

The Influence of Sustainable Human Resource Management Practices on Organizational Performance with Knowledge Management and Work Engagement as Mediation

Yuswardi¹, Muhammad Donal Mon², Lisa Carline Liu³

Department of Management, Faculty Economics and Business, Universitas Internasional Batam, Indonesia^{1,2,3}

Corresponding Author: Lisa Carline Liu (lisacarline954@gmail.com)

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ABSTRACT

Human resources are one of the assets in an organization that can move other resources. In the current era of globalization, the problem is the difficulty of determining sustainable human resources are capable, and have good performance, until now it can be said that the quality of human resources in Indonesia is still relatively low. Data from respondents were collected by distributing questionnaires to 379 participants. This study employs the partial least squares - structural equation modeling method. The influence of sustainable human resource management practice on knowledge management is accepted, the effect of sustainable human resource management practices on work engagement is accepted, the effect of sustainable human resource management practice on organizational performance is not accepted, the effect of knowledge management on organizational performance is accepted, The effect of work engagement on organizational performance is accepted, the effect of knowledge management on work engagement is accepted, the effect of sustainable human resource management practice on organizational performance mediated by knowledge management is accepted, the effect of sustainable human resource management practice on organizational performance mediated by work engagement is accepted, and the effect of sustainable human resource management practice on work engagement mediated by knowledge management is accepted.

Keywords: Knowledge Management, Organizational Performance, Sustainable Human Resources Management Practices, Work Engagement.



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INTRODUCTION

The global banking sector is undergoing a profound transformation, shaped by the dual imperatives of environmental sustainability and digital acceleration. In recent years, the international financial discourse has become increasingly dominated by the paradigm of green

banking (Ilahi et al., 2023). Krishnasamy (2024) This concept represents a banking model that integrates a green environmental perspective into its core operations, aimed at creating a green industry to restore environmental pollution and ensure a sustainable ecological balance. Concurrently, the force of globalization exerts substantial influence on the banking industry, necessitating global operational frameworks and informing the implementation of sustainable human resource management.

Within this evolving context, human capital is recognized as a fundamental asset. Human beings represent a significant element in primary production, serving as a crucial resource for sustaining the operational viability of an organization (Suwandi et al., 2023). As all companies, especially those in resource-intensive sectors, face growing pressure to be more proactive in addressing environmental issues, the application of green principles has become a critical business solution. Green human resource management is one such approach, which involves not only increasing awareness of environmental management but also encompasses the socioeconomic welfare of the organization and its employees (Ang & Mon 2022). Consequently, sustainability concerns are rapidly ascending the priority agenda of corporate leaders as green principles are integrated into corporate strategies (Rashid & Alam 2020). However, a significant number of practitioners still feel uneasy about the human resource aspect, despite the consensus that a qualified workforce is essential for organizational efficacy (Suwandi et al., 2023).

The operational challenges for banks are multifaceted. There is an increasing demand for sustainable and socially responsible business practices, compelling institutions to focus not only on profitability but also on their social and environmental impact. This shift is reflected in the competitive landscape, where service quality has a positive influence on the search for excellence among rival financial institutions, driving each organization to persistently enhance employee productivity (Mon et al., 2023). Furthermore, corporate image significantly contributes to achieving a sustainable competitive advantage, with customer satisfaction playing an important role in influencing this advantage (Adi et al., 2024). To navigate this complex environment, it is crucial for banks to have procedures for selecting employees who possess knowledge of sustainable practices (Albloush et al., 2022). In this vein, Knowledge Management, particularly knowledge-sharing strategies, has been confirmed to play a vital role in improving employee performance. Yet, a critical gap persists, as many financial institutions lack the necessary technological infrastructure and robust systems to fully leverage the potential of knowledge management due to poor structures.

Research by Noor et al. (2024) within the green banking sector indicates a significant positive relationship between the adoption of sustainable human resource practices and work engagement. This evidence strengthens the proposition that strategic investment in Sustainable HRM is instrumental in cultivating workforce engagement.

This research is situated in the unique context of the Indonesian banking sector, a pivotal component of the nation's economic landscape that plays an instrumental role in providing financial services and facilitating national development (Yuswardi., 2019),(Mon et al., 2024). Specifically, this study focuses on the banking industry in Batam City. The banks operating in Batam, including major private banks such as BCA, Danamon, Permata, and UOB which have a significant presence there, are at the forefront of implementing sustainable systems to meet international standards and stakeholder expectations. While the individual importance of sustainable human resource management, knowledge management, work engagement, and organizational performance is acknowledged, a significant research gap remains in understanding their synergistic relationships within such a specific and critical context. Existing literature often examines these constructs in isolation. This study aims to bridge this gap by proposing and testing an integrated model. The central purpose of this research is to determine whether knowledge management and work engagement serve as mediating mechanisms that explain the relationship

between sustainable human resource management and organizational performance in the banking sector of Batam City.

LITERATURE REVIEW

Sustainable Human Resource Management Practices

Lulewicz-Sas et al. (2022) found that sustainable human resource management dates back 15 years from when it was first discovered and is considered the next stage which is the development of strategic human resource management. Abu-Mahfouz et al. (2023) also revealed that over the years, business statistics have changed very quickly following the age of globalization and followed by changes in organizations that are developing to maintain the environment, with changes in business statistics from HR systems changing to sustainable human resource management. Sustainable human resource management is a practice and procedure in helping to maintain human resources over a very long period and provide sustainable good results for the organization. Albloush et al. (2022) revealed that sustainable human resource management is an entire human resource system that aims to maintain the environmental friendliness of the organization and there is support provided by human resource practices in implementing organizational environmental procedures through reducing waste materials. Sustainable Human Resource Management is a critical strategic priority for the banking sector. Purnomo (2021) an institutional perspective explanation, green human resource management can be said to be a human resource management system that is used to reduce negative impacts on the environment or increase positive environmental impacts on company performance in a sustainable manner. The discussion of Parabakaran and Lasi (2021), it shows that behind the success of every organization depends on the attachment and performance of each employee to their work, while human resource management practices are also the main force of employees who bring them to the corner of success.

Alsaiddi (2022) highlight that human resource management has many practices such as training and selection, HR has the goal of ensuring that sustainability is the most important value to apply to the workforce to set the foundation for a sustainable culture. Sustainability has a positive influence on the work atmosphere, through sustainability practices it also has a role to build ethics and organizational values so that human resource management can provide ethics related to environmental protection sustainability as well as protecting humans which will provide benefits of proper implementation of social and environmental in the workplace, and resources also create sustainability which reduces unnecessary resource empowerment. The significance of human capital essential for achieving corporate sustainable development objectives (Rashid & Alam, 2020).

Knowledge Management

Research by Rezaei et al. (2021) note knowledge is often considered an important asset resource and it is rare to produce products or services that have value and quality without using resources and good management. Management must reconsider the interaction patterns between technology, people, and the techniques people apply to utilize this technology. To maintain a long-term competitive advantage, the company needs to balance its technological system with its social. Knowledge is a source of information in actions and application requirements that have information (Abdallat et al., 2020). Sudhartio et al. (2023) highlight that knowledge management practices are often associated with innovation are knowledge sharing, given that innovation is highly dependent on the knowledge and expertise possessed by individuals in an organization, whether it is explicit or tacit.

Rizkyan and Pradana (2020) describe knowledge management as a systematic process aimed at capturing, compiling, overseeing, and distributing knowledge throughout the organization, enabling quicker work through effective management practices while also lowering project expenses. A comparable definition is provided by Fadaie et al. (2023), who state that knowledge management involves achieving results, generating knowledge, sharing knowledge, and maintaining and utilizing knowledge among individuals both within and outside the organization.

Work Engagement

There are three types of work engagement attitudes at work, consisting of three components, namely cognitive, emotional, and behavioral (Lulewicz-Sas et al., 2022). Baykal and Bayraktar (2022) have perspective work engagement is a process of re-evaluating the knowledge or information needed and an emotional dynamic that explains the intention to be devoted to a job. Employees who have an interest in a field of work they will tend to give all their efforts in providing maximum results to achieve goals, as well as employees who are engaged, they will be in a position in the company for a long period of time leading to a higher retention ratio in the company (Al-Hajri., 2020).

Work engagement gives good influence and comfort to make thoughts as a devotion to work. Work engagement as a condition where the organization determines that there is a relationship between the workforce and their work in a state that is bound and expresses itself physically, cognitively, and emotionally while working (Nelson & Fitriana., 2024) . Employees who are engaged at work will provide commitment to goals, provide all the efforts that can be done and their abilities to get maximum results, provide correct and good actions at work, ensure that their work is completed without changing values and goals and are willing to provide repairs and evaluations if something goes wrong, the stated have been adequately addressed in the existing literature. Work engagement refers to the condition in which an individual effectively interacts with the institution on an emotional and intellectual level. The influence of work engagement shown by employees has the potential to optimize the managed workload. Quality of work life represents a management strategy aimed at enhancing employee wellbeing in the workplace (Riansari et al., 2020).

Yin (2023) explain, employee engagement serves as an important factor in not only increasing productivity and loyalty, but also increasing customer satisfaction, strengthening corporate prestige, and increasing the overall value of the organization. Employee performance holds significant importance as it serves as a measure of the degree to which an employee can accomplish the tasks assigned to them. High-performing employees are a source of pride for the organization, as they inspire others to capitalize on the results achieved. Employee effectiveness directly correlates with the ability to generate revenue and utilize resources in alignment with established objectives. Exceptional performance does not materialize spontaneously; rather, it is the result of a multitude of factors that contribute to enhanced performance (Yuswardi et al., 2024).

Organizational Performance

Organizational performance depends on the skills, knowledge, and experience of the workforce to achieve efficiency, effectiveness, innovation, employee and customer satisfaction, product or service quality and the ability to retain talented people (Setyawan, 2021). This is also clarified by Fathy and Alquaiti (2020) who revealed that all the results concluded by the company come from various activity exercises in an environmentally friendly manner.

Organizational performance encompasses both financial and non-financial outcomes resulting from collective requests regarding processes, activities, policies, and resources. It indicates that, for numerous organizations, performance is influenced by their ability to leverage resources for future forecasting. The structure of an organization has been identified as a critical element in the successful retention of employees and customers during exploratory phases. Techniques for assessing structure provide excellent examples for organizations to highlight which personnel are essential for achieving operational excellence and should be acknowledged in daily decision-making. A variety of studies indicate that measuring organizational performance within the public sector is often subjective, intricate, and multifaceted, with no single indicator capable of delivering an accurate assessment of actual performance, thus complicating objective measurement.

Furthermore, performance measures are typically derived from observational data (Bhaker, 2023). Objective data for evaluating performance is generally preferred to ensure a level of fairness in the assessment; however, this data is not always readily available, particularly in the public sector.

Organizational performance research has employed consistent definitions and metrics. The notion of organizational performance exhibits significant diversity. The definition of performance is seldom clearly articulated, and organizational performance is categorized into two indicators: one being operational outcomes such as productivity and quality, and the other being financial outcomes like return on capital and shareholder return. Conversely, organizational effectiveness serves as a framework that can encapsulate organizational performance. Typically, organizational performance is linked to more efficient or effective operational methodologies. Waheed et al. (2017) demonstrated that a manager must comprehend how to leverage work engagement positively, as innovative work behaviors enhance organizational performance.

Organizational performance serves as an important indicator of overall company success, especially in relation to financial and non-financial metrics. A key determinant that affects organizational performance is the implementation of human resource practices. Previous studies argue organizations embody a framework of workforce-providing entities, which anticipate optimal performance from their workforce. It is imperative for organizations to increase efforts to effectively foster and oversee diversity and inclusion, to guarantee that everyone can provide their maximum input and experience a sense of ease and appreciation in a professional environment (Simarmata, 2021). Diniarsa and Batu (2023) point out the presence of diverse employees in an organizational environment can also lead to a direct increase in innovation. Research on sustainable human resource management practices in bank employees is highly relevant given the important role of the banking sector in the national economy. Banks not only function as financial institutions, but also as drivers of investment and economic development. In this context, bank employees become vital assets that must be managed properly to achieve optimal organizational performance.

Hypothesis Development

This study uses 1 independent variable, namely sustainable human resource management practices. The mediating variables contained in this study are knowledge management and work engagement and the dependent variable used is organizational performance. The following is a research framework and research hypothesis:

- H1: Sustainable human resource management practices have a significant positive effect on knowledge management
- H2: Sustainable human resource management practice has a significant positive effect on work engagement
- H3: Sustainable human resource management practice has a significant positive effect on organizational performance
- H4: Knowledge management has a significant positive effect on organizational performance
- H5: Work engagement has a significant positive effect on organizational performance
- H6: Knowledge management has a significant positive effect on work engagement
- H7: Sustainable human resource management practice has a significant positive effect on organizational performance mediated by knowledge management
- H8: Sustainable human resource management practice has a significant positive effect on organizational performance mediated by work engagement
- H9: Sustainable human resource management practice has a significant positive effect on work engagement mediated by knowledge management.

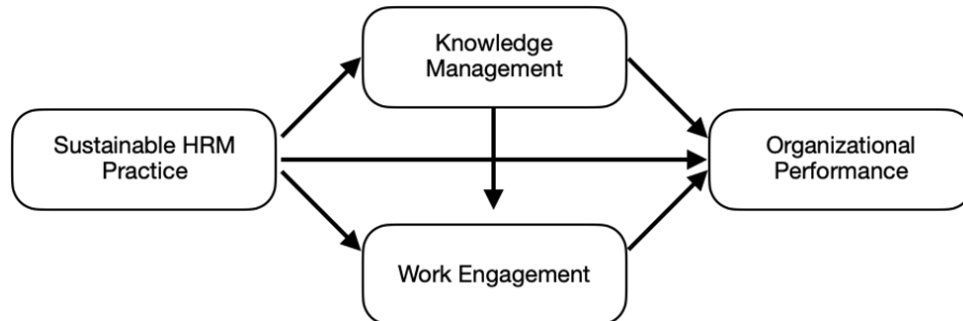


Figure 1
Conceptual Framework

METHODS

The participants in this research comprised bank employees from Batam City. In this investigation, individuals residing in Batam City who work for private banks were chosen as sample subjects according to various criteria. The sample size is based on the guidelines provided by Hair et al. (2019) which indicate that the sample size should be ten times the most complex structural path in the research model. The minimum sample size was 370 with 37 questionnaires, 429 were distributed and 379 were returned. Primary data for this study were gathered by distributing questionnaires to the respondents. The questionnaires were disseminated online through Google Forms, accessible via a provided link. The questionnaire administered to respondents utilized a Likert scale measurement method ranging from point 1, indicating strong disagreement, to point 5, signifying strong agreement. This study employs the partial least squares - structural equation modeling (PLS-SEM) method, which allows for the simultaneous testing of relationships between latent constructs within a linear framework alongside existing parameters. The quality of the instruments was assessed through validity and reliability tests. The hypothesis testing in SEM-PLS utilized the t-test (Latan & Ghazali, 2016).

RESULTS AND DISCUSSION

Outer Loadings are metrics used in confirmatory factor analysis in evaluating how strong the relationship is between the latent variable and the indicators used. cross loading values >0.60 indicate that no indicator is incorrectly placed on an inappropriate factor, and the discriminant fit in the model is considered adequate. All invalid indicators were removed because they did not meet the outer loading test criteria, so they were not included in further tests. AVE is a parameter used in factor analysis and confirmatory analysis to evaluate the extent to which a construction captures the variation of the indicators used to measure it. Ghazali (2021) states that a satisfactory AVE has a value of 0.5 or more. Hair et al., (2014) states that the Composite Reliability value should be above 0.7 and thus values below 0.7 are deleted.

Table 2. Validity and Reliability

<i>Variable</i>	<i>Indicators</i>	<i>Outer Loadings</i>	<i>AVE</i>	<i>Information</i>
<i>Knowledge Management</i>	KM1	0.742	0.532	Valid
	KM2	0.707		Valid
	KM3	0.738		Valid

<i>Organizational Performance</i>	OP1	0.706	0.502	Valid
	OP2	0.776		Valid
	OP3	0.676		Valid
	OP4	0.697		Valid
	OP5	0.682		Valid
<i>Sustainable Human Resource Management Practices</i>	SHRM1	0.706	0.508	Valid
	SHRM2	0.753		Valid
	SHRM3	0.688		Valid
	SHRM4	0.703		Valid
<i>Work Engagement</i>	WE1	0.731	0.509	Valid
	WE2	0.741		Valid
	WE3	0.715		Valid
	WE4	0.638		Valid
	WE5	0.731		Valid
	WE6	0.721		Valid

Source: Data Processed (2025)

Results of Significance Testing of Direct Research Model

Based on the results of the hypothesis test (direct effect) presented in the table, under conditions that are considered significant based on the criteria for the statistical value – T statistical value exceeds 1.96 and the P-value is below 0.05, as described by Hair et al. (2019), it is evident that five variables show noteworthy positive significance, while one variable fails to meet the criteria. The following table shows the results of testing the model with direct effects:

Tabel 3. Direct Research Hypothesis

<i>Variable (X -> Y)</i>	<i>Sample Mean</i>	<i>T-Statistics</i>	<i>P Values</i>	<i>Result</i>
Sustainable Human Resource Management Practice -> Knowledge Management	0.425	8.062	0.000	H1 : Significant Positive
Sustainable Human Resource Management Practice -> Work Engagement	0.260	4.847	0.000	H2 : Significant Positive
Sustainable Human Resource Management Practice -> Organizational Performance	0.087	1.873	0.061	H3 : Not Significant
Knowledge Management -> Organizational Performance	0.149	2.426	0.015	H4 : Significant Positive
Work Engagement -> Organizational Performance	0.362	4.728	0.000	H5 : Significant Positive
Knowledge Management -> Work Engagement	0.304	4.735	0.000	H6 : Significant Positive

Source: Data Processed (2025)

H1: The influence of Sustainable Human Resource Management Practice on Knowledge Management

Based on the research results, it is concluded that hypothesis 1 is accepted. Sustainable human resource management practice has a significant effect on knowledge management. Sustainable implementation of human resource management affects the banking workforce in knowledge management. Most workers understand the importance of a healthy environment, with the application and training and encouragement of the company in providing meetings and policies will make the workforce increase knowledge about management. The results of this finding are reinforced by research conducted by Sukardi et al. (2023) which proves that sustainable human resource management practices have a significant effect on knowledge management in his research entitled *The Effect of Green Human Resource Management Practices on the Competitiveness of Higher Education Mediated by Knowledge Management*. In the banking sector, knowledge serves as the fundamental resource required to achieve an unrivalled competitive position (Ojukwu, 2015).

This hypothesis suggests that sustainable HR practices serve as a foundation for enhancing knowledge sharing and organizational learning. It supports the idea that environmentally and socially responsible HRM contributes to developing effective knowledge management systems within organizations as theoretical implications. And the practical implications is organizations should implement sustainable HR practices to foster a culture of knowledge sharing, which can improve decision-making, innovation, and competitive advantage. Training, policies, and practices that promote sustainability can directly enhance employees' knowledge-related behaviors

H2: The effect of sustainable human resource management practices on work engagement

Based on the results of the study concluded that hypothesis 2 is accepted. Sustainable human resource management practice has a significant influence on work engagement. With high work engagement, it will have a good impact on productivity, employee retention, and organizational performance, therefore, sustainable management practices are an investment in the workforce in creating a healthy and productive work environment. These findings are reinforced by research conducted by Noor (2021), Baykal and Bayraktar (2022), Lulewicz-Sas et al. (2022), Noor et al. (2024), Jarrar (2023) prove that sustainable human resource management practice has a significant effect on work engagement. The findings substantiate the notion that maintaining a skilled and qualified workforce is critical to the banking industry. This centrality stems from the fact that a bank's operations are delivered by its employees, who are tasked with providing ongoing service to clients (Nasir et al., 2022).

The theoretical implications is this hypothesis reinforces the theory that sustainable HRM enhances employees' emotional and psychological attachment to their work, leading to higher engagement levels. It aligns with models linking HR practices to motivation and commitment. Practical implications include implementing sustainable HR practices such as fair treatment, environmentally conscious policies, and employee development can increase work engagement. Engaged employees are more productive, loyal, and willing to contribute positively to organizational goals.

H3 : The effect of sustainable human resource management practice on organizational performance

Based on the research results, it is concluded that hypothesis 3 cannot be accepted. Sustainable human resource management practice has no significant effect on organizational performance. By not enforcing sustainable human resource practices the workforce can provide organizational performance and success. Organizational performance can be managed independently, quickly, independently. This can happen because of other more supportive factors such as knowledge management and work engagement. This is inversely proportional to the results of research conducted by Rashid and Alam (2020) and Raveenther (2020) The progressive development of

HRM practices within the banking sector is largely driven by administrative diligence. Bank management consistently integrates contemporary methods particularly in transparency, training, employment, and performance appraisal which systematically strengthens and refines human resource management (Ali et al., 2020).

Theoretical implications: Contrary to many prior studies, this suggests that sustainability-focused HR practices might not directly influence organizational performance. It indicates that other mediating factors could be necessary for sustainability practices to impact outcomes. Practical implications is organizations should not solely rely on sustainable HR practices to improve performance. It's crucial to integrate other factors like knowledge management and work engagement to realize performance gains.

H4: The effect of knowledge management on organizational performance

Based on the research results, it is concluded that hypothesis 4 is accepted. Knowledge management has a significant influence on organizational performance. With knowledge management, organizations can share knowledge and creative ideas with colleagues, the workforce can work more efficiently and effectively which will simplify and speed up work, know techniques regarding market management and help companies minimize risks. Therefore, the existence of knowledge will be one of the keys to organizations in achieving their goals. These findings are reinforced by research conducted by Rajiani and Normuslim (2023), Fadaie et al. (2023), Rezaei et al. (2021), Ahmed et al. (2015) which proves that knowledge management has a significant effect on organizational performance.

Theoretical implications include supports the theory that effective knowledge sharing facilitates organizational learning, innovation, and efficiency, thereby improving overall performance. And the practical implications is organizations should develop robust knowledge management systems such as training, documentation, and collaboration tools to enhance performance capabilities.

H5: The effect of work engagement on organizational performance

Based on the research results, it is concluded that hypothesis 5 is accepted. Work engagement has a significant influence on organizational performance. Based on the demographic results of respondents in this study, BCA bank workers with ages 18 - 23 years are dominated by BCA bank workers. At that age, they generally work in the frontliner division in charge of serving consumers directly, BCA Bank is known for its friendly and fast service. When the workforce feels involved in their work, workers will care about the quality provided so that it will increase customer satisfaction which will provide reciprocity such as strengthening the organization's reputation. The results of this finding are reinforced by research conducted by Riansari et al. (2020), Waheed et al. (2017) which prove that work engagement has a significant influence on organizational performance.

The theoretical implications is aligns with established models showing that engaged employees are more committed and perform better, contributing directly to improved organizational outcomes. Meanwhile fostering work engagement through recognition, meaningful work, and supportive environments can lead to better performance and customer satisfaction as practical implications.

H6: The effect of knowledge management on work engagement

Based on the research results, it is concluded that hypothesis 6 is accepted. Knowledge management has a significant influence on work engagement. When workers have management knowledge, these workers will feel more motivated, happy, and will contribute because they understand so that it will make work easier and with the existence of management knowledge, relationships with coworkers will improve because workers tend to be valued and supported by fellow teams. The results of this finding are reinforced by research conducted by Edopkolor et al. (2022), Abu-Mahfouz et al. (2023) which prove that knowledge management has a significant influence on work engagement in their research.

Theoretical implications include supports the idea that when employees have access to knowledge resources, they feel more competent and motivated, leading to increased engagement. And the practical implications is organizations should promote knowledge-sharing practices to boost employee motivation and involvement.

Results of Indirect Research Model Significance

The indirect effect test is a statistical technique applied to assess the indirect effect between two variables through a mediator variable in a structural equation analysis model. The criterion rule for the t-statistic is 1.96 and the p value is 0.

Table 4. Indirect Research Hypothesis

<i>Variable (X -> Y)</i>	<i>Sample Mean</i>	<i>T - Statistics</i>	<i>P Values</i>	<i>Result</i>
Sustainable Human Resource Management Practices -> Knowledge Management -> Organizational Performance	0.064	2.280	0.023	H7: Significant Positive
Sustainable Human Resource Management Practices -> Work Engagement -> Organizational Performance	0.093	3.648	0.000	H8: Significant Positive
Sustainable Human Resource Management Practices -> Knowledge Management -> Work Engagement	0.129	4.018	0.000	H9: Significant Positive

Source: Data Processed (2025)

H7 : The effect of sustainable human resource management practice on organizational performance mediated by knowledge management

Based on the research results, it is concluded that hypothesis 7 is accepted. Knowledge management has a significant effect as a mediating variable between sustainable human resource management practice and organizational performance. Sustainable human resource practices must have a motive that creates awareness of the importance of environmental management, therefore workers can improve their performance in achieving goals. BCA Bank often makes meetings between teams to discuss environmental awareness so that the workforce understands and does sustainable-based work by gaining consumer confidence. The results of this finding are reinforced by research conducted by Abu-Mahfouz et al. (2023) which proves that knowledge management has a significant effect as a mediating variable between sustainable human resource management practices and organizational performance.

This emphasizes that knowledge management acts as a key mediating process through which sustainable HR practices influence performance, confirming the interconnected role of these factors as the theoretical implications. And practical implications need to enhance performance, organizations should focus on sustainable HR practices that improve knowledge sharing, which in turn drives organizational success.

H8 : The effect of sustainable human resource management practice on organizational performance mediated by work engagement

Based on the results of the study concluded that hypothesis 8 is accepted. Work engagement has a significant effect as a mediating variable between sustainable human resource management practice and organizational performance. When consumers want to conduct banking transactions, what they want is a fast and accurate service facility. In addition, sustainable resource practices will increase the occurrence of good performance in an organization. So that good work

involvement will encourage the workforce to work more optimally in serving consumers. The results of this finding are reinforced by research conducted by Abu-Mahfouz et al. (2023) which proves that sustainable human resource management practice has a significant effect on organizational performance which is mediated by work engagement in his research. The HRM function bears an inherent responsibility to consider the broader consequences of its decisions, extending beyond employees to their families, communities, and the wider socio-economic environment. A critical avenue for future research involves exploring the efficacy and strategic contribution of HRM throughout the digital transformation journey of banking institutions Latif et al. (2020).

Theoretical implications will highlights that work engagement is a pathway through which sustainable HR practices translate into better organizational outcomes. Practical implications says that organizations should invest in HR practices that foster engagement to realize improvements in performance indirectly.

H9: The effect of sustainable human resource management practice on work engagement mediated by knowledge management

Based on the research results, it is concluded that hypothesis 9 is accepted. Knowledge management has a significant effect as a mediating variable between sustainable human resource management practice and work engagement. Sustainable practices tend to create a work environment that supports, motivates, and values employees which in turn can increase the level of worker engagement with work. But before that, it is necessary to have management knowledge that will make it easier for workers to involve themselves in their work so that it is easier to achieve. The results of this finding are reinforced by research conducted by Abu-Mahfouz et al. (2023) which proves that sustainable human resource management practice has a significant effect on work engagement which is mediated by knowledge management in his research.

The theoretical implications indicates that sustainable HR practices influence work engagement through enhancing knowledge management, stressing the importance of knowledge sharing in engagement. Meanwhile practical implications indicates that promoting knowledge management initiatives within sustainability-driven HR practices can energize employees and increase their involvement with work.

Below are indirect effect value (β), t, p, 95% CI (bootstrapping), and VAF to indicate the type of mediation:

Table 5. Indirect Research Hypothesis

Hypothesis	Indirect Effect (β)	t-value	p-value	95% Confidence Interval (Bootstrapping)	VAF (%)	Type of Mediation
H7: Sustainable HRM → Knowledge Management → Organizational Performance	0.064	2.280	0.023	(Lower Bound, Upper Bound)	~27.6%	Partial Mediation (since VAF ~27.6%)
H8: Sustainable HRM → Work Engagement → Organizational Performance	0.093	3.648	0.000	(Lower Bound, Upper Bound)	~30.6%	Partial Mediation

Hypothesis	Indirect Effect (β)	t-value	p-value	95% Confidence Interval (Bootstrapping)	VAF (%)	Type of Mediation
H9: Sustainable HRM → Knowledge Management → Work Engagement	0.129	4.018	0.000	(Lower Bound, Upper Bound)	~30.2%	Partial Mediation

Source: Data Processed (2025)

The findings suggest that the indirect effects are significant but represent partial mediation rather than full mediation. Several possible causes can explain these results, which can be linked to previous theories and empirical studies. Possible causes and theoretical explanations:

1. Complexity of organizational performance: organizational performance is influenced by multiple, interrelated factors beyond sustainable HR practices, knowledge management, and work engagement. Traditional models like the Resource-Based View (RBV) emphasize that competitive advantage depends on multiple resources, including innovation, culture, and external environment. Thus, even when HR practices impact knowledge and engagement, other variables such as organizational structure, leadership, and market conditions also significantly influence performance.
2. Contextual factors: The study was conducted in the banking sector in Batam, Indonesia, where specific contextual factors, such as organizational culture, economic conditions, and employee socio-economic backgrounds, may moderate the relationships. For instance, Huang et al. (2021) found that in Asian organizational contexts, employee engagement and knowledge sharing are often mediated by national culture and hierarchical structures, leading to partial rather than full mediation.
3. Methodological differences: variations in findings across studies can also stem from differences in research design, measurement instruments, and analytical methods. For example, Abu-Mahfouz et al. (2023) employed a similar SEM approach, confirming that knowledge management mediates the effects but also noting that cultural and sectoral differences can influence the strength of mediation effects.
4. Measurement of constructs: The operationalization of variables influences the results. Some studies measure organizational performance using financial metrics, while others utilize perceived or subjective measures. For example, Sentoso et al. (2023) used employee productivity and customer satisfaction, which might demonstrate stronger or weaker mediation effects compared to broader performance indicators.
5. Stage of implementation: The maturity level of HRM sustainability practices plays a role. In organizations with nascent sustainability initiatives, the mediating effects may be weaker because not all employees are aware or engaged with these practices. In contrast, mature organizations with integrated sustainability strategies often show stronger mediating effects.

CONCLUSION

The conclusion of this article highlights the importance of sustainable human resource management practices in an organizational context, especially in Indonesia. The research shows that although sustainable human resource management practices are expected to improve organizational performance, the results do not show a significant influence on overall organizational performance. This indicates that other factors, such as knowledge management and work engagement, may have a greater role in influencing organizational performance. The low

employee engagement in Indonesia, which only reaches 8%, is a challenge that needs to be addressed by organizations to improve productivity and customer satisfaction.

Suggestions provided in this article include the need for organizations to focus more on developing sustainable human resource management practices and improving employee engagement. Organizations are advised to implement more effective strategies in monitoring and improving employee well-being, as well as creating an inclusive and diverse work environment. In addition, it is important for organizations to integrate knowledge management in their human resource management practices, to maximize the potential of their human resources and intellectual property. To achieve optimal organizational performance, companies need to adopt a holistic approach, which focuses not only on sustainable human resource management practices, but also on developing employee engagement and knowledge management. This is expected to create a positive synergy between employees and the organization and drive sustainable growth in the long run.

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