**Jurnal EMT KITA**
*Indonesian Journal for the Economics, Management and Technology*
**Print ISSN: 2579-7972; Online ISSN: 2549-6204**

**Volume 10 (2) April 2026, 577-587**
Available *online* at
http://journal.lembagakita.org/index.php/emt

Article History: Received: 21 September 2025, Revision: 20 October 2025, Accepted: 1 December 2025, Available *Online*: 1 April 2026.

DOI: https://doi.org/10.35870/emt.v10i2.5622

# Innovation Capability, Absorptive Capacity, and Collaborative Networks as Determinants of Competitive Advantage in the SME Laundry Sector

**Rayhan Faiz** [1], **Dessy Isfianadewi** [2*], **Yusuf Ahmad Sudrajat** [3]
[1] Undergraduate Student, Department of Management, Faculty of Business and Economics, Universitas Islam Indonesia.
[2*] Associate Professor, Department of Management, Faculty of Business and Economics, Universitas Islam Indonesia.
[3] Master student, Faculty of Business and Economics, Universitas Islam Indonesia.

*Corresponding Email* : dessy.isfianadewi@uii.ac.id [2*]

**Abstrak.** *Berlandaskan pada Resource-Based View dan Dynamic Capabilities Theory, penelitian ini mengkaji bagaimana kapabilitas internal dan relasional memengaruhi keunggulan kompetitif pada usaha mikro, kecil, dan menengah (UMKM) di sektor jasa. Penelitian ini menganalisis pengaruh kemampuan inovasi dan kapasitas penyerapan terhadap keunggulan kompetitif, dengan jaringan kolaboratif sebagai variabel mediasi. Studi-studi sebelumnya menunjukkan hasil yang tidak konsisten mengenai hubungan antarvariabel tersebut, terutama dalam konteks UMKM yang memiliki keterbatasan sumber daya. Untuk menjawab kesenjangan ini, data dikumpulkan dari 113 pemilik dan pengelola UMKM laundry menggunakan kuesioner terstruktur dengan skala Likert lima poin. Data dianalisis menggunakan Partial Least Squares-Structural Equation Modeling (PLS-SEM) dengan perangkat lunak SmartPLS untuk menguji model pengukuran dan model struktural. Hasil penelitian menunjukkan bahwa kemampuan inovasi ($\beta = 0.456$, $p < 0.001$) dan kapasitas penyerapan ($\beta = 0.439$, $p < 0.001$) berpengaruh signifikan terhadap keunggulan kompetitif. Kedua variabel tersebut juga berpengaruh positif terhadap jaringan kolaboratif, yang selanjutnya memiliki pengaruh signifikan terhadap keunggulan kompetitif ($\beta = 0.286$, $p = 0.001$). Selain itu, jaringan kolaboratif terbukti memediasi secara parsial hubungan antara kapasitas penyerapan dan keunggulan kompetitif ($\beta = 0.109$, $p = 0.048$), namun tidak memediasi secara signifikan hubungan antara kemampuan inovasi dan keunggulan kompetitif ($\beta = 0.141$, $p = 0.062$). Temuan ini menegaskan bahwa inovasi dan kapasitas penyerapan merupakan sumber daya strategis yang mendorong keunggulan kompetitif, sementara kolaborasi memberikan manfaat bersyarat tergantung pada kapabilitas internal perusahaan. Pengelola UMKM disarankan untuk membangun sistem umpan balik pelanggan secara rutin serta memperkuat kemitraan dengan pemasok lokal guna meningkatkan hasil inovasi. Penelitian ini memperjelas inkonsistensi temuan sebelumnya dan memberikan wawasan praktis bagi pengembangan daya saing UMKM melalui keseimbangan antara inovasi internal dan kolaborasi eksternal.*

**Kata kunci:** *Kemampuan Inovasi; Kapasitas Penyerapan; Jaringan Kolaboratif; Keunggulan Kompetitif; Usaha Mikro; Kecil; dan Menengah (UMKM).*

**Abstract.** *Grounded in the Resource-Based View and Dynamic Capabilities Theory, this study examines how internal and relational capabilities shape competitive advantage among small and medium-sized enterprises (SMEs) in the service sector. The research investigates the influence of innovation capability and absorptive capacity on competitive advantage, with collaborative networks tested as a mediating variable. Previous studies have reported inconsistent results regarding these relationships, particularly within resource-constrained SME contexts. To address this gap, data were collected from 113 SME owners and managers in the laundry service industry using a structured questionnaire with a five-point Likert scale. Data were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) with SmartPLS to assess both the measurement and structural models. The findings reveal that innovation capability ($\beta = 0.456$, $p < 0.001$) and absorptive capacity ($\beta = 0.439$, $p < 0.001$) significantly enhance competitive advantage. Both variables also positively influence collaborative networks, which in turn have a significant effect on competitive advantage ($\beta = 0.286$, $p = 0.001$). Moreover, collaborative networks partially mediated the relationship between absorptive capacity and competitive advantage ($\beta = 0.109$, $p = 0.048$), but not between innovation capability and competitive advantage ($\beta = 0.141$, $p = 0.062$). These findings confirm that innovation and knowledge absorption are strategic resources that drive competitiveness, while collaboration provides conditional benefits depending on firm capabilities. Managers are encouraged to institutionalize regular customer feedback systems and strengthen partnerships with local suppliers to enhance innovation outcomes. The study clarifies inconsistencies in prior research and provides practical insights for improving SME competitiveness through balanced internal and external capability development.*

**Keywords:** *Innovation Capability; Absorptive Capacity; Collaborative Networks; Competitive Advantage; SMEs.*

## Introduction

In today's technologically advancing era (Alsaleh, 2024), businesses face increasingly fierce competition (Huang, 2023). To survive and prosper, firms must develop competitive advantages that differentiate them from rivals (Ávila, 2022). Without such advantages, a company risks loss of market share and even obsolescence (Kartiraharjo & Isfianadewi, 2022). Innovation capability plays a pivotal role in enhancing firm performance, competitiveness in both product and operational domains, marketing, human resources, and market networks (Sulistyo & Ayuni, 2019). It allows companies to allocate internal and external resources effectively to create value and maintain competitive edge (Canbul & Çemberci, 2023). Alongside innovation capability, absorptive capacity, defined as the ability of a firm to acquire, assimilate, transform, and exploit external knowledge, is equally crucial (Cohen & Levinthal, 1990).

It acts as a mechanism through which firms can adapt, develop new products, and improve flexibility in response to changing markets (Müller *et al*., 2021; Pitaloka & Rahayu, 2023). To further strengthen innovation capability and absorptive capacity, firms often engage in collaborative networks with suppliers, competitors, customers, or government agencies (Hurtado-Palomino *et al*., 2022). Such networks facilitate knowledge sharing and experiential learning, which can reinforce both innovation and absorptive processes (Mulyana & Wasitowati, 2021). However, previous studies report inconsistent findings regarding the relationships among these constructs. For example, while Chen *et al*. (2024) confirmed a strong positive effect of innovation on competitive advantage, other studies revealed weak or even insignificant results depending on firm size, industry, and environmental factors. Similarly, although absorptive capacity is widely acknowledged as a driver of innovation, Zou *et al*. (2018) and Sancho-Zamora *et al*. (2022) showed that its impact on competitive advantage is contingent on organizational learning orientation and knowledge management, suggesting that absorptive capacity alone may not always generate sustained advantage. The role of collaborative networks is also debated. Li and Liu (2023) found that collaboration can produce substitution effects that diminish innovation outcomes, while other research identified an inverted U-shaped relationship where excessive collaboration leads to coordination costs that offset potential benefits (Xie *et al*., 2022). Prior studies in DI Yogyakarta have mostly focused on food and beverage micro, small, and medium enterprises (Andriyanto & Priyono, 2022; Isfianadewi, 2022; Kartiraharjo & Isfianadewi, 2022). Research on MSMEs in the service sector, particularly laundry businesses, remains scarce despite their rapid growth and intense competition in urban markets. These inconsistencies underline the need for further research on how innovation capability and absorptive capacity, mediated by collaborative networks, shape competitive advantage in the MSMEs laundry sector.

This study draws upon the Resource-Based View (Barney, 1991) and Dynamic Capabilities Theory (Teece *et al*., 1997) to explain how firms develop, integrate, and reconfigure internal and external competencies to sustain competitive advantage. The Network Theory further emphasizes that collaborative relationships create access to complementary resources, enhancing innovation outcomes. Accordingly, this study aims to examine these relationships among laundry MSMEs. Specifically, it investigates the direct effects of innovation capability and absorptive capacity on competitive advantage, as well as the mediating role of collaborative networks. By addressing inconsistencies in prior research and focusing on a service-based SME context, this study contributes both theoretical clarification and practical insights for business owners seeking to enhance their competitiveness in dynamic environments. Specifically, this study addresses the following research questions:

(1) How do innovation capability and absorptive capacity influence competitive advantage?

(2) Does collaborative networking mediate these relationships?

## Literature Review

### Innovation Capability, Absorptive Capacity, and Competitive Advantage

Innovation capability refers to a firm's ability to generate and implement new ideas related to products, processes, marketing, and organizational practices, which is considered an essential driver of competitive advantage (Ávila, 2022; Isfianadewi, 2022). Prior studies largely confirm that innovation capability positively influences competitive advantage by enabling firms to create differentiated offerings and improve performance (Chen *et al*., 2024; Kartiraharjo & Isfianadewi, 2022; Sulistyo & Ayuni, 2019). Nevertheless, some studies found mixed results. For instance, Isfianadewi (2022) reported that innovation capability may exert a negative effect on competitive advantage when firms overinvest in innovation without aligning with market needs. Inconsistent findings across studies may stem from contextual differences. In developed economies, innovation is often technology-driven (Anand *et al*., 2021), whereas in developing contexts, it is more process-oriented and resource-constrained (Keelson *et al*., 2024), potentially altering its effect on competitive advantage. For example, SMEs in emerging markets may innovate incrementally rather than radically (Sufyan *et al*., 2024), focusing on service delivery efficiency rather than product novelty, which may explain variations in observed effects.

Absorptive capacity, defined as the ability to acquire, assimilate, transform, and exploit external knowledge (Cohen & Levinthal, 1990), is another critical factor for sustaining competitive advantage. Empirical studies have shown that absorptive capacity enhances organizational adaptability and market responsiveness (Ruiz-Corrales *et al*., 2022; Sancho-Zamora *et al*., 2022). However, the magnitude of its influence varies depending on contextual factors such as organizational learning culture and industry dynamics (Zou *et al*., 2018). Building on the dominant findings, the following hypotheses are proposed:

H1: Innovation capability has a positive and significant effect on competitive advantage.

H2: Absorptive capacity has a positive and significant effect on competitive advantage.

### Innovation Capability, Absorptive Capacity, and Collaborative Networks

Collaborative networks represent inter-firm relationships with suppliers, competitors, customers, or government institutions that facilitate resource sharing and joint problem-solving (Mulyana & Wasitowati, 2021). Firms with strong innovation capability tend to engage more actively in such networks because innovation requires access to diverse sources of knowledge (Rijal *et al*., 2023). Similarly, absorptive capacity enables firms to better recognize, assimilate, and apply knowledge acquired through networks, which strengthens collaboration outcomes (Najafi-Tavani *et al*., 2018). Previous research has consistently demonstrated positive associations between innovation capability, absorptive capacity, and the breadth of collaborative networks (Li & Liu, 2023). Therefore:

H3: Innovation capability has a positive and significant effect on collaborative networks.

H4: Absorptive capacity has a positive and significant effect on collaborative networks.

### Collaborative Networks and Competitive Advantage

Collaborative networks enhance firms' competitive advantage by facilitating access to complementary knowledge, resources, and technologies (Najafi-Tavani *et al*., 2018). They can be developed vertically through linkages with suppliers, clients, and competitors, or horizontally with universities, research institutions, and government agencies (Mulyana & Wasitowati, 2021). While some studies highlight strong positive effects of collaboration on competitive advantage (Audretsch *et al*., 2023; Tran *et al*., 2025), others caution that excessive collaboration may lead to coordination costs and reduced benefits (Garrido-Moreno *et al*., 2024; Hottenrott & Lopes-Bento, 2016). Given the consensus in SME contexts, the following hypothesis is proposed:

H5: Collaborative networks have a positive and significant effect on competitive advantage.

Empirical evidence from Indonesian SMEs supports this argument. For instance, Mulyana and Wasitowati (2021) and Pitaloka and Rahayu (2023) found that collaboration with local

suppliers, customers, and community-based partners enhances adaptive innovation and organizational resilience in resource-limited environments. Such findings suggest that in developing economies, collaborative networks are not only instruments for resource acquisition but also mechanisms for building trust and sustaining competitiveness under uncertainty.

**The Mediating Role of Collaborative Networks**

Beyond direct effects, collaborative networks may also serve as mediators. When firms engage in collaborative relationships, their innovation capability is more likely to generate competitive outcomes due to enhanced access to resources and shared expertise (Ilyas & Osiyevskyy, 2022; Xie & Wang, 2025). Similarly, absorptive capacity contributes to competitive advantage more effectively when knowledge is transferred through networks (Espino-Rodríguez & Gebril Taha, 2023). This mediating perspective is supported by studies highlighting that network participation amplifies the benefits of both innovation capability and absorptive capacity (Sancho-Zamora *et al*., 2022). Thus, we propose.

H6: Collaborative networks mediate the relationship between innovation capability and competitive advantage.

H7: Collaborative networks mediate the relationship between absorptive capacity and competitive advantage.

## Research Methodology

This study adopts a quantitative approach, utilizing Structural Equation Modeling (SEM) to investigate the relationships between innovation capability, absorptive capacity, collaborative networks, and competitive advantage. SEM was selected due to its ability to simultaneously test complex causal relationships among latent variables, which is essential for the conceptual framework of this research.

**Population and Sample**

The study population consisted of micro and small enterprises (SMEs) in the laundry service industry in Yogyakarta City. Purposive sampling was employed with the following inclusion criteria: (1) the SMEs must have been operational in the laundry service sector for at least one year; (2) they must employ at least two individuals; and (3) the respondent must be an owner or manager with decision-making authority. The laundry sector was chosen because it represents a highly competitive service-based industry where innovation and collaboration are critical for survival and growth (Asnin *et al*., 2024; Cristianty & Wandebori, 2025). A total of 113 laundry business owners and managers were selected as respondents based on the purposive sampling method.

**Data Collection**

Primary data were collected using a structured questionnaire that was directly distributed to the selected laundry business owners and managers between March and May 2025. The questionnaire was designed using validated constructs from previous studies, ensuring its relevance and accuracy. All items in the questionnaire were measured using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). This scale was chosen for its simplicity and effectiveness in capturing the respondents' attitudes and perceptions.

**Measurement of Variables**

The study's main constructs were measured as follows:

1) Innovation Capability
   This construct was adapted from Sulistyo and Ayuni (2019) and Kartiharjo and Isfianadewi (2022), with a focus on product, process, and service innovations.
2) Absorptive Capacity
   This was based on Cohen and Levinthal's (1990) framework, incorporating aspects of knowledge acquisition, assimilation, transformation, and exploitation.
3) Collaborative Networks
   Adapted from Najafi-Tavani *et al.* (2018) and Mulyana and Wasitowati (2024), this construct covers both vertical and horizontal collaboration.
4) Competitive Advantage
   This construct was measured using indicators from Chen *et al.* (2024), capturing

differentiation, cost efficiency, and market responsiveness.

Each construct was measured with multiple indicators: innovation capability (7 items), absorptive capacity (8 items), collaborative networks (4 items), and competitive advantage (4 items). An example of an item for measuring innovation capability is: "Our business regularly introduces service improvements based on customer feedback." All items were rated on a 5-point Likert scale.

**Data Analysis**

The collected data were analyzed using SEM with the help of SmartPLS software. The analysis was carried out in two stages. First, the measurement model was evaluated for reliability and validity, using indicators such as Cronbach's alpha, composite reliability, average variance extracted (AVE), and factor loadings. Second, the structural model was tested to assess the significance and strength of the hypothesized relationships among the constructs. Bootstrapping with 5,000 resamples was applied to determine the statistical significance of the path coefficients.

## Hasil dan Pembahasan

**Results**

**Descriptive Analysis**

The study involved 113 respondents, primarily business owners of laundry SMEs in Yogyakarta. The demographic profile of the sample, as shown in Table 1, reveals that the majority of respondents were female (56.64%). Additionally, most of the businesses had been in operation for one to five years (53.98%), suggesting that the laundry SMEs in Yogyakarta are relatively young enterprises. This profile also indicates a significant presence of female entrepreneurs in the sector.

**Measurement Model**

The measurement model was evaluated to ensure the validity and reliability of the constructs. Convergent validity was confirmed, as all factor loadings exceeded the 0.70 threshold, indicating that the measurement model effectively represents the underlying constructs (see Figure 1). The Average Variance Extracted (AVE) values ranged from 0.614 to 0.689, all surpassing the 0.50 threshold, as presented in Table 2. This confirms that the constructs capture a sufficient amount of variance in the observed variables. Discriminant validity was assessed through cross-loading, ensuring that each construct was empirically distinct from the others. Reliability testing further confirmed the robustness of the constructs, with Cronbach's alpha values ranging from 0.787 to 0.919, and composite reliability values between 0.863 and 0.934. These results demonstrate that the measurement model is both valid and reliable for analyzing the relationships in this study.

Table 1. Profile of Respondents

| Characteristic | Category | Total | Percentage |
|---|---|---|---|
| Position | Owner | 109 | 96.4% |
| | Employee | 4 | 3.54% |
| | | 113 | 100% |
| Gender | Male | 49 | 43.36% |
| | Female | 64 | 56.64% |
| | | 113 | 100% |
| Age of Business | <1 year | 15 | 13.27% |
| | 1-5 years | 61 | 53.98% |
| | >5 years | 37 | 32.74% |
| | | 113 | 100% |

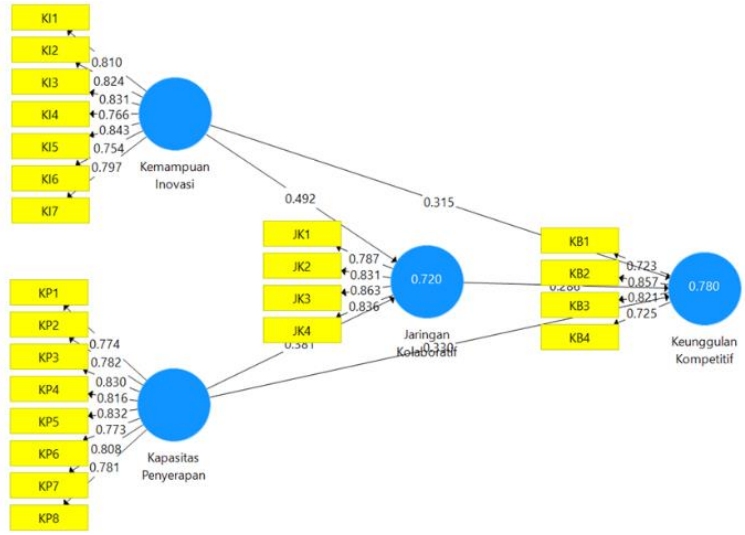


Figure 1. Outer Loading Results

Table 2. AVE and Cronbach's alpha

| Variable | AVE | CA | CR |
|---|---|---|---|
| Innovation Capacity (KI)/(IC) | 0.646 | 0.909 | 0.927 |
| Absorption Capacity (KP)/(AC) | 0.640 | 0.919 | 0.934 |
| Collaborative Networks (JK)/(CN) | 0.689 | 0.849 | 0.898 |
| Competitive Advantage (KK)/(CA) | 0.614 | 0.787 | 0.863 |

Table 3. R Square

| Variable | R Square | R Square Adjusted |
|---|---|---|
| Collaborative Networks (JK)/(CN) | 0.720 | 0.715 |
| Competitive Advantage (KK)/(CA) | 0.780 | 0.774 |

Table 4. Fornell-Larcker

| Variable | IC | AC | CN | CA |
|---|---|---|---|---|
| Innovation Capacity (KI)/(IC) | 0.804 | 0.891 | 0.831 | |
| Absorption Capacity (KP)/(AC) | | 0.800 | 0.819 | |
| Collaborative Networks (JK)/(CN) | | | 0.830 | |
| Competitive Advantage (KK)/(CA) | 0.847 | 0.845 | 0.818 | 0.783 |

**Structural Model**

The R-square values for the structural model indicated that 72% of the variance in collaborative networks and 78% of the variance in competitive advantage were explained by the model (see Table 3). According to Hair *et al.* (2021), these values are considered substantial, reflecting the strong explanatory power of the proposed model. Specifically, innovation capability and absorptive capacity jointly accounted for the majority of the variance in collaborative networks. Additionally, the combination of innovation capability, absorptive capacity, and collaborative networks provided a robust explanation of competitive advantage. Discriminant validity was assessed using the Fornell-Larcker criterion. As shown in Table 4, the square roots of the Average Variance Extracted (AVE) values for all constructs exceeded the inter-construct correlations, confirming the presence of discriminant validity. Furthermore, all ratios were below the conservative threshold of 0.85, which further supports the adequate discriminant validity of the constructs (Hair *et al.*, 2021). These findings indicate that the constructs are empirically distinct and appropriately measured within the model.

**Hypothesis Testing**

Table 4 presents the results of both direct and indirect hypothesis testing. All five direct

hypotheses were supported. Specifically, innovation capability (β = 0.456, p < 0.001) and absorptive capacity (β = 0.439, p < 0.001) were found to have a significant positive impact on competitive advantage. Furthermore, both innovation capability (β = 0.492, p = 0.014) and absorptive capacity (β = 0.381, p = 0.035) positively influenced collaborative networks. Finally, collaborative networks themselves had a significant effect on competitive advantage (β = 0.286, p = 0.001). Regarding the indirect effects, the results were mixed. Collaborative networks did not mediate the relationship between innovation capability and competitive advantage (β = 0.141, p = 0.062), leading to the rejection of hypothesis H6. On the other hand, collaborative networks significantly mediated the relationship between absorptive capacity and competitive advantage (β = 0.109, p = 0.048), thereby supporting hypothesis H7.

Table 5. Hypothesis Testing

| | Original Sample (O) | Sample Mean (M) | STDEV | O/STDEV | P Values |
|---|---|---|---|---|---|
| KI → KK | 0.456 | 0.471 | 0.123 | 3.176 | 0.000 |
| KP → KK | 0.439 | 0.427 | 0.124 | 3.529 | 0.000 |
| KI → JK | 0.492 | 0.491 | 0.224 | 2.191 | 0.014 |
| KP → JK | 0.381 | 0.381 | 0.210 | 1.810 | 0.035 |
| JK → KK | 0.286 | 0.296 | 0.088 | 3.271 | 0.001 |
| KI →JK → KK | 0.141 | 0.149 | 0.091 | 1.541 | 0.062* |
| KP →JK → KK | 0.109 | 0.109 | 0.065 | 1.669 | 0.048 |

**Discussion**

The findings of this study reveal several key insights into the factors influencing competitive advantage among laundry SMEs. First, innovation capability was identified as a significant predictor of competitive advantage. This finding aligns with prior research, which highlights that innovation plays a crucial role in enhancing differentiation and customer value (Kartiraharjo & Isfianadewi, 2022; Chen *et al.*, 2024). Specifically, in the laundry service sector, even incremental innovations in services and processes can substantially improve a firm's market positioning, demonstrating that innovation is not limited to product development but extends to service enhancements as well. Second, absorptive capacity was found to have a positive and significant effect on competitive advantage. This result echoes previous studies by Jiménez-Barrionuevo *et al.* (2019) and Sancho-Zamora *et al.* (2022), which emphasize the critical role of knowledge acquisition and transformation in maintaining competitiveness. Laundry SMEs that actively engage in acquiring, assimilating, and applying external knowledge appear to be better equipped to adapt to shifting consumer preferences and dynamic market conditions, positioning them to sustain a competitive edge. Third, the study found that both innovation capability and absorptive capacity positively influenced the development of collaborative networks. Firms with higher levels of innovation and absorptive capacity are more likely to engage in meaningful collaborations. This finding supports the notion that collaboration provides access to valuable external knowledge, which firms with strong absorptive capacity can better utilize (Najafi-Tavani *et al.*, 2018). By actively engaging in networks, these firms are able to enhance their knowledge base, which in turn strengthens their competitive position. Lastly, the role of collaborative networks in driving competitive advantage was confirmed. Networks with suppliers, customers, and government agencies were found to enhance SMEs' ability to secure resources, share knowledge, and improve service quality. This finding supports previous research by Mulyana and Wasitowati (2021), which suggests that collaborative networks are a vital source of competitive advantage for SMEs. By fostering these networks, laundry businesses can better navigate resource constraints, share expertise, and enhance overall service delivery, thereby reinforcing their market position. The distinction between innovation capability and absorptive capacity can be understood within the framework of the Resource-Based View and Dynamic Capabilities Theory.

Innovation capability is rooted in the firm's internal processes, routines, and creative capacity, making it largely independent of external collaborations. This internal focus allows firms to innovate and create value within their own boundaries. In contrast, absorptive capacity is more dependent on external knowledge sources, which requires firms to engage in collaborative networks to enhance their ability to absorb and apply external knowledge effectively. Thus, while innovation may not require collaboration to the same extent, absorptive capacity benefits greatly from external relationships that provide access to new knowledge and resources. In summary, the findings suggest that while innovation capability is an internally driven resource that enhances competitive advantage independently, absorptive capacity relies on external networks to convert acquired knowledge into a competitive advantage. This difference underscores the importance of strategically leveraging external collaborations, particularly when firms aim to improve their ability to absorb and apply external knowledge for sustained competitive benefit.

## Conclusion

This study aimed to explore the role of innovation capability and absorptive capacity in shaping competitive advantage among laundry SMEs in Yogyakarta, with collaborative networks examined as a potential mediator. The findings offer several key conclusions. First, both innovation capability and absorptive capacity were found to directly and positively influence competitive advantage, underlining their importance as strategic resources for SMEs operating in competitive service markets. Second, both capabilities were shown to enhance collaborative networks, indicating that firms with higher levels of innovation and absorptive capacity are more likely to engage in and sustain valuable external partnerships. Third, collaborative networks themselves were found to have a positive effect on competitive advantage, further solidifying their role as a strategic asset. However, the mediating effect of collaborative networks yielded mixed results: while they mediated the relationship between absorptive capacity and competitive advantage, they did not significantly mediate the link between innovation capability and competitive advantage. From a practical standpoint, these results suggest that SME managers should prioritize investing in innovation and the development of absorptive capacity to directly strengthen their competitive advantage. Simultaneously, fostering collaborative networks can offer additional benefits, particularly when firms leverage external knowledge to complement their internal capabilities. For policymakers and support institutions, programs that promote knowledge sharing, training, and partnerships between SMEs and external stakeholders may further enhance competitiveness in the service sector. In terms of theoretical contributions, the study provides empirical evidence that the relationships among innovation capability, absorptive capacity, and competitive advantage are context-dependent. The finding that collaborative networks only partially mediate these relationships highlights the conditional nature of collaboration outcomes, enriching existing literature with a more nuanced perspective.

This study has some limitations. The sample was restricted to laundry SMEs in a single Indonesian city, which may limit the generalizability of the results. Additionally, the cross-sectional design of the study restricts the ability to infer causality over time. Future research could consider longitudinal approaches, a broader range of industries, and comparative studies across different regions or sectors. Such extensions would provide further clarity on the conditions under which collaborative networks enhance or diminish the impact of innovation capability and absorptive capacity on competitive advantage. Overall, this study answers its central research questions by affirming the positive roles of innovation capability and absorptive capacity in driving competitive advantage, while also highlighting the strategic value of collaborative networks. The study further illustrates the complex pathways through which SMEs in service sectors can achieve and sustain competitive advantage.

## References


Alsaleh, A. (2024). The impact of technological advancement on culture and society. *Scientific Reports, 14*(1), 32140. https://doi.org/10.1038/s41598-024-83995-z.

Anand, J., McDermott, G., Mudambi, R., & Narula, R. (2021). Innovation in and from emerging economies: New insights and lessons for international business research. *Journal of International Business Studies, 52*(4), 545–559. https://doi.org/10.1057/s41267-021-00426-1.

Andriyanto, F., & Priyono, A. (2022). Pengaruh inovasi kolaboratif dalam kinerja produk baru: Kemampuan inovasi produk, dan kemampuan inovasi proses, serta kemampuan di dalam kapasitas penyerapan. *Selekta Manajemen: Jurnal Mahasiswa Bisnis & Manajemen, 1*(4), 183–191.

Asnin, T. N., Prambudia, Y., & Rosad Ma'ali El Hadi. (2024). Developing strategies to improve business model of online laundry marketplace startup. *International Journal of Innovation in Enterprise System, 5*(2), 134–143. https://doi.org/10.25124/ijies.v5i02.136.

Audretsch, D. B., Belitski, M., Caiazza, R., & Phan, P. (2023). Collaboration strategies and SME innovation performance. *Journal of Business Research, 164*, 114018. https://doi.org/10.1016/j.jbusres.2023.114018.

Ávila, M. M. (2022). Competitive advantage and knowledge absorptive capacity: The mediating role of innovative capability. *Journal of the Knowledge Economy, 13*(1), 185–210. https://doi.org/10.1007/s13132-020-00708-3.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108.

Canbul, A., & Çemberci, M. (2023). Innovation capability as key to competitive advantage: Relation of product innovation capability, process innovation capability, and firm performance. *Journal of International Trade, Logistics and Law, 9*(1), 134–142.

Chen, X., Xie, H., & Zhou, H. (2024). Incremental versus radical innovation and sustainable competitive advantage: A moderated mediation model. *Sustainability, 16*(11), 4545. https://doi.org/10.3390/su16114545.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*(1), 128. https://doi.org/10.2307/2393553.

Cristianty, L. I., & Wandebori, H. (2025). Laundry business strategy to increase revenue (Case: Sosor Laundry). *Syntax Literate: Jurnal Ilmiah Indonesia, 10*(3), 2954–2964. https://doi.org/10.36418/syntax-literate.v10i3.55734.

Espino-Rodríguez, T. F., & Gebril Taha, M. (2023). Absorptive capacity and supply chain integration and their impact on hotel service performance. *Administrative Sciences, 13*(12), 247. https://doi.org/10.3390/admsci13120247.

Garrido-Moreno, A., Martín-Rojas, R., & García-Morales, V. J. (2024). The key role of innovation and organizational resilience in improving business performance: A mixed-methods approach. *International Journal of Information Management, 77*, 102777. https://doi.org/10.1016/j.ijinfomgt.2024.102777.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation*

*modeling (PLS-SEM) using R: A workbook*. Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7.

Hottenrott, H., & Lopes-Bento, C. (2016). R&D partnerships and innovation performance: Can there be too much of a good thing? *Journal of Product Innovation Management, 33*(6), 773–794. https://doi.org/10.1111/jpim.12311.

Huang, X. (2023). The roles of competition on innovation efficiency and firm performance: Evidence from the Chinese manufacturing industry. *European Research on Management and Business Economics, 29*(1), 100201. https://doi.org/10.1016/j.iedeen.2022.100201.

Hurtado-Palomino, A., De La Gala-Velásquez, B., & Ccorisapra-Quintana, J. (2022). The interactive effect of innovation capability and potential absorptive capacity on innovation performance. *Journal of Innovation & Knowledge, 7*(4), 100259. https://doi.org/10.1016/j.jik.2022.100259.

Ilyas, I. M., & Osiyevskyy, O. (2022). Exploring the impact of sustainable value proposition on firm performance. *European Management Journal, 40*(5), 729–740. https://doi.org/10.1016/j.emj.2021.09.009.

Isfianadewi, D. (2022). The role of supply chain agility in mediating the effect of knowledge sharing innovation and absorptive capacity on competitive advantage. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2377–2389. https://doi.org/10.46254/AU01.20220510.

Jiménez-Barrionuevo, M. A. M., Molina, L. M., & García-Morales, V. J. (2019). Combined influence of absorptive capacity and corporate entrepreneurship on performance. *Sustainability, 11*(11), 3034. https://doi.org/10.3390/su11113034.

Kartiraharjo, H., & Isfianadewi, D. (2022). Enhancing competitive advantage through knowledge sharing, absorptive capacity, and innovation capability. *International Journal of Research in Business and Social Science (2147-4478), 10*(8), 83–93. https://doi.org/10.20525/ijrbs.v10i8.1532.

Keelson, S. A., Cúg, J., Amoah, J., Petráková, Z., Addo, J. O., & Jibril, A. B. (2024). The influence of market competition on SMEs' performance in emerging economies: Does process innovation moderate the relationship? *Economies, 12*(11), 282. https://doi.org/10.3390/economies12110282.

Li, X., & Liu, X. (2023). The impact of the collaborative innovation network embeddedness on enterprise green innovation performance. *Frontiers in Environmental Science, 11*, 1190697. https://doi.org/10.3389/fenvs.2023.1190697.

Müller, J. M., Buliga, O., & Voigt, K.-I. (2021). The role of absorptive capacity and innovation strategy in the design of industry 4.0 business models—a comparison between SMEs and large enterprises. *European Management Journal, 39*(3), 333–343. https://doi.org/10.1016/j.emj.2020.01.002.

Mulyana, M., & Wasitowati, W. (2021). The improvement of collaborative networks to increase small and medium enterprises (SMEs) performance. *Serbian Journal of Management, 16*(1), 213–229. https://doi.org/10.5937/sjm16-24369.

Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product

innovation capability, process innovation capability, and absorptive capacity. *Industrial Marketing Management, 73*, 193–205. https://doi.org/10.1016/j.indmarman.2018.02.009.

Pitaloka, W. D., & Rahayu, T. (2023). The mediating role of absorptive capacity in the relationship of knowledge sharing and innovation performance in MSMEs. *Ecopreneur.12, 6*(2), 176–189. https://doi.org/10.51804/econ12.v6i2.15779.

Rijal, S., Sihombing, T. M., Akbar, I. A., Desembrianita, E., & Lubis, R. F. (2023). Peran keunggulan kompetitif, inovasi produk, dan jaringan bisnis terhadap kinerja ekonomi daerah. *Sanskara Ekonomi Dan Kewirausahaan, 1*(03), 173–185. https://doi.org/10.58812/sek.v1i03.123.

Sancho-Zamora, R., Hernández-Perlines, F., Peña-García, I., & Gutiérrez-Broncano, S. (2022). The impact of absorptive capacity on innovation: The mediating role of organizational learning. *International Journal of Environmental Research and Public Health, 19*(2), 842. https://doi.org/10.3390/ijerph19020842

Sufyan, A., Asad, A. I., & Novák, P. (2024). Radical and incremental innovations performance in Eastern European SMEs: An empirical study of developed and emerging economies. *Journal of Eastern European and Central Asian Research (JEECAR), 11*(3), 537–552. https://doi.org/10.15549/jeecar.v11i3.1604.

Sulistyo, H., & Ayuni, S. (2019). Competitive advantages of SMEs: The roles of innovation capability, entrepreneurial orientation, and social capital. *Contaduría y Administración, 65*(1), 156. https://doi.org/10.22201/fca.24488410e.2020.1983.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533. JSTOR.

Tran, D. T. M., Thai, V. V., Duc, T. T. H., & Nguyen, T.-T. (2025). Organisational culture as the antecedent of supply chain collaboration and its relationship with competitive advantage. *The International Journal of Logistics Management, 36*(3), 720–746. https://doi.org/10.1108/IJLM-02-2024-0089.

Xie, X., & Wang, M. (2025). Firms' digital capabilities and green collaborative innovation: The role of green relationship learning. *Journal of Innovation & Knowledge, 10*(2), 100663. https://doi.org/10.1016/j.jik.2025.100663.

Xie, X., Wu, Y., & Devece, C. (2022). Is collaborative innovation a double-edged sword for firms? The contingent role of ambidextrous learning and TMT shared vision. *Technological Forecasting and Social Change, 175*, 121340. https://doi.org/10.1016/j.techfore.2021.121340.

Zou, T., Ertug, G., & George, G. (2018). The capacity to innovate: A meta-analysis of absorptive capacity. *Innovation, 20*(2), 87–121. https://doi.org/10.1080/14479338.2018.1428105.