

Bridging Transformation: The Power of Human Capital Maturity in Strengthening Corporate Performance at PTPN

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Abstract

This study explores the role of Human Capital Maturity Level (HCML) in shaping corporate performance and driving organizational transformation at PTPN, a state-owned plantation company undergoing structural changes. The research examines how different HCML dimensions such as Strategic, Primary, and Foundation influence financial performance and, in turn, impact transformation success. Using Structural Equation Modeling-Partial Least Squares (SEM-PLS), the study identifies key relationships between HCML and corporate outcomes, while Analytical Hierarchy Process (AHP) is applied to determine the most effective transformation strategies based on expert assessments. Findings indicate that HCML Strategic significantly enhances corporate profit (loading = 0.695, $p < 0.001$), while HCML Foundation strengthens corporate health (loading = 0.552, $p < 0.001$). The AHP results highlight that Developing HR Capabilities (0.35) is the top priority, followed by Change Management Implementation (0.20) and Digital Transformation (0.15). These insights suggest that structured HRM strategies, competency development, and digital adaptation play a crucial role in ensuring sustainable business transformation. The study offers practical recommendations for HR policymakers and corporate leaders to enhance workforce readiness, optimize change management, and leverage digitalization to maintain competitive advantage.

Keywords: AHP, Human Capital Maturity Level, Organizational Transformation, SEM-PLS, Corporate Performance.

1. Introduction

The plantation industry in Indonesia plays a crucial role in the national economy, with state-owned plantation companies (PTPN) under the Ministry of State-Owned Enterprises being one of the key players. However, PTPN faces increasing challenges due to global dynamics and intensified competition. Organizational transformation and performance growth have become essential agendas to ensure business sustainability and economic contribution. Human Capital Maturity Level (HCML) is a critical factor influencing this transformation, which reflects how well human resource (HR) management practices are integrated into corporate strategies. A mature HR management system can enhance productivity, efficiency, innovation, and organizational adaptability in a dynamic business environment (Pham et al., 2020; Shela et al., 2023). Previous studies have emphasized the importance of human capital in driving organizational success, particularly in industries undergoing transformation. Human capital has been shown to be a key determinant of organizational resilience, knowledge development, and financial performance (Bonilla-Chaves & Palos-Sánchez, 2023). Research in knowledge-intensive organizations has indicated that firms with higher levels of human capital maturity tend to demonstrate superior adaptability and innovation capacity, which are crucial for organizational change (Baima et



al., 2021). However, comprehensive re-search on HCML and its impact on performance growth and transformation within PTPN remains limited. Existing studies primarily focus on general HR practices, without specifically addressing how varying levels of maturity in HR management contribute to company performance and organizational transformation in a state-owned plantation context (Chourasia & Bahuguna, 2024).

This study is particularly urgent and novel due to the recent restructuring of PTPN from 14 subsidiaries into four entities, aimed at improving operational efficiency and competitiveness. Prior research suggests that strategic HRM interventions during restructuring play a vital role in determining transformation success (Qamar & Samad, 2022). Understanding how HCML affects this transformation is crucial for ensuring that human capital strategies align with corporate restructuring objectives. Unlike previous studies that focused on HR strategies in stable organizations, this research explores HCML within a transforming company, providing insights into how human resource development can drive organizational change and business sustainability (Saputra et al., 2024; Vaz et al., 2019).

The objective of this study is to analyze the impact of HCML on corporate financial performance and its subsequent influence on transformation success in PTPN. Prior research has highlighted that firms with higher human capital maturity are more likely to achieve stronger financial performance and innovation-driven growth (Lăzăroiu et al., 2020; Nicolaescu et al., 2020). However, empirical studies on this relationship in the plantation sector, particularly in the context of state-owned enterprises, remain scarce. The findings are expected to provide practical insights for PTPN and other similar organizations in managing human capital maturity to support sustainable transformation and long-term competitiveness.

2. Literature Review

2.1. Human Capital Maturity Level and Corporate Performance

The success of modern organizations increasingly depends on their ability to develop and manage human capital effectively. A well-structured Human Capital Maturity Level (HCML) reflects how efficiently a company leverages its workforce through strategic HRM practices that foster innovation, resilience, and long-term growth. Organizations with mature human capital systems tend to cultivate high-performing teams, adapt to market changes more effectively, and sustain financial stability over time. Stahl et al. (2020) highlight that companies implementing sophisticated HR strategies often experience better employee engagement, leading to improved business outcomes and corporate sustainability. Similarly, Garg et al. (2022) emphasize that integrating data-driven HR analytics enhances decision-making, allowing companies to optimize talent management and drive revenue growth. When businesses invest in re-financing their human capital processes, they create a foundation for increased operational efficiency and financial performance. Based on this understanding, the following hypothesis is proposed.

H1: Human Capital Maturity Level (HCML) has a positive impact on corporate performance, measured through increased revenue and improved financial health.

2.2. Corporate Financial Performance & Organizational Transformation

A strong financial foundation is essential for companies undergoing organizational transformation, as it provides the necessary stability, investment capacity, and risk mitigation strategies to support large-scale restructuring efforts (Fauziah et al., 2023). Nazari et al. (2024) argue that financial restructuring significantly impacts corporate agility, market perception, and long-term sustainability. Financial stability is crucial for organizations to achieve competitive advantages during transformation initiatives. It allows for better resource allocation, investment in new technologies, and support for innovative projects. Financial resilience allows organizations to take calculated risks, experiment with new business models, and pivot quickly in response to market shifts. Financially stable organizations attract and retain top talent, and engage in strategic partnerships to access new markets and technologies. Lack of financial stability can hinder effective market changes and hinder competitiveness. Therefore, financial stability is a foundational element for successful transformation.

Additionally, Aoki et al. (2024) emphasize that financially stable organizations exhibit greater flexibility in managing structural changes and can implement technological innovations with minimal disruptions. Their research suggests that corporate financial performance serves as a key determinant of transformation success, as firms with strong financial resources can allocate capital efficiently, sustain work-force adaptation, and execute strategic restructuring smoothly. This aligns with the restructuring of PTPN into four new entities, reinforcing that financial stability is fundamental to successful transformation. These insights suggest that enhanced financial health provides a solid foundation for long-term organizational change. In this context, the following hypothesis is proposed.

H2: Improved corporate financial performance positively influences the success of organizational transformation, as demonstrated by the successful restructuring of 14 PTPN entities into four new corporate structures in accordance with the transformation plan.

2.3. The Mediating Role in Human Capital Maturity Level and Corporate Financial Performance

The impact of Human Capital Maturity Level (HCML) on corporate financial performance is often indirect, influenced by mediating factors that enhance its effectiveness. Organizations with mature human capital structures implement strategies to strengthen business processes, improve knowledge management, and enhance decision-making efficiency. Stahl et al. (2020) highlight that aligning human capital management with corporate sustainability and social responsibility improves overall organizational performance, ensuring that workforce capabilities contribute directly to financial growth. Similarly, Yusliza et al. (2019) emphasize that top management commitment and strategic HRM practices, such as green HRM and corporate social responsibility, act as key mediators in this relationship, enabling companies with advanced HRM practices to sustain long-term financial success. These findings suggest that beyond developing human capital, organizations must establish strong mediating mechanisms to fully leverage their workforce potential. Based on this understanding, the following hypothesis is proposed.

H3: The mediating variable plays a crucial role in linking Human Capital Maturity Level and corporate financial performance, ensuring that improvements in workforce management lead to sustainable financial growth in PTPN.

2.4. Organizational Transformation and the Role of HRM

Organizational transformation requires adaptability, innovation, and strategic human capital management, where Human Capital Maturity Level (HCML) plays a crucial role in facilitating structural change and long-term sustainability. Stahl et al. (2020) highlight that

companies with mature human capital structures experience smoother transformation processes due to enhanced employee engagement, skills development, and alignment with corporate restructuring objectives, reducing resistance and fostering agility. Similarly, Boon et al. (2018) emphasize that HCML enhances transformation by enabling the adoption of innovative HRM practices, improving workforce productivity, and streamlining operational efficiency, which are critical for organizational restructuring. Companies that prioritize training, leadership development, and knowledge-sharing initiatives strengthen their resilience and adaptability, ensuring the effective execution of large-scale transformation programs. In the case of PTPN, strengthening HCML is essential for restructuring from 14 entities into four, creating a more efficient and sustainable organization. Based on this understanding, the following hypothesis is proposed.

H4: A higher level of Human Capital Maturity significantly impacts the organizational transformation process at PTPN, ensuring a smoother and more effective restructuring process.

2.5. Conceptual Framework of Human Capital Maturity Level and Organizational Transformation

Figure 1 illustrates Human Capital Maturity Level (HCML) as a key driver of corporate performance and organizational transformation. HCML is divided into Primary, Strategic, and Foundation dimensions, covering essential HR practices like recruitment, talent mapping, training, and performance evaluation. Using Structural Equation Modeling (SEM), this framework examines the causal relationships between HCML, corporate performance measured by profitability and company health level and the success of organizational transformation. The model emphasizes how structured human capital management enhances decision-making, flexibility, and employee engagement, leading to a more effective transformation process.

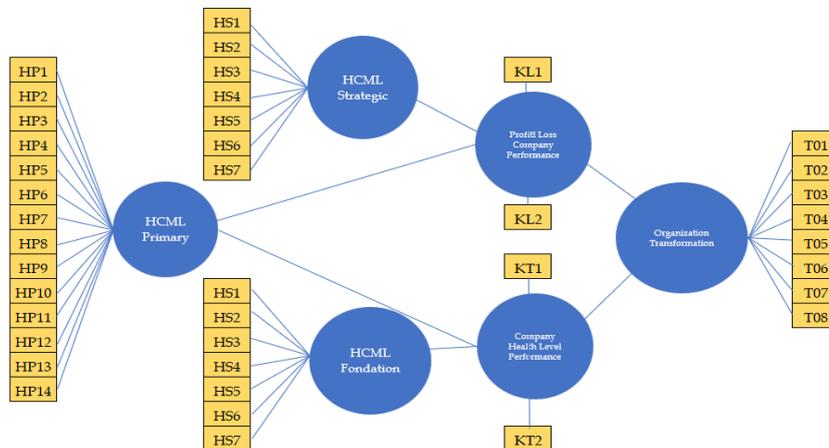


Figure 1. Conceptual Framework of Human Capital Maturity Level (HCML) and Its Impact on Corporate Performance and Organizational Transformation

3. Methods

3.1. Structural Equation Modeling (SEM)

This study employs a quantitative research approach using the Human Capital Maturity Level (HCML) model to analyze the impact of corporate transformation and financial performance at PTPN, with data collected from PTPN III Holding in Jakarta between February and July 2024. The study incorporates primary data from surveys, interviews, and

questionnaires distributed to employees and management, alongside secondary data obtained from annual reports, research publications, and online databases. Data analysis utilizes Structural Equation Modeling (SEM) to examine the causal relationships between HCML, corporate performance, and organizational transformation. Prior studies have established that advanced HRM strategies and intellectual capital development play a critical role in enhancing corporate performance and enabling successful organizational transformation (Stahl et al., 2020). Additionally, aligning human capital management with corporate sustainability practices has been shown to drive both financial performance and long-term business resilience (Yusliza et al., 2019).

The study applies purposive sampling, selecting employees in structural and functional positions at PTPN’s headquarters who have at least four years of experience. The sample size is determined using Issac and Michael’s formula, ensuring statistical significance and representativeness. Given the total PTPN workforce, a sample of 88 employees from BOD-1 and BOD-2 positions in Human Capital divisions is selected, as they have direct influence over HR policy and strategic decision-making. The final sample distribution across business units is as follows: Hold Co (37), Supp Co (30), Palm Co (65), and Sugar Co (23), totaling 155 respondents. The formula used for determining the sample size is:

$$s = \frac{\lambda^2 \cdot N \cdot P \cdot Q}{d^2(N - 1) + \lambda^2 \cdot PQ}$$

3.2. Analytical Hierarchy Process (AHP)

To ensure the Analytical Hierarchy Process (AHP) methodology is effectively implemented, this study incorporates expert judgment from key decision-makers within PTPN, following a purposive sampling approach that targets individuals with expertise in human capital management, corporate restructuring, and business transformation. These experts play a vital role in ranking transformation criteria, ensuring that priorities such as financial stability, workforce adaptability, leadership effectiveness, digital maturity, and sustainability align with long-term corporate objectives. The pairwise comparison method is applied to evaluate the relative importance of each factor, following a structured process to derive optimal transformation strategies. According to Kiani Mavi et al. (2024), AHP has been widely applied in corporate restructuring to enhance decision-making efficiency, while Dubickis et al. (2024) emphasize its role in aligning transformation priorities with empirical insights, ensuring strategic feasibility and implementation success.

Table 1. AHP expert’s respondent

Respondent	Position
Respondent 1	SEVP Business Support
Respondent 2	Head of HR Division
Respondent 3	Head of HR Division
Respondent 4	Head of HR Sub Division
Respondent 5	Head of HR Sub Division
Respondent 6	Head of HR Sub Division

These key stakeholders ensure that AHP results are accurate, valid, and aligned with corporate realities, strengthening the practical applicability of SEM-PLS findings. Their structured evaluations provide data-driven insights, allowing PTPN to implement strategic transformation initiatives effectively, ensuring business sustainability and competitive advantage.

3.3. Variable Definition

This study employs Structural Equation Modeling (SEM) to analyze the relationship between Human Capital Maturity Level (HCML), corporate performance, and organizational transformation. SEM consists of two primary components: measurement models, which define the relationships between latent variables and their indicators, and structural models, which evaluate the causal relationships between latent variables. This methodology enables researchers to test complex hypotheses and validate theoretical constructs using empirical data. Confirmatory Factor Analysis (CFA) is applied as an initial step in SEM to ensure the validity and reliability of measurement models, reducing dimensionality and confirming the underlying factors that define each construct. Vaz et al. (2019) highlight the use of SEM in intellectual capital maturity models, demonstrating its effectiveness in assessing organizational change and performance indicators. SEM is widely utilized in human capital and organizational research, as it allows for the simultaneous examination of multiple relationships within a single analytical framework (Bonilla-Chaves & Palos-Sánchez, 2023).

3.4. Dependent Variable

The dependent variables in this study are corporate performance and organizational transformation. Corporate performance is measured using profitability indicators (KL1, KL2) and corporate health metrics (KT1, KT2), reflecting financial stability and operational efficiency. Meanwhile, organizational transformation is assessed through three key dimensions: organizational structure (TO1, TO2), business process optimization (TO3, TO4, TO5), and employee engagement (TO6, TO7, TO8). These indicators collectively measure how well a company adapts to structural changes, optimizes decision-making, and enhances workforce resilience. Research by Shela et al. (2023) supports the idea that employee engagement and AI-driven business processes significantly impact the success of workplace transformation. Their findings suggest that organizational structure and trust in leadership are essential for ensuring sustainable transformation initiatives.

3.5. Independent Variable

The independent variable, Human Capital Maturity Level (HCML), is categorized into three maturity dimensions: Strategic, Primary, and Foundation. The Strategic dimension includes HR Blueprint, organizational structure, job profiling, and evaluation systems (HS1–HS7). The Primary dimension focuses on recruitment, performance management, training, career planning, and employee engagement (HP1–HP14). Lastly, the Foundation dimension encompasses change management, industrial relations, HR information systems, and standard operating procedures (HF1–HF8). These elements collectively define the maturity level of human capital management in an organization, influencing corporate performance and transformation success. Research has shown that HR digital maturity and knowledge integration significantly contribute to organizational effectiveness, reinforcing the role of HCML in corporate restructuring (Paoloni et al., 2023). Their study demonstrates that companies with mature HR structures are better prepared for technological integration and large-scale business model transformations.

4. Results and Discussion

4.1. Structural Equation Modeling (SEM-PLS) Analysis

The Structural Equation Modeling (SEM) using Partial Least Squares (PLS) method was employed to evaluate the impact of Human Capital Maturity Level (HCML) on corporate performance and organizational transformation at PTPN. The outer model, as shown in Figure

2, illustrates the measurement of each construct, demonstrating the relationships between HCML Strategic, HCML Primary, and HCML Foundation, and their respective impacts on financial performance (profit and health level) and transformation success.

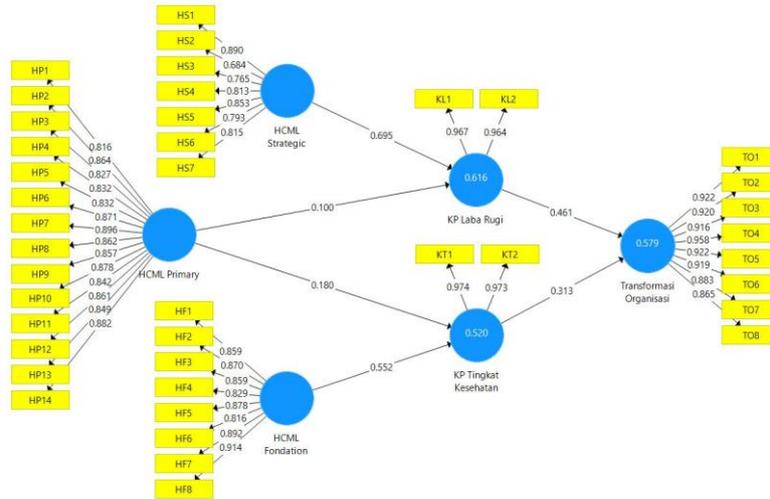


Figure 2. Outer Model

The loading factor results indicate strong and significant relationships between the constructs, confirming the validity and reliability of the measurement model (Wang et al., 2024).

4.2. Reliability and Validity Testing

Table 2 presents the Composite Reliability (CR) and Cronbach’s Alpha values, which indicate that all variables exceed the threshold of 0.7, confirming the internal consistency of the model. The Average Variance Extracted (AVE) values, all above 0.5, demonstrate good convergent validity, ensuring that each construct effectively explains its indicators (Ringle et al., 2020). Among these, HCML Foundation exhibits a high reliability score (CR = 0.960; AVE = 0.749), indicating a strong contribution to corporate stability. Meanwhile, HCML Strategic, with an AVE of 0.647, meets the required standard for validity, though with a slightly lower variance explanation.

Table 2. Results of Loading Factor, Composite Reliability and AVE

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
HCML Foundation	0.952	0.956	0.960	0.749
HCML Primary	0.972	0.973	0.974	0.732
HCML Strategic	0.908	0.918	0.927	0.647
CP Profit and Loss	0.927	0.929	0.965	0.932
CP Health Level	0.945	0.945	0.973	0.948
Organization Transformation	0.972	0.974	0.976	0.834

4.3. Hypothesis Testing and Structural Model Analysis

The inner model, as depicted in Figure 3, illustrates the direct and mediated relationships among the re-search variables. The hypothesis testing results in Table 3 indicate that HCML Strategic has a strong direct impact on profit performance (loading = 0.695, p = 0.000), while HCML Foundation significantly influences corporate health levels (loading = 0.552, p = 0.000). These findings reinforce the critical role of human capital maturity in shaping financial performance, which in turn drives organizational transformation (Magno et al., 2024).

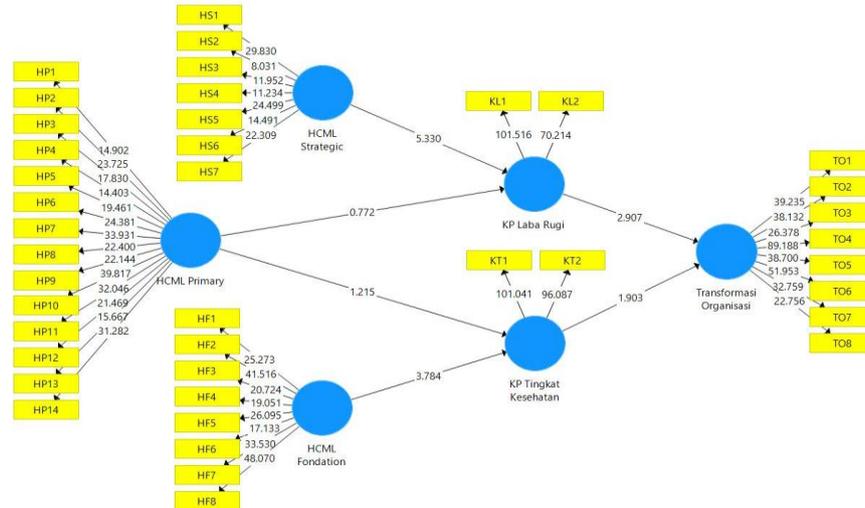


Figure 3. Inner Model

Additionally, corporate performance metrics (profit and health levels) significantly influence organizational transformation success, with a path coefficient of 0.461 ($p = 0.007$) for financial performance and 0.313 ($p = 0.072$) for corporate health. These results highlight that while financial success is a major enabler of transformation, other organizational factors such as leadership adaptability and strategic vision also play a role.

Table 3. Results of Loading Factor, Composite Reliability and AVE

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
HCML Foundation -> CP Health Level	0.552	0.549	0.151	3.658	0.000
HCML Primary -> CP Profit and Loss	0.100	0.108	0.131	0.762	0.446
HCML Primary -> CP Health Level	0.180	0.180	0.142	1.265	0.206
HCML Strategic -> CP Profit and Loss	0.695	0.682	0.132	5.270	0.000
KP Laba Rugi -> Organization Transformation	0.461	0.466	0.170	2.719	0.007
CP Health Level -> Organization Transformation	0.313	0.301	0.173	1.805	0.072

4.4. Analytical Hierarchy Process (AHP) Analysis

The Analytical Hierarchy Process (AHP) was applied to identify the most effective strategy for supporting PTPN's organizational transformation, considering the maturity level of human capital management (HCML) across Strategic, Primary, and Foundation aspects. Developed based on SEM-PLS analysis results, AHP structured the ranking of transformation strategies through expert judgment from senior decision-makers in HRM and business strategy at PTPN, ensuring alignment with corporate objectives (Salehzadeh & Ziaeiian, 2024). The AHP model prioritizes key transformation strategies, as illustrated in Figure 4, emphasizing competency building, structured change management, and digital transformation.

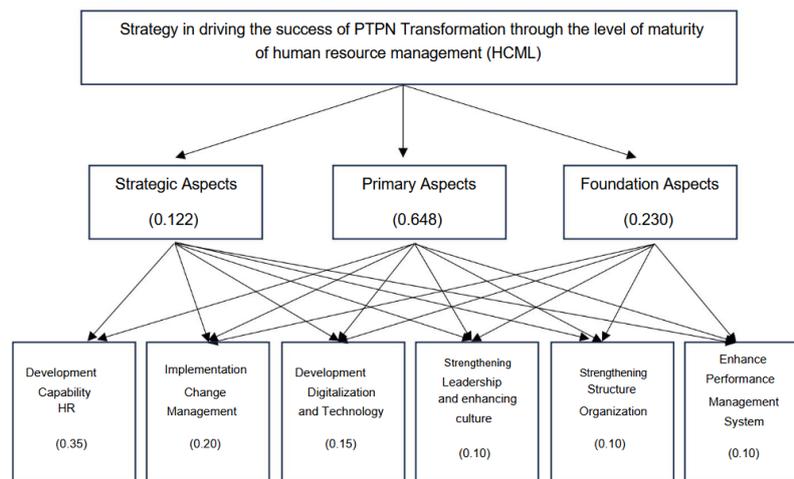


Figure 4. The results of selecting a strategy to drive the success of PTPN's transformation through the level of maturity of human resource management (HCML)

The AHP ranking results show that Developing HR Capabilities (0.35) is the top priority, followed by Change Management Implementation (0.20) and Digital Transformation (0.15). The prioritization under-scores the importance of enhancing workforce adaptability, improving transition management, and integrating technology into HRM processes. Lower-priority strategies such as Leadership Strengthening, Organizational Structure Enhancement, and Performance Management System Development (each at 0.10) still play crucial roles in supporting long-term transformation (Aziz et al., 2024). The complete ranking of transformation strategies is presented in Table 4.

Table 4. Priority Tabel

Priority	Alternative	Weight
Priority 1	Development of Human Resources Capability	0.35
Priority 2	Implementation of Change Management	0.20
Priority 3	Development of Digitalization	0.15
Priority 4	Strengthening Leadership	0.10
Priority 5	Strengthening Organizational Structure	0.10
Priority 6	Strengthening Performance Management System	0.10

5. Conclusion

This study concludes that the Human Capital Maturity Level (HCML) has a significant positive impact on corporate performance and organizational transformation at PTPN. Companies with mature HR management practices experience higher efficiency, productivity, and financial stability, which, in turn, supports transformation initiatives. The findings emphasize that HCML is not only a driver of financial performance but also a crucial enabler of structural and strategic transformation, reinforcing the importance of human resource development in achieving long-term business sustainability. Additionally, the empirical evidence from this study highlights the need for companies to invest in structured HR strategies, ensuring that organizational changes are supported by workforce competency, adaptability, and strategic alignment.

From a managerial perspective, the findings provide strategic insights for PTPN in designing HR policies that align with transformation goals. The AHP results indicate that

Developing HR Capabilities is the top priority, highlighting the need for structured training programs, leadership development, and competency enhancement. In the short term, change management initiatives should focus on strengthening communication, minimizing resistance, and ensuring employee engagement, while in the medium term, digital transformation strategies should be accelerated to optimize HRM processes. Strengthening organizational structure and performance management systems is also crucial in ensuring long-term corporate resilience. The company should integrate data-driven decision-making in HR management, ensuring that policies are aligned with financial performance, operational efficiency, and sustainable transformation outcomes.

Despite its significant findings, this study has several limitations. First, the data used in this research is cross-sectional, meaning it captures results from a single point in time, which limits the ability to analyze long-term changes in HRM practices and their impact on corporate transformation. A longitudinal study would provide a more comprehensive understanding of how HCML influences corporate performance over time. Furthermore, this study focuses solely on PTPN, limiting its generalizability to other industries. Different organizations may have unique HR structures, transformation strategies, and external business environments, which could affect how HCML influences corporate performance and transformation success. Future research should expand the scope of analysis by including multiple industries to gain a broader perspective on human capital maturity in various business settings. Lastly, while SEM-PLS analysis effectively identifies relationships between variables, this study does not capture external influences such as government policies, macroeconomic conditions, or industry-specific challenges, which could significantly impact corporate transformation efforts. Future research should consider integrating external factors into the analytical framework to provide a more holistic understanding of how HRM maturity interacts with broader business dynamics.

By actively tackling these challenges and consistently improving its Human Resource Management (HRM) strategies, PTPN can markedly strengthen its workforce capabilities. Such enhancements will enable employees to operate more efficiently, promoting a culture of ongoing learning and flexibility. Consequently, the organization will be better prepared to facilitate sustainable transformation, adopting practices that align with current industry standards while anticipating future developments. This proactive strategy ensures that PTPN remains nimble and responsive within a swiftly changing market environment. Ultimately, these initiatives will play a crucial role in sustaining long-term business competitiveness, solidifying PTPN's status as an industry leader, and allowing it to flourish amid continuous changes and challenges.

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