



# Digital Platforms as Enablers of MSMEs' Business Model Innovation: Revealing the Role of Capability Reconfigurations

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## Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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## ABSTRACT

This study aims to examine the impact of digital platforms on business model innovation within the MSME sector in Indonesia, addressing the contextual limitations found in previous study. Utilizing a comprehensive study design, this study investigates the roles of digital platform adoption, evolutionary capability reconfiguration, and substitutional capability reconfiguration in driving business model innovation. The study methods included hypothesis testing through partial least square structural equation modeling (PLS-SEM) on data collected from MSMEs in Sleman, Yogyakarta. The results reveal that while digital platform adoption alone does not directly enhance business model innovation, it significantly influences capability reconfiguration. Specifically, substitutional reconfiguration plays a critical role in transforming business models by integrating new, more efficient capabilities. Conversely, evolutionary reconfiguration, despite being influenced

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by digital platforms, does not have an immediate significant impact on business model innovation. These findings contribute to the theoretical understanding of dynamic capabilities, highlighting the importance of substitutional reconfiguration for rapid and significant innovation. Practically, the study provides valuable insights for MSME owners and managers on leveraging digital platforms to enhance their value chains and drive business model innovation, ensuring sustainability and competitive advantage in the digital age.

**Keywords:** *Digital platform adoption; business model innovation; MSMEs; capability reconfiguration; dynamic capabilities.*

## 1. INTRODUCTION

Innovation is widely recognized as one of the critical factors in supporting business success, including in the Micro, Small, and Medium Enterprises (MSMEs) sector. Unfortunately, the World Economic Forum (WEF) survey results in 2022 revealed that innovation is one of the biggest challenges for MSMEs globally [1]. The same situation occurs in Indonesia, where the Financial Services Authority (OJK) stated that one of the significant challenges faced by MSMEs in Indonesia is the low level of innovation [2].

On the other hand, digitalization is a phenomenon occurring in various industries, including the MSME sector, which is believed to positively impact driving innovation, including business model innovation. Digitalization efforts have presented unprecedented business opportunities in all industries [3]. Various digital platforms have emerged along with the development of digital technology [4]. Digital platforms are defined as a digital core that can be expanded and complemented by third-party add-ons [5,6,7,8,9]. Digital platforms are open, accessible, and widely distributed [10], enabling businesses to drive business model innovation [4]. In this context, the study of how MSMEs use digital platforms to drive business model innovation becomes an interesting issue to explore.

From a socio-technical perspective, previous studies revealed the relationship between digital platforms and organizational processes [4,5]. Furthermore, previous studies found that digital platforms could transform organizational processes within companies, such as driving the digitalization of business models [11], accelerating companies' digital transformation [12], and redesigning business processes [13]. Additionally, some studies focus on investigating the role of digital platforms in changing business model innovation in large companies in the

global market [14,13]. In this context, previous studies on digital platform adoption focusing on Small and Medium Enterprises (SMEs) are still limited [4].

The lack of attention from previous researchers in exploring the role of digital platforms on innovation in the SME sector motivated previous study which explored how digital platform adoption can enhance business model innovation in SMEs in China [4]. Using the dynamic capabilities theory perspective, they identified internal mechanisms called capability reconfiguration, that mediate the relationship between digital platforms and business model innovation in SMEs [4]. According to [15], capability reconfiguration consists of evolutionary capability reconfiguration and substitutional capability reconfiguration that employ various dynamic capability processes of SMEs when adopting digital platforms, thus creating different mediation mechanisms for these two types of capability reconfigurations.

Although [4] successfully discovered that digital platforms have the potential to boost the innovation of business models in MSMEs mediated by capability reconfiguration (evolutionary and substitutional), the study has limitations regarding the object and scope of research. Prior study only involved SMEs in the manufacturing sector in China as research samples [4]. This is a limitation since the findings of a study have specific industry or country context limitations [16].

Moreover, the business environment faced by MSMEs in Indonesia differs from that faced by SMEs in China regarding digital platform adoption. For example, China has a strong internet infrastructure and high smartphone penetration, providing a solid foundation for digital adoption by SMEs [17]. This contrasts with the conditions in Indonesia, where internet access is uneven, and digital literacy is lacking in some community groups, hindering digital

platform adoption by MSMEs [18]. This underscores that the prior study's findings [4] have a different context from the conditions in Indonesia, thus strengthening the need for similar studies to be conducted in Indonesia with a different context.

To address this gap, this study seeks to examine the impact of digital platforms on the innovation of business models within the MSME sector, utilizing a variety of industry contexts and focusing on a different developing country, specifically Indonesia. Empirically, the results of this study can contribute to expanding the limitations of previous studies related to the lack of attention to this topic in the MSME sector [14,13], differences in output focus [11,12], and research scope [4]. Practically, the results of this study can be used by MSME actors as a reference to encourage the enhancement of business model innovation, which ultimately impacts the sustainability of MSMEs in Indonesia.

## **2. LITERATUR REVIEW**

### **2.1 Digital Platforms and Business Model Innovation**

Digital platforms are characterized as technological frameworks that enable the creation of computational capabilities and support the combination of IT, computing, and connectivity infrastructures within an organization [19]. Conversely, a business model encompasses the fundamental elements of a strategic plan, delineating the firms' activities and the methods by which it generates revenue [20]. Moreover, business model innovation is understood as the enactment of substantial modifications to the essential aspects of a company's business model [21].

Over the past few years, numerous SMEs have embraced digital platforms to incorporate digital technologies toward products and processes that were traditionally non-digital, particularly in developing markets [22]. Previous research has demonstrated that digital platforms have aided companies enhance their value-creation activities by advancing their digital transformation efforts [8,23,24]. Additionally, several earlier studies have highlighted that innovation in value creation is the most vital aspect of business model innovation, signifying how companies generate value next to the value chain using the resources and capabilities available within or between organizational processes [25,26,27].

Although previous studies have explained how digital platforms influence company innovation activities [28,29], these studies have not been able to elucidate whether the adoption of digital platforms can benefit the innovation of business models at company level [4]. In this scenario, previous research suggests that to address business challenges, SMEs must innovate and redirect their business models toward digital platforms to enhance value creation [16,22].

Empirical evidence from various prior studies has highlighted the significant role of digital platforms in fostering business model innovation throughout the value chain. Within the realm of new technology, digital platforms empower SMEs to implement advanced technologies and establish new connections with existing systems to drive business model innovation [30,31 24]. Furthermore, in the context of new capabilities, digital platforms enable SMEs to facilitate innovation of business models through learning processes by upskilling staff on how to acquire new knowledge and by building interaction capabilities between staff and new technology [31], thereby allowing SMEs to reconfigure existing business models effectively [23].

Moreover, within the framework of new partnerships, digital platforms offer SMEs opportunities to foster business model innovation by enhancing communication with external partners within their collaborative, facilitated by these digital platforms [4,29]. Additionally, in terms of new processes, the adoption of digital platforms prompts SMEs to modify their business processes to cater to the requirements of stakeholders, both within and outside the organization, thereby driving business model innovation through updated operational procedures [4,24].

H1: The adoption of digital platforms positively affects business model innovation in MSMEs.

### **2.2 Digital Platforms and Capability Reconfiguration**

Capability reconfiguration refers to a process that allows companies to surmount cognitive and operational obstacles, bridge capability deficiencies, and support ongoing evolution in dynamic settings [32]. Previous research identifies two types of capability reconfiguration: evolutionary and substitutional capability reconfiguration [4,33,34,35].

Evolutionary capability reconfiguration is described as the application of intuition, knowledge, and innovative ideas within the variation-retention-replication-selection cycle, leading to the adaptation of existing routines [35]. In the context of this study, digital platforms are considered capable of influencing evolutionary capability reconfiguration [4]. Digital platforms can cause organizational changes that drive SMEs to reconfigure capabilities, providing potential sources for gaining a competitive advantage [24,12].

Moreover, SMEs can leverage technology-oriented capabilities and relationship-driven capabilities developed through interactions with digital platforms and operational workflows, thereby contributing to the reconfiguration of inherent SMEs capabilities in the process of resource selection [23]. Therefore, digital platforms can help SMEs perform evolutionary capability reconfiguration during the evolution mechanism [4].

H2a: The adoption of digital platforms positively affects the evolutionary capability reconfiguration of MSMEs.

Conversely, substitutional capability reconfiguration involves the replacement of obsolete capabilities with new ones by either fully retaining, discarding, or acquiring new capabilities in response to technological changes [35]. In this scenario, digital platforms facilitate SMEs to preserve their alliance capabilities while eliminating inefficient communication capabilities [4]. Consequently, SMEs and their stakeholders can economically acquire more valuable information for exchange [10,36]. Thus, SMEs can leverage substitutional capability reconfiguration to modify existing capabilities and develop the updated ones [4]. Previous research has specifically identified digital platforms as a critical factor in driving substitutional capability reconfiguration [4].

H2b: The adoption of digital platforms positively affects the substitutional capability reconfiguration of MSMEs.

### **2.3 Capability Reconfiguration & Business Model Innovation**

According to [35], evolutionary capability reconfiguration involves adapting existing capabilities in response to new opportunities and challenges, which aligns with the findings of [4],

which emphasize the role of evolutionary capability reconfiguration in supporting business model innovation. Hence, this study argues that evolutionary capability reconfiguration enables firms to modify existing routines and processes through cycles of variation, retention, replication, and selection, thus fostering innovation in business models.

H3a: Evolutionary capability reconfiguration positively affects MSMEs' business model innovation.

The prior study highlights that substitutional capability reconfiguration involves discarding inefficient capabilities and acquiring new skills and methods, thereby promoting the innovation of business models through substitutional capability reconfiguration [37]. This view is supported by [4], who emphasize the importance of substitutional capability reconfiguration in promoting business model innovation. Therefore, this study also argues that substitutional capability reconfiguration, which involves replacing obsolete capabilities with new ones, can lead to significant improvements and innovations in business models.

H3b: Substitutional capability reconfiguration positively affects MSMEs' business model innovation.

### **2.4 Digital Platforms, Capability Reconfiguration, & Business Model Innovation**

From the perspective of dynamic capabilities, capability reconfiguration, as a dynamic capability, represents an internal mechanism that enhances and supports existing value-creation activities within companies through various cognitive processes [15,35]. Evolutionary and substitutional capability reconfiguration create diverse mechanisms mediating the link between digital platforms and SMEs' innovation regarding their business models [4].

Evolutionary capability reconfiguration aids SMEs in developing digital business models following the adoption of digital platforms, enabling stakeholders to trade goods and services, share information, collaborate, or socialize with minimal intermediaries [38]. SMEs that proficiently utilize digital platforms can expedite the development of new capabilities and use their reconfiguration to foster business model innovation [4].

H4a: Evolutionary capability reconfiguration mediates the effect of digital platform adoption on business model innovation in MSMEs.

Substitutional capability reconfiguration enables firms to replace outdated capabilities with new digital ones through a conceptual integration process [34]. SMEs can entirely substitute old capabilities with new ones, which frequently serve as the foundation for business model innovation [39]. Consequently, SMEs that have experienced this reconfiguration mechanism can showcase the development of new business model innovations [4]. Ultimately, SMEs can employ evolutionary capability reconfiguration to refresh current capabilities, enabling them to adapt to evolving business requirements [24].

H4b: Substitutional capability reconfiguration mediates the effect of digital platform adoption on business model innovation in MSMEs.

### **3. RESEARCH methods**

#### **3.1 Sample**

To achieve its objectives, this study surveyed MSMEs that have adopted digital platforms in their business management over the past year. These platforms include e-commerce, cloud computing, mobile applications (such as sales applications, digital marketing applications, and collaborative applications), and other forms of digital platforms. Using a convenience sampling technique, the sample was taken from Sleman Regency, Yogyakarta, Indonesia. The minimum sample size in this study refers to the minimum sample requirement for data processing using the Partial Least Square Structural Equation Modeling (PLS-SEM) approach. According to [40], the minimum sample size for PLS-SEM analysis can consider the "10 times rule" and the statistical power measured using path coefficients. The research model in this study has 5 paths, so the minimum sample size based on the "10 times rule" is 50 samples. Meanwhile, based on statistical power, this study targets path coefficients between 0.21 and 0.3 with a 5% significance level, resulting in a minimum sample size of 69 samples [40]. Considering both factors, the minimum sample size for this study is 69 samples.

Table 1 presents the profile of the study's respondents, totaling 80 MSMEs. This number

surpasses the minimum required sample size of 69, ensuring the adequacy of the sample for robust data analysis. The respondent profile consists of a diverse cohort of MSME owners and managers, with a total of 80 participants. Among these respondents, 53.75% hold managerial positions, while the remaining 46.25% are business owners. The age distribution of the MSMEs reveals that 41.25% have been in operation for 1-3 years, 36.25% for more than 3 but less than 5 years, and 22.50% for over 5 years.

Moreover, industry representation is notably varied, with the most prominent culinary sector accounting for 52.50% of the respondents. Other sectors include fashion (10.00%), handicraft (8.75%), services (8.75%), technology (5.00%), furniture (3.75%), and various other industries (11.25%). This wide range of industries highlights the diverse nature of the MSME sector in the study. In addition, regarding revenue, the data indicates a significant variation in the financial scale of the businesses. A total of 42.5% of the MSMEs report an annual revenue of up to IDR 300 million, 50.00% generate between IDR 300 million and IDR 2.5 billion per year, and 7.50% have annual revenues ranging from IDR 2.5 billion to IDR 50 billion. This distribution underscores the economic diversity within the sample, providing a comprehensive overview of the financial capabilities of the participating MSMEs. In summary, the data showcases the diverse nature of the MSME sector in the study, with significant representation across various industries and a wide range of revenue scales.

#### **3.2 Measurement**

The measurement of this study uses scales that adopt from instruments employed in previous studies, utilizing a 5-point Likert scale where 1 indicates a perception of "strongly disagree" and 5 indicates "strongly agree." Digital platform adoption (DPA) was measured using five items [41,4], evolutionary capability reconfiguration (ECR) was measured using three items [4,37], substitutional capability reconfiguration (SCR) was measured using five items [4,37], and business model innovation (BMI) was measured using four items [4,27].

Table 2 summarizes the validity and reliability test results of the instruments used to measure this study's latent variables. The evaluation of the measurement model was conducted twice. In the first evaluation, items with outer loadings less

than 0.5 were removed as they did not meet convergent validity. These items included DPA4, DPA5, ECR2, SCR3, and BMI3. In the second evaluation, as shown in Table 2, while the majority of items had outer loadings greater than 0.7, several items had outer loadings below 0.7. According to Hair et al. [40], an indicator is considered reliable if it has an outer loading of at least 0.7. In this study, several indicators with outer loadings below 0.7 were retained, including DP2 (0.641), ECR3 (0.691), SCR4 (0.691), and BMI4 (0.650). This decision was made considering content validity [40]. In this context, indicators with outer loadings between 0.40 and 0.70 are acceptable if discriminant validity is met with an AVE value greater than 0.5 [40]. Based on Table 2, the discriminant validity for all variables in this study is fulfilled, which is why all

items with outer loadings below 0.7 were retained.

In addition, Table 2 also presents the Fornell-Larcker criterion values for each latent variable, indicating the highest correlation coefficient values in measuring each variable compared to the coefficients measuring other latent variables. This demonstrates that the measurements in this research model meet discriminant validity, meaning the ability of the measurement tool to distinguish between different latent variables [40]. The Fornell-Larcker criterion values are 0.724 for DPA, 0.760 for ECR, 0.755 for SCR, and 0.753 for BMI. Furthermore, Table 2 summarizes the composite reliability values used to assess the internal consistency of the measurement tools employed in this study.

**Table 1. Respondents profile**

| <b>Demographics</b>                 | <b>Freq</b> | <b>%</b> |
|-------------------------------------|-------------|----------|
| <i>Positions</i>                    |             |          |
| Owner                               | 37          | 46.25    |
| Manager                             | 43          | 53.75    |
| <i>MSMEs' Age</i>                   |             |          |
| 1-3 years                           | 33          | 41.25    |
| > 3 – 5 years                       | 29          | 36.25    |
| > 5 years                           | 18          | 22.50    |
| <i>Industries</i>                   |             |          |
| Culinary                            | 42          | 52.50    |
| Fashion                             | 8           | 10.00    |
| Handicraft                          | 7           | 8.75     |
| Services                            | 7           | 8.75     |
| Technology                          | 4           | 5.00     |
| Furniture                           | 3           | 3.75     |
| Others                              | 9           | 11.25    |
| <i>Revenue per year</i>             |             |          |
| ≤ IDR 300 million                   | 34          | 42.5     |
| > IDR 300 million – IDR 2.5 billion | 40          | 50.00    |
| > IDR 2.5 billion – IDR 50 billion  | 6           | 7.50     |

**Table 2. Measurement model evaluation**

| <b>Items</b> | <b>Outer Loadings</b> | <b>AVE</b> | <b>Fornell-Larcker</b> | <b>Composite Reliability</b> |
|--------------|-----------------------|------------|------------------------|------------------------------|
| DPA1         | 0.704                 |            |                        |                              |
| DPA2         | 0.641                 |            |                        |                              |
| DPA3         | 0.816                 | 0.525      | 0.724                  | 0.766                        |
| ECR1         | 0.824                 |            |                        |                              |
| ECR3         | 0.691                 | 0.578      | 0.760                  | 0.731                        |
| SCR1         | 0.750                 |            |                        |                              |
| SCR2         | 0.810                 |            |                        |                              |
| SCR4         | 0.691                 |            |                        |                              |
| SCR5         | 0.766                 | 0.571      | 0.755                  | 0.841                        |
| BMI1         | 0.866                 |            |                        |                              |
| BMI2         | 0.715                 |            |                        |                              |
| BMI4         | 0.650                 | 0.567      | 0.753                  | 0.795                        |

Composite reliability is considered more appropriate for assessing internal consistency compared to other internal consistency reliability measures [40]. According [40], a measurement tool is considered to have internal consistency if it has a composite reliability coefficient between 0.7 and 0.9. The composite reliability coefficients for each latent variable in Table 2 are above 0.7, indicating that the measurement tools used in this study have satisfactory levels of consistency [40].

## 4. RESULTS AND DISCUSSION

### 4.1 Results

Based on the findings in Table 3, this study investigates the relationship among DPA, ECR, SCR, and BMI, which are hypothesized within this research framework. The results of the hypothesis testing are also illustrated in Fig. 1. According to [40], a hypothesis is supported when the path coefficient aligns with the hypothesized direction (positive or negative) and the significance *P*-value < .05 at the 95% confidence level. The path from DPA to ECR is statistically significant, with a path coefficient of 0.592, a *t*-statistic of 7.452, and a *P*-value < .001. Thus, this finding supports H2a, which states that digital platform adoption positively affects evolutionary capability reconfiguration. The adjusted R<sup>2</sup> of 0.342 indicates that 34.2% of the variance in ECR is explained by DPA. Additionally, the path from DPA to SCR is statistically significant, evidenced by a path coefficient of 0.594, a *t*-statistic of 7.097, and a *P*-value < .001. This result substantiates H2b, which posits that digital platform adoption positively influences substitutional capability reconfiguration. The adjusted R<sup>2</sup> value of 0.379 demonstrates that 37.9% of the variance in SCR can be attributed to DPA.

However, the direct path from DPA to BMI is not significant, as indicated by a path coefficient of

0.038, a *t*-statistic of 0.274 (< 1.96), and a *P*-value > .05. This finding suggests that digital platform adoption alone does not directly impact business model innovation. Therefore, the H1 is not supported. Likewise, the path from ECR to BMI is also not significant, with a path coefficient of 0.220, a *t*-statistic of 1.896 (< 1.96), and a *P*-value of > .05. Although close to significance, it does not meet the .05 threshold. As a result, this finding also doesn't support H3a. Conversely, the path SCR to BMI is strongly significant, with a path coefficient of 0.636, a *t*-statistic of 4.818, and a *P*-value < .001. This finding indicates a significant positive impact of substitutional capability reconfiguration on business model innovation. Hence, H3b is supported.

Regarding the mediating effects, the path from DPA through ECR to BMI is not significant, with a path coefficient of 0.130, a *t*-statistic of 1.866 (< 1.96), and a *P*-value < .001. Consequently, H4a, which states that evolutionary capability reconfiguration mediates the effect of digital platform adoption toward business model innovation, is not supported. However, the mediating path from DPA through SCR to BMI is significant, with a path coefficient of 0.396, a *t*-statistic of 3.587, and a *P*-value < .001. For this reason, H4b is supported, which states that substitutional capability reconfiguration mediates the effect of digital platform adoption toward business model innovation. The adjusted R<sup>2</sup> for the paths toward business model innovation is 0.629, indicating that 62.9% of the variance in business model innovation is explained through this mediated relationship.

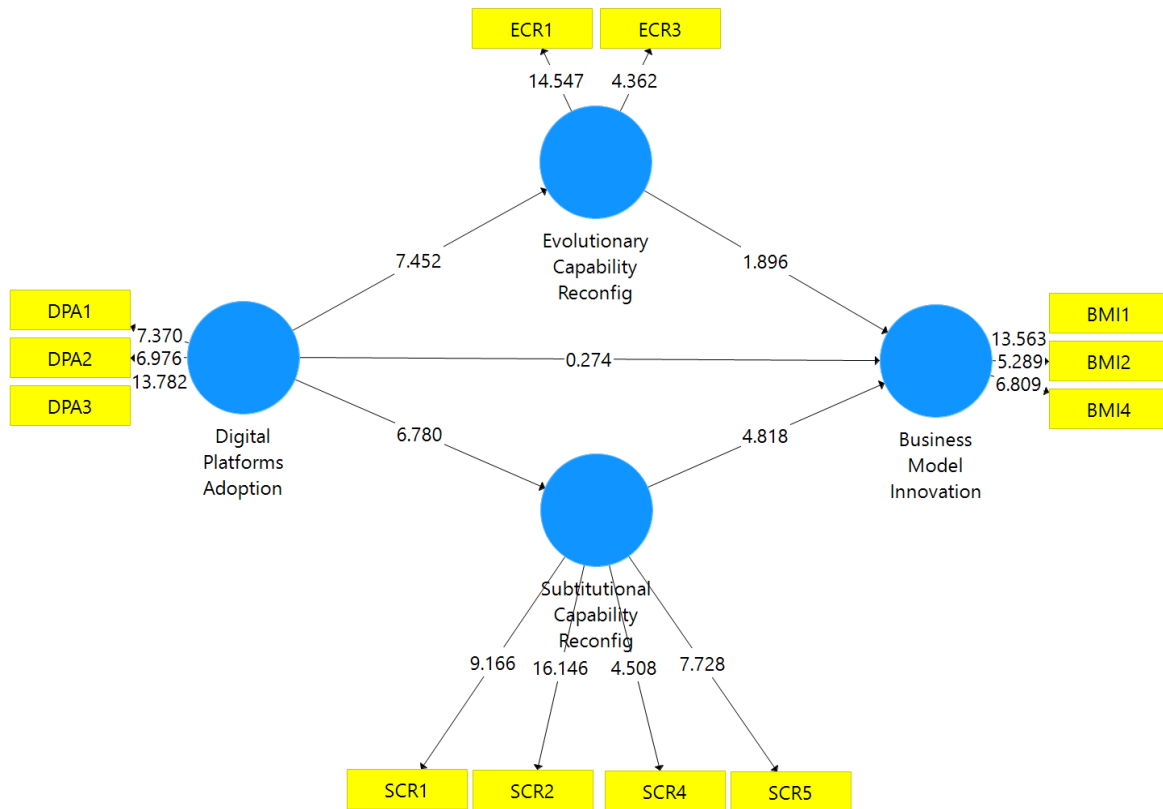
### 4.2 Discussion

This study offers significant insights into the interplay between digital platform adoption, capability reconfiguration, and business model innovation among MSMEs. The analysis reveals distinct roles played by digital platform adoption, evolutionary, and substitutional capability

**Table 3. Structural model evaluation**

| Hypotheses      | Path Coeff. | <i>t</i> -stat | <i>P</i> -Value | Results       | Adj. R <sup>2</sup> |
|-----------------|-------------|----------------|-----------------|---------------|---------------------|
| DPA → ECR       | 0.592*      | 7.452          | 0.000           | Supported     | 0.342               |
| DPA → SCR       | 0.594*      | 6.780          | 0.000           | Supported     | 0.379               |
| DPA → BMI       | 0.038       | 0.274          | 0.784           | Not supported |                     |
| ECR → BMI       | 0.220       | 1.896          | 0.059           | Not supported |                     |
| SCR → BMI       | 0.636*      | 4.818          | 0.000           | Supported     |                     |
| DPA → ECR → BMI | 0.130       | 1.866          | 0.063           | Not supported |                     |
| DPA → SCR → BMI | 0.396*      | 3.587          | 0.000           | Supported     | 0.629               |

\*) indicates significance at the 1% significance level



**Fig. 1. The structural model**

reconfigurations in driving business model innovation, providing a nuanced understanding of how MSMEs adapt and evolve in dynamic environments. Firstly, this study reveals that digital platform adoption cannot help MSMEs directly innovate their business model. It is converse with the prior study, which found that firms can innovate their business model quickly by adopting the digital platform [42,4, 24].

Second, this study shows that digital platform adoption has an important role in driving the MSMEs' capability reconfiguration, both evolutionary and substitutional capability reconfigurations. These findings align with previous studies, which have shown that digital platforms enable firms to leverage existing capabilities, making incremental adjustments and improvements to align with new business contexts [35,36]. More specifically, these findings support the prior study, which found that the adoption of digital platforms helps firms reconfigure their capabilities to adapt to changes in the dynamic environment [4]. Third, the strong impact of substitutional capability reconfiguration on business model innovation indicates that MSMEs can achieve transformations by adopting

new skills, technologies, and processes. This finding aligns with the dynamic capability perspective, which posits that firms must continuously reconfigure their resource base to maintain a competitive advantage in volatile markets [43,39].

Fourth and importantly, this study demonstrates that the adoption of digital platforms alone does not directly help MSMEs enhance business model innovation. The mediating role of substitutional capability reconfiguration between digital platform adoption and business model innovation emphasizes its importance. In this context, MSMEs must capitalize on digital platforms to improve their value chain through substitutional capability reconfiguration, which ultimately leads to the escalation of their business model innovation, and this aligns with the study conducted by [4]. This process of capability reconfiguration facilitates not only the adoption of digital technologies but also the broader strategic and operational changes required for innovation [36,23]. Hence, the ability of firms to discard obsolete capabilities and integrate new, digitally enabled ones appears to be a critical driver of innovative business models [44,4].



Furthermore, this study indicates that evolutionary capability reconfiguration may not have an immediate impact on business model innovation, as our results show its effect to be insignificant, both directly as an exogenous variable and as a mediator. Instead, digital platform adoption positively influences business model innovation primarily through substitutional capability reconfiguration. Consequently, these findings do not align with some previous studies [4,45,38]. Additionally, a recent study points out that digital platforms often rely on open innovation and multi-homing strategies, which may bypass traditional evolutionary capability reconfigurations [46,47]. This could explain why such reconfigurations do not significantly impact MSMEs' business model innovation. It implies that instead of gradually adapting and changing their existing processes and capabilities through evolutionary reconfiguration, MSMEs can develop and implement new business model innovations more swiftly by leveraging several digital platforms [47].

Theoretically, these findings contribute to the understanding of dynamic capabilities by illustrating how different forms of capability reconfiguration impact innovation. The study supports the view that dynamic capabilities, particularly those involving substitution, play a pivotal role in enabling MSMEs to adapt and innovate in response to technological changes and market demands. This adds a valuable dimension to existing literature, which has primarily focused on larger firms and less on the specific mechanisms through which MSMEs achieve innovation [22,15].

## 5. CONCLUSION

This study provides important insights into how digital platform adoption, capability reconfiguration, and business model innovation interact within MSMEs. While digital platform adoption alone does not directly lead to business model innovation, it significantly influences capability reconfiguration. Specifically, substitutional capability reconfiguration plays a critical role in driving business model innovation. This finding emphasizes the need for MSMEs to leverage digital platforms not just for adoption but for transforming their value chains and adopting new capabilities to achieve innovation.

The study also highlights that evolutionary capability reconfiguration, despite being positively influenced by digital platform adoption,

does not significantly impact business model innovation as an exogenous and mediator variable. These findings add to the theoretical understanding of dynamic capabilities, underscoring the importance of substitutional capability reconfiguration for rapid and significant innovation. This study extends the current literature by focusing on the MSME sector and different industry contexts, highlighting the necessity of strategic capability management for sustained competitive advantage in the digital age.

## 5.1 Managerial Implications

The findings of this study offer valuable insights for MSME managers aiming to drive business model innovation through digital platform adoption. While digital platforms alone do not directly enhance business model innovation, they play a crucial role in enabling capability reconfiguration, particularly substitutional capability reconfiguration. Managers should focus on leveraging digital platforms to replace outdated capabilities with new, more efficient ones, thereby transforming their value chains and fostering innovation. This strategic approach not only facilitates the integration of new technologies but also promotes broader organizational changes necessary for sustained competitive advantage [36,43]. Additionally, managers should consider the unique contextual factors of their operating environment, such as digital infrastructure and literacy, to effectively tailor their digital adoption strategies [18]. By emphasizing capability reconfiguration and aligning digital platform adoption with the specific needs and conditions of their business, MSMEs can achieve significant and rapid innovations, ultimately enhancing their competitiveness and sustainability in the digital age [4,39].

## 5.2 Limitations

This study has several limitations that should be considered. Firstly, the sample used in this study was drawn exclusively from Sleman, Yogyakarta. This geographic limitation restricts the generalizability of the findings within the broader context of Indonesia, a country characterized by its extensive archipelago and diverse regions. Furthermore, a recent study suggests that the evolution of dynamic capabilities is context-specific and may not always lead to significant innovation outcomes if the environment or the application context is not well-matched [46]. Thus, the relationship between innovations and dynamic capabilities is context-dependent [47].

This may explain why evolutionary capability reconfiguration has an insignificant role in this study, as its impact is context-dependent. Therefore, future research should consider context-specific issues, such as those related to location, industry, and other specific contexts.

Secondly, this study focused solely on investigating the role of capability reconfiguration in explaining the effects of digital platform adoption on business model innovation among MSMEs. Given the coefficient of determination achieved in this study, it is believed that there are other variables that could be explored in future studies to provide a more comprehensive understanding of the impact of digital platform adoption on business model innovation in MSMEs. Future studies should consider incorporating additional variables to elucidate better the mechanisms through which digital platforms enhance business model innovation, such as organizational culture, technology readiness, and other relevant variables.

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

#### REFERENCES

1. Ahdia A. Tantangan Terbesar UKM, dari Ekspansi sampai Inovasi. [Accessed 2024 Mar 4].

- Available:<https://databoks.katadata.co.id/datapublish/2022/12/06/tantangan-terbesar-ukm-dari-ekspansi-sampai-inovasi>.
2. Putri KA. OJK Ungkap Tantangan UMKM: Akses Finansial hingga Kurang Inovasi. [Accessed 2024 Mar 5]. Available:<https://infobanknews.com/ojk-ungkap-tantangan-umkm-akses-finansial-hingga-kurang-inovasi/>
3. Cozzolino A, Corbo L, Aversa P. Digital platform-based ecosystems: The evolution of collaboration and competition between incumbent producers and entrant platforms. *Journal of Business Research*. 2021;126:385–400.
4. Xie X, Han Y, Anderson A, Ribeiro-Navarrete S. Digital platforms and SMEs' business model innovation: Exploring the mediating mechanisms of capability reconfiguration. *International Journal of Information Management*. 2022;65: 102513.
5. de Reuver M, Sørensen C, Basole RC. The Digital Platform: A Research Agenda. *Journal of Information Technology*. 2018; 33(2):124–135.
6. Osei, Abraham, Shao Yunfei, William Ansah Appienti, Solomon Kwarteng Forkuoh. Product innovation and SMES performance in the manufacturing sector of Ghana. *Journal of Economics, Management and Trade*. 2016;15(3):1-14. Available:<https://doi.org/10.9734/bjemt/2016/29906>
7. Hurdawaty, Ramon, Martinus Tukiran. Strategies to Increase the Competitiveness of Micro, Small and Medium Enterprises (MSMES): A narrative literature review. *South Asian Journal of Social Studies and Economics*. 2024;21(1):112-25. Available:<https://doi.org/10.9734/sajsse/2024/v21i1768>.
8. Geissdoerfer M, Vladimirova D, Evans S. Sustainable business model innovation: A review. *Journal of Cleaner Production*. 2018 Oct 10;198:401-16.
9. Mazzarol T. SMEs Engagement with e-commerce, e-business and e-marketing. *Small Enterprise Research*. 2015 Jan 2;22(1):79-90.
10. McIntyre DP, Srinivasan A. Networks, platforms, and strategy: Emerging views and next steps. *Strategic Management Journal*. 2017;38(1):141–160.
11. Ritter T, Pedersen CL. Digitization capability and the digitalization of business

- models in business-to-business firms: Past, present, and future. *Industrial Marketing Management*. 2020;86:180–190.
12. Li L, Su F, Zhang W, Mao JY. Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*. 2018;28(6):1129–1157.
  13. Khanagha S, Ramezan Zadeh MT, Mihalache OR, Volberda HW. Embracing bewilderment: Responding to technological disruption in heterogeneous market environments. *Journal of Management Studies*. 2018;55(7):1079–1121.
  14. Klein A, Sørensen C, Freitas AS, Pedron CD, Elaluf-Calderwood S. Understanding controversies in digital platform innovation processes: The Google Glass case. *Technological Forecasting and Social Change*. 2020;152:119883.
  15. Bouncken RB, Kraus S, Roig-Tierno N. Knowledge- and innovation-based business models for future growth: Digitalized business models and portfolio considerations. *Review of Managerial Science*. 2019;15(1).
  16. Truant E, Broccardo L, Dana LP. Digitalisation boosts company performance: An overview of Italian listed companies. *Technological Forecasting and Social Change*. 2021;173:121173.
  17. Telukdarie A, Dube T, Matjuta P, Philbin S. The opportunities and challenges of digitalization for SME's. *Procedia Computer Science*. 2023;217:689-698.
  18. Anatan L, Nur. Micro, small, and medium enterprises' readiness for digital transformation in Indonesia. *Economies*. 2023;11(6):156.
  19. Sedera D, Lokuge S, Grover V, Sarker S, Sarker S. Innovating with enterprise systems and digital platforms: A contingent resource-based theory view. *Information & Management*. 2016;53(3):366–379.
  20. Hwang KH. A two-tier business model and its realization for entrepreneurship. *Journal of Business Research*. 2013;66(10):2102–2105.
  21. Piñera-Salmerón J, Sanz-Valle R. Dataset for the study of the relationships among business model innovation, open innovation, agility, and export performance. *Data in Brief*. 2024;54:110409.
  22. Papadopoulos T, Baltas KN, Balta ME. The use of digital technologies by small and medium enterprises during COVID-19: Implications for theory and practice. *International Journal of Information Management*. 2020;55:102192.
  23. Sengupta T, Narayanamurthy G, Hota PK, Sarker T, Dey S. Conditional acceptance of digitized business model innovation at the BoP: A stakeholder analysis of eKutir in India. *Technological Forecasting and Social Change*. 2021;170:120857.
  24. Warner KSR, Wäger M. Building Dynamic Capabilities for Digital transformation: An Ongoing Process of Strategic Renewal. *Long Range Planning*. 2019;52(3):326–349.
  25. Ibarra D, Ganzarain J, Igartua JI. Business model innovation through Industry 4.0: A Review. *Procedia Manufacturing*. 2018;22: 4–10.
  26. Achtenhagen L, Melin L, Naldi L. Dynamics of business models – strategizing, critical capabilities and activities for sustained value creation. *Long Range Planning*. 2013;46(6):427–442.
  27. Clauss T. Measuring business model innovation: Conceptualization, scale development, and proof of performance. *R&D Management*. 2016;47(3):385–403.
  28. Cenamor J, Frishammar J. Openness in platform ecosystems: Innovation strategies for complementary products. *Research Policy*. 2021;50(1):104148.
  29. Jun W, Nasir MH, Yousaf Z, Khattak A, Yasir M, Javed A, Shirazi SH. Innovation performance in digital economy: Does digital platform capability, improvisation capability and organizational readiness really matter? *European Journal of Innovation Management*. 2021;25(5):1309-1327.
  30. Thomson L, Kamalaldin A, Sjödin D, Parida V. A maturity framework for autonomous solutions in manufacturing firms: The interplay of technology, ecosystem, and business model. *International Entrepreneurship and Management Journal*. 2021;18(1):125-152.
  31. Li J, Qiu JJ, Zhou Y, Wen S, Dou KQ, Li Q. Study on the reference architecture and assessment framework of industrial internet platform. *IEEE Access*. 2020;8: 164950–164971.
  32. Girod SJG, Whittington R. Reconfiguration, restructuring and firm performance: Dynamic capabilities and environmental dynamism. *Strategic Management Journal*. 2016;38(5):1121–1133.
  33. Hu P, Wang Y, Feng T, Duan Y. Innovative search, capability reconfiguration and firm

- innovation performance in the process of technological leapfrogging. *Chinese Management Studies*. 2021;15(5):961–984.
34. Martins LL, Rindova VP, Greenbaum BE. Unlocking the hidden value of concepts: a cognitive approach to business model innovation. *Strategic Entrepreneurship Journal*. 2015;9(1):99–117.
35. Lavie D. Capability Reconfiguration: An analysis of incumbent responses to technological change. *Academy of Management Review*. 2006;31(1):153–174.
36. Helfat CE, Raubitschek RS. Dynamic and integrative capabilities for profiting from innovation in digital platform-based ecosystems. *Research Policy*. 2018;47(8):1391–1399.
37. Gatignon H, Tushman ML, Smith W, Anderson P. A structural approach to assessing innovation: construct development of innovation locus, type, and characteristics. *Management Science*. 2002;48(9):1103–1122.
38. Schrieck M, Wiesche M, Krcmar H. Capabilities for value co-creation and value capture in emergent platform ecosystems: A Longitudinal Case Study of SAP's Cloud Platform. *Journal of Information Technology*. 2021;36(4):365-390.
39. Ovuakporie OD, Pillai KG, Wang C, Wei Y. Differential moderating effects of strategic and operational reconfiguration on the relationship between open innovation practices and innovation performance. *Research Policy*. 2021; 50(1):104146.
40. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least square structural equation modeling (PLS-SEM). 3rd ed. Thousand Oaks, California: SAGE Publications; 2022.
41. Tortorella GL, Cawley Vergara AM, Garza-Reyes JA, Sawhney R. Organizational learning paths based upon industry 4.0 adoption: An empirical study with Brazilian manufacturers. *International Journal of Production Economics*. 2020;219(1):284–294.
42. Wang J, Xu C, Zhang J, Bao J, Zhong R. A collaborative architecture of the industrial internet platform for manufacturing systems. *Robotics and Computer Integrated Manufacturing*. 2020;61:101854.
43. Teece DJ. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*. 2007; 28(13):1319–1350.
44. Zhou S, Zhou A, Feng J, Jiang S. Dynamic capabilities and organizational performance: The mediating role of innovation. *Journal of Management and Organization*. 2019;25(5):731–747.
45. Johnson MW. Seizing the white space: Business model innovation for growth and renewal. Harvard Business Review Press; 2010.
46. Yixuan W, Bowen J, Yukihiro W. How digital platform leaders can foster dynamic capabilities through innovation processes: the case of Taobao. *Technology Analysis & Strategic Management*. 2024;36(4): 679-691.
47. Ochinawata C, Igwe PA, Radicic D. The institutional impact on the digital platform ecosystem and innovation. *International Journal of Entrepreneurial Behavior & Research*. 2024;30(2/3):687-708.

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