

THE ROLE OF KNOWLEDGE SHARING IN ENHANCING HUMAN RESOURCE PERFORMANCE AND INNOVATION IN HANDICRAFT SMES

**Heri Siswanto¹, Adelya Rifdah², Najib Hadyan Vinandra³,
Feby Anggraini Musrifa⁴**

^{1,2,3,4}School of Economics, Business, and Management, Institut Teknologi Batam, Indonesia

¹siswanto@iteba.ac.id, ²adelya@iteba.ac.id, ³2531039@student.iteba.ac.id,

⁴2531035@student.iteba.ac.id

ABSTRACT

This study aims to analyze the role of knowledge sharing in supporting human resource performance and innovation at Iluh Craft Batam, a small and medium-sized enterprise (SME). The study employed a qualitative approach using a case study method. Data was collected through in-depth interviews, observations, and documentation, and analyzed using data reduction, data display, and conclusion-drawing techniques. Data triangulation was applied to enhance the credibility of the findings. The results indicate that knowledge-sharing practices are implemented through six main dimensions: experience sharing, information sharing, communication and collaboration, knowledge documentation, willingness to share, and the utilization of technology. Knowledge sharing is facilitated through community training programs, artisan mentoring, collaboration with community organizations, internship programs, and social media. Based on the SECI theory, the processes of socialization, externalization, combination, and internalization are continuously implemented, supporting knowledge transfer within the organization. The findings suggest that knowledge-sharing practices contribute to the development of human resource skills, productivity, and collaboration, while also facilitating product, process, social, and business network innovation. The study concludes that knowledge sharing plays an important strategic role in supporting human resource performance and innovation at Iluh Craft Batam and may contribute to the organization's efforts toward business sustainability.

Keywords: knowledge sharing; seci model; human resource performance; human resource innovation; SMEs

INTRODUCTION

Micro, Small, and Medium-Sized Enterprises (MSMEs) constitute one of the strategic sectors that play a vital role in national economic development. Their contribution extends beyond increasing Gross Domestic Product (GDP) to creating employment opportunities, reducing unemployment, and improving

community welfare. In the era of the knowledge-based economy, the ability of MSMEs to acquire, manage, share, and utilize knowledge has become increasingly important for enhancing innovation, competitiveness, and business sustainability (Durst et al., 2024; Ha et al., 2021). Recent studies have also demonstrated that effective knowledge

management contributes to innovation and sustainable performance among SMEs, particularly by facilitating knowledge acquisition, application, and the development of innovative capabilities (Zhang et al., 2022).

The increasingly dynamic business environment requires organizations, including MSMEs, to adapt continuously to changing market demands, technological advancements, and shifts in consumer behavior. One approach to strengthening this adaptive capability is through knowledge management. Recent studies describe knowledge management as a set of processes through which organizations acquire, document, share, and apply knowledge to support organizational activities, innovation, and performance (Durst et al., 2024; Scarso & Bolisani, 2024). In the context of SMEs, effective knowledge management enables organizations to utilize knowledge more systematically and respond more effectively to environmental changes and emerging business opportunities (Durst et al., 2024)

In practice, the success of knowledge management largely depends on an organization's ability to facilitate effective knowledge sharing. Knowledge sharing involves the exchange and dissemination

of knowledge, experience, information, and skills among individuals within an organization, allowing knowledge to be accessed and applied beyond its original source. Recent empirical studies have demonstrated that knowledge sharing contributes to organizational learning, innovation capability, and business performance by enabling employees and organizations to utilize and integrate knowledge more effectively (Pranowo et al., 2022; Zan et al., 2024). In the context of SMEs, knowledge-sharing practices have also been found to support innovation by facilitating the exchange of expertise and experiences and encouraging the development of new ideas (Hermina, 2024).

Numerous studies have demonstrated that knowledge sharing is closely associated with improved individual and organizational performance. Knowledge sharing enables individuals to acquire new knowledge, enhance problem-solving capabilities, and broaden their perspectives, thereby supporting more effective job performance (Kianto et al., 2022). Furthermore, knowledge sharing makes a significant contribution to innovation by facilitating the exchange of ideas, experiences, and information that can lead to the development of improved

products and work processes (Yeboah, 2023).

In the MSME sector, knowledge-sharing practices are particularly important because a significant portion of organizational knowledge is tacit and embedded in individuals through their experiences and expertise. When such knowledge is not effectively shared and preserved, MSMEs may face knowledge loss, operational discontinuity, and difficulties in maintaining organizational capabilities. Recent research indicates that tacit knowledge management practices, including practical training, monitoring, meetings, dialogue, and knowledge-sharing sessions, can help SMEs capture, preserve, and disseminate valuable knowledge within the organization (Adesina & Ocholla, 2024). Furthermore, tacit knowledge sharing has been shown to contribute to innovation capability by facilitating the transfer of experience and expertise among employees (Mohd Nor et al., 2024).

Although previous studies have highlighted the importance of knowledge sharing for organizational learning, innovation, and performance, there remains a limited understanding of how knowledge-sharing practices are implemented in creative and handicraft-

sector MSMEs. In particular, previous studies have paid less attention to how tacit knowledge is transferred among business owners, artisans, community members, interns, customers, and external stakeholders through everyday activities such as training, mentoring, collaboration, and practical learning. This aspect is important because knowledge in creative and handicraft businesses is often closely embedded in individual experience, practical skills, and interpersonal interactions. Therefore, examining knowledge sharing as an ongoing process within its specific organizational and social context can provide a more comprehensive understanding of how knowledge is transferred and utilized in creative MSMEs.

This research gap also provides a rationale for employing a qualitative case study approach. While previous quantitative studies have provided evidence regarding the relationships between knowledge sharing, innovation, and organizational performance, quantitative approaches may provide limited insight into the detailed processes through which knowledge is exchanged, interpreted, and applied in a specific organizational context. A qualitative case study allows the phenomenon to be

explored in depth through the experiences, interactions, and practices of the actors involved. This approach is particularly relevant for Iluh Craft Batam because knowledge sharing occurs through informal learning, mentoring, community activities, internships, collaboration, and interactions with external stakeholders. Therefore, an in-depth qualitative investigation can reveal how tacit and explicit knowledge are transferred and how these processes are perceived to support human resource performance and innovation.

One MSME that provides an interesting context for examining knowledge sharing is Iluh Craft Batam. Iluh Craft Batam is a creative handicraft enterprise that transforms various materials, including plastic waste and other recyclable materials, into handicraft products that are not only aesthetically appealing but also valuable and economically marketable. The enterprise is not solely profit-oriented; it also pursues a social mission through community empowerment initiatives and environmental conservation activities.

Based on the findings of the observations, Iluh Craft Batam originated from a social initiative that provided craft skills training to children and community

members with limited access to education. Over time, these activities evolved into a handicraft business involving various social communities, artisan groups, interns, and residents of the islands surrounding Batam. Through these activities, a continuous process of knowledge and skills transfer has been established.

Knowledge-sharing practices at Iluh Craft Batam are reflected in various activities, including community knitting skills training, mentoring team members, hosting internship participants, exchanging information on raw materials and market opportunities, and utilizing social media as a platform for communication and learning. Knowledge that was initially possessed by the business owner has gradually been transferred to other individuals, enabling them to develop new skills that generate both economic and social benefits.

In addition to contributing to the enhancement of human resource capabilities, knowledge sharing also plays a significant role in the product innovation process. Interview findings indicate that many of the product innovations developed by Iluh Craft Batam are influenced by customer feedback, market demands, and interactions with various

stakeholders involved in the business. These findings suggest that knowledge sharing occurs not only internally but also through external sources of knowledge that contribute to business development. This condition further highlights the need to examine how knowledge from different actors is exchanged, interpreted, and transformed into new knowledge and practices within the MSME context.

This phenomenon is consistent with the Knowledge Creation Theory proposed by Nonaka and Takeuchi (1995) through the Socialization, Externalization, Combination, and Internalization (SECI) model. The model explains that knowledge evolves through continuous interactions between tacit and explicit knowledge. In the context of Iluh Craft Batam, learning processes through experience, training, communication, and collaboration with various stakeholders demonstrate knowledge creation activities that provide an appropriate context for examining how knowledge-sharing practices occur through the processes of socialization, externalization, combination, and internalization, and how these processes support human resource performance and innovation.

Nevertheless, the interview findings also revealed several challenges in

knowledge management, including the absence of formal knowledge documentation, the limited availability of human resources to consistently support and carry out business activities, and the need to strengthen the business management system. These conditions indicate that there remains considerable room to improve the effectiveness of knowledge sharing in supporting future business development.

Based on the identified research gap, the contextual characteristics of Iluh Craft Batam, and the relevance of the SECI framework, this study was conducted to analyze the role of knowledge sharing in supporting human resource performance and innovation at Iluh Craft Batam, a handicraft-sector MSME. Specifically, this study explores how knowledge-sharing practices are implemented, how tacit and explicit knowledge are transferred through the SECI processes, and how these practices are perceived to support human resource performance and innovation. By employing a qualitative case study, this research seeks to provide an in-depth understanding of knowledge-sharing practices within a creative MSME context and to contribute empirical insights into the application of the SECI framework in understanding knowledge

creation and transfer among business owners, artisans, community members, interns, customers, and external stakeholders.

LITERATUR REVIEW

Knowledge Management and Knowledge Sharing

Knowledge management is a systematic organizational process involving the creation, capture, storage, sharing, and application of knowledge to support organizational activities, improve decision-making, and enhance organizational performance (Alharbi & Aloud, 2024; Durst et al., 2024). In the context of Micro, Small, and Medium-Sized Enterprises (MSMEs), effective knowledge management enables organizations to preserve valuable knowledge, enhance employee competencies, and strengthen business competitiveness. Since organizational knowledge in MSMEs is often embedded in individuals, knowledge sharing becomes a fundamental process for transferring expertise and experience across organizational members.

Recent research indicates that knowledge management in MSMEs involves a set of interconnected processes through which organizations identify,

create, capture, store, share, and apply knowledge to support organizational activities and performance. In the context of SMEs, these processes enable organizations to manage knowledge systematically despite their relatively limited resources and organizational structures (Durst et al., 2023). Knowledge management practices can be implemented through learning activities, knowledge exchange, collaboration, and the application of experience in daily business operations. Such practices enable MSMEs to preserve and utilize organizational knowledge while strengthening their capacity to adapt, innovate, and remain competitive in dynamic business environments (Mantje et al., 2023; Saputri & Utami, 2023).

Knowledge sharing refers to the process through which individuals and groups exchange and disseminate knowledge, experiences, information, and skills within an organization, enabling knowledge to be accessed, transferred, and utilized collectively. Recent research highlights knowledge sharing as an important organizational process through which knowledge is exchanged among individuals and organizational levels, supporting knowledge transfer, learning, and innovation within SMEs (AlQudah,

2023). In the context of MSMEs, effective knowledge-sharing practices can facilitate the exchange of expertise and experiences, thereby supporting innovation and organizational performance (Pertiwi et al., 2023; Wahyuda et al., 2023). Through knowledge sharing, organizations can strengthen collaboration, facilitate knowledge transfer, enhance learning, and support innovation capabilities (Zan et al., 2024). In MSMEs, where tacit knowledge is closely embedded in employees' experience and expertise, knowledge-sharing practices are important for preserving valuable organizational knowledge and reducing the risk of knowledge loss (Adesina & Ocholla, 2024).

SECI Knowledge Creation Model

The Socialization, Externalization, Combination, and Internalization (SECI) model proposed by Nonaka and Takeuchi (1995) explains how organizational knowledge is continuously created through interactions between tacit and explicit knowledge. Socialization enables tacit knowledge to be transferred through direct interaction and shared experiences. Externalization converts tacit knowledge into explicit knowledge through discussion, documentation, or

demonstration. Combination integrates various sources of explicit knowledge into new organizational knowledge, while Internalization transforms explicit knowledge into individual tacit knowledge through learning and practical experience. The SECI model provides a comprehensive framework for understanding how knowledge is created, transferred, and utilized within organizations.

Knowledge Sharing, Human Resource Performance, and Innovation

Previous studies consistently indicate that knowledge sharing positively influences human resource performance and organizational innovation. By exchanging knowledge and experience, employees can acquire new competencies, improve their work performance, enhance collaboration, and develop more effective solutions to organizational challenges (Sutrisno, 2024). Furthermore, knowledge sharing stimulates innovation by facilitating the exchange of ideas, expertise, and information that contribute to the development of new products, improved business processes, and organizational learning (Yeboah, 2023; Zan et al., 2024). Empirical evidence from SMEs further demonstrates that knowledge sharing positively influences

open innovation and innovation performance, highlighting its strategic role in strengthening organizational capabilities and competitiveness (Zan et al., 2024).

For MSMEs, effective knowledge-sharing practices are particularly important because organizational knowledge is predominantly tacit and highly dependent on individual experience. Therefore, continuous knowledge sharing supported by the SECI knowledge creation process can enhance human resource capabilities, encourage product and process innovation, and strengthen the long-term competitiveness and sustainability of MSMEs. This theoretical perspective provides the foundation for examining the role of knowledge sharing in supporting human resource performance and innovation at Iluh Craft Batam.

RESEARCH METHOD

This study employed a qualitative approach using a case study method. A qualitative approach was selected because the study aimed to gain an in-depth understanding of the practices, processes, and role of knowledge sharing in supporting human resource (HR) performance and innovation within Iluh

Craft Batam, a handicraft-sector Micro, Small, and Medium-Sized Enterprise (MSME). The case study method was adopted to explore the phenomenon within its real-life context, enabling the researchers to obtain a comprehensive understanding of the dynamics of knowledge sharing embedded in the enterprise's daily business activities.

The research focused on Iluh Craft Batam because the enterprise is characterized by its reliance on creativity, craftsmanship, and work experience throughout its production processes. The study particularly examined knowledge-sharing activities related to craft production and the interactions among individuals involved in these activities. This approach enabled the study to provide an in-depth description of the patterns and processes of knowledge sharing in accordance with the characteristics of handicraft-sector MSMEs.

Informants and Sampling

The informants were selected using purposive sampling based on their direct involvement in the activities of Iluh Craft Batam and their ability to provide relevant information concerning knowledge-sharing practices. A total of three

informants participated in the study, consisting of one business owner, one artisan, and one staff member responsible for product marketing. These informants were selected because they represented different roles within the enterprise and had direct knowledge and experience of the production and business activities examined in this study.

The inclusion criteria were: (1) having direct involvement in the activities of Iluh Craft Batam; (2) having experience in receiving, sharing, or applying knowledge related to craft production; and (3) being able to provide information relevant to knowledge sharing, human resource performance, and innovation. The business owner was selected because of their central role in managing the enterprise and transferring knowledge related to production and business activities. The artisan was selected based on their direct involvement in craft production and practical knowledge, while the marketing staff member was selected based on their involvement in product information, customer interactions, and market-related activities.

Data Collection

Data was collected using three techniques: (1) in-depth interviews; (2) observation, and (3) documentation.

In-depth interviews were conducted using a semi-structured interview format. The interviews focused on the informants' experiences and perceptions concerning knowledge-sharing practices, particularly in relation to craft production. The interview questions explored experience sharing, information exchange, communication and collaboration, knowledge documentation, willingness to share knowledge, technology utilization, and the transfer of tacit and explicit knowledge. The interviews also explored how knowledge-sharing practices were perceived to support human resource capabilities and innovation in craft production. Each interview session lasted approximately one hour, and interviews were conducted three times over a period of three months.

Observation was conducted by directly observing activities related to craft production at Iluh Craft Batam. The observations focused on how practical knowledge and skills were demonstrated, transferred, discussed, and applied during production activities. Attention was also given to interactions among individuals involved in the production process and how experience and knowledge were exchanged during daily activities. Observation notes were recorded to

document relevant activities, interactions, and contextual conditions that supported the interpretation of the interview findings.

Documentation was used to complement the interview and observation data. The documentation included relevant materials and records related to craft production and knowledge-sharing activities at Iluh Craft Batam. These documents were reviewed to identify supporting evidence concerning production activities, knowledge transfer, learning processes, and innovation.

Data Analysis

The collected data were analyzed using thematic analysis. The analysis involved a systematic process of coding, categorizing, reviewing, and interpreting patterns within the data. First, the interview data, observation notes, and relevant documentation were organized and reviewed repeatedly to develop familiarity with the data. Second, initial codes were generated by identifying meaningful statements and information related to the research objectives. The coding process focuses on knowledge-sharing practices, knowledge transfer, human resource capabilities, innovation,

and factors influencing knowledge sharing in craft production.

Third, related codes were grouped into categories and potential themes. The themes were subsequently reviewed by comparing them with the original data to assess their consistency, relevance, and distinctiveness. Themes that overlapped or lacked sufficient supporting evidence were refined, combined, or excluded. Finally, the major themes were defined and interpreted to explain the patterns and processes of knowledge sharing at Iluh Craft Batam.

The SECI model was used as a theoretical lens for interpreting the themes identified from the data rather than as a predetermined set of findings. After the initial coding and development of themes, the researchers interpreted the knowledge-sharing processes using the four dimensions of the SECI model: Socialization, Externalization, Combination, and Internalization. This approach allowed the researchers to examine how tacit and explicit knowledge were transferred and transformed through experience sharing, communication, collaboration, learning, and practical application in craft production. Thus, the SECI model supported the interpretation of the empirical findings while allowing

themes to emerge from the informants' experiences and the observed research context.

The analysis consisted of three broader stages: (1) data reduction, which involved selecting, simplifying, coding, and focusing the data obtained from interviews, observations, and documentation; (2) data presentation, in which the coded data and emerging themes were systematically organized and presented in narrative form to facilitate the identification of patterns and relationships; and (3) conclusion drawing and verification, which involved interpreting the identified themes, comparing them with the research objectives and SECI framework, and verifying the consistency of the findings across different data sources.

Trustworthiness of the Data

To ensure the trustworthiness of the findings, this study employed source triangulation and method triangulation. Source triangulation was implemented by comparing information obtained from the three informants, namely the business owner, artisan, and marketing staff member. The information provided by the informants was further validated by comparing it with information obtained

from the community empowerment activities associated with Iluh Craft Batam. This process was used to assess the consistency of information concerning knowledge-sharing activities, particularly those related to craft production and community empowerment.

Method triangulation was conducted by comparing findings obtained through interviews, observations, and documentation. Information reported by informants was compared with the activities observed during the research and with relevant documentary evidence. When differences or inconsistencies were identified, the researchers conducted further clarification and comparison with the available information from the informants, observations, and community empowerment activities before determining the interpretation used in the findings. This process was undertaken to strengthen the credibility and consistency of the research findings.

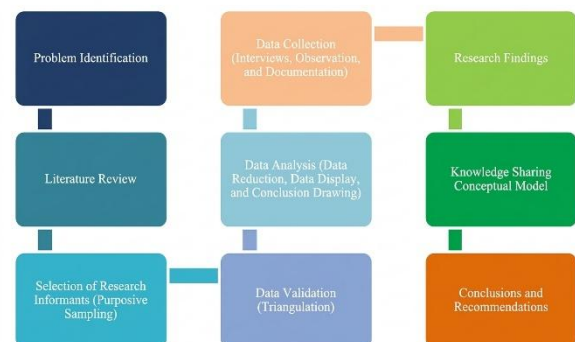


Figure 1. Research Framework

RESULT AND DISCUSSION

Knowledge Sharing Practices at Iluh Craft Batam

The analysis identified six dimensions of knowledge-sharing practices at Iluh Craft Batam: experience sharing, information sharing, communication and collaboration, knowledge documentation, willingness to share, and technology utilization. These dimensions were derived from recurring patterns identified through interview data, observation notes, and supporting documentation. The themes were not treated as predetermined categories; rather, they emerged through the coding and categorization process. The themes were subsequently interpreted using the SECI model as a theoretical lens to understand how tacit and explicit knowledge were transferred and transformed within the enterprise.

The knowledge-sharing practices identified in this case are closely connected with the community-oriented development of Iluh Craft Batam. Businesses initially emerged from the owner's social activities, particularly teaching children who had limited opportunities to access education. The activity subsequently expanded through collaboration with social communities and

communities across several islands, where craft skills were shared and participants were invited to become part of the production network.

The owner explained: "At first, I only taught kindergarten children who did not have the opportunity to study. Then I met several communities involved in social activities, and the activities continued to several islands. There, I taught them handicrafts, and some of them eventually became part of my team." (Owner, Interview, 2026)

This account illustrates that knowledge sharing at Iluh Craft Batam developed alongside the expansion of its community network. Rather than being limited to formal employees, knowledge was shared with community members who subsequently became involved in craft production and related activities.

Experience Sharing

Experience sharing represents a prominent form of knowledge sharing at Iluh Craft Batam. The owner's knitting skills were initially acquired through informal learning within the family. She learned by observing her mother, who had basic sewing and crafting skills, and subsequently developed her own knitting abilities through independent practice.

The owner described her learning process: “I initially learned by watching my mother. She had basic skills in sewing and making crafts. I started from zero and prepared all the materials myself while continuously practicing.” (Owner, Interview, 2026)

The quotation indicates that the knowledge underlying the business was initially acquired through observation and hands-on practice. The owner subsequently transferred this experiential knowledge to other individuals who were interested in learning knitting.

The knowledge-sharing process continued through informal training and mentoring. As the owner explained:

“I share my knowledge with people who really want to learn knitting. If they have the capital, I also offer to help them sell their products. If they are willing, they can eventually become part of my team.” (Owner, Interview, 2026)

These findings show that experiential knowledge is transferred through direct instruction and practical learning. The process also creates opportunities for knowledge recipients to apply the acquired skills in production and, in some cases, become involved in the broader production network.

Information Sharing

Knowledge sharing is also carried out through the exchange of information concerning raw materials, production activities, market opportunities, customers, and external networks. The enterprise maintains relationships with communities across approximately 30 islands, which provide access to materials and information that may not be readily available in Batam City.

The owner explained: “I also work with people on the islands because some materials are not available in the city. I work with people there to help receive and keep the materials before they are brought back.” (Owner, Interview, 2026)

This practice illustrates how external networks function as sources of information and logistical support. Knowledge sharing therefore extends beyond the immediate production team and involves relationships with communities and partners across geographical boundaries.

The case also indicates that the enterprise's development has been supported by an expanding external network. What initially began through small bazaars subsequently developed into participation in activities across different cities and countries. The owner reported that the products have reached

international destinations, including Singapore and Paris. These experiences provide additional channels through which information, market exposure, and ideas can be exchanged.

Communication and Collaboration

Communication and collaboration constitute important mechanisms through which knowledge is exchanged at Iluh Craft Batam. The interactions involve the owner, craft makers, community members, interns, customers, and external partners. Training activities and practical collaboration provide opportunities for participants to exchange ideas, demonstrate skills, and learn through direct interaction.

The owner explained that the enterprise does not operate with a conventional employee structure: “This business does not have permanent employees. There are people who are willing to keep developing and preserving these knitted products. Usually there are around five to seven people, although only about three are consistently involved.” (Owner, Interview, 2026)

This finding suggests that the production structure is relatively flexible and relies on a network of individuals rather than a fixed employee structure.

Such a structure creates a context in which communication and interpersonal relationships become important for coordinating production activities.

The enterprise also accepts university students for internships, particularly those interested in learning knitting. One of the institutions that has participated in the internship program is Universitas Internasional Batam (UIB). These activities provide an additional setting for knowledge exchange between the enterprise and educational institutions.

Knowledge Documentation

Knowledge documentation remains an area requiring further development at Iluh Craft Batam. The interview identified management as one of the areas that still require improvement. At the same time, much of the craft knowledge is transferred directly through demonstration, practice, and mentoring.

The owner identified management as one of the challenges faced by the enterprise: “The management still needs to be improved. We also need a team that can stay and consistently help with the business.” (Owner, Interview, 2026)

This finding suggests that knowledge management at the enterprise remains strongly dependent on interpersonal

interaction and the experience of individuals involved in the production process. The limited availability of a consistent team may also make systematic documentation and standardization of production knowledge more challenging.

Accordingly, the case illustrates a knowledge-sharing environment in which tacit knowledge remains important. However, further evidence would be required to determine the extent to which formal documentation mechanisms such as SOPs are absent or underdeveloped.

Willingness to Share

Willingness to share emerged as an important contextual condition underlying knowledge-sharing practice at Iluh Craft Batam. The enterprise's development was initially connected to the owner's intention to provide learning opportunities for children and subsequently expanded into craft training for community members.

The owner explained: "At first, I only wanted to teach children who did not have the opportunity to study. Then the activity developed as I met communities involved in social activities, and I continued teaching handicrafts to people in several islands." (Owner, Interview, 2026)

The account indicates that knowledge sharing is embedded in a broader social

orientation rather than being limited to the transfer of production skills for commercial purposes. The owner also shares knitting skills with individuals who are interested in learning and provides opportunities for some participants to become involved in the production network.

Thus, willingness to share provides an important contextual condition for the continuation of knowledge-sharing activities in this case. The finding does not imply a statistically established causal relationship but rather reflects a recurring pattern identified in the interview data.

Technology Utilization in Knowledge Sharing

Technology provides another channel for knowledge sharing and external interaction at Iluh Craft Batam. The enterprise actively uses social media platforms, particularly Instagram and Facebook, to communicate information about its products and maintain contact with customers and external audiences.

The use of digital platforms complements face-to-face interaction and community-based networks by providing an additional channel for information exchange and product promotion. In the context of product development, customer interaction through these channels may

also provide feedback that can be considered in subsequent product development.

The findings therefore indicate that technology functions as a supporting channel for knowledge sharing, particularly in connecting the enterprise with customers and broader external networks.

Table 1. Knowledge Sharing Practices at Iluh Craft Batam

No.	Knowledge Sharing Dimension	Main Findings
1	Experience Sharing	Knitting training provided to community members and team members
2	Information Sharing	Exchange of information regarding raw materials, production, and market opportunities
3	Communication	Interaction with communities, customers, and internship participants
4	Knowledge Documentation	No formal knowledge documentation system has been established
5	Willingness to Share	Strong commitment of the business owner to sharing knowledge and skills
6	Technology Utilization	Use of Instagram and Facebook as platforms for information sharing

The six dimensions of knowledge-sharing practices identified in Table 1

emerged from recurring patterns in the interview data, observation findings, and supporting documentation. The dimensions were developed through the coding and categorization process rather than being treated solely as predetermined categories. Repeated references to learning through practice were categorized as experience sharing; exchanges concerning materials, production, and markets were categorized as information sharing; interactions among the owner, artisans, communities, customers, and other participants were categorized as communication and collaboration; the absence of formal records was categorized as knowledge documentation; the owner's motivation to share skills was categorized as willingness to share; and the use of digital platforms was categorized as technology utilization. These categories were subsequently reviewed and refined to represent the main patterns of knowledge-sharing practices observed at Iluh Craft Batam.

The Role of Knowledge Sharing in Supporting Human Resource Performance

The findings indicate that knowledge-sharing activities are associated with several aspects of human resource development and performance within the Iluh Craft Batam case. These aspects

include skills development, production capability, collaboration, learning, and community empowerment.

Through training and mentoring, individuals who initially had limited knitting skills were able to develop practical abilities to produce handicraft products. The owner described the process of transferring skills to other individuals: “I share my knowledge with people who really want to learn knitting. If they have the capital, I offer to help them sell their products, and those who are willing can become part of my team.” (Owner, Interview, 2026)

This account illustrates how knowledge transfer may be followed by opportunities for participants to apply their skills in production and entrepreneurial activities. The relationship is therefore interpreted as a pattern observed within the case rather than as a statistically established causal effect.

The production process also requires different individuals to contribute at different stages. According to the interview, some craft makers produce the initial handicraft components, while final finishing remains under the owner's supervision. One product may require approximately one week to complete, while the preparation of knitted sheets

may take approximately three to five days. These findings illustrate how practical knowledge and skills are distributed across the production process.

The case also includes university interns who participate because of their interest in learning knitting. Such activities provide an additional context for developing practical skills through direct experience.

Table 2. The Role of Knowledge Sharing in Human Resource Performance

No.	Human Resource Performance Aspect	Research Findings
1	Skills Development	Community members acquired knitting and handicraft production skills
2	Productivity	Participants became capable of producing handicraft products independently
3	Collaboration	Collaboration was established among artisans, community members, and business partners
4	Community Empowerment	New economic opportunities were created for community members
5	Learning	Continuous knowledge transfer was achieved through knowledge-sharing activities

These findings demonstrate that knowledge sharing not only enhances individual capabilities but also supports community empowerment as an integral component of human resource development.

The Role of Knowledge Sharing in Supporting Human Resource Innovation

The findings indicate that knowledge sharing is associated with several forms of innovation at Iluh Craft Batam, including product, process, social, network, and customer-driven innovation. These forms of innovation emerge from interactions among the owner, craft makers, customers, community members, business partners, and other external actors.

Customer feedback represents an important source of ideas for subsequent product development. The owner explained: “Customers give criticism, suggestions, and other ideas, and I collect these inputs for the development of the next handicraft products.” (Owner, Interview, 2026)

This finding illustrates a customer-driven dimension of innovation in which knowledge obtained from customers is considered during subsequent product development. Innovation in this case therefore emerges partly through interaction with external knowledge sources.

The enterprise also develops products using alternative materials, including recycled plastic waste and metal can lids. The owner reported that the enterprise collaborates with waste banks and cafés in

obtaining materials such as can lids. The use of these materials illustrates how knowledge and resources obtained through external networks can be incorporated into handicraft production.

Process innovation is also reflected in the collaborative production arrangement. Some craft makers produce the initial components, while the owner remains responsible for the finishing process. This arrangement allows production activities to be distributed among different participants while maintaining quality control at the finishing stage.

The enterprise's collaboration with communities across approximately 30 islands represents another dimension of network-based innovation. These relationships support access to materials, information, and broader networks. The development of the business from small bazaars to activities involving different cities and countries also illustrates the expansion of its external network.

Social innovation is reflected in the provision of craft training for community members and internship opportunities for students interested in learning knitting. In this respect, innovation is not limited to commercial products but also involves the development of community-oriented

activities through which craft knowledge is shared and applied.

Overall, the findings indicate that knowledge sharing provides an important context for innovation activities at Iluh Craft Batam. However, because this study examines a single case qualitatively, the findings should be interpreted as patterns observed within the case rather than as evidence of a general causal relationship between knowledge sharing and innovation.

Table 3. The Role of Knowledge Sharing in Human Resource Innovation

No.	Innovation Type	Research Findings
1	Product Innovation	Development of knitted and recycled handicraft products
2	Process Innovation	Collaborative production involving craft makers and the business owner
3	Social Innovation	Craft training for community members and internship opportunities for students
4	Network Innovation	Collaboration with communities across approximately 30 islands
5	Customer-Driven Innovation	Product development informed by customer feedback

The study found that knowledge-sharing practices at Iluh Craft Batam are implemented through various activities, including experience sharing, information sharing, communication and collaboration, knowledge documentation,

willingness to share, and technology utilization. These findings support Yeboah, (2023), who conceptualizes knowledge sharing as an organizational process involving the exchange and utilization of knowledge. However, the present case extends this perspective by showing that knowledge sharing in a handicraft MSME is not confined to formal organizational members. At Iluh Craft Batam, knowledge is exchanged among the business owner, craft makers, community members, interns, customers, and external partners. This broader network reflects the community-oriented nature of the enterprise and provides a contextual dimension that is less visible when knowledge sharing is examined primarily within formal organizational structures.

From the perspective of the SECI model proposed by Nonaka and Takeuchi (1995), the socialization process is reflected in the way the business owner acquired knitting knowledge through observing her mother and developing the skill through direct practice. The knowledge was initially tacit and experience based. Externalization is reflected in the transfer of knitting skills to community members, craft makers, and internship participants through training,

mentoring, and practical demonstration. In this process, knowledge that had been embedded in the owner's experience was articulated and shared with others.

The combination process is reflected in the integration of information obtained from customers, communities, and business partners. Such information is considered in product development and business activities. The internalization process occurs when individuals who receive training apply the acquired knowledge and skills in practical production activities. These findings provide empirical illustrations of the four SECI processes within the context of a handicraft MSME.

The case also provides a contextual illustration of how SECI-related processes may operate across organizational and community boundaries. Unlike knowledge creation that may primarily be examined within formal organizational structures, the knowledge-sharing process observed at Iluh Craft Batam involves a broader community-based network consisting of the business owner, craft makers, community members, interns, customers, and external partners. This finding extends the contextual application of the SECI model by illustrating that knowledge transfer may take place

through informal learning, practical demonstration, mentoring, customer interaction, and community collaboration. The findings are particularly relevant to MSMEs where production knowledge is strongly embedded in practical experience and interpersonal relationships.

The findings concerning human resource performance show a pattern of knowledge-sharing activities being associated with skills development, production capability, collaboration, learning, and community empowerment. This pattern supports previous research by Kianto et al. (2022) and Hussinki et al. (2024), which links knowledge sharing with competencies, productivity, and work-related performance. However, the present case provides a broader contextual perspective because the recipients of knowledge are not limited to formal employees. Community members and interns also participate in knowledge-sharing activities and apply the acquired skills in practical activities. Thus, the findings extend the discussion of knowledge sharing and human resource development by illustrating how knowledge-sharing practices may simultaneously support individual skill development and community

empowerment within a small handicraft enterprise.

The findings also identify several forms of innovation, including product, process, social, network, and customer-driven innovation. These findings support previous research by AlQudah (2023), Usai et al. (2023), and Zan et al. (2024), which emphasizes the importance of knowledge sharing in organizational innovation. However, the present case provides a more specific illustration of how different knowledge sources are incorporated into innovation activities within a handicraft MSME. Customer feedback is used as an input for subsequent product development, alternative materials such as recycled plastic waste and metal can lid are incorporated into handicraft products, and collaboration with communities across approximately 30 islands provides access to materials, information, and external networks.

This finding extends the existing discussion by demonstrating that innovation in a small handicraft enterprise is not limited to the development of new products. It also includes changes in production arrangements, community-oriented activities, network development, and responses to customer input. The

findings therefore provide a contextual understanding of how knowledge obtained from internal and external actors can be incorporated into different forms of innovation. At the same time, the findings should not be interpreted as evidence that knowledge sharing independently causes innovation, because the present study focuses on patterns identified within a single qualitative case.

An important finding concerns the relationship between knowledge sharing and organizational knowledge management. Although knowledge sharing is actively practiced through training, mentoring, communication, and external collaboration, the enterprise still faces challenges related to management, team availability, raw-material supply, and capital. This condition illustrates that active interpersonal knowledge sharing may coexist with limitations in formalizing and sustaining organizational knowledge. In the Iluh Craft Batam case, practical and tacit knowledge remains particularly important because craft skills are primarily transferred through observation, demonstration, and hands-on practice.

Overall, the findings confirm several aspects of previous research concerning the role of knowledge sharing in learning,

human resource development, and innovation. At the same time, the case extends existing understanding by demonstrating how these processes operate within a community-based handicraft MSME involving actors beyond formal organizational boundaries. The SECI framework helps explain how knowledge is transferred and transformed through socialization, externalization, combination, and internalization, while the empirical findings highlight the importance of community networks, customer interaction, practical learning, and interpersonal relationships in this process.

Based on these findings, the conceptual model was developed to represent the relationships identified within the Iluh Craft Batam case. Willingness to share appears as an important contextual condition for knowledge-sharing activities. These activities include experience sharing, information exchange, communication, collaboration, practical learning, and technology utilization. The knowledge transferred through these activities is reflected in the development of human resource capabilities and the innovation activities identified in the case. These processes collectively support knowledge

development and innovation within the enterprise.

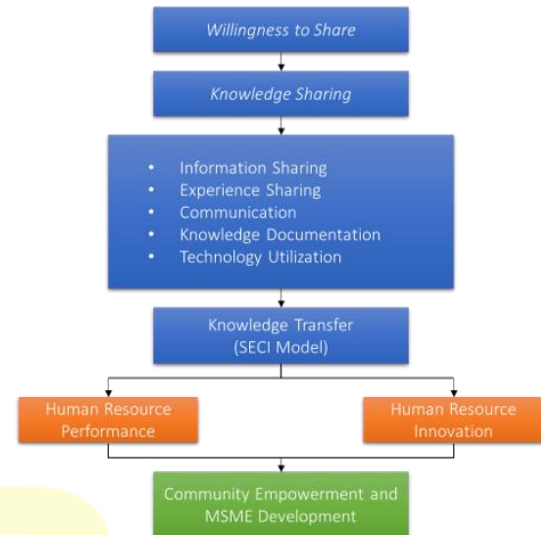


Figure 2. Conceptual Model of Research Findings

The relationships presented in the conceptual model were derived from recurring patterns in the qualitative data and interpreted through the SECI framework. The model therefore represents an empirically grounded interpretation of the Iluh Craft Batam case rather than a statistically tested causal model. The relationships shown in the model should be understood as interpretive patterns identified from the qualitative evidence and should not be interpreted as evidence of statistically established causal effects or as directly generalizable relationships across MSMEs.

CONCLUSION

Based on the research findings and discussion, the study concludes that knowledge-sharing practices at Iluh Craft Batam are reflected in six dimensions: experience sharing, information sharing, communication and collaboration, knowledge documentation, willingness to share, and technology utilization. Knowledge sharing takes place through informal training, mentoring, social initiatives, collaboration with artisan and community networks, internship activities, and digital communication. The findings also indicate that knowledge sharing extends beyond formal organizational boundaries, involving the business owner, craft makers, community members, interns, customers, and external partners.

The findings further indicate that knowledge-sharing activities are associated with the development of human resource capabilities at Iluh Craft Batam. These activities are reflected in skills development, production capabilities, collaboration, continuous learning, and community empowerment. Through training, mentoring, and practical learning, community members and other participants have opportunities to develop

handicraft skills and apply them in production and related activities.

Knowledge sharing is also associated with several forms of innovation, including product, process, social, network, and customer-driven innovation. Customer feedback, external networks, alternative materials, collaborative production, and community-based activities provide sources of knowledge and resources that are incorporated into innovation activities. From the SECI perspective, socialization, externalization, combination, and internalization can be observed in the knowledge-sharing practices identified in the case. The conceptual model developed from these findings therefore illustrates knowledge sharing as an interconnected process involving willingness to share, knowledge-sharing activities, human resource capability development, and innovation.

However, the relationships identified in this study represent recurring patterns within the Iluh Craft Batam case rather than statistically established causal relationships. The findings should therefore be interpreted within the specific context of this community-based handicraft MSME and should not be understood as evidence that knowledge

sharing independently causes human resource performance or innovation.

This study has several limitations. First, it employed a single-case study focusing on Iluh Craft Batam; therefore, the findings are context-specific and may not be directly generalizable to other MSMEs or creative-sector organizations. Second, the study involved a limited number of informants and relied primarily on qualitative data obtained through interviews, observations, and documentation. Consequently, the findings reflect the experiences and practices identified within the research context and may not capture all perspectives within the organization. Future research could examine similar knowledge-sharing mechanisms in other handicraft MSMEs and creative-sector organizations across different geographical and organizational contexts. Comparative studies involving multiple MSMEs could provide broader insights into how knowledge-sharing practices are connected with human resource development and innovation in different business settings.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to Institute

Teknologi Batam (ITEBA) for its support through the Institute for Research and Community Service (LPPM ITEBA), which funded this research under the Internal Research Grant Contract No. 005/LPPM/KP-ITEBA/V/2026.

REFERENCES

- Adesina, A. O., & Ocholla, D. N. (2024). Tacit knowledge management strategies of small-and-medium-sized enterprises: An overview. *South African Journal of Information Management*, 26(1), 1–12. <https://doi.org/10.4102/sajim.v26i1.1711>
- Alharbi, G. L., & Aloud, M. E. (2024). The effects of knowledge management processes on service sector performance: Evidence from Saudi Arabia. *Humanities and Social Sciences Communications*, 11, 378. <https://doi.org/10.1057/s41599-024-02876-y>
- AlQudah, N. F. (2023). Knowledge Sharing and Innovation in Business Organization: A Literature Review. *Human Systems Management*. <https://doi.org/10.3233/HSM-220081>
- Durst, S., Edvardsson, I. R., & Foli, S. (2023). Knowledge management in SMEs: A follow-up literature review. *Journal of Knowledge Management*, 27(11), 25–58. <https://doi.org/10.1108/JKM-04-2022-0325>
- Durst, S., Foli, S., & Edvardsson, I. R. (2024). A systematic literature review on knowledge management in SMEs: Current trends and future directions. *Management Review Quarterly*, 74(1), 263–288.

- <https://doi.org/10.1007/s11301-022-00299-0>
- Ha, S. T., Lo, M. C., Suaidi, M. K., Mohamad, A. A., & Razak, Z. Bin. (2021). Knowledge management process, entrepreneurial orientation, and performance in SMEs: Evidence from an emerging economy. *Sustainability*, 13(17), 9791. <https://doi.org/10.3390/su13179791>
- Hermina, T. (2024). Unlocking innovation in coffee SMEs: The transformative power of knowledge sharing. *Jurnal Wacana Ekonomi*, 23(1), 68–74. <https://doi.org/10.52434/jwe.v23i1.3839>
- Hussinki, H., Ritala, P., Vanhala, M., & Kianto, A. (2024). Intellectual Capital, Knowledge Management Practices, and Organizational Performance: A Contemporary Review. *Journal of Intellectual Capital*, 25(1), 1–24.
- Kianto, A., Saenz, J., & Aramburu, N. (2022). Knowledge-Based Human Resource Management Practices, Intellectual Capital, and Innovation Performance. *Journal of Business Research*, 139, 1074–1085.
- Mantje, M. P., Rambe, P., & Ndofirepi, T. M. (2023). Effects of knowledge management on firm competitiveness: The mediation of operational efficiency. *South African Journal of Information Management*, 25(1), 1–10. <https://doi.org/10.4102/sajim.v25i1.1549>
- Mohd Nor, I. N., Abdullah, M. H., Hashim, H. Z., & Osman, N. S. (2024). Tacit knowledge sharing as a catalyst for innovation capability in small and medium enterprises (SMEs) in the Malaysian furniture industry. *Journal of Entrepreneurship and Business*, 12(1), 17–31. <https://doi.org/10.17687/jeb.v12i1.1186>
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press.
- Pertiwi, W., Setyawati, S. M., & Anggraeni, A. I. (2023). Transformational leadership, digital literacy, propensity to trust, and creativity of MSMEs: Mediating effects of knowledge sharing. *The Journal of Behavioral Science*, 18(3), 83–100.
- Pranowo, A. S., Irawan, T. T., Siregar, Z. M. E., & Jaya, R. I. K. (2022). Knowledge sharing, organizational learning capability, open innovation, and business performance: Evidence from food and beverage SMEs in Indonesia. *International Journal of Social Science and Business*, 6(4), 561–573. <https://doi.org/10.23887/ijssb.v6i4.51214>
- Saputri, M. E., & Utami, F. N. (2023). Knowledge management on Bandung MSMEs in the digital era. *Proceedings of the Conference on Digital Humanities 2022*, 7–14. https://doi.org/10.2991/978-2-494069-69-5_2
- Scarso, E., & Bolisani, E. (2024). Knowledge management processes and innovation phases: Insights from metalworking SMEs. *Knowledge Management Research & Practice*, 22(4), 377–387. <https://doi.org/10.1080/14778238.2023.2213834>
- Sutrisno. (2024). The performance of workers through knowledge sharing

- and knowledge management: A quantitative analysis of SMEs. *Edelweiss Applied Science and Technology*, 8(3), 57–71. <https://doi.org/10.55214/25768484.v8i3.1092>
- Usai, A., Fiano, F., Petruzzelli, A. M., Paoloni, P., Briamonte, M. F., & Orlando, B. (2023). Unveiling the Impact of Knowledge Management Practices on Innovation Performance: A Systematic Literature Review. *Journal of Knowledge Management*, 27(2), 489–517.
- Wahyuda, O., Syukur, M. H. A., Purmono, B. B., Pebrianti, W., & Setiawan, H. (2023). Empowerment of Indonesian MSME business performance: An empirical analysis of knowledge sharing and innovation. *International Journal of Scientific Research and Management*, 11(1), 4458–4467. <https://doi.org/10.18535/ijssrm/v11i01.em06>
- Yeboah, M. (2023). Knowledge Sharing Behaviour and Innovation Capability in Organizations: A Review of Empirical Evidence. *Management Research Review*, 46(8), 1125–1143.
- Zan, F., Leong, Y. C., Ismail, N. A., Chu, M., Saif, A. N. M., & Islam, K. M. A. (2024). Knowledge sharing and innovation performance: The mediating role of open innovation. *Global Business and Organizational Excellence*, 43(3), 32–45. <https://doi.org/10.1002/joe.22235>
- Zhang, Y., Khan, U., Lee, S. M., & Salik, M. (2022). The influence of management innovation on firm performance. *Journal of Business Research*, 139, 248–260. <https://doi.org/10.1016/j.jbusres.2021.09.032>