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Strengthening Empowering Leadership Effects on Innovation: The Roles of Innovative Climate and Collaborative HRM (Study on East Java Patchwork and Quilting Craftsmen)

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Abstract

Introduction/Main Objectives: This study aims to strengthen theoretical and empirical understanding of how empowering leadership influences craftsmen's innovative work behavior through the mediating role of organizational climate for innovation and the moderating role of collaborative human resource management systems (CHRMS). The research focuses on the Pelanusa Patchwork & Quilting community in East Java as a representative of Indonesia's creative MSME sector.

Background Problems: In the creative craft sector, the level of innovation remains low. Many artisans repeat existing designs without exploring new ideas due to limited leadership support, weak collaboration, and low confidence.

Novelty: This paper introduces an integrated model combining empowering leadership, organizational climate for innovation, and collaborative HRM systems to explain the emergence of innovative work behavior in artisan communities. It expands previous theories by applying them to non-formal, community-based organizations, where innovation is shaped more by social interaction, trust, and shared ownership than by hierarchical structures.

Research Methods: A quantitative methodology based on Partial Least Squares Structural Equation Modeling (PLS-SEM) was adopted to collect data from 199 craftsmen using validated survey instruments. The variables measured include EL, OCI, CHRMS, and CIWB.

Finding/Results: The results show that empowering leadership significantly enhances innovative behavior through both direct pathways and indirect effects facilitated by OCI. Moreover, CHRMS positively moderates the relationship between EL and CIWB. The model demonstrates a high Goodness-of-Fit (GoF = 0.817), indicating strong explanatory power.

Conclusion: Empowering leadership effectively fosters innovative behavior when supported by a collaborative HRM system and an innovation-oriented climate. The study contributes theoretically to HRM and leadership research and provides practical insights for MSME leaders and policymakers to strengthen innovation and sustainability in local artisan communities.

Keywords: Empowering Leadership; Collaborative HRM System; Organizational Climate for Innovation; Innovative Work Behavior; Creative MSMEs.

Introduction

In an era of globalization marked by technological acceleration, market dynamics, and disruption in the creative economy, innovation capability has become a fundamental element for the sustainability and competitiveness of various organizations, including micro, small, and medium enterprises (MSMEs). Globally, innovation is seen not only as a result of individual creativity but also as a consequence of HRM systems and leadership styles that adapt to environmental changes.

In the national context, MSMEs in Indonesia play a dominant role, contributing more than 97% of the total workforce and around 61% of GDP. The creative economy subsector—particularly crafts such as patchwork and quilting—acts as a driver of economic growth based on local cultural values.

Artisans face not only technical challenges in producing aesthetically pleasing products but also managerial and innovative challenges in creating products relevant to modern markets. Therefore, strengthening empowering leadership and building a collaborative HRM system are crucial factors in fostering innovative work behavior among artisans. Empowering leadership significantly increases creativity, self-confidence, and commitment to innovation by granting autonomy and encouraging experimentation.

Meanwhile, a Collaborative HRM System emphasizes synergy between individuals and organizational units to encourage knowledge exchange and collaboration that generates innovation. In artisan communities like Pelanusa Patchwork & Quilting in East Java, collaborative HRM practices are essential because relationships are based on trust and community rather than formal hierarchy.

Additionally, the Organizational Climate for Innovation (OCI) serves as a critical link between HRM practices, leadership, and innovative behavior. A climate that supports innovation is characterized by tolerance for failure, support for new ideas, and resources for exploration. The stronger an individual's perception of an innovative climate, the higher their likelihood of exhibiting innovative behavior.

Previous studies have shown that synergy between empowering leadership, collaborative HRM, and an innovation climate positively affects innovation. However, most research focuses on corporate or formal organizations, with little attention to creative communities and craft-based MSMEs in Indonesia. Artisan communities have unique social and cultural characteristics, where cooperation and shared ownership drive innovation. This research addresses that gap by exploring how collaborative management practices and empowering leadership can create a climate of innovation that encourages creative behavior in artisan communities like Pelanusa Patchwork & Quilting.

Empowering leadership (EL) is a leadership approach that emphasizes trust, autonomy, and opportunities for employees to make decisions and develop their potential. Research suggests that EL significantly influences craftsmen's innovative work behavior (CIWB) by enhancing psychological empowerment, which encourages individuals to propose new ideas confidently. Leaders who provide space for participation and psychological support create a work climate conducive to creative thinking and innovation, making this leadership style particularly important for SMEs in Indonesia. Furthermore, EL not only directly affects individual behavior but also plays a crucial role in shaping an organizational climate for innovation (OCI). Leaders who instill trust, inspire independence, and encourage experimentation foster an environment that is open to new ideas and tolerant of failure, thereby strengthening perceptions of an innovative climate. In addition, OCI itself has a substantial impact on CIWB, as a positive climate characterized by support for creativity and risk-taking promotes proactive and

innovative actions among artisans. The relationship between EL and CIWB is often mediated by OCI, meaning that empowering leadership enhances innovative behavior primarily when the organizational climate supports creativity and collaboration. Finally, the Collaborative Human Resource Management System (CHRMS) serves as a moderator that amplifies the positive influence of EL on CIWB. When HR practices emphasize teamwork, open communication, and joint problem-solving, empowered artisans are more likely to share ideas and engage in creative exploration. Thus, the synergy between empowering leadership, an innovation-oriented climate, and collaborative HRM practices is essential for fostering sustainable innovation in artisan communities.

H1: Empowering Leadership → Craftsman Innovative Work Behavior

Empowering leadership (EL) is a leadership style that emphasizes trust, autonomy, and opportunities for members to make decisions and develop their potential. Previous research shows that EL significantly influences innovative work behavior (CIWB) by enhancing psychological empowerment, which encourages individuals to confidently propose new ideas (Yadav et al., 2023). Cross-cultural studies also confirm that leaders who provide space for participation and psychological support can create a work climate conducive to creative thinking and innovative practices (Kim et al., 2024). In the context of Indonesian SMEs, this leadership style is crucial because it increases members' self-confidence and participation in the creative product development process (Simatupang et al., 2022).

H2: Empowering Leadership → Organizational Climate for Innovation

Beyond its direct effect on individual behavior, EL plays a significant role in shaping an organizational climate that supports innovation (OCI). Leaders who instill trust, inspire independence, and encourage experimentation foster an environment that is open to new ideas and tolerant of failure (Hou & Cai, 2024; Kim et al., 2024). Erdavit et al. (2023) emphasized that empowering leadership can enhance employees' positive perceptions of a workplace that promotes collaboration, creativity, and idea exploration. Therefore, stronger implementation of EL contributes substantially to creating an innovative organizational climate.

H3: Organizational Climate for Innovation → Craftsman Innovative Work Behavior

An organizational climate that supports innovation significantly promotes CIWB. Xu et al. (2022) demonstrated that a positive innovation climate—characterized by support for new ideas, tolerance for failure, and appreciation for creativity—directly influences increased innovative work behavior. Kim (2024) added that a strong innovation climate strengthens cross-functional team relationships, creating synergy that drives new product development. Research by Aristana et al. (2024) within Indonesian SMEs also found that a positive innovation climate amplifies the effect of participatory leadership on members' innovative behavior.

H4: Mediation of OCI in the EL → CIWB Relationship

Empowering leadership encourages employees to be innovative, but this influence is not always immediate. In many cases, the effect of EL on CIWB occurs through an organizational climate that supports innovation (Hou et al., 2024). When leaders create an open work environment, provide space for creativity, and recognize employee contributions, this strengthens perceptions of a positive and innovative climate. This climate then acts as a bridge that reinforces the relationship between EL and CIWB, making OCI a critical mediator in this context.

H5: Moderating Role of CHRMS in the EL → CIWB Relationship

A Collaborative Human Resource Management System (CHRMS) can strengthen the relationship between EL and CIWB (Guha et al., 2025). In a collaborative work environment, members feel valued, supported, and free to share ideas without fear. Koster (2024) emphasized that collaborative HRM—through joint training, open communication, and team support—enhances the effectiveness of empowering leadership in fostering innovation. This means that when HRM practices are collaborative, the influence of EL on CIWB becomes stronger and more significant.

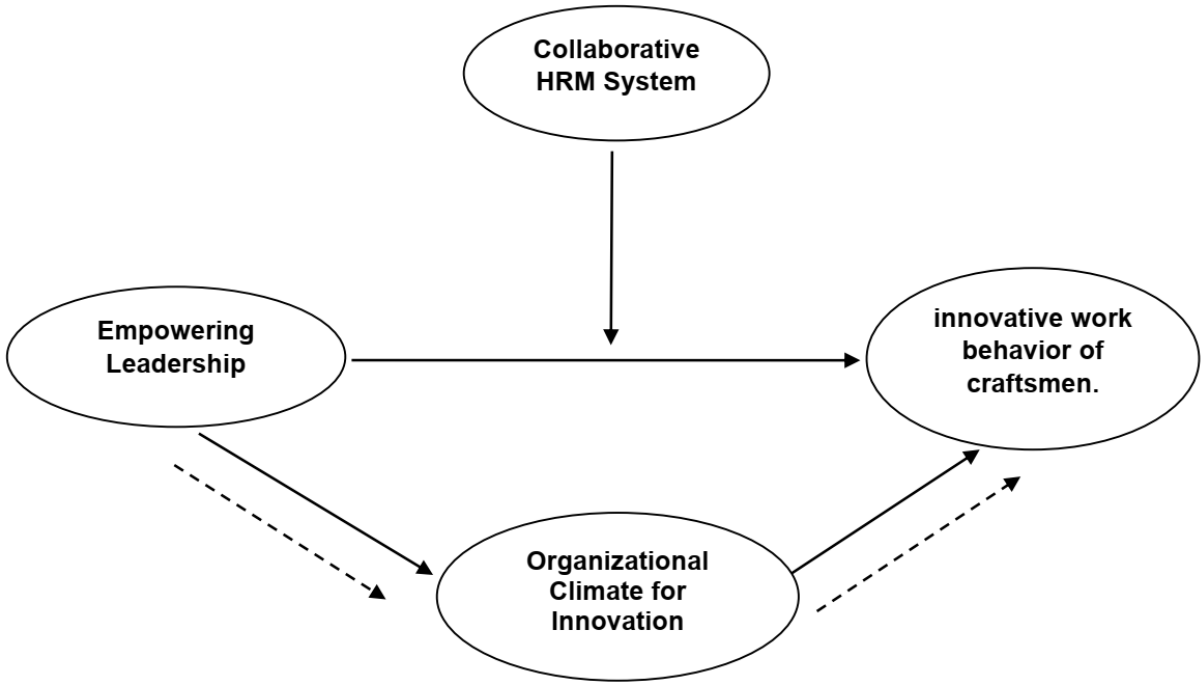

Figure 1. Conceptual Framework

Source: Author's Work, 2025.

Research Methods

This study adopted a quantitative research design to examine the relationships among Empowering Leadership (EL), Organizational Climate for Innovation (OCI), Collaborative Human Resource Management System (CHRMS), and Craftsman Innovative Work Behavior (CIWB). The choice of a quantitative approach was driven by the need to test hypotheses and measure the strength of relationships among variables using statistical techniques. The research framework integrates mediation and moderation effects, making it suitable for advanced modeling through Partial Least Squares Structural Equation Modeling (PLS-SEM). This approach allows for robust analysis of complex models, particularly when the sample size is relatively small and the data distribution does not meet strict parametric assumptions.

The population of this study consisted of artisans engaged in craft-based MSMEs in East Java, specifically members of the Pelanusa Patchwork & Quilting community. These artisans were selected because they represent Indonesia's creative economy sector, which faces challenges in sustaining innovation. A saturated sampling technique was employed, meaning all individuals who met the inclusion criteria were included in the sample. The criteria required participants to be actively involved in creative production processes, interact with leadership

or HR systems, and understand workflows requiring creativity. A total of 199 respondents participated, which satisfies the minimum sample size requirement for PLS-SEM analysis and ensures adequate statistical power for hypothesis testing.

Data Collection and Measurement Instruments

Data were collected using a structured questionnaire comprising validated indicators adapted from previous studies. Each construct was measured using multiple items:

- Empowering Leadership (EL): Indicators included granting decision-making authority, encouraging idea expression, building confidence, providing resources, and recognizing contributions (Yadav et al., 2023; Park & Lee, 2022).
- Organizational Climate for Innovation (OCI): Items measured support for experimentation, rewarding new ideas, management backing for creativity, open communication, and flexibility for innovation (Xu et al., 2022; Chen et al., 2023).
- Collaborative HRM System (CHRMS): Indicators focused on idea sharing, teamwork emphasis, interdepartmental communication, collaborative decision-making, and trust-building policies (Colakoglu et al., 2022).
- Craftsman Innovative Work Behavior (CIWB): Items assessed idea generation, seeking improvement opportunities, experimenting with new methods, promoting innovative ideas, and implementing creative solutions (Aristana et al., 2024; Afsar et al., 2023).

All items were measured using a Likert scale to capture respondents' perceptions consistently.

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software (version 4.1.1.4). This technique was chosen for its ability to handle complex models involving mediation and moderation effects, as well as its suitability for exploratory research with relatively small sample sizes. The analysis included two stages: (1) Measurement Model Assessment, which tested reliability and validity through factor loadings, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha; and (2) Structural Model Assessment, which evaluated path coefficients, t-statistics, and p-values for hypothesis testing. The model demonstrated strong validity and reliability, with all constructs meeting the required thresholds (AVE > 0.50; CR > 0.80). Additionally, the Goodness-of-Fit (GoF) values for OCI (0.674) and CIWB (0.817) indicated a high explanatory power of the model.

Ethical standards were maintained throughout the research process by ensuring voluntary participation, informed consent, and confidentiality of respondents' data. The study was limited to a single artisan community in East Java, which may restrict the generalizability of findings to other regions or formal organizational settings. Furthermore, the use of self-reported questionnaires introduces potential bias, despite statistical controls applied during analysis. Future research is recommended to adopt longitudinal designs and include multiple artisan communities to enhance external validity and provide deeper insights into the dynamics of leadership, HR collaboration, and innovation in creative MSMEs.

Result

Sample Characteristics

The study analyzed responses from 199 artisans in East Java's craft-based MSMEs, specifically the Pelanusa Patchwork & Quilting community. The sample was predominantly female (151 respondents), with 48 males. Age distribution showed 52 participants aged 20–25, 108 aged 26–35, and 39 aged 36–45. Educational backgrounds included 81 junior high

school graduates, 115 senior high school graduates, and 3 diploma holders. These demographics reflect a community-oriented workforce balancing household responsibilities with creative production and innovation activities.

Measurement Model Assessment

The outer model demonstrated strong validity and reliability. All item loadings exceeded 0.70, confirming convergent validity, and Average Variance Extracted (AVE) values were above 0.50 for all constructs. Reliability indicators were robust: Cronbach's Alpha > 0.60 and Composite Reliability (CR) > 0.80. Specifically, CHRMS (α = 0.911, CR = 0.933, AVE = 0.737), CIWB (α = 0.981, CR = 0.985, AVE = 0.930), EL (α = 0.910, CR = 0.933, AVE = 0.738), and OCI (α = 0.950, CR = 0.962, AVE = 0.835) all met recommended thresholds.

Discriminant Validity

Discriminant validity was confirmed using the Fornell–Larcker criterion, where the square root of AVE for each construct exceeded its correlations with other constructs: CHRMS = 0.859, CIWB = 0.964, EL = 0.859, and OCI = 0.914. This indicates that each latent variable is empirically distinct and measures unique aspects of the research model.

Correlation Structure

Inter-construct correlations were moderate to strong, aligning with theoretical expectations. The strongest association was between CIWB and OCI (r = 0.795), highlighting the critical role of an innovation-supportive climate in driving innovative behavior. Other notable correlations included EL–CIWB (r = 0.710) and EL–CHRMS (r = 0.689), reinforcing the interconnectedness of leadership, HR collaboration, and innovation.

Model Fit

The structural model exhibited high explanatory power, as indicated by Goodness-of-Fit (GoF) values: OCI = 0.674 and CIWB = 0.817. Both values exceed the 0.38 threshold for strong model fit, confirming that the proposed framework effectively explains variance in the endogenous constructs.

Direct Effects

Empowering leadership had a positive and significant direct effect on innovative work behavior (EL → CIWB: O = 0.162, t = 2.609, p = 0.009). This suggests that leadership practices emphasizing autonomy and trust can directly foster artisans' creativity, though the effect size is modest when considered independently.

Impact on Organizational Climate

The effect of empowering leadership on organizational climate for innovation was strong and highly significant (EL → OCI: O = 0.737, t = 21.299, p < 0.001). This finding underscores the pivotal role of leadership in shaping a climate that encourages experimentation, rewards creativity, and supports knowledge sharing.

Effects of OCI and CHRMS on CIWB

Both OCI and CHRMS exerted significant direct influences on innovative behavior. OCI → CIWB showed a substantial effect (O = 0.530, t = 9.617, p < 0.001), while CHRMS → CIWB was also significant (O = 0.242, t = 4.152, p < 0.001). These results confirm that an innovation-

oriented climate and collaborative HR practices independently enhance artisans' innovative actions.

Mediation Analysis

The indirect effect of EL on CIWB through OCI was significant (O = 0.390, t = 8.290, p < 0.001), indicating partial mediation. This suggests that empowering leadership primarily influences innovative behavior by creating a supportive climate for innovation, while retaining a smaller direct effect.

Moderation and Total Effects

The interaction between CHRMS and EL significantly moderated the EL → CIWB relationship (O = 0.159, t = 4.184, p < 0.001), classified as quasi-moderation. This implies that collaborative HRM practices amplify the positive impact of empowering leadership on innovative behavior. The total effect of EL on CIWB was strong (O = 0.552, p < 0.001), confirming that leadership, when combined with supportive climate and HR collaboration, is a key driver of innovation in artisan communities.

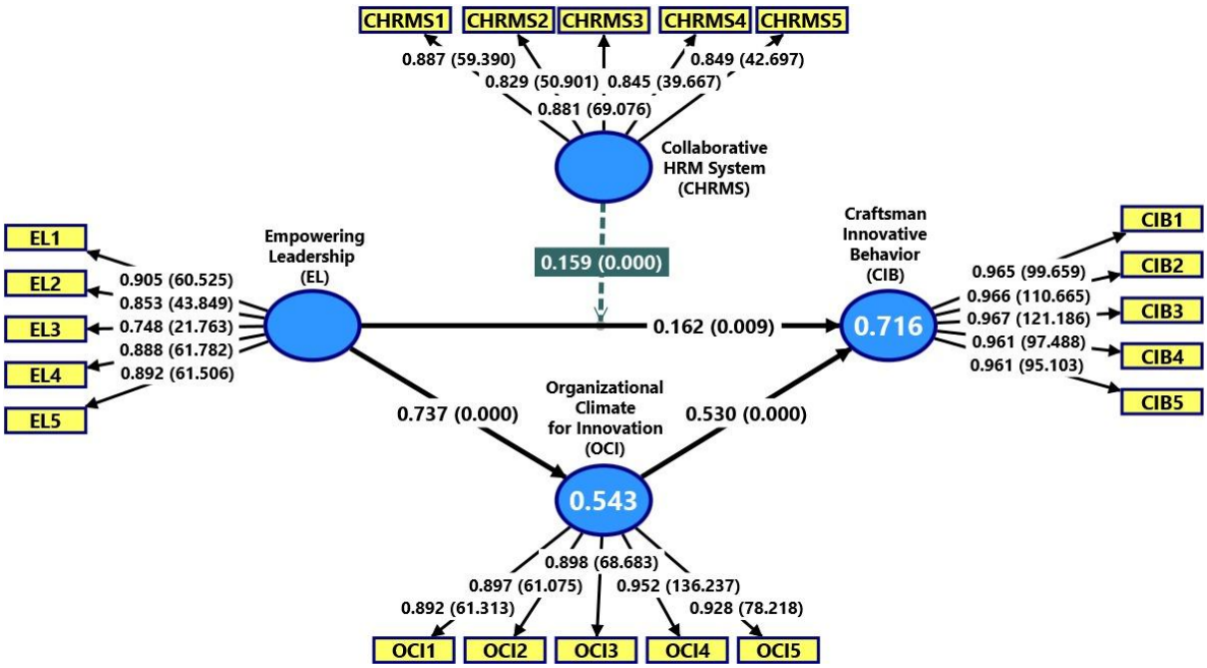

Figure 2. Internal Model Measurement Methods

Source: Author's Work, 2025.

Discussion

The findings of this study confirm that all proposed hypotheses were supported, demonstrating the critical interplay between empowering leadership, collaborative HRM systems, and organizational climate for innovation in shaping innovative work behavior among artisans. Empowering leadership and collaborative HRM practices were shown to exert both direct and indirect effects on craftsmen's creativity, reinforcing the notion that innovation in artisan communities is not solely an individual endeavor but is deeply influenced by social dynamics and collective work culture. These results align with previous studies by Hou et al. (2024) and

Guha et al. (2025), which emphasize that empowering leadership enhances creativity and engagement by fostering autonomy and confidence, while collaborative HRM systems strengthen innovation capabilities through knowledge sharing and team-based collaboration.

Organizational Climate as a Mediator

The role of organizational climate for innovation (OCI) as a partial mediator is particularly noteworthy. While empowering leadership provides autonomy and psychological empowerment, its effectiveness depends on the presence of an environment that consistently encourages experimentation, tolerates mistakes, and values creative contributions. In the context of patchwork and quilting artisans, such a climate fosters emotional safety and collaborative learning, enabling members to exchange ideas and refine prototypes without fear of failure. This finding supports the argument that leadership alone cannot guarantee innovation; rather, it must be complemented by a supportive climate that translates empowerment into tangible creative outcomes.

Collaborative HRM as a Quasi-Moderator

The study also highlights the quasi-moderating role of collaborative HRM systems in amplifying the effect of empowering leadership on innovative behavior. CHRMS provides structural and social mechanisms—such as team-based training, open communication, and shared decision-making—that transform individual empowerment into collective creativity. In artisan communities, where relationships are built on trust and solidarity, collaborative HR practices reduce hesitation and foster a culture of mutual support. This synergy ensures that empowerment does not result in isolated autonomy but becomes a catalyst for coordinated innovation, confirming insights from Engelsberger et al. (2023) and Koster (2024).

Practical Implications

From a practical perspective, these findings suggest that MSME leaders and policymakers should prioritize leadership development programs that emphasize empowerment, alongside HR strategies that promote collaboration and knowledge sharing. Building an innovation-oriented climate requires deliberate efforts to create safe spaces for experimentation and to reward creative initiatives. For artisan communities like Pelanusa, such practices can enhance competitiveness and sustainability by fostering continuous product and process innovation. Government agencies and support institutions can further strengthen these efforts through participatory leadership training and community-based innovation programs.

Theoretical Contributions

Theoretically, this study extends existing models of HRM and leadership by demonstrating their applicability in informal, community-based organizations. It underscores the importance of social and contextual factors—such as trust, shared ownership, and collaborative culture—in shaping innovation. By integrating empowering leadership, collaborative HRM, and organizational climate into a single framework, this research enriches the literature on innovation management in developing economies and highlights the unique dynamics of creative MSMEs in Indonesia.

Conclusion

The study demonstrates that empowering leadership significantly influences innovative work behavior among artisans, but this effect is not isolated. Its impact is strengthened by an organizational climate that fosters creativity, experimentation, and knowledge sharing, as well as by collaborative HRM practices that promote teamwork and open communication. The

findings confirm that innovation in community-based MSMEs is shaped by the synergy of leadership, supportive climate, and collaborative systems rather than by individual factors alone. Practically, these results suggest that leaders should focus on empowering employees while simultaneously cultivating an innovation-oriented environment and implementing HR strategies that encourage collaboration. Theoretically, the research expands existing models of leadership and HRM by validating their relevance in informal, creative communities, offering insights for future studies on innovation management in similar contexts.

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