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Analysis of Knowledge Management Implementation on Employee Performance in the Rubber Tyred Gantry (RTG) Division of PT Prima Multi Peralatan

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A B S T R A C T

The objective of this study is to obtain empirical evidence and conduct an analysis of the impact of Knowledge Management Implementation on Employee Performance within the Rubber Tyred Gantry (RTG) Division at PT Prima Multi Peralatan. This research adopts a quantitative, survey-based approach employing an associative method. The study population consists of all employees within the RTG Division at PT Prima Multi Peralatan, located at the Belawan Container Terminal, totaling 58 individuals, with the sample size comprising the entire population (census sampling). Data collection was conducted directly by the researcher through observations, the administration of structured questionnaires, and the review of relevant documentation. This study employs a quantitative descriptive methodology, with data analysis designed to test the hypotheses and address the research questions posed. The data analysis was performed using Partial Least Squares – Structural Equation Modeling (PLS-SEM) with SmartPLS version 3 software.

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INTRODUCTION

The evolution and approach of Human Resource Management (HRM) are influenced by the advancement of civilization, the rise in educational standards and knowledge, and the escalating demands for competitiveness in the production of goods and services. Over time, there has been an increasing focus on human resources as a critical component of organizational success. This shift has been driven by developments in knowledge management, the growing influence of active labor unions, and a shortage of skilled labor. Given the advancements in knowledge management, scholars have revisited the pivotal role that human resources play in organizational operations (Uyun, 2021). Business success is not solely reliant on the execution of business strategies but must be reinforced by the strength and quality of the human resources within the organization. Thus, human resources are viewed as a complex and influential factor where employee performance directly impacts the company. Achieving organizational goals through effective human resource management grants companies a competitive advantage over their industry counterparts. To achieve this, organizations must foster an environment that motivates employees to cultivate and enhance their skills and capabilities to their fullest potential (Jufrizen, 2022).

Within this context, PT Prima Multi Peralatan, a subsidiary of PT Pelabuhan Indonesia (Persero), is engaged in the maintenance of loading and unloading equipment at the Belawan Container Terminal branch. Established in 2018 and commencing operations in 2019, PT Prima Multi Peralatan encompasses several work divisions, including the Rubber Tyred Gantry (RTG) division, which is tasked with the maintenance and repair of RTG cranes. The division is responsible for overseeing 22 RTG cranes, with their availability requiring continuous monitoring to ensure optimal performance. These cranes are integral to the seamless operation of loading and unloading processes at the port, underscoring the necessity for skilled and knowledgeable human resources to execute maintenance and repair activities with speed, precision, and efficiency.

Knowledge is a fundamental factor that supports and enhances the quality of human resources in any organization. It serves as the foundation for advancing employee performance. High-quality human resources contribute significantly to organizational progress, as evidenced by the achievement of company objectives or targets. Various factors influence employee performance, whether positively or negatively. Optimal performance can be attained by adequately preparing and equipping employees with comprehensive knowledge. The concept of knowledge management embodies the strategic application of knowledge within an organization. The effective implementation of knowledge management can yield substantial positive outcomes, contributing to the future growth and advancement of the company. Knowledge management has a notable impact on employee performance (Meliana, 2020), as it ensures employees are well-prepared for their tasks and possess an understanding that extends beyond the scope of their immediate responsibilities.

Several factors influence an individual's knowledge acquisition. The first factor is education, which can be either formal or informal. Higher levels of

education typically correlate with increased knowledge, as education shapes an individual's cognitive framework and analytical capabilities. The second factor is age; with increasing age, individuals often gain wisdom due to the accumulation of information and experiences. The third factor is occupation, which demands significant amounts of time and effort. As a result, individuals with demanding jobs may have limited time to absorb additional information. The final factor is experience, as extensive experience can substantially enhance an individual's knowledge base.

Knowledge management is a vital component in an environment characterized by rapid change, uncertainty, and intense competition (Bader, 2018). It entails processes such as identifying, creating, clarifying, and distributing knowledge to ensure its reuse, recognition, and learning within an organization or company. Effective implementation of knowledge management enables employees to perform their responsibilities with greater proficiency and efficiency. Thus, it is insufficient for knowledge to be individually held; what is paramount is the development and application of that knowledge.

The application of knowledge management, initiated in 2022 and continuously refined, was formalized with the issuance of the PT Pelabuhan Indonesia (Persero) Board of Directors Regulation, Number: HK.01/15/2/1/PSBL/UTMA/PLND-22, dated February 15, 2022, concerning Knowledge Management Guidelines for PT Pelabuhan Indonesia (Persero). Additionally, the Director's Circular Letter from PT Prima Multi Peralatan, Number: KP.04/28/4/3/PSBL/DPUM/SDM/PMP-22, dated April 28, 2022, outlined the Minimum Availability Value criteria for the implementation of Knowledge Management for the Key Performance Indicator (KPI) of Equipment Readiness/Availability within the Rubber Tyred Gantry (RTG) Division of PT Prima Multi Peralatan for 2022. These measures aim to cultivate high-quality human resources that can compete at a global level and achieve customer satisfaction, especially in container handling operations at the port. Evidence of this can be seen in Table 1.1, which details the annual Key Performance Indicator (KPI) for Equipment Readiness/Availability in the RTG Division. These KPI metrics provide a clear assessment of employee performance in maintaining and repairing equipment.

Table 1. Key Performance Indicator (KPI) Equipment Readiness/Availability

PT PRIMA MULTI PERALATAN								
Rubber Tyred Gantry (RTG) Division								
Key Performance Indicator (KPI) for Equipment Readiness/Availability (per year).								
NO	Equipment Name RTG.	Min Availability (%)	2019 (%)	2020 (%)	2021 (%)	Minimum Availability (%) – Implementation of Knowledge Management.	2022 (%)	2023 (%)
		Has not implemented KM.				Has implemented KM		
1	RTG No.14	80.00	77.03	79.48	80.15	90.00	86.20	84.32

2	RTG No.15	80.00	80.79	80.15	77.47	90.00	87.87	85.80
3	RTG No.16	80.00	79.17	81.39	80.64	90.00	84.31	84.32
4	RTG No.17	80.00	80.89	81.32	78.04	90.00	83.50	83.28
5	RTG No.18	80.00	80.46	77.14	79.44	90.00	84.65	82.83
6	RTG No.19	80.00	77.63	80.79	81.16	90.00	83.45	83.95
7	RTG No.20	80.00	81.55	80.94	80.46	90.00	83.25	82.81
8	RTG No.21	80.00	70.68	75.34	80.43	90.00	83.10	82.57
9	RTG No.22	80.00	77.43	80.88	76.99	90.00	85.80	83.24
10	RTG No.23	80.00	79.21	80.32	77.03	90.00	86.30	86.26
11	RTG No.24	80.00	77.18	78.86	80.38	90.00	84.75	85.79
12	RTG No.25	80.00	80.59	81.68	77.69	90.00	82.68	85.05
13	RTG No.26	80.00	76.67	80.87	81.79	90.00	82.20	85.73
14	RTG No.27	80.00	81.66	81.29	80.37	90.00	83.65	83.93
15	RTG No.28	80.00	75.90	76.83	80.77	90.00	83.25	85.70
16	RTG No.29	80.00	81.85	81.27	80.76	90.00	82.30	81.35
17	RTG No.30	80.00	81.11	78.59	81.12	90.00	84.80	82.81
18	RTG No.31	80.00	77.29	80.86	75.14	90.00	84.35	85.33
19	RTG No.32	80.00	77.41	79.78	79.96	90.00	81.56	83.03
20	RTG No.33	80.00	80.29	81.59	80.11	90.00	83.27	84.39
21	RTG No.34	80.00	80.65	80.57	80.52	90.00	81.15	85.77
22	RTG No.35	80.00	78.63	80.55	80.37	90.00	81.39	84.02
Total average value.		80.00	78.82	80.02	79.58	90.00	83.81	82.20

Note(s): RTG(Rubber Tyred Gantry), KM(Knowledge Management)

Source: Company Report Data (2019-2023).

Table 1 presented above provides Key Performance Indicator (KPI) data regarding the availability of Rubber Tyred Gantry (RTG) equipment at PT Prima Multi Peralatan, facilitating a comparative analysis of conditions before and after the implementation of Knowledge Management (KM). The data indicates that from 2019 to 2021, prior to the implementation of KM, the average availability of RTG equipment consistently fell below the established minimum target of 90%, recording 80.00% in 2019, declining to 78.82% in 2020, and slightly recovering to 80.02% in 2021. These figures suggest that equipment readiness was not optimal and did not meet the desired performance standards.

In contrast, following the implementation of KM in 2022, a significant improvement in equipment availability was observed, rising to 83.81% in 2022 and further to 84.20% in 2023. Although these figures have yet to meet the minimum target, the implementation of KM has shown a positive effect, as evidenced by the upward trend in availability. KM has enabled employees to share knowledge and experiences more effectively, enhance maintenance processes, and improve operational performance, thereby contributing to equipment readiness, although further efforts are necessary to achieve the minimum target.

Employee performance, characterized by the quality, quantity, and timeliness of work output, plays a crucial role in attaining organizational goals.

Superior performance relies on fostering a learning-oriented work culture that encourages initiative and exceptional results. This culture can be monitored through knowledge management initiatives, supported by the availability of knowledge resources as learning materials. Therefore, it is essential for PT Prima Multi Peralatan to conduct a comprehensive analysis of KM implementation, encompassing knowledge creation, assimilation, dissemination, and application, while ensuring the availability of supplementary knowledge resources for employee learning.

In light of this context, the research question is: How does the implementation of knowledge management influence employee performance in the Rubber Tyred Gantry (RTG) Division at PT Prima Multi Peralatan?

LITERATURE REVIEW

Employee performance

Employee performance constitutes a critical component that significantly enhances the quality and productivity of an organization, encompassing a range of behaviors aligned with the goals of the respective organization or unit in which individuals operate. Performance, defined as the observable actions of individuals, can be quantified and assessed (Sedarmayanti, 2019). As elucidated by Sutrisno (2016), performance represents the outcomes of employee efforts evaluated across various dimensions, including quality, quantity, working time, and cooperation, all directed towards achieving the objectives established by the organization. Moreover, Mangkunegara (2017) underscores that performance reflects both the quality and quantity of results attained by employees in fulfilling their responsibilities in accordance with assigned tasks. From these definitions, it follows that employee performance constitutes the observable outcomes in terms of both quantity and quality regarding the execution of the responsibilities assigned to employees. In order to measure performance effectively, John Miner (as cited in Mangkunegara, 2017) identifies several key indicators.

The quality of work, for example, pertains to the processes that lead to results measurable in terms of an individual's efficiency and effectiveness in executing tasks, supported by the requisite resources. This aspect of performance is evidenced through indicators such as neatness, precision, and reliability. Conversely, the quantity of work refers to the amount or maximum output that employees are expected to achieve within a designated timeframe determined by management. This dimension of performance incorporates indicators such as timeliness, work results, and job satisfaction, collectively providing insights into employee output. Furthermore, cooperation plays an essential role in employee performance, as it involves the attitudes and behaviors of employees in nurturing collaborative relationships with supervisors and colleagues to collectively complete tasks. Indicators of cooperation, including teamwork and collaborative efforts, underscore the significance of interpersonal relationships in the attainment of organizational goals. In addition to cooperation, responsibility emerges as another pivotal factor in performance, relating to the outcomes of completed work for which employees must be accountable.

Particularly in instances where certain tasks do not meet supervisors' expectations, the indicators of responsibility reflect a sense of accountability in decision-making and the effective utilization of facilities and resources. Lastly, initiative encompasses the proactive behaviors exhibited by employees in performing tasks and addressing challenges, thereby contributing to overall performance. Indicators of initiative, such as independence and the capacity to work effectively, emphasize the importance of self-motivation within the workplace. In conclusion, this comprehensive understanding of performance indicators not only provides a framework for assessing employee contributions but also facilitates the identification of areas for improvement within the organization, thereby fostering a culture of continuous development and excellence.

Knowledge Management

According to Walczak (as cited in Intezari, 2017:474), knowledge management is defined as any process—whether a formal policy or informal personal methods—that facilitates the capture, distribution, creation, and application of knowledge for decision-making. It encompasses a set of shared beliefs and practices regarding knowledge transfer across projects. Knowledge management serves as a cohesive framework for storing, shaping, and sharing knowledge, ultimately optimizing the achievement of an organization's vision and objectives. This discipline is instrumental in enhancing knowledge within an organization through learning and management practices that contribute to competitive advantage and informed decision-making. The implementation of knowledge management proves particularly beneficial in operational and service contexts, as it enhances employee competency, ensures the availability of knowledge, and fosters innovation and product development (Probosari & Siswanti, 2017). Broadly categorized, knowledge can be divided into two types (Bergeron as cited in Budihardjo, 2017): Explicit Knowledge: This type of knowledge can be readily acquired from experts in specific fields and communicated to others through written or verbal means. Tacit Knowledge: Tacit knowledge resides within individuals' subconscious and is not easily articulated, explained, or presented in concrete terms, making it challenging to transfer or transform.

The components of knowledge management comprise three key elements: People, Process, and Technology. People serve as the primary actors responsible for managing knowledge, while Process and Technology act as supporting structures facilitating the execution of four main knowledge management processes: a) Knowledge Creation, b) Knowledge Assimilation, c) Knowledge Dissemination, and d) Knowledge Application (Yikilmaz, 2023).

Knowledge Creation refers to the process of enhancing existing knowledge, discovering new insights (innovation), and reflecting on past experiences (Yikilmaz, 2022). This process involves refining and augmenting knowledge through discovery and reflective practices (Tjkraatmadja, 2015). The primary indicators of knowledge creation include socialization, internalization, externalization, and combination (Yikilmaz, 2023).

Knowledge Assimilation entails the systematic collection and integration of knowledge derived from practical field experiences, which is subsequently stored and amalgamated with existing organizational knowledge (Yikilmaz, 2023). This process includes the gathering, storage, and synthesis of new knowledge to enrich the organization's knowledge base (Tjkraatmadja, 2015). Indicators of knowledge assimilation include the role of knowledge workers, the presence of technical knowledge infrastructure, an internal knowledge climate, and effective knowledge management processes (Yikilmaz, 2023).

Knowledge Dissemination involves the communication and distribution of knowledge to individuals or units that require it, utilizing the organization's established systems (Yikilmaz, 2023). As noted by Durán and Córdova (2015), this process ensures the spread of knowledge to relevant stakeholders. Key indicators of knowledge dissemination encompass efficient management practices, collaboration, teamwork, and the maintenance of a comprehensive knowledge database.

Knowledge Application pertains to the practical implementation of knowledge held by individuals or embedded within the organization to resolve issues and drive solutions (Yikilmaz, 2023). This process emphasizes the use of knowledge for effective problem-solving (Tjkraatmadja, 2015). According to Pranogyo et al. (2022), knowledge application supports organizational learning, fosters innovation, aids in decision-making, and ensures the continuation of the organization's knowledge legacy. Indicators of knowledge application include the processes of knowledge acquisition, storage, distribution, and practical implementation.

implementation.

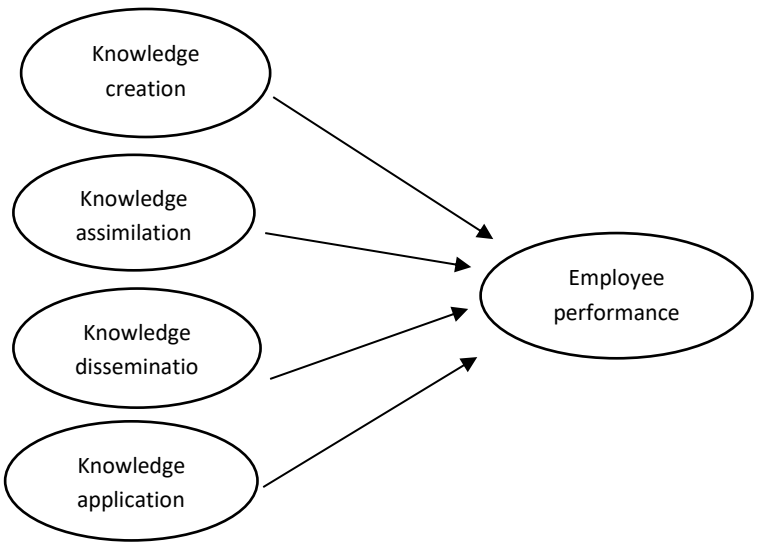

Figure 1. Research framework

METHODOLOGY

The research approach adopted in this study is descriptive quantitative, designed to address questions related to the presence and interaction of

independent variables, whether these involve one or more standalone variables. The main objective of this approach is to identify relationships between these variables without conducting comparative analyses (Sugiyono, 2015).
The study's population consists of all employees at PT Prima Multi Peralatan within the Rubber Tyred Gantry (RTG) division at the Belawan Container Terminal, totaling 58 individuals. The sample size mirrors the entire population, comprising 58 engineers and technicians from the RTG division. This comprehensive sampling approach enhances representativeness and reduces potential biases within the analysis.

Data collection was performed directly by the researcher using a combination of structured observation, questionnaires (survey instruments), and document analysis. This triangulated method was intended to gather both subjective and objective data, thereby enhancing the validity and reliability of the study.

In the realm of quantitative descriptive research, data analysis is conducted not only to answer the formulated research questions but also to test the hypotheses concerning the relationships between variables. To this end, the study employed the partial least squares structural equation modeling (PLS-SEM) method using Smart-PLS version 3 software. This technique was chosen due to its capacity to handle complex models and suitability for studies with smaller sample sizes.

The analysis was divided into two principal components: outer model analysis and inner model analysis. The outer model analysis assessed construct reliability and validity through metrics such as construct reliability, convergent validity, and discriminant validity. The inner model analysis examined the structural relationships among the variables, including assessments of R-square (explained variance), F-square (effect size), Q-square (predictive relevance), and collinearity statistics to identify potential multicollinearity.

Hypothesis testing was also carried out to investigate the direct effects between variables. The PLS-SEM approach provided a comprehensive evaluation through the analysis of path coefficients and the significance of relationships, ensuring that the measurement and structural models were thoroughly tested. This methodology underpinned the robustness of the study's conclusions, supporting the validity of its findings (Juliandi, 2018).

RESEARCH RESULT

Evaluation of the Measurement Model

The evaluation of the measurement model includes assessing the reliability and validity of the constructs. The results of these assessments are presented in Table 2, which provides detailed metrics for item loadings, Cronbach's Alpha, rho_A, Composite Reliability (CR), and Average Variance Extracted (AVE).

Table 2. Measurement Model Evaluation

Construct	Item Loading	Cr. Alpha	rho_A	CR	AVE
Knowledge Creation		0.909	0.926	0.925	0.608
	0.751				
	0.789				

	0.770				
	0.735				
	0.782				
	0.790				
	0.819				
	0.797				
Knowledge Assimilation		0.922	0.925	0.936	0.646
	0.796				
	0.793				
	0.808				
	0.791				
	0.820				
	0.809				
	0.823				
	0.788				
Knowledge Dissemination		0.901	0.902	0.923	0.668
	0.816				
	0.805				
	0.807				
	0.822				
	0.826				
	0.826				
Knowledge Application		0.939	0.939	0.949	0.702
	0.810				
	0.842				
	0.863				
	0.857				
	0.799				
	0.855				
	0.839				
	0.833				
Employee Performance		0.971	0.972	0.975	0.795
	0.878				
	0.901				
	0.900				
	0.878				
	0.831				
	0.898				
	0.890				
	0.918				
	0.906				
	0.917				
Note: Loading (> 0.70); Cr. Alpha (> 0.70); CR (> 0.70); AVE (> 0.50)					

Table 2 presents an evaluation of the measurement model, outlining essential indicators for assessing the reliability and validity of the constructs included in this study. The constructs under analysis encompass Knowledge Creation, Knowledge Assimilation, Knowledge Dissemination, Knowledge Application, and Employee Performance.

The analysis confirms that each construct exhibits item loadings exceeding the recommended threshold of 0.70, thereby affirming indicator reliability. The values for Cronbach's Alpha (Cr. Alpha), rho_A, and Composite Reliability (CR)

for all constructs surpass 0.70, signifying strong internal consistency and reliability. The inclusion of rho_A serves as an additional reliability metric, demonstrating the degree to which construct indicators cohesively measure the underlying latent variable. Moreover, the Average Variance Extracted (AVE) for each construct is greater than 0.50, which indicates that the constructs possess adequate convergent validity. To further assess the discriminant validity of the constructs, the Fornell-Larcker criterion was employed, as shown in Table 3.

Table 3. Fornell-Larcker Criterion

Construct	EP	KAP	KAS	KC	KD
EP	(0.842)				
KAP	0.814	(0.838)			
KAS	0.802	0.720	(0.804)		
KC	0.603	0.500	0.635	(0.780)	
KD	0.810	0.805	0.761	0.500	(0.817)
Note (s): The values in parentheses represent the square root of the AVE *EP (Employee Performance), KAP (Knowledge Application), KAS (Knowledge Assimilation), KC(Knowledge Creation), KD (Knowledge Dissemination)*					

Table 3 provides the Fornell-Larcker criterion results, which are instrumental in evaluating the discriminant validity of the constructs within the model. Discriminant validity is established when the square root of the AVE for each construct (represented in parentheses along the diagonal) surpasses the correlation coefficients between that construct and all others in the model. The results indicate that the square roots of the AVE for Employee Performance (EP), Knowledge Application (KAP), Knowledge Assimilation (KAS), Knowledge Creation (KC), and Knowledge Dissemination (KD) are consistently higher than their respective inter-construct correlations. This finding substantiates that each construct exhibits greater variance with its own indicators compared to its shared variance with other constructs, thereby confirming satisfactory discriminant validity. To further assess discriminant validity, the Heterotrait-Monotrait Ratio (HTMT) analysis was performed. The HTMT criterion offers a more rigorous evaluation by calculating the ratio of average correlations between constructs relative to the average correlations within the same construct. The HTMT values for the constructs in the study are presented in Table 4.

Table 4. HTMT

Construct	EP	KAP	KAS	KC	KD
EP					
KAP	0.844				
KAS	0.835	0.766			
KC	0.605	0.506	0.673		
KD	0.841	0.843	0.824	0.516	
Note (s): HTMT ratio < 0.85 indicates acceptable discriminant validity *EP (Employee Performance), KAP (Knowledge Application), KAS (Knowledge Assimilation), KC(Knowledge Creation), KD (Knowledge Dissemination)*					

Table 4 presents the results of the Heterotrait-Monotrait Ratio (HTMT) analysis, which assesses the discriminant validity among the constructs in the study. All HTMT ratios fall below the 0.85 threshold, confirming that the constructs are sufficiently distinct. This indicates that each construct measures a unique theoretical concept, affirming adequate discriminant validity within the measurement model.

Evaluation of the Structural Model

Table 5. Structural Model Fit and Predictive Relevance

Construct	R-square	Adjusted R-square	Q-square	f-square
EP	0.921	0.916	0.721	
KC				0.022
KAS				0.047
KD				0.086
KAP				0.032
Note (s) R^2(Weak: <0.25; Moderate: 0.25–0.50; Strong: >0.50); Q^2 (Positive: >0; (f^2 <0.02; negligible effect, 0.02< f^2< 0.15; small effect, 0.15 < f^2< 0.35; medium effect, $f^{2>}$ 0.35; large effect. *EP (Employee Performance), KAP (Knowledge Application), KAS (Knowledge Assimilation), KC(Knowledge Creation), KD (Knowledge Dissemination)*				

Table 5 provides a comprehensive summary of the evaluation of the structural model fit and predictive relevance for the constructs within the study. The R^2 value for Employee Performance (EP) is 0.921, indicating a strong explanatory power that significantly exceeds the threshold of 0.50. This finding suggests that approximately 92.1% of the variance in Employee Performance can be attributed to the predictor constructs included in the model. The Adjusted R^2 of 0.916 further substantiates this conclusion, demonstrating the model's reliability while adjusting for the number of predictors used.

Moreover, the Q^2 values signify the predictive relevance of the model, with all values exceeding zero, thereby indicating that the model possesses predictive relevance for the constructs of Knowledge Creation (KC), Knowledge Assimilation (KAS), Knowledge Dissemination (KD), and Knowledge Application (KAP). Additionally, the f^2 effect sizes offer valuable insights into the strength of the relationships between the constructs, further enhancing the understanding of their interdependencies within the structural model. To assess the relationships proposed in the hypotheses, a comprehensive hypothesis testing analysis was conducted. The results of this analysis are presented in Table 6, which details the testing outcomes for each hypothesis within the framework of the study.

Table 6. Hypotheses Test Results

Path	β	M	S-D	t-statistics	p-value	Remarks
KAP → EP	0.267	0.268	0.096	2.794	0.005	Accepted
KAS→ EP	0.233	0.230	0.091	2.570	0.010	Accepted
KC→ EP	0.089	0.091	0.044	2.029	0.043	Accepted
KD → EP	0.464	0.463	0.109	4.275	0.000	Accepted
EP (Employee Performance), KAP (Knowledge Application), KAS (Knowledge Assimilation), KC(Knowledge Creation), KD (Knowledge Dissemination)						

Table 6 presents the results of the hypothesis testing for the relationships among the constructs in the study, detailing the standardized path coefficients (β), t-statistics, p-values, and remarks regarding the acceptance of each hypothesis. The analysis reveals that all proposed paths are statistically significant. The relationship between Knowledge Application (KAP) and Employee Performance (EP) is characterized by a standardized path coefficient

(β) of 0.267, a t-statistic of 2.794, and a p-value of 0.005, thereby supporting the hypothesis. Similarly, the path from Knowledge Assimilation (KAS) to EP demonstrates significance, with a β of 0.233, a t-statistic of 2.570, and a p-value of 0.010. Knowledge Creation (KC) shows a β of 0.089, a t-statistic of 2.029, and a p-value of 0.043, confirming its relevance within the model. Notably, the relationship between Knowledge Dissemination (KD) and EP exhibits the strongest association, with a β of 0.464, a t-statistic of 4.275, and a p-value of 0.000, indicating a highly significant effect. Collectively, these findings provide substantial support for the proposed hypotheses within the context of this study.

DISCUSSION

The hypothesis testing results for the effect of Knowledge Creation on employee performance in this study reveal a positive path coefficient of 0.089, a t-statistic of 2.029 (exceeding the t-table value of 2.002), and a p-value of 0.043 (below the significance threshold of 0.05). This statistically significant finding indicates that Knowledge Creation positively influences employee performance at PT Prima Multi Peralatan, particularly within the Rubber Tyred Gantry (RTG) Division. Knowledge Creation encompasses essential processes such as enhancing existing knowledge, discovering new insights, and reflecting on experiences. By effectively leveraging this knowledge, employees can significantly improve their problem-solving abilities, resulting in increased efficiency and productivity. Furthermore, the encouragement of innovation allows employees to contribute novel ideas, which not only enhances individual performance but also bolsters overall organizational performance. The role of reflective practices is equally critical, as they enable employees to learn from both successes and failures, thereby fostering a culture of continuous improvement. However, the positive impact of Knowledge Creation on performance is contingent upon the organization's support in facilitating these processes. This support includes providing training, access to resources, and cultivating a culture that encourages experimentation. Consequently, organizations that prioritize and actively support Knowledge Creation not only foster an innovative environment but also drive improved workforce performance, ultimately maintaining a competitive advantage in the industry. This interrelation highlights the importance of a strategic approach to Knowledge Creation as a means to enhance employee performance and contribute to organizational success.

The results of the hypothesis testing reveal a significant positive correlation between Knowledge Assimilation and employee performance. The observed positive path coefficient of 0.233 indicates that improvements in the Knowledge Assimilation process are associated with corresponding enhancements in employee performance, as substantiated by a t-statistic of 2.570 and a p-value of 0.010, both affirming the statistical significance of this impact. Knowledge Assimilation serves as a pivotal process through which employees gather and integrate knowledge derived from their field experiences, encompassing not only the acquisition of new information but also the effective retention and amalgamation of this information with pre-existing knowledge.

When employees successfully engage in Knowledge Assimilation, they become better equipped to access a comprehensive and enriched knowledge base that informs their decision-making and problem-solving capabilities. The implications of this relationship are substantial, as employees who actively participate in Knowledge Assimilation can leverage insights gained from diverse experiences, thereby enhancing their problem-solving skills and fostering increased innovation. For instance, by reflecting on prior challenges and solutions, employees can apply acquired strategies to new contexts, resulting in improved efficiency and diminished error rates. Moreover, the collaborative nature of Knowledge Assimilation enables employees to benefit from the varied experiences of their peers. When knowledge sharing is actively promoted within the organization, employees are able to learn from each other, cultivating a culture of continuous learning and development that enhances both individual performance and overall team effectiveness. To fully optimize the advantages of Knowledge Assimilation, organizations must foster an environment conducive to knowledge sharing and collaboration. Implementing targeted training programs, facilitating open communication channels, and establishing robust systems for documenting and disseminating experiences are essential strategies that can significantly bolster the assimilation process. By creating such an environment, organizations can maximize the benefits of Knowledge Assimilation, leading to enhanced employee performance and improved organizational outcomes.

The findings from the hypothesis testing indicate a significant positive relationship between Knowledge Dissemination and employee performance. The positive path coefficient of 0.464 suggests that enhancements in Knowledge Dissemination are directly correlated with improvements in employee performance. This relationship is supported by a t-statistic of 4.275 and a p-value of 0.000, both of which confirm the statistical significance of this impact. Knowledge Dissemination represents a critical process within organizations, encompassing the distribution of knowledge to individuals or units that require it. This process is essential for ensuring that valuable information and insights are effectively communicated and utilized throughout the organization. By leveraging existing systems for knowledge dissemination, employees can readily access the information necessary to perform their tasks efficiently.

The implications of this relationship are profound. Firstly, effective Knowledge Dissemination empowers employees to leverage existing knowledge, thereby enhancing their problem-solving capabilities and decision-making processes. For instance, when employees can easily access relevant data, best practices, or lessons learned from prior experiences, they are better positioned to make informed choices, resulting in increased operational efficiency and productivity.

Moreover, Knowledge Dissemination fosters a culture of collaboration and continuous improvement within the organization. Open knowledge sharing encourages employees to communicate and collaborate more effectively, enhancing teamwork and collective intelligence. This collaborative environment

not only contributes to individual performance but also elevates overall team dynamics, leading to improved organizational outcomes.
Furthermore, the ability to swiftly disseminate knowledge enhances an organization's adaptability and responsiveness to changing circumstances. In fast-paced industries, immediate access to pertinent knowledge empowers employees to respond effectively to challenges and capitalize on opportunities, thereby maintaining a competitive edge in the market.

To optimize the benefits of Knowledge Dissemination, organizations must prioritize the development of robust systems and practices that facilitate knowledge sharing. This may involve establishing clear communication channels, utilizing technology for knowledge management, and creating incentives for employees to share their insights and expertise.

The findings from the hypothesis testing reveal a significant positive relationship between Knowledge Application and employee performance. The positive path coefficient of 0.267 indicates that as the process of Knowledge Application improves, employee performance also increases. This relationship is further validated by a t-statistic of 2.794 and a p-value of 0.005, confirming the statistical significance of this impact. Knowledge Application is a crucial process that involves the practical use of knowledge already available within the organization. This encompasses the application of insights, skills, and expertise that employees acquire through their experiences and training to solve real-world problems they encounter in their work. When employees effectively apply their knowledge, they can enhance their productivity, efficiency, and problem-solving capabilities, ultimately leading to improved performance outcomes.The implications of this relationship are noteworthy. First, the successful application of knowledge allows employees to leverage their understanding and skills to tackle challenges more effectively. For example, when employees apply their knowledge to streamline processes, they can identify inefficiencies and propose solutions, which can lead to cost savings and better resource management. This, in turn, contributes to the overall success of the organization. Moreover, the effectiveness of Knowledge Application is contingent upon the organizational environment. A supportive culture that encourages knowledge sharing and application is essential. Employees must feel empowered to utilize their knowledge without fear of failure or criticism. This requires a commitment from both employees and management. Employees need to actively engage with the process, while the organization must provide the necessary resources, training, and an infrastructure that facilitates knowledge application. Support from the organization can take many forms, such as offering training programs that enhance employees' skills, implementing tools and systems that allow easy access to information, and fostering an open communication culture that encourages collaboration and the exchange of ideas. When employees have access to the right tools and a conducive environment, they are more likely to effectively apply their knowledge, which will positively impact their performance.

CONCLUSIONS AND RECOMMENDATIONS

The analysis of questionnaire data from 58 respondents, processed using SmartPLS version 3, indicates that Knowledge Creation positively and significantly influences employee performance. Similarly, Knowledge Assimilation, Knowledge Dissemination, and Knowledge Application also exhibit positive and significant effects on employee performance. In light of these findings, it is crucial for management to implement strategic initiatives aimed at enhancing knowledge management practices within the organization to promote improved employee performance. The organization should actively encourage and support the continuous development of knowledge management processes among employees.

This includes the four essential components of knowledge management: Knowledge Creation, Knowledge Assimilation, Knowledge Dissemination, and Knowledge Application, all of which can be effectively facilitated through comprehensive training, education, and personal development programs. Moreover, a strong emphasis should be placed on motivating employees and recognizing improvements in key performance indicators (KPIs) related to equipment readiness. Such an approach fosters a positive work environment that encourages employees to engage in collaborative behaviors, support their colleagues, and actively contribute to the organization's objectives, thereby enhancing overall performance. Additionally, sufficient support and motivation must be provided to empower employees in their efforts to enhance performance. This support may encompass access to training and personal development opportunities, the allocation of time for developmental activities, and the recognition of both individual and collective contributions to personal growth. By implementing these strategies, it is anticipated that employees will be effectively encouraged to participate actively in improving their performance in relation to the key performance indicators (KPIs) associated with equipment readiness.

ADVANCED RESEARCH

Advanced research could explore the impact of specific KM practices in different industries or organizational contexts. Additionally, longitudinal studies could provide deeper insights into how KM practices evolve over time and their long-term impact on employee performance and organizational success..

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