX Investor

KPI	I-1	I-2	I-3	I-4	I-5	I-6	I-7	I-8	I-9	I-10
Performance	26	11	36	62	4	100	4	105	100	32
10	30	15	35	30	4	100	4	98	100	35
9	29.2857	14.2857	34.2857	27.1429	4	100	4	96.8571	100	34.2857
8	28.5714	13.5714	33.5714	24.2857	4	100	4	95.7143	100	33.5714
7	27.8571	12.8571	32.8571	21.4286	4	100	4	94.5714	100	32.8571
6	27.1429	12.1429	32.1429	18.5714	4	100	4	93.4286	100	32.1429
5	26.4286	11.4286	31.4286	15.7143	4	100	4	92.2857	100	31.4286
4	25.7143	10.7143	30.7143	12.8571	4	100	4	91.1429	100	30.7143
3	25	10	30	10	4	100	4	90	100	30
2	23.3333	9	28.3333	10	3.33333	93.3333	3.66667	86.6667	95	28.3333
1	21.6667	8	26.6667	10	2.66667	86.6667	3.33333	83.3333	90	26.6667
0	20	7	25	10	2	80	3	80	85	25
Level (score)	4	4	10	10	10	10	10	10	10	5
Bobot (*weight*)	0.03427	0.01425	0.00935	0.12071	0.01467	0.06761	0.03412	0.01743	0.00516	0.019
Value	0.13707	0.05699	0.09354	1.20714	0.14665	0.67614	0.34116	0.17429	0.05158	0.09502

From the results of the calculations conducted using OMAX, a summary of the performance of the key performance indicators (KPIs) for all stakeholders was presented in Table 3 below:

Table 3. Summary of KPI's Performance Index

KPIs code	Weight	Performance value	Level	TLS category
I-1	0.192	0.13707	3	Yellow
I-2	0.079	0.05699	3	Yellow
I-3	0.052	0.093544106	10	Green
I-4	0.675	1.207137696	10	Green
I-5	0.178	0.146654789	10	Green
I-6	0.822	0.676142562	10	Green
I-7	0.661	0.341155489	10	Green
I-8	0.338	0.174287113	10	Green
I-9	0.213	0.051584311	10	Green
I-10	0.786	0.095019113	5	Yellow
C-1	0.401	0.112224727	3	Yellow
C-2	0.599	0.167641474	3	Yellow
C-3	0.386	0.475804938	10	Green
C-4	0.613	0.755293259	10	Green
C-5	0.191	0.063746129	3	Yellow
C-6	0.808	0.896092794	10	Green
C-7	0.33	0.170950143	10	Green
C-8	0.67	0.346584433	10	Green
E-1	0.192	0.023347494	3	Yellow
E-2	0.808	0.0985	3	Yellow
E-3	0.117	0.030331755	10	Green
E-4	0.333	0.086566756	10	Green
E-5	0.549	0.142405124	10	Green
E-6	0.484	0.338389696	10	Green
E-7	0.5115	0.35959271	10	Green
E-8	0.219	0.0292	4	Yellow
E-9	0.781	0.259524511	10	Green
S-1	0.584	0.08242	10	Green
S-2	0.415	0.292377926	10	Green
S-3	0.4	0.053482732	4	Yellow
S-4	0.59	0.199731473	10	Green
S-5	0.524	0.033457542	3	Yellow
S-6	0.476	0.101327315	10	Green
S-7	0.568	0.055209533	10	Green
S-8	0.431	0.01254806	3	Yellow
Performance index		**8.2**		

3.3 Overall performance

From a total of 35 KPIs and based on the OMAX scoring values for each stakeholder, a total index value of 8.2 was achieved. Additionally, utilizing the traffic light system allows us to assess the company's overall performance, which is indicated as green, meeting or falling short of the expected standards. The graphic representation of overall performance based on color analysis from the TLS method is outlined as Figure 1 follows:

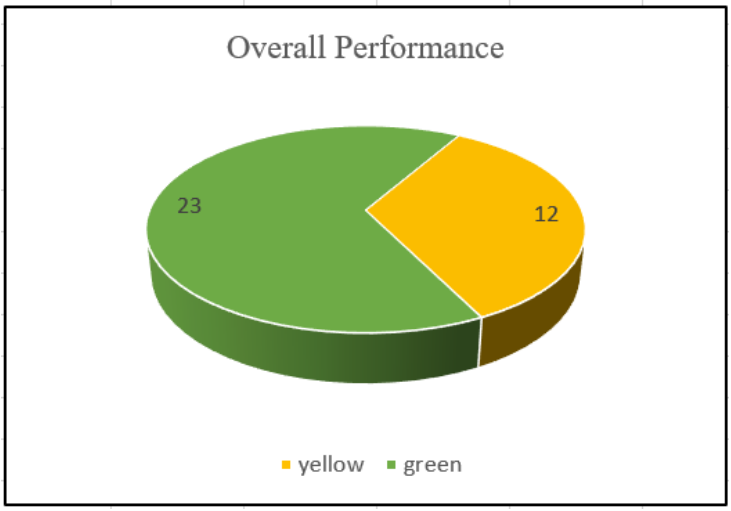

Figure 3. Overall PT X Performance

Figure 3 above illustrates that there are 23 KPIs in the green category, 12 KPIs in the yellow category, and none in the red category. The KPIs included in the yellow category are net profit margin (I-1), return on asset (I-2), average training deals (I-10), customer satisfaction towards facilities (C-1), customer satisfaction towards training material (C-2), input/suggestions given (C-5), percentage of employee attendance (E-1), level of employee satisfaction (E-2), average number of incoming training prospects (E-8), collaboration with other companies (S-3), confirmation of instructor attendance (S-5), and timeliness of training implementation (S-8).

Based on OMAX's scoring through the traffic light system, the KPIs from the investor's perspective are at level 4, placing them in the medium or yellow category. The net profit margin (I-1) is considered good when it is high or nearly equal to the sales value. However, achieving a 100% net profit margin is unrealistic, as it would imply no costs were incurred during business operations. Therefore, regular marketing and financial report analysis is essential to efficiently manage operational costs and control all expenses within the company's business. The KPI for return on assets (I-2) reflects expected performance but remains below the optimistic target. To improve this, the company can focus on increasing profits—whether through higher sales volumes, offering more products or training, or by cutting unnecessary operational costs. On the other hand, KPI I-10 can be enhanced through strategies like Search Engine Marketing (SEM) and Search Engine Optimization (SEO). Additionally, the company can increase potential customer traffic by adopting an Integrated Marketing Communication (IMC) approach. For example, boosting traffic through IMC can involve Public Relations, which focuses on building strong relationships with various groups to generate desired publicity, such as news, activity articles, or newsletters showcasing company events. Furthermore, factors like recognition, appreciation, teamwork, and a positive organizational culture play a significant role in employee job satisfaction. In turn, employee satisfaction positively impacts their performance, contributing to the company's growth

Several recommended methods can be used to assess the quality of customer service, such as evaluating company training materials and facilities using the SERVQUAL method. To address complaints about facilities experienced by customers, the QFD (Quality Function Deployment) method can be applied. QFD serves as a tool to effectively identify and understand the true nature of customer feedback or complaints.

Employee stakeholders also shown moderate or medium performance. To enhance this, a management strategy can be developed to foster employee awareness of quality in all business processes, encouraging participation from all employees. This approach highlights the importance of company management clearly communicating the overall vision and mission. Involving employees in this way creates a learning experience that supports improvements in business process management. Additionally, recognition, appreciation, teamwork, and a positive

organizational culture significantly impact employee job satisfaction, which, in turn, affects their performance and the company's success. By also considering employee feedback, the company's overall performance can be improved to meet shared goals for advancing the business

Additionally, it is also important for companies to build strong relationships with suppliers to enhance productivity and product quality. The company should aim to maintain effective communication with suppliers, ensuring timely payments and providing clear, accurate information about requirements. This will help suppliers fully understand what they need to deliver, both in terms of quality and quantity.

4. Conclusions

In conclusion, the measurement results indicate a moderate level of performance, suggesting that some KPIs in evaluating the company's performance are not fully optimized or aligned with the owner's targets and expectations. However, this remains within the company's acceptable tolerance limits, requiring targeted efforts to improve these KPIs. Additionally, the recommendations for performance improvement provided in the previous section are descriptive and have not yet been followed by further measurement by either researchers or company management. Future studies should aim to compare the company's performance after implementing specific strategies to enhance PT X productivity.

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