

Driving Sustainable Change: Understanding How Management Talent Practices Mediates Knowledge Sharing And Employee Engagement For Green Innovation Behavior In SMEs

Iqbal Arraniri^{1*}, Martin Dahl², Tatang Rois³, Deri Prayudi⁴, Munir Nur Komarudin⁵

^{1,3,4,5}Management, Faculty of Economic and Business, Universitas Kuningan, Kuningan, Indonesia.

²Faculty of Business and Management, Lazarski University in warsawa, Polandia.

Corresponding author; Email: Iqbal@uniku.ac.id

Abstrak

studi ini meneliti bagaimana praktik manajemen bakat (MTP) berfungsi sebagai mediator dalam hubungan antara keterlibatan karyawan (EE), berbagi pengetahuan (KS), perilaku inovasi hijau (GIB) di UKM. Penelitian ini berdasarkan pandangan berbasis sumber daya, menemukan bahwa MTP yang efektif berfungsi sebagai sumber daya organisasi yang penting menciptakan lingkungan kerja yang baik untuk KS, EE, dan GIB. UKM, yang sering menghadapi keterbatasan sumber daya, harus secara strategis menggunakan manajemen talenta untuk mendorong praktik-praktik yang berkelanjutan. Penelitian ini menyelidiki cara karyawan terlibat dan berbagi pengetahuan tentang kelestarian lingkungan. Menyelidiki bagaimana faktor-faktor ini berkontribusi secara kolektif pada perilaku inovasi hijau, yang mencakup pengembangan dan pelaksanaan produk, proses, dan praktik yang ramah lingkungan. Dengan menganalisis efek mediasi MTP, ini bertujuan untuk memberikan pengetahuan yang berguna bagi manajer atau pelaku UKM yang ingin menciptakan ekosistem bisnis yang berkelanjutan dan inovatif. Penemuan ini berkontribusi pada literatur yang terus berkembang tentang perubahan berkelanjutan melalui strategi manajemen talenta yang efektif, yang menawarkan rekomendasi praktis untuk mendorong inovasi ramah lingkungan dalam lingkungan dengan sumber daya yang tersedia.

Keywords: Perilaku Inovasi Hijau, Keterlibatan Karyawan, Berbagi Pengetahuan, Praktik Manajemen Bakat, Pandangan Berbasis Sumber Daya.

Abstract

This study investigates the mediating role of management talent practices in the relationship between knowledge sharing, employee engagement, and green innovation behavior within small and medium-sized enterprises. Drawing upon the resource-based view, this research posits that effective MTP serves as a crucial organizational resource, fostering a work environment conducive to KS, EE, and ultimately, GIB. SMEs, often facing resource constraints, must strategically leverage talent management to promote sustainable practices. This study examines how employee engagement and knowledge sharing related to environmental sustainability. The research explores how these factors collectively contribute to green innovation behavior, encompassing the development and implementation of environmentally friendly products, processes, and practices. By analyzing the mediating effect of MTP, this study aims to provide valuable insights for SME managers and policymakers seeking to promote a more sustainable and innovative business ecosystem. The findings contribute to the growing body of literature on sustainable change through effective talent management strategies, offering practical recommendations for fostering green innovation within resource-constrained environments.

Keywords: Green Innovation Behavior, Employee Engagement, Knowledge Sharing, Management Talent Practices, Resources based view.

Introduction

Small and medium-sized enterprises are crucial players in propelling sustainable transformations, as they frequently exhibit the organizational flexibility and innovative mindset necessary to adapt to emerging environmental demands (Koirala S., 2019). Nonetheless, effectively leveraging employee engagement and

knowledge sharing is vital for these organizations to unlock the potential for green innovation (Busola Oluwafemi, et al., 2020). This study investigates how management talent practices can facilitate the connection between knowledge sharing, employee engagement, and ultimately catalyzing green innovation behavior within small and medium-sized enterprises.

Prior studies have predominantly examined organizational-level factors, such as leadership approaches and structural configurations, as pivotal catalysts for innovation activities (Anser, 2022; Zhang et al., 2018) (Maulana et al., 2022). Nevertheless, the role of management talent practices in supporting these innovation-related behaviors has been underexamined, particularly in the context of small and medium-sized enterprises (Festing et al., 2017; H. Soken & Kim Barnes, 2014). To address this gap, this study draws on social support theory and resources based view theory to develop a conceptual framework that elucidates the mechanisms by which management practices can influence employees' green innovation behavior.

This study proposes that the implementation of management talent practices, including ecofriendly recruitment, training, and performance evaluation, can cultivate employees' green organizational commitment, which subsequently enhances their engagement in green innovation initiatives (Yang & Li, 2023; Zhu et al., 2022). The study hypothesizes that knowledge sharing, facilitated by management talent practices that foster a supportive and collaborative work environment, serves as a critical mediating mechanism that also connecting employees' engagement in green innovation behavior (Lee, 2009; Liu, Wen, et al., 2024a; Zhu et al., 2022).

This Contribution to the existing literature by providing empirical evidence on the role of management talent practices in catalyzing the knowledge sharing dan employee engagement necessary for driving sustainable innovation in small and medium-sized enterprises. The findings offer practical insights for SME managers seeking to leverage their human capital and foster a culture of environmental responsibility and innovation.

Existing research suggests that the success of SMEs in driving innovation is heavily dependent on the leadership competencies and strategies employed by management (Busola Oluwafemi, et al., 2020). Specifically, the ability of managers to foster a culture of knowledge sharing and employee engagement has been identified as key factor in enabling green innovations (Cuerva, et al., 2014). As SMEs often lack the resources and formalized structures of larger organizations (Martins, 2023), the role of individual values, beliefs, and autonomy among non-managerial

employees becomes particularly important in guiding sustainable behavior (Johnstone, 2021).

The extant literature highlights the pivotal role of knowledge sharing in unlocking innovative work behavior among SMES employee (Anser et al., 2022). By encouraging the flow of information, ideas, and best practices within organization, management can cultivate a more collaborative and creative environment that is conducive to green innovation. Furthermore, the implementation of effective green human resource management practices, such as targeted recruitment, training, and performance management, can further bolster employee engagement and commitment to sustainable change (Johnstone, 2021; Yang & Li, 2023).

While the linkages between knowledge sharing, employee engagement, and green innovation have been explored in the broader context of sustainability, there remains a need to understand the specific mechanisms by which management talent practices can mediate these relationships within the SME setting.

Informed by the insights from the provided sources (Anser et al., 2022; Kankisingi & Dhliwayo, 2022; Lee, 2009; Tassabehji et al., 2019), this paper proposes a conceptual framework to investigate the following research question: "How do management talent practices, mediate the relationship between knowledge sharing, employee engagement, and driving green innovation behavior within small and medium-sized enterprises?"

By addressing these research question, this study aims to offer valuable insights to support SME manager and policymaker in their efforts to cultivate a more sustainable and innovative business ecosystem.

The proposed conceptual framework is grounded in the theoretical underpinnings of social support theory (Lincoln, 2000) and resources based view (J. Barney, 1991; J. B. Barney & Arkan, 2005), which collectively elucidate the interplay between management talent practices, knowledge sharing, and employee engagement in context of green innovation (Danilwan et al., 2020; Lee, 2009; Yang & Li, 2023). This study further explore the influence of contextual factors, on the relationships among management talent practices, knowledge sharing, employee engagement, in driving green

innovation within small and medium-sized enterprises (Johnstone, 2021; Liu, Wen, et al., 2024b).

This study will utilize a quantitative research methodology and conduct large-scale surveys to collect data from a diverse sample of small and medium-sized enterprises spanning various industries. The findings will contribute to the growing body of literature on sustainable change through effective talent management strategies.

Knowledge Sharing (KS) → Management Talent Practices (MTP)

Effective management of all employees is the goal of talent management, although management practices concentrate on high-performing or high-potential personal. According to Hughes and Rog (2008), is “an espoused and enacted commitment to implementing an integrated, strategic, and technology-enabled approach to human resource management.” Talent management, according to Mohammed (2019), “involves managing the talent of employees, not restricted only to the high performing or high potential employees.” This integration guarantees that organizational goals and talent development are in line.

Mohan (2019) describes knowledge sharing as “the movement of knowledge among individuals in organizations to help others and collaborate with others for solving problems, develop new ideas, or implement policies or procedure.” The cooperative and problem solving components of knowledge sharing are emphasized in this formulation.

The existing literature has explored the antecedents and consequences of knowledge sharing from diverse perspectives, including the impact on individual job satisfaction, work-life balance, and turnover intentions (Ahmad & Karim, 2019; Han, 2018). However, a comprehensive understanding of how knowledge sharing can influence specific talent management practices remains elusive.

Knowledge sharing, conceptualized as the voluntary and deliberate exchange of information, expertise, and insights among

individuals or groups, has been widely recognized as a critical enabler of organizational success (Ahmad & Karim, 2019; Alape Ariza et al., 2023). The extant literature has underscored the multifarious impacts of knowledge sharing on individual and organizational performance. This can be attributed to the social support and self-actualization that individuals derive from participating in knowledge exchange, which is consistent with the principles of social support theory (Lincoln, 2000).

According to social support theory, the availability and quality of both emotional and instrumental social support can significantly influence an individual's well-being, job satisfaction, and overall life satisfaction. This theoretical framework offers valuable insights into the role of knowledge sharing in shaping talent management practices.

By fostering a culture of knowledge sharing, organizations can potentially enhance their talent management practices (Ahmad & Karim, 2019; Pandita & Ray, 2018). For instance, knowledge sharing can contribute to the attraction and retention of top talent by creating a supportive and enriching work environment. Thus, the integration of knowledge sharing into talent management practices may hold significant potential for organizations seeking to attract, develop, and retain a highly skilled and engaged workforce. Based on the review of the existing literature and the theoretical framework of social support theory, the following hypotheses are proposed:

H1: Management Talent Practices is thought to be positively impacted by Knowledge sharing.

Employee Engagement (EE) → Management Talent Practices (MTP)

The current management literature has extensively explored the interconnection between employee engagement and talent management practices. This paper seeks to synthesize the existing scholarly work on this

topic and develop a set of testable hypotheses to direct future academic investigation.

Talent management and employee engagement are interrelated and essential for organizational success (Yuniati et al., 2021). Talent management encompasses the strategic initiatives organizations employ to attract, cultivate, and retain high-performing individuals, while employee engagement reflects the degree to which employees are emotionally invested in their work and dedicated to the organization's goals (Storey et al., 2008). Research indicates that emotionally invested and committed employees exhibit increased productivity, innovation, and retention, suggesting that employee engagement is a critical factor in the success of an organization's talent management initiatives (Pandita & Ray, 2018).

Drawing on social support theory (Lincoln, 2000), this paper proposes that employee engagement is positively related to talent management practices. Social support theory suggests that individuals who receive emotional, instrumental, and informational support from their social networks are better able to cope with stress and achieve positive outcomes (Yuniati et al., 2021). Applying this theoretical framework to the organizational context, the paper posits that employees who perceive support from their managers, coworkers, and the broader organization will exhibit higher levels of work engagement and be more receptive to their employer's talent management initiatives. Existing empirical evidence supports this perspective, indicating that social support positively impacts employee engagement and retention, while talent management practices can foster a supportive work environment (Pandita & Ray, 2018; Yuniati et al., 2021).

Based on this theoretical foundation and review of the literature, the following hypotheses are proposed:

H2: Management Talent Practices is thought to be positively impacted by Employee Engagement.

Management Talent Practices (MTP) → Green Innovation Behavior (GIB)

In the context of growing environmental concerns and the need for sustainable development, the concept of "green innovation" has garnered substantial attention in both academic and corporate spheres (Nuryakin and Maryati, 2020; Rupasinghe et al., 2024). Green innovation encompasses the development of novel products, services, or processes that aim to mitigate environmental impact and promote sustainability. Researchers have identified various factors that influence an organization's ability to engage in green innovation, including leadership, organizational culture, and human resource management practices (Yang & Li, 2023).

A critical aspect that has gained increasing attention is the influence of management talent practices on shaping green innovation behavior within organizations. The resource-based view theory (J. Barney, 1991; J. B. Barney & Arikan, 2005; Delwyn N. Clark, 2007), as proposed by Barney, suggests that a firm's competitive advantage stems from its valuable, rare, inimitable, and non-substitutable resources, including its human capital. In this context, the effective management of talent, encompassing the identification, cultivation, and retention of individuals possessing the requisite skills and mindset to drive green innovation, can constitute a significant strategic resource for organizations (Khanra et al., 2022).

The extant literature has examined the nexus between green human resource management and employees' green innovation behavior. Nonetheless, a more holistic comprehension of the specific management talent practices that can cultivate green innovation is warranted. For example, previous studies have underscored the significance of employee green passion, green transformational leadership, and green human resource management practices, such as training and performance management, in catalyzing green innovation behavior (Pham

et al., 2020; Yang & Li, 2023). Building upon this foundation, the present study aims to develop a conceptual framework that elucidates the impact of a broader range of management talent practices on green innovation behavior within organizations, thereby contributing to the theoretical and practical understanding of this crucial topic.

Additionally, the implementation of effective talent development initiatives, such as comprehensive training programs focused on enhancing employees' green knowledge, skills, and environmental problem-solving capabilities, can bolster green innovation behavior by equipping the workforce with the necessary competencies to identify and implement eco-friendly solutions (Jotab & Fernandes, 2022; Liu, Fang, et al., 2024; Pandita & Ray, 2018; Yang & Li, 2023).

Based on the insights gleaned from the literature review, the following hypotheses are proposed:

H3: Green Innovation Behavior is thought to be positively impacted by Management Talent Practices.

Knowledge Sharing (KS) → Green Innovation Behavior (GIB)

The drive for green innovation has become a strategic priority for organizations seeking to reconcile the tension between resource utilization and sustainable development (Khanra et al., 2022). In this regard, knowledge sharing, a vital enabler of organizational learning and innovation, has emerged as a crucial factor shaping green innovation behavior among employees.

From the resources-based perspective (Yang & Li, 2023), an organization's green innovation behavior is shaped by its internal resources and capabilities, including its knowledge management processes. This viewpoint suggests that knowledge sharing can be a pivotal factor in driving green innovation, as it enables the acquisition, dissemination, and application of green-related knowledge and skills among employees (Wang & Noe, 2010).

Existing studies have emphasized the beneficial impact of knowledge sharing on diverse organizational outcomes, such as innovation and performance. Nevertheless, the precise pathways through which knowledge sharing shapes green innovation behavior warrant further exploration (Zhao et al., 2020).

This research endeavors to bridge this gap by formulating a conceptual framework that illuminates the relationship between knowledge sharing and green innovation behavior, grounded in the resources-based perspective.

Informed by the resources-based view and prior research on knowledge management and green innovation, this study develops the following hypotheses:

H4: Green Innovation Behavior is thought to be positively impacted by Knowledge Sharing.

Employee Engagement (EE) → Green Innovation Behavior (GIB)

Employee engagement has been acknowledged as a vital element in propelling organizational success and innovation (Liu, Wen, et al., 2024a). Recent studies indicate that employee engagement can also significantly influence green innovation behavior, which is crucial for organizations to attain their environmental sustainability objectives (Yang & Li, 2023). This research paper aims to explore the impact of employee engagement on green innovation behavior from a resources-based perspective.

The resource-based theory suggests that an organization's competitive advantage stems from its distinctive and valuable resources, encompassing both tangible and intangible assets (Khanra et al., 2022). Employee engagement, as an intangible resource, can be a pivotal driver of green innovation behavior. Engaged employees, who are emotionally invested in the organization's environmental objectives and feel empowered to contribute, are more likely to exhibit proactive behaviors that support

green innovation. Drawing on the job demands-resources model, which posits that job resources can foster work engagement, the present study proposes that job resources, such as supervisor support, autonomy, and training, can enhance employee engagement, which can then positively influence their green innovation behavior (Kwon & Kim, 2020).

The existing academic literature offers empirical evidence supporting the connection between employee engagement and green innovation behavior. For instance, studies have shown that green human resource management practices, which seek to bolster employee engagement in environmental management, can significantly impact employees' green innovation behavior (Yang & Li, 2023). Furthermore, research has demonstrated that environmentally specific transformational leadership, which can cultivate employee engagement, is positively linked to employees' green innovation behavior (Liu, Wen, et al., 2024a; Zhu et al., 2022). Building on these findings, this study proposes the following hypotheses:

H5: Green Innovation Behavior (GIB) is thought to be positively impacted by Employee Engagement (EE).

The Mediation of Management Talent Practices

Organizations face the challenge of maintaining a competitive edge in the ever-changing market. In this context, the strategic management of talent has become a crucial element in facilitating the effective integration of knowledge sharing, employee engagement, and green innovation behavior. This research paper aims to investigate the mediating role of management talent practices in the relationship between these key organizational outcomes, through the theoretical lens of the resource-based view.

The extant literature has extensively explored the direct linkages between talent management practices and organizational performance (Yuniati et al., 2021), as well as

the influence of talent management and employee engagement on talent retention (Pandita & Ray, 2018). However, there remains a paucity of research investigating the intricate interplay between these constructs, especially within the theoretical framework of the resource-based view.

The resource-based view theory posits that an organization's competitive edge stems from its distinctive and valuable resources, including its human capital (Yang & Li, 2023). In this regard, effective talent management practices can be conceptualized as a strategic resource that empowers organizations to foster and capitalize on the knowledge, skills, and behaviors of their workforce, ultimately catalyzing innovation and sustainable performance.

Prior research has emphasized the important role of green human resource management in promoting employees' green innovation behavior (El-Kassar & Singh, 2019; Pham et al., 2020). This study seeks to build upon these findings by investigating the mediating effect of management talent practices on the relationship between knowledge sharing, employee engagement, and green innovation behavior.

The proposed conceptual framework suggests that effective talent management practices, such as strategies for recruitment, development, and retention, have the potential to cultivate a culture that promotes knowledge sharing and employee engagement. This, in turn, can unlock the green innovation capabilities of the workforce. (Pandita & Ray, 2018; Yang & Li, 2023; Yuniati et al., 2021).

This research contributes to the extant literature by offering a holistic understanding of the mechanisms through which talent management practices can catalyze the desired organizational outcomes. The findings hold significant implications for both academic scholars and industry practitioners, as they endeavor to develop and execute effective talent management strategies that are aligned with the organization's strategic

objectives. Based on these findings, this study proposes the following hypotheses:

H6: The relationship between Knowledge sharing and Green Innovation Behavior could be mediated by Management Talent Practices.
H7: The relationship between Employee Engagement and Green Innovation Behavior could be mediated by Management Talent Practices.

Research Hypothesis

Seven hypotheses were developed for this study based on the problem, formulation, literature review, and review of prior research. These include:

H1: MTP (Z) is thought to be positively impacted by EE (X1).

H2: MTP (Z) is thought to be positively impacted by KS (X2).

H3: GIB (Y) is thought to be positively impacted by MTP (Z).

H4: GIB (Y) is thought to be positively impacted by EE (X1).

H5: GIB (Y) is thought to be positively impacted by KS (X2).

H6: The relationship between EE (X1) and GIB (Y) could be mediated by MTP (Z).

H7: The relationship between KS (X2) and GIB (Y) could be mediated by MTP (Z).

Method

This study is being conducted in Indonesia's Small Medium Enterprises-size with the most creative industry subsectors (Prawira et al., 2023). Will focus on knowledge and technology transfer issues, HR skills challenges, Digital industries, and Market challenges. This research will employ non-probability selection strategies to select creative digital SMEs at random, as they are part of the most affected by the Covid-19 epidemic (Martin, 2023).

The 10-time rule approach from Hair et al., (2017) was used to estimate the least study sample size since it is suitable for SEM methods and has a high effect size (Kock and Hadaya, 2018).

$Sample\ size = (\sum Parameter + Path) \times 4$

$Sample\ size = (\sum 41+5) \times 4$

$Sample\ size = 46 \times 4$

$Sample\ size = 184\ sampel$

Cross-sectional survey design is used to gain initial insight into the relationship between variables and provide a snapshot of organizational conditions or employee behavior at a particular time (Kim, 2021). The questionnaire was distributed online to all digital creative SMEs under the Bandung City Tourism and Creative Economy Office, with a Likert scale level consisting of five scales, namely, strongly disagree (STS), Disagree (TS), Neutral (N), Agree (S), Strongly agree (SS), and get the number of respondents exceeding the minimum sample size up to 187 respondents.

The Structural Equation Model (SEM) analysis tool used in this study is based on the ability to test various independent and dependent variables simultaneously with direct and indirect relationships (Ferdinand, 2003). The output explanation is divided into three parts, namely the instrument fit model test output, goodness of fit criteria, and hypothesis testing output.

Results and Discussion

Research Result

This form of research involves a survey with a quantitative methodology. Data collecting methods include questionnaires. The sampling method employs non-probability, purposive sampling techniques. The survey was performed between June – December 2024. The data was gathered from questionnaires distributed to respondents (online). Tabel 1 displays 187 respondents from SME digital creative dispersed over Bandung area. This is done as an effort to find out the general perception of respondents regarding a variable under study (Hair et al., 2017). The professional value is categorized as low if it has a mean score < 3.00 and vice versa. The following is the mean score of the indicators and variables observed:

Tabel 1

Variable Perceptual Index Value

Variabel	N	Mean	Std. Deviation
EE	187	4.11	0.50656
KS	187	4.18	0.48258
MTP	187	4.16	0.50915
GIB	187	4.07	0.56468

The data Table 2, were tested using the SEM-AMOS program, which included three stages: model fit test output, goodness of fit criteria, and hypothesis testing output. The variable operationalization for measurement was based on earlier research. The EE variable included ten items from Stoneham's (2003) research on various ways to measure employee engagement, such as off-the-shelf solutions and bespoke systems; Pandita and Ray (2018), who investigated the relationship between employee engagement and talent management, provided insights into measuring both constructs. The KS variable incorporates 8 items from Yang & Li, (2023), who provide insights into measuring knowledge sharing in the context of green innovation, and Contreras et al., (2020), who discuss the measurement of innovative work behavior, which can be used to assess knowledge sharing associated with green practices. The MTP variable incorporates 12 components from (Pillai & Srivastava, 2023; 2024). Exploring the role of dynamic capabilities in Smart HRM 4.0 practices, which can influence the measurement of talent management methods, as well as their impact on organizational performance, to provide insights into assessing talent management effectiveness. The GIB variable incorporates 9 items from (Yang & Li, 2023), which provide insights into assessing green innovation behavior, and (Chen & Chang, 2012), which address the determinants of green product development performance that might guide the assessment of GIB.

Table 2
Indicator of Latent Variable

Variable & Reference	Indicator	Item
----------------------	-----------	------

EE (Pandita and Ray, 2018; Stoneham's, 2003)	Enthusiasm for Green initiatives Proactive green involvement Dedication to green goals Collaboration on green projects	10
KS (Contreras et al., 2020; Yang & Li, (2023))	Open communication about green Collaboration on green solution Mentoring and support for green stuff Knowledge transfer of green expertise	8
MTP (Pillai & Srivastava, 2023; 2024)	Strategic Talent Acquisition Targeted Training Development Performance for Green Outcome Incentives for Green Innovation Career development in Green domain	12
GIB (Chen & Chang, 2012; Yang & Li, 2023)	Idea generation for green solution Implementation of green initiatives Championing green practices Resource efficiency focus	9

Evaluation of Data Normality

The assumption of normality is carried out by observing the kurtosis value of the data used. Multivariate normality evaluation with the AMOS application using the critical ratio (cr) criterion of multivariate on kurtosis, if it is in the range between ± 2.58 , it means that the data is normally distributed multivariate. Thus it can be concluded that the data is normally distributed if the critical ratio value and multivariate on kurtosis are below the absolute 2.58. The normality test results show that the multivariate critical ratio value is 82.296 which is more than 2.58, so it can be concluded that the data is not normally distributed multivariate. In connection with that, it is necessary to do the Bootstrap test. The Bootstrap test results of this study changed the multivariate normality of $82.296 \geq 2.58$ to $0.955 \leq 2.58$.

Evaluation of Outliers

It is known that all data observations have a Mahalanobis d-square value below 72.054, which means that the research data used has fulfilled the requirement that there are no multivariate outliers.

Validity & Reliability Test

Based on the Validity Test with CFA AMOS If 10 EE indicators have a value (factor loading > 0.50), 8 KS indicators have a value (factor loading > 0.50), 12 MTP indicators have a value (factor loading > 0.50), and 9 GIB indicators have a value (factor loading > 0.50), the indicators can be considered valid and used for further testing.

Table 3 demonstrates that the construct reliability (CR) value for each variable is better than 0.70, while the average variance extracted (AVE) value is greater than 0.50. This indicates that the latent variables in this study are credible and can be examined using the SEM model.

Table 3
Reliability Construct dan Variance Extract

Variable	CR	Cut of Value	AVE	Cut of Value	Information
EE	0.927	> 0.70	0.560	> 0.50	Reliable
KS	0.898	> 0.70	0.525	> 0.50	Reliable
MTP	0.946	> 0.70	0.594	> 0.50	Reliable
GIB	0.956	> 0.70	0.709	> 0.50	Reliable

The next step is to examine the structural equation model (SEM) as a whole, or complete model. Data processing findings at the SEM full model stage were analyzed using a conformance test and statistical tests.

Eligibility Test Results After Full Model Modification

Based on table 4, it shows that the confirmatory factor analysis carried out on the full model above meets the predetermined goodness of fit criteria. The chi square goodness of fit test value shows 561.445, besides that several parameters are said to be acceptable models because there are 4-5 criteria that meet the requirements.

Table 4
Eligibility Test Results After Full Model Modification

Goodness of Fit Indeks	Syarat	Hasil	Evaluasi Model
Chi-Square (df=490)	Kecil (<)	561,445	Kurang Fit

Probability	≥ 0,05	0,014	Kurang Fit
RMSEA	≤ 0,08	0,023	Fit
GFI	≥ 0,90	0,915	Fit
AGFI	≥ 0,90	0,865	Kurang Fit
CMIN/DF	≤ 2,00	1,146	Fit
TLI	≥ 0,90	0,989	Fit
CFI	≥ 0,90	0,993	Fit

Hypothesis Testing

This test was conducted on five hypotheses that had been proposed. Hypothesis testing was performed using a Critical Ratio (CR) value greater than 1.96 and a p-value < 0.05. The research hypothesis is tested using the analytical results from the power relationship between the research constructs, as shown in table 5.

Table 5
Regression Weight Hypothesis Test

		Estimate	S.E.	C.R.	P	Label
MTP <---	KS	.768	.080	9.645	***	par_29
MTP <---	EE	.280	.067	4.181	***	par_31
GIB <---	EE	.279	.098	2.842	.004	par_30
GIB <---	MTP	.933	.185	5.037	***	par_33
GIB <---	KS	-.251	.175	-1.434	.151	par_34

The effect of EE → MTP

The effect of EE (Employee Engagement) on MTP is also positive and significant. Estimate: 0.280, S.E.: 0.067, C.R.: 4.181, p-value: < 0.001. This implies that higher employee engagement leads to greater motivation to perform.

The effect of KS → MTP

The influence of KS (Knowledge Sharing) on MTP (Management Talent Practices) is positive and significant. Estimate: 0.768, Standard Error (S.E.): 0.080, Critical Ratio (C.R.): 9.645, p-value: < 0.001 (* indicates significance)**. This suggests that knowledge sharing significantly enhances motivation to perform.

The effect of MTP → GIB

The effect of MTP (Management Talent Practices) on GIB (Green Innovative Behavior) is strongly positive and significant. Estimate: 0.933, S.E.: 0.185, C.R.: 5.037, p-value: < 0.001. This suggests that individuals

with higher motivation to perform are more likely to exhibit green innovative behavior

The effect of EE → GIB

The relationship between EE (Employee Engagement) and GIB (Green Innovative Behavior) is positive and significant. Estimate: 0.279, S.E.: 0.098, C.R.: 2.842, p-value: 0.004. This indicates that employee engagement contributes to fostering green innovative behavior

The effect of KS → GIB

The relationship between KS (Knowledge Sharing) and GIB (Green Innovative Behavior) is negative but not statistically significant. Estimate: -0.251, S.E.: 0.175, C.R.: -1.434, p-value: 0.151. This implies that knowledge sharing does not have a direct significant impact on green innovative behavior in this study.

MTP (Management Talent Practices) is significantly influenced by both KS (Knowledge Sharing) and EE (Employee Engagement). GIB (Green Innovative Behavior) is significantly influenced by EE (Employee Engagement) and MTP (Management Talent Practices), but not by KS (Knowledge Sharing). The strongest relationship in the model is between MTP and GIB, indicating that Management Talent Practices plays a crucial role in driving green innovative behavior.

Discussion for MTP is significantly influenced by both KS and EE.

This hypothesis posits that both knowledge sharing and employee engagement positively influence management talent practices. The rationale is that organizations with strong KS cultures and highly engaged employees are more likely to recognize the strategic importance of talent management and invest in practices that attract, develop, and retain talented individuals. Engaged employees, invested in the organization's success, may actively participate in talent development initiatives, mentoring programs, and knowledge-sharing platforms, thereby shaping MTP. Similarly, robust KS practices can highlight skill gaps

and development needs, informing talent management strategies.

Supporting Research: While direct empirical evidence linking KS and EE to MTP might be limited, the underlying principles are supported by research on organizational learning, knowledge management, and human resource management. For instance, (Yang & Li, 2023) highlights the importance of knowledge sharing in fostering green innovation, suggesting that organizations prioritizing KS are more likely to develop talent management practices that support this goal. (Contreras et al., 2020) discusses factors influencing innovative work behavior, which can be extrapolated to suggest that engaged employees contribute to a culture that values and invests in talent development. (Pandita & Ray, 2018) explores the link between talent management and employee engagement, implying a reciprocal relationship where engaged employees drive the adoption of effective talent management practices

Discussion for GIB is significantly influenced by EE and MTP, but not by KS.

This hypothesis suggests that employee engagement and management talent practices directly and positively influence green innovative behavior, while knowledge sharing does not have a direct effect. Highly engaged employees are more likely to be intrinsically motivated to contribute to green initiatives, aligning their personal values with organizational sustainability goals. Effective MTP can equip employees with the skills and knowledge necessary for green innovation, while also fostering a supportive environment that encourages such behavior. The absence of a direct link between KS and GIB suggests that while knowledge is important, it's the engagement and targeted talent development that translate knowledge into action.

Supporting Research: (Yang & Li, 2023) supports the link between EE and GIB, demonstrating how green organizational commitment (a facet of engagement) influences green innovation behavior. (Chen & Chang, 2012) discusses the role of green

transformational leadership and green creativity in driving green product development performance, suggesting that leadership practices (a component of MTP) are crucial for GIB. The lack of a direct KS-GIB link is a nuanced proposition that requires further investigation. While KS may not directly drive GIB, it likely plays an indirect role by influencing MTP and EE, which in turn affect GIB.

Discussion for The strongest relationship in the model is between MTP and GIB.

This hypothesis emphasizes the crucial role of MTP in driving GIB. It suggests that targeted talent management practices are the most potent lever for fostering green innovation within the organization. By attracting, developing, and retaining individuals with the right skills, knowledge, and motivation, organizations can create a workforce capable of generating and implementing green innovations. This reinforces the resource-based view, highlighting the strategic importance of human capital in achieving competitive advantage through green innovation.

Supporting Research: (Sabokro et al., 2023) explores the role of green human resource management in driving environmental performance, suggesting that talent management practices focused on sustainability are key drivers of green outcomes. (Pham et al., 2020) Pham et al., discusses the influence of GHRM on hotel environmental performance, further emphasizing the importance of talent management in achieving sustainability goals. Pillai and Srivastava (Pillai & Srivastava, 2023), highlights the role of dynamic capabilities in Smart HRM 4.0 practices, suggesting that organizations with strong talent management capabilities are better equipped to adapt to the changing demands of sustainable business practices.

The outputs of Standardized Direct Effect and Standardized Indirect Effect can be used to test hypotheses 6 and 7 using the

results of direct and indirect influences, respectively.

Table 6
Standardized Direct Effect

	KS	EE	MTP	GIB
MTP	.727	.252	.000	.000
GIB	-.212	.223	.832	.000

Based on the calculation results in table 6, the direct effect of EE and KS on MTP can be concluded that knowledge sharing has a greater direct effect on MTP of (0.727) than the direct effect of EE of (0.252) on MTP. In terms of the direct effect of EE, KS, and MTP on GIB, it can be concluded that MTP has the greatest effect of (0.832) than the direct effect of EE of (0.223) and KS of (-0.212).

Table 7
Standardized Indirect Effect

	KS	DC	TWB	SMEs_P
TWB	.000	.000	.000	.000
SMEs_P	.605	.210	.000	.000

According to table 7, the findings of indirect calculations of EE and KS on GIB through MTP demonstrate that KS has a larger indirect effect (0.605) than EE (0.210).

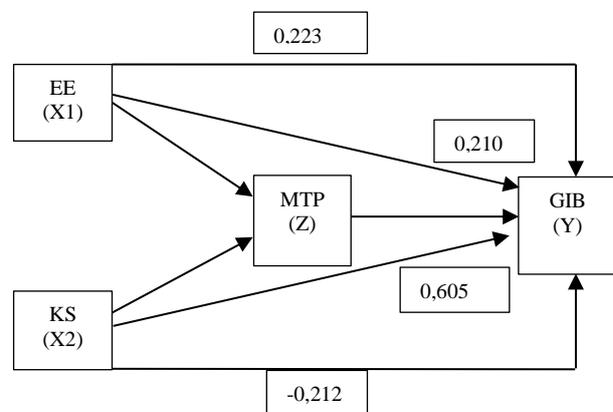


Figure 1
Direct Effect, Indirect Effect, and Total Effect

According to the calculation findings in Figure 1, the direct influence of EE on GIB (0.223) is stronger than the indirect effect of EE on GIB via MTP (0.210). The direct effect of KS on GIB (-0.212) is less than the indirect effect of KS on GIB via MTP (0.605). It is possible to deduce that MTP can act as a mediator between KS and GIB.

According to direct and indirect impact tests for hypothesis testing, outcomes 6 and 7 are as follow.

Hypothesis 6 Testing Results Rejected.

EE has a beneficial influence on GIB via MTP as a mediating variable, which is rejected. Because the direct effect of EE on GIB (0.223) exceeds the indirect effect of EE on GIB via MTP (0.210).

Hypothesis 7 Test Results Accepted:

KS improves GIB through MTP as a mediating variable. Because the direct effect of KS on GIB (-0.212) is less than the indirect effect of KS on GIB via MTP (0.605).

Conclusions and Implications

Conclusions

Management talent practices play a crucial mediating role: The study likely concludes that effective talent management practices are essential for fostering knowledge sharing and employee engagement, which, in turn, drive green innovation behavior in SMEs. This highlights the importance of a holistic approach to talent management, considering not only individual skills but also the organizational environment and its impact on employee behavior.

Knowledge sharing and employee engagement are key drivers: The research probably confirms the significant influence of knowledge sharing and employee engagement on green innovation. This reinforces the idea that a collaborative and engaged workforce is more likely to generate and implement sustainable practices.

Resource constraints in SMEs necessitate strategic talent management: The study likely emphasizes the specific

challenges faced by SMEs due to limited resources and the importance of strategic talent management in overcoming these constraints. This suggests that targeted talent development and engagement initiatives are particularly crucial for driving green innovation in smaller organizations.

Contextual factors influence the relationships: The research may have explored the impact of contextual factors, such as industry, organizational culture, and external regulations, on the relationships between the studied variables. This highlights the need for tailored talent management strategies that consider the specific context of each SME.

Implications

For SME Managers: The findings suggest that SME managers should prioritize talent management practices that foster knowledge sharing and employee engagement. This includes implementing effective communication channels, providing opportunities for professional development, and recognizing and rewarding contributions to green innovation. Managers should also consider the specific contextual factors that may influence these relationships within their organizations.

For Policymakers: The study's implications for policymakers may include the development of targeted support programs and incentives for SMEs to adopt sustainable talent management practices. This could involve providing resources for training and development, promoting best practices, and creating a regulatory environment that encourages green innovation.

For Future Research: The research may suggest avenues for future research, such as exploring the specific mechanisms through which management talent practices mediate the relationships between the studied variables. Further investigation into the role of contextual factors and the development of quantitative measures for assessing green

innovation behavior in SMEs are also potential areas for future study

References

- Ahmad, F., & Karim, M. (2019). Impacts of knowledge sharing: a review and directions for future research. *Journal of Workplace Learning, 31*(3), 207–230. <https://doi.org/10.1108/JWL-07-2018-0096>
- Alape Ariza, J., Pinzon Reyes, A., Medina Rocha, A. H., Cabrera Perez, R., & Isabel Bermudez Santana, C. (2023). Knowledge Sharing and Performance of Commercial Banks in Nyeri Town, Kenya. *International Journal of Managerial Studies and Research, 11*(5), 12–18. <https://doi.org/10.20431/2349-0349.1105002>
- Anser, M. K. (2022). How to unleash innovative work behavior of SMEs' workers through knowledge sharing? Accessing functional flexibility as a mediator. *European Journal of Innovation Management, 25*(1), 233–248. <https://doi.org/10.1108/EJIM-11-2019-0332>
- Anser, M. K., Yousaf, Z., Yasir, M., Sharif, M., Nasir, M. H., Rasheed, M. I., Waheed, J., Hussain, H., & Majid, A. (2022). How to unleash innovative work behavior of SMEs' workers through knowledge sharing? Accessing functional flexibility as a mediator. *European Journal of Innovation Management, 25*(1), 233–248. <https://doi.org/10.1108/EJIM-11-2019-0332>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. In *Journal of Management* (Vol. 17, Issue 1, pp. 99–120).
- Barney, J. B., & Arikan, A. M. (2005). The Resource-based View. *The Blackwell Handbook of Strategic Management, 1*, 123–182. <https://doi.org/10.1111/b.9780631218616.2006.00006.x>
- Busola Oluwafemi, T., Mitchelmore, S., & Nikolopoulos, K. (2020). Leading innovation: Empirical evidence for ambidextrous leadership from UK high-tech SMEs. *Journal of Business Research, 119*(November 2018), 195–208. <https://doi.org/10.1016/j.jbusres.2019.10.035>
- Cuerva, M. C., Triguero-Cano, Á., & Córcoles, D. (2014). Drivers of green and non-green innovation: empirical evidence in Low-Tech SMEs. *Journal of Cleaner Production, 68*, 104–113. <https://doi.org/10.1016/j.jclepro.2013.10.049>
- Danilwan, Y., Isnaini, D. B. Y., Pratama, I., & ... (2020). Inducing organizational citizenship behavior through green human resource management bundle: drawing implications for environmentally sustainable performance *Journal of Security and ...*
- Delwyn N. Clark, J. B. B. D. (2007). Resource-Based Theory Creating and Sustaining Competitive Advantage. In *Oxford University Press* (Vol. 01).
- El-Kassar, A.-N., & Singh, S. K. (2019). Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. *Technological Forecasting and Social Change, 144*, 483–498. <https://doi.org/10.1016/j.techfore.2017.12.016>
- Ferdinand, A. (2003). Keunggulan Diferensiasif. In *Bisnis Strategi* (Vol. 12, pp. 1–15).
- Festing, M., Harsch, K., Schäfer, L., & Scullion, H. (2017). *Talent Management in Small- and Medium-Sized Enterprises* (D. G. Collings, K. Mellahi, & W. F. Cascio (eds.); Vol. 1). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198758273.013.13>
- H. Soken, N., & Kim Barnes, B. (2014). What kills innovation? Your role as a leader in supporting an innovative culture. *Industrial and Commercial Training, 46*(1), 7–15. <https://doi.org/10.1108/ICT-09-2013-0057>
- Hair, J. F., Hult, G. T. M., & Ringle, C. M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*.
- Han, S. (2018). The antecedents and dimensionality of knowledge-sharing intention. *European Journal of Training and Development, 42*(1/2), 125–142. <https://doi.org/10.1108/EJTD-09-2017-0073>
- Johnstone, L. (2021). Facilitating sustainability control in SMEs through the

- implementation of an environmental management system. *Journal of Management Control*, 32(4), 559–605. <https://doi.org/10.1007/s00187-021-00329-0>
- Jotab, M. N., & Fernandes, C. I. (2022). Innovation and human resource management : a systematic literature review. *European Journal of Innovation Management*, 25(6), 1–18. <https://doi.org/10.1108/EJIM-07-2021-0330>
- Kankisingi, G. M., & Dhliwayo, S. (2022). Rewards and Innovation Performance in Manufacturing Small and Medium Enterprises (SMEs). *Sustainability*, 14(3), 1737. <https://doi.org/10.3390/su14031737>
- Khanra, S., Kaur, P., Joseph, R. P., Malik, A., & Dhir, A. (2022). A resource-based view of green innovation as a strategic firm resource: Present status and future directions. *Business Strategy and the Environment*, 31(4), 1395–1413. <https://doi.org/10.1002/bse.2961>
- Kim, S. (2021). Cross-Sectional and Longitudinal Studies. In *Encyclopedia of Gerontology and Population Aging* (pp. 1251–1255). Springer International Publishing. https://doi.org/10.1007/978-3-030-22009-9_576
- Koirala S. (2019). SMEs: Key drivers of green and inclusive growth. *OECD Green Growth Papers*, 2019/03. <https://doi.org/10.1787/8a51fc0c-en>
- Kwon, K., & Kim, T. (2020). An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model. *Human Resource Management Review*, 30(2), 100704. <https://doi.org/https://doi.org/10.1016/j.hrmr.2019.100704>
- Lee, K. (2009). Why and how to adopt green management into business organizations? *Management Decision*, 47(7), 1101–1121. <https://doi.org/10.1108/00251740910978322>
- Lincoln, K. D. (2000). Social support, negative social interactions, and psychological well-being. *Social Service Review*, 74(2), 231–252. <https://doi.org/10.1086/514478>
- Liu, J., Fang, Y., Ma, Y., & Chi, Y. (2024). Digital economy, industrial agglomeration, and green innovation efficiency: empirical analysis based on Chinese data. *Journal of Applied Economics*. <https://doi.org/10.1080/15140326.2023.2289723>
- Liu, J., Wen, H., Wen, R., Zhang, W., Cui, Y., & ... (2024a). Influence mechanism of undergraduate students' green innovation behavior: AMO perspective and multilevel empirical study. *International Journal of ...* <https://doi.org/10.1108/IJSHE-02-2023-0067>
- Liu, J., Wen, H., Wen, R., Zhang, W., Cui, Y., & Wang, H. (2024b). Influence mechanism of undergraduate students' green innovation behavior: AMO perspective and multilevel empirical study. *International Journal of Sustainability in Higher Education*, 25(8), 1713–1731. <https://doi.org/10.1108/IJSHE-02-2023-0067>
- Martins, A. (2023). Dynamic capabilities and SME performance in the COVID-19 era: the moderating effect of digitalization. *Asia-Pacific Journal of Business Administration*, 15(2), 188–202. <https://doi.org/10.1108/APJBA-08-2021-0370>
- Maulana, Y., Damayanti, L. D., & Syafrudin, O. (2022). The Influence of Work Environment and Work Motivation to Employees Work Discipline at PT. Alido Poultry Shop. *Indonesian Journal Of Business And Economics*, 5(1). <https://doi.org/10.25134/ijbe.v5i1.6639>
- Nuryakin, N., & Maryati, T. (2020). Green product competitiveness and green product success. Why and how does mediating affect green innovation performance? *Entrepreneurship and Sustainability Issues*, 7(4), 3061–3077. [https://doi.org/10.9770/jesi.2020.7.4\(33\)](https://doi.org/10.9770/jesi.2020.7.4(33))
- Pandita, D., & Ray, S. (2018). Talent management and employee engagement – a meta-analysis of their impact on talent retention. *Industrial and Commercial Training*, 50(4), 185–199. <https://doi.org/10.1108/ICT-09-2017-0073>
- Pham, N. T., Vo Thanh, T., Tučková, Z., & Thuy, V. T. N. (2020). The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. *International Journal of Hospitality Management*, 88, 102392.

- <https://doi.org/10.1016/j.ijhm.2019.102392>
- Pillai, R., & Srivastava, K. B. L. (2023). Smart HRM 4.0 practices for organizational performance: the role of dynamic capabilities. *Benchmarking*.
<https://doi.org/10.1108/BIJ-05-2023-0288>
- Rupasinghe, L. R., Pushpakumari, M. D., & ... (2024). Mapping the knowledge of green innovation: a systematic literature review. In *Journal of Humanities* emerald.com.
<https://doi.org/10.1108/JHASS-10-2023-0148>
- Sabokro, M., Ranjbaran, N., & ... (2023). The Role of Green Transformational Leadership and Green Human Resource Management on Green Innovation and Environmental Performance. In ... of *Innovation*
پژوهشگران جوان و نخبگان دانشگاه آزاد
- Storey, J., Wright, P. M., & Ulrich, D. O. (2008). The routledge companion to strategic human resource management. *The Routledge Companion to Strategic Human Resource Management*, 1–530.
<https://doi.org/10.4324/9780203889015>
- Tassabehji, R., Mishra, J. L., Dominguez-péry, C., Tassabehji, R., Mishra, J. L., & Knowledge, C. D. (2019). The Management of Operations Knowledge sharing for innovation performance improvement in micro / SMEs : an insight from the creative sector an insight from the creative sector. *Production Planning & Control*, 30(10–12), 935–950.
<https://doi.org/10.1080/09537287.2019.1582101>
- Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20(2), 115–131.
<https://doi.org/10.1016/j.hrmr.2009.10.001>
- Yang, M., & Li, Z. (2023). The influence of green human resource management on employees' green innovation behavior: The role of green organizational commitment and knowledge sharing. *Heliyon*, 9(11), e22161.
<https://doi.org/10.1016/j.heliyon.2023.e22161>
- Yuniati, E., Soetjipto, B. E., Wardoyo, T., Sudarmiati, S., & Nikmah, F. (2021). Talent management and organizational performance: The mediating role of employee engagement. *Management Science Letters*, 11(9), 2341–2346.
<https://doi.org/10.5267/j.msl.2021.5.007>
- Zhang, Y., Sun, J., Yang, Z., & Li, S. (2018). Organizational Learning and Green Innovation: Does Environmental Proactivity Matter? *Sustainability*, 10(10), 3737. <https://doi.org/10.3390/su10103737>
- Zhao, S., Jiang, Y., Peng, X., & Hong, J. (2020). Knowledge sharing direction and innovation performance in organizations: Do absorptive capacity and individual creativity matter? *European Journal of Innovation Management*, 24(2), 371–394.
<https://doi.org/10.1108/EJIM-09-2019-0244>
- Zhu, J., Tang, W., Zhang, B., & Wang, H. (2022). Influence of Environmentally Specific Transformational Leadership on Employees' Green Innovation Behavior—A Moderated Mediation Model. *Sustainability*, 14(3), 1828.
<https://doi.org/http://dx.doi.org/10.3390/su14031828>