



Unlocking Innovation in Coffee SMEs: The Transformative Power of Knowledge Sharing

Tinneke Hermina¹

¹ Universitas Garut

tinneke.hermina@uniga.ac.id

Abstract

This study investigates the impact of knowledge sharing on individual innovation capability within coffee Small and Medium Enterprises (SMEs) in Kab. Garut. Utilizing a quantitative research design, the study employs descriptive and associative approaches to analyze data collected via surveys and interviews. The findings, based on SPSS analysis of responses from coffee SME employees, confirm that knowledge sharing significantly enhances individual innovation capability. Specifically, the dimensions of knowledge collecting and donating were examined, with knowledge donating showing a more substantial positive influence. This research corroborates existing literature suggesting that effective knowledge management practices not only foster individual innovation but also enhance overall organizational performance. Recommendations include strengthening knowledge-sharing practices, enhancing technology training, encouraging proactive knowledge donation, and implementing comprehensive knowledge management systems. The study's outcomes suggest that fostering an environment rich in shared knowledge and skills is pivotal for sustaining innovation and competitiveness within SMEs.

Kata kunci: Knowledge Sharing; Individual Innovation Capability; Coffee SMEs; Organizational Performance.

1 Introduction

Indonesia, as one of Southeast Asia's largest economies, continues to demonstrate resilience in its economy amid challenging global conditions. According to data from the Central Bureau of Statistics (BPS), Indonesia's economy in the second quarter of 2022 recorded impressive growth of 5.44% year-on-year, an increase from the previous growth rate of 5.01% year-on-year (Global Data, 2022). This significant growth is particularly noteworthy given the global economic slowdown, accompanied by rising inflation pressures and geopolitical uncertainty, notably the conflict between Russia and Ukraine. These factors have contributed to global economic uncertainty, driven inflation in many countries, and threatened a potential recession in 2023.

In facing the prolonged COVID-19 pandemic, Indonesia's industrial sector, especially Small and Medium Enterprises (SMEs), has played a crucial role in maintaining economic growth momentum. The sector has not only managed to sustain its business operations but also demonstrated significant progress as reflected in the rise of the Purchasing Manager's Index (PMI) for the manufacturing industry. In August 2020, this index reached a level of 50.8 and continued to increase, peaking at 53.7 in September 2022 (Kementerian Koordinator Bidang

Perekonomian, 2024). These figures indicate that the manufacturing sector continues to evolve and adapt despite facing various obstacles.

However, despite strengths in economic growth and industrial capacity, Indonesia faces significant challenges in the context of globalization and trade liberalization. The ASEAN-China Free Trade Area (ACFTA) agreement has opened domestic markets to competition with international products, requiring SME actors not only to compete with domestic producers but also with producers from other countries who may have technological advantages, economies of scale, or better access to raw materials (ASEAN, 2016). Additionally, there are concerns about the capacity for innovation, which is key to maintaining and enhancing competitiveness. According to the 2022 Global Innovation Index, Indonesia remains at a relatively low rank, 75 out of 100 countries, with a score of 27.9. The sub-indices for human resources and business environment are even lower, at 90 and 92, respectively (ASEAN, 2016). These figures indicate a significant deficiency in the quality of human resources and the conditions of the business environment that support innovation and technological development.

From a specific industry perspective, coffee is one commodity that has garnered special attention. As one of the world's largest coffee producers, Indonesia faces challenges not only in increasing production volume but also in improving the quality and added value of the coffee products produced. The coffee industry in Indonesia has undergone a significant transformation with the emergence of coffee shop trends and a significant increase in domestic consumption. However, this sector still needs to overcome major barriers including knowledge and technology in producing quality coffee and developing broader markets (Citrasari et al., 2022; Putra & Pramusiwi, 2023).

Considering the existing conditions, this research is designed to address various challenges faced by SMEs in the context of globalization and increasing competitive pressure. The primary goal of this research is to understand the internal and external dynamics affecting the competitiveness of SMEs in the global economy, particularly through the lens of innovation and capacity development. This study also aims to identify potential obstacles in improving the quality and efficiency of production in the coffee sector, as a case study that can provide broader insights into the agro-industrial sector in Indonesia.

The novelty of this research lies in the integration of industrial economic theory with management practices and technology in the context of free trade policy. This includes a thorough analysis of how trade policies affect the strategic choices made by SMEs and how these subsequently influence their innovative capacity and operational sustainability. Through this approach, the research is expected to provide evidence-based and practical recommendations for stakeholders in government and industry in formulating effective strategies to support SMEs in Indonesia.

2 Literature Review

2.1 Knowledge Sharing

Knowledge management is broadly defined as a formal or informal policy process aimed at facilitating decision-making through the understanding, distribution, creation, and application of knowledge. Walczak's definition, as cited by Intezri (2017), underscores knowledge as a critical organizational asset. Expanding upon this definition, Saputra et al. (2017) describe knowledge management as an effort to enhance the functionality of knowledge within a group or organization. This involves fostering a culture of communication among employees, providing opportunities for learning, and engaging in knowledge sharing, which collectively sustain and increase business competency through the strategic use of information technology.

Knowledge sharing, a vital component of knowledge management, involves interactions among individuals to acquire and communicate knowledge, primarily through human interactions, as described by Rugian et al. (2017). Sakti et al. (2020) further define it as a social interaction culture

that facilitates the transfer of knowledge within an organization, thereby creating a collaborative base necessary for effective teamwork. Van den Hoof and De Ridder's conceptualization (as noted in Nurhayati et al., 2019) portrays knowledge sharing as a process wherein individuals exchange both tacit knowledge—derived from practice and experience—and explicit knowledge—rooted in theoretical understanding—to generate new insights. This exchange is crucial for fostering innovation and maintaining competitive advantage in organizations.

Putra & Pramusiwi (2023) point out that knowledge sharing serves as a stage in knowledge management where group or organizational members share knowledge, ideas, techniques, and experiences. Chao-Sen, as mentioned by (Putra & Pramusiwi, 2023) views knowledge sharing as a dynamic process of exchanging thoughts and learning, which not only imparts knowledge but also enhances an individual's excellence. Further illustrating the concept, (Abimanyu & Prakasa, 2022) describes knowledge sharing as a method where individuals engage in discussions and exchange ideas, including both know-what and know-how, which are vital for sustaining organizational competitiveness. In the realm of organizational behavior, Chaudhary et al. (2021) recognize knowledge sharing as a mutually beneficial activity for employees and employers, where expertise, skills, and information are exchanged among employees, enriching the organizational knowledge pool. Basit et al. (2019) emphasize that knowledge sharing enhances individual competencies within a group or organization, enabling the dissemination, application, and development of both tacit and explicit knowledge.

2.2 Innovation Capability

Innovation is essential for organizations aiming to maintain competitiveness in the challenging economic landscape. It involves creating new products, methods, or market shares to enhance organizational capabilities. Individual factors significantly impact and correlate strongly with organizational innovation (Rumanti, 2018). Traditionally viewed both as a result and a process, innovation involves introducing new products, services, and procedures to add value and secure competitive advantages. As a process, it encompasses discovering and implementing new management practices, methods, or techniques that help a company achieve its goals. As a result, it refers to the market introduction of new products or the first implementation of a new process (Pradana & Safitri, 2023)

Innovation capability refers to an organization's ability to transform knowledge and ideas into new processes or systems. An innovative individual can consistently adopt and integrate new ideas throughout their career (Wang et al., 2020). Innovation Capability (IC) can be interpreted as the skill or ability to develop new products that meet market demands and to implement efficient technology-based procedures derived from tacit innovation ideas. It also includes the capability to respond to unexpected technological changes due to market disruptions. Individual Innovation Capability is defined as the readiness and skill of employees to adopt new things and generate ideas that achieve personal or organizational goals (Purwati et al., 2020). This capability not only helps individuals address problems within their tasks, improving work quality and quantity, but also includes the development of new and beneficial ideas, processes, or products as evaluated by relevant others (Aulawi, 2018; Basit et al., 2019; Hermina et al., 2023) Measured at the individual level, individual innovation capability involves developing products that satisfy market needs, adopting new products, and responding to technological advancements (Rumanti et al., 2018). This skill involves transforming obsolete knowledge, methods, objects, or technologies to solve problems or meet specific needs effectively. In conclusion, individual innovation capability is critical for fostering an environment where continuous innovation is encouraged and supported, ensuring that both individuals and organizations adapt and thrive amidst market changes.

3 Methods

This study employs a quantitative methodology incorporating both descriptive and associative approaches, rooted in positivist philosophy. This methodology is utilized to examine a specific population or sample. Data collection is executed through research instruments, with analysis involving numerical, quantitative, or statistical methods. The descriptive component of the study focuses on detailing events according to the Knowledge sharing and Individual Innovation Capability variables, based on respondent feedback, and presented in descriptive format. Conversely, the associative component utilizes simple linear regression analysis to evaluate the influence of the Knowledge sharing variable on Individual Innovation Capability.

Primary data collection involves distributing questionnaires and conducting face-to-face interviews. Secondary data is gathered from historical records stored in archives, whether unpublished or released by the relevant organization or company. Observations were made of coffee SME operators in Kab. Garut to understand the actual conditions, followed by an interview with the chairman of the Indonesian Coffee Farmers Association (APEKI) and questionnaire distribution among coffee SMEs in Kab. Garut. The sample includes owners and employees of these SMEs.

Considering the study's population includes 17 coffee SMEs in Kab. Garut with a workforce of 45, a complete enumeration or census sampling technique was utilized, meaning all 45 employees across the SMEs were sampled. Simple regression analysis was applied to determine the impact of one variable on another, where the independent variable influences the dependent variable in the regression equation: $Y=a+\beta X+e$, where Y is the predicted variable, X is the predictor, a is the intercept, β represents the regression coefficient, and e is the error term.

4 Discussion

In this research, the variable of Knowledge Sharing was assessed using two dimensions: Knowledge Collecting and Knowledge Donating. From the responses gathered, as detailed in Table 4.2, the overall reception of knowledge-sharing practices among the coffee SMEs in Kab. Garut was rated as "very good," with an average total score of 203. Specifically, the Knowledge Donating dimension scored the highest with a rating of 208, indicating a "very good" level of engagement. Conversely, the Knowledge Collecting dimension scored slightly lower, at 197. The findings suggest that coffee SMEs in Kab. Garut effectively utilize knowledge sharing as a tool to foster and enhance individual innovation capabilities. The higher score in Knowledge Donating implies a proactive stance among employees and management in sharing knowledge without solicitation, which may indicate a strong culture of mutual assistance and open communication within the organizations. However, the relatively lower score in Knowledge Collecting suggests potential areas for improvement in how knowledge is solicited and received among staff. Enhancing mechanisms for collecting knowledge could further bolster the innovative capacities of these SMEs, making them more competitive and adaptive in the fast-evolving coffee industry. This discrepancy highlights the importance of balancing both giving and soliciting knowledge to maximize the innovative potential of knowledge-sharing practices within organizations.

In this study, the assessment of Individual Innovation Capability was measured using four dimensions: experience, situation, technological change, and knowledge. The overall Individual Innovation Capability among coffee SMEs in Kab. Garut was rated as "very good," with an average total score of 202. Notably, the experience dimension scored the highest at 207, indicating a robust level of expertise among individuals. In contrast, the technological change dimension received the lowest score at 195, suggesting potential areas for improvement in adapting to new technologies.

The robust score in the experience dimension reflects a strong foundation of practical skills and insights that employees in the coffee industry possess, which is crucial for continuous innovation. However, the lower scores in adapting to technological changes highlight a gap that could hinder future growth and competitiveness. Effective knowledge-sharing practices within these SMEs have broadened individual perspectives by distributing experiences, knowledge, and skills. Such practices not only facilitate the merging of new ideas with existing knowledge to foster innovation but also encourage collaboration among colleagues, team members, or external parties.

This collaboration creates opportunities for exchanging ideas, viewpoints, and thoughts, leading to new perspectives and innovative ideas. Active participation in discussions, collaborative sessions, training, and knowledge sharing enhances individuals' hard skills and technical abilities over time. Moreover, collaborating with peers who have diverse skills allows individuals to learn from each other and exchange expertise to achieve common objectives, thereby enriching their hard skills and fostering a more comprehensive understanding of their roles and responsibilities. This dynamic interaction underscores the importance of fostering a culture that supports continuous learning and adaptability to technological advancements within the organization.

The first hypothesis of this study posited that knowledge sharing positively and significantly influences Individual Innovation Capability. This hypothesis was supported by partial tests (t-tests) using SPSS version 26, where the significance value was 0.026, less than the threshold of 0.05, and the t-value of 2.301 exceeded the t-critical of 2.018. The standardized coefficient was 0.263, indicating a positive direction. Based on these results, it can be concluded that Knowledge Sharing exerts a positive and significant partial influence on Individual Innovation Capability, confirming the hypothesis of this study.

This research indicates that Individual Innovation Capability among coffee SMEs in Kab. Garut is significantly influenced by knowledge-sharing practices, where the collection and dissemination of knowledge and skills provide opportunities for SME operators in Kab. Garut to continually evolve, learn from others, and generate innovative ideas about coffee processing to produce competitive, high-quality coffee. This finding aligns with research by (Jha & Sahoo, 2022), which highlights that knowledge sharing plays a crucial role in enhancing individual innovation capabilities. Their study differentiated between the direct relationships of knowledge collection and donation to organizational innovation capability, finding that while knowledge collection did not directly impact organizational innovation, knowledge donation had a direct positive impact on product and managerial innovation. Additionally, individual innovation capability served as a mediating variable between knowledge sharing and innovation.

Furthermore, research by (Aulawi & Govindaraju, 2008; Wu et al., 2022) reinforces the significant positive effects of knowledge sharing on individual innovation capability and, consequently, on individual performance. (Basit et al., 2019; Khurrohmah et al., 2022) study also demonstrated that knowledge sharing significantly enhances individual performance both directly and indirectly through individual innovation capability. It highlighted the presence of other mediating variables that influence the relationship between knowledge sharing and individual performance, suggesting a broader impact of knowledge sharing on organizational innovation capabilities.

These findings collectively underscore the importance of fostering a culture of knowledge-sharing within organizations, particularly in settings where innovation is critical to competitiveness and success. Encouraging open exchanges of knowledge not only bolsters individual capabilities but also enhances the overall innovation potential of the organization, leading to improved performance and market competitiveness.

5 Conclusion and Recommendation

The research substantiates the hypothesis that knowledge sharing significantly influences individual innovation capability within coffee SMEs in Kab. Garut. Statistical analysis using SPSS provided a robust foundation to confirm that knowledge sharing, particularly through the

dimensions of knowledge donating and collecting, plays a pivotal role in fostering an environment conducive to innovation. The positive relationship between knowledge sharing and individual innovation capability was evidenced by significant statistical values, supporting the hypothesis that an environment rich in shared knowledge and skills enhances individual and organizational potential for innovation. Based on the conclusions of this study, the following recommendations are offered to further enhance the innovation capabilities of coffee SMEs in Kab. Garut and similar settings:

1. Strengthen knowledge-sharing practices: Organizations should continue to cultivate and strengthen environments where knowledge-sharing is routine. This includes formal strategies such as scheduled training sessions and informal practices like team discussions and peer mentoring.
2. Technology adoption and training: Given the lower scores in adapting to technological changes, targeted initiatives to train and equip employees with new technological skills are recommended. This should include workshops and hands-on training sessions to ensure that employees are comfortable and proficient with new technologies.
3. Encourage knowledge donating: Organizations should encourage a culture where employees proactively share knowledge without waiting for specific requests. Incentives for knowledge donating behaviors can include recognition programs and performance evaluations that highlight and reward such contributions.
4. Develop knowledge management systems: Implementing or improving knowledge management systems to facilitate easier access and dissemination of information can help organizations maintain a competitive edge. These systems should be user-friendly and integrated into daily workflows to maximize their usage and effectiveness.
5. Monitor and evaluate knowledge-sharing activities: Establish metrics to regularly assess the effectiveness of knowledge-sharing activities. Feedback mechanisms can help identify areas for improvement and ensure that the knowledge-sharing practices meet the evolving needs of the organization and its employees.

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