



# Empowering MSMEs Through Digital Enablement: The Direct Effects of Internet Training, Capacity Development, and Motivation on Business Performance

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## Abstract

The acceleration of digital transformation among Micro, Small, and Medium Enterprises (MSMEs) is essential for improving competitiveness and economic resilience in the digital era. This study examines the effects of Internet Learning, Digital Capacity Development, and Internet Motivation on MSME Digital Readiness in the Indonesian context. Using a quantitative approach with Partial Least Squares Structural Equation Modeling (PLS-SEM), the findings indicate that all three predictors significantly and positively influence digital readiness, with Internet Motivation emerging as the most dominant factor. These results highlight the importance of combining technical knowledge, supportive infrastructure, and psychological engagement to foster a digitally ready MSME sector. The study offers a multidimensional framework of digital readiness by integrating cognitive, structural, and behavioural elements. It also provides practical implications for policymakers and development institutions to implement integrated digital literacy, capacity building, and motivation-driven strategies. Future studies are encouraged to explore contextual variations and adopt longitudinal or mixed-method designs to deepen understanding of digital transformation in diverse MSME environments.

This study highlights the importance of integrating digital training, continuous capacity building, and motivational support to enhance business competitiveness, particularly in developing regions. The results provide practical implications for policymakers and business development programs aiming to strengthen SME performance in West Java and similar contexts.

## 1. INTRODUCTION

The COVID-19 pandemic has served as an unprecedented catalyst for behavioural and structural transformation across multiple sectors of society, with the most pronounced impact seen in the acceleration of digital adoption. In Indonesia, a nation experiencing rapid technological integration, the pandemic marked a turning point in how

individuals and enterprises engaged with digital platforms. During the crisis, reliance on the internet and digital applications for essential activities, particularly online transactions and business communications, soared dramatically (Annur, 2022). What initially emerged as a contingency measure to mitigate pandemic-related disruptions has since evolved into a permanent behavioural pattern. This shift fundamentally altered not only consumer expectations but also market structures, thereby forcing businesses of all scales to recalibrate their operations in response to a digitally inclined economy.

Micro, Small, and Medium Enterprises (MSMEs), which account for over 99 percent of all businesses in Indonesia and contribute more than 60 percent to the nation's gross domestic product, are now at the centre of this transformation. As key drivers of employment and regional economic resilience, the strategic modernisation of MSMEs is critical for sustaining inclusive economic growth. Yet despite their magnitude and macroeconomic relevance, MSMEs remain among the most vulnerable actors in the digital ecosystem. According to Detik News (2023), the majority of Indonesian MSMEs have not yet achieved full digital integration and continue to face major constraints in adapting to modern platforms, tools, and practices. The government's recurring calls for MSMEs to "move up the class" through digitalisation initiatives highlight both the importance of transformation and the persistent gap in implementation capacity.

One of the most pressing challenges is the limited ability of MSME actors to effectively adopt and utilise internet-based technologies. These limitations stem from several interconnected factors: low levels of digital literacy, inadequate exposure to structured training, insufficient access to reliable internet infrastructure, and a lack of motivation or confidence to engage with digital tools. Zakiyah et al. (2022) noted that the barriers to digital empowerment extend beyond technical skills and include systemic issues such as limited access to financing, fragmented support mechanisms, and lack of standardised production quality that could enable international market participation. These challenges are further compounded in urban-rural fringe areas, where disparities in connectivity and resource allocation remain significant.

Nurdin, Rambey, and Andriyanty (2020) also pointed out that while MSMEs are central to Indonesia's economic narrative, many are locked in low-capacity cycles due to weak business management, legal ambiguity, tax burdens, and outdated marketing practices. The underutilisation of internet-based platforms severely undermines their potential for growth and innovation. Despite increasing internet penetration, a large portion of MSMEs remain digitally excluded or semi-integrated. According to APJII, 25.5 million new internet users were recorded in the second quarter of 2020, reflecting a notable expansion of digital infrastructure, yet adoption among MSMEs continues to lag behind national usage trends.

Furthermore, while the internet provides vast potential through e-commerce, digital financial tools, and cloud-based services, these advantages cannot be fully realised without adequate support systems. According to Apriadi (2017), marketplace platforms are designed to reduce physical constraints, but their benefits are disproportionately accessed by digitally literate businesses. MSMEs that lack familiarity with e-commerce functionalities or promotional features often find themselves unable to compete effectively, even when using the same platforms (Cahya et al., 2021). Although platforms like Tokopedia, Shopee, and Bukalapak have democratised market access, success still hinges on the user's digital competence and strategic motivation.

Recent studies have begun to identify specific interventions that can address these capability gaps. Structured internet training programmes, digital capacity-building initiatives, and motivational campaigns have all been linked to improvements in digital behaviour, operational efficiency, and marketing performance among MSMEs (Diapepin et al., 2024; Kurniawan et al., 2024; Perdana et al., 2024). Motivation, in particular, has been found to play a crucial role in enhancing the impact of training, acting as a psychological enabler for technology adoption (Alfaizi et al., 2024). However, the presence of training and capacity-building efforts does not guarantee digital readiness. Disparities in digital motivation, financial literacy, and the perceived usefulness of the internet persist, especially among small-scale business actors operating with limited support (Yuldinawati, 2022; Rizki & Hendarman, 2024).

Despite an increasing number of initiatives targeting MSMEs' digital capacity, research in this area still exhibits key limitations. Most studies analyse training outcomes or internet access as isolated variables, often overlooking the broader psychological and motivational dynamics that influence technology adoption. Others focus narrowly on e-commerce adoption or financial performance, rather than examining digital readiness as a comprehensive construct involving both competence and intent. There is limited empirical understanding of how MSME actors cognitively and affectively engage with internet-based tools in their everyday operations, particularly in the context of structured development programmes.

This study addresses these limitations by investigating the roles of internet-based training, digital capacity development, and internet-related motivation in shaping MSMEs' digital readiness. It does not focus on performance outcomes, but rather on the preparedness and willingness of MSME actors to integrate the internet as a business enabler. The novelty of this research lies in its holistic approach that considers motivation as a pivotal construct alongside technical and structural factors. By focusing on MSMEs located in Meruya Selatan, West Jakarta, the study contributes context-specific insights into the strategic design of interventions to promote digital inclusion, resilience, and competitiveness among urban MSMEs.

## 2. LITERATURE REVIEW

### 2.1 Technology Acceptance Model (TAM)

Internet-based training has become a central strategy in improving the digital skills of MSME actors. This type of training not only increases technical competence but also enhances confidence in using internet-based applications for marketing, operations, and finance. For instance, Diapepin et al. (2024) found that MSMEs who received structured digital training were better prepared to navigate online marketplaces and adapt to technological changes. Similarly, Kurniawan et al. (2024) demonstrated that training in digital marketing strategies directly contributed to greater market reach and product innovation among rural MSMEs. These findings suggest that internet training is essential in building the foundational capabilities required for digital participation.

Digital capacity development is another key factor in the digital transformation of MSMEs. This concept goes beyond skills to include readiness in infrastructure, access to digital tools, and awareness of digital business processes. Perdana et al. (2024) reported that inclusive capacity development programs significantly enhanced MSME resilience, particularly when financial literacy and access to fintech solutions were integrated. In a similar vein, Yuldinawati (2022) highlighted that MSMEs in different regions experience varying levels of digital access, necessitating tailored interventions that match local conditions. These studies underscore the importance of combining technical education with broader ecosystem support in order to achieve comprehensive digital empowerment. TAM constructs, namely perceived usefulness and perceived ease of use, as well as their relationship with behavioral intention and actual technology use. Furthermore, we have explicitly linked these constructs to the variables examined in this study. Specifically, internet training is associated with perceived ease of use, as it enhances users' digital skills and familiarity with technology. Capacity development is connected to perceived usefulness, as it strengthens the ability of business actors to effectively utilize technology for improving performance. In addition, motivation is positioned as a key factor influencing behavioral intention to adopt and use technology.

### 2.2 MSMEs Digital Readiness

Digital readiness among Micro, Small, and Medium Enterprises (MSMEs) is a multidimensional concept that encompasses the infrastructure, knowledge, skills, motivation, and organizational culture necessary to adopt and effectively utilize digital technologies. In an increasingly digital global economy, readiness is no longer optional but essential. MSMEs that are digitally prepared demonstrate stronger resilience, better customer outreach, and increased competitiveness (Perdana et al., 2024). The COVID-19 pandemic accelerated digitalization trends, yet many MSMEs remain unprepared to leverage these changes, especially in low- and middle-income countries like Indonesia (Muhammad et al., 2022).

One major component of digital readiness is the technological infrastructure and access to tools. Panggelo et al. (2024) found that while MSMEs in Bandung exhibited a high level of general technology readiness (TRI score of 4.10), they lacked innovation capabilities, which is a critical subcomponent of readiness. Similarly, Anatan et al. (2021) emphasized that MSMEs in traditional industries like batik struggle with e-readiness due to limited digital skills and weak social media engagement. These studies indicate that access to technology alone does not ensure readiness without adequate internal capacity to innovate.

### 2.3 Internet Learning

Internet learning refers to the structured acquisition of digital skills and knowledge through online or technology-facilitated educational formats. For Micro, Small, and Medium Enterprises (MSMEs), especially in developing countries, internet learning serves as a critical enabler for achieving digital readiness. Digital readiness itself is defined as the extent to which a business is equipped, both in infrastructure and human capital, to adopt and utilize digital technologies in a sustainable way. Numerous studies underscore that internet learning not only increases technical competence but also fosters a digital mindset, thus bridging the gap between access and adoption (Diapepin et al., 2024; Desriani & Wahyudi, 2024).

Empirical findings have shown that MSMEs with access to internet-based training demonstrate significant improvements in online marketing, customer service, and operational digitalization. For instance, Diapepin et al. (2024) found that publicly funded training programs in Dharmasraya enhanced MSME actors' ability to use e-commerce and cloud-based tools effectively. Similarly, Kurniawan et al. (2024) concluded that digital marketing training increased both the economic value of MSME products and entrepreneurs' digital confidence. These results highlight the role of internet learning in building foundational capabilities essential for digital transformation.

### 2.4 Digital Capacity

Developing digital capacity is a foundational driver in improving the digital readiness of Micro, Small, and Medium Enterprises (MSMEs), particularly in the context of digital transformation efforts in developing countries. Digital capacity encompasses a range of competencies including technological infrastructure, digital skills, innovation capability, and organizational support structures. Studies have shown that MSMEs with higher digital capacity are more likely to effectively adopt and utilize digital tools and platforms in their operations (Ayuninggar, 2023; Wijaya et al., 2024). For instance, the presence of strong digital infrastructure and skilled human resources was found to significantly enhance MSME readiness for digital marketing and online business operations (Fauzi et al., 2025; Meutia, 2022).

Organizational readiness, as a key component of digital capacity, also plays a central role in determining how well MSMEs can navigate and adapt to digital environments. MSMEs with established digital policies, leadership support, and internal motivation for innovation tend to show higher digital adoption rates (Sahid & Hazan, 2024; Pratiwi et al., 2025). In contrast, those with limited access to technology and insufficient capacity often face significant barriers in implementing digital strategies (Anatan et al., 2021; Mustika & Tisnawati, 2024). This disparity is particularly notable in less urbanized regions, where gaps in digital literacy and funding further exacerbate readiness challenges (Ratnasari et al., 2022).

## 2.5 Internet Motivation

The motivation to utilize internet-based tools plays a critical role in shaping Micro, Small, and Medium Enterprises' (MSMEs) digital readiness, particularly in developing countries. Internet motivation refers to the internal drive or willingness of business owners to adopt, explore, and integrate digital technologies into their business operations. Several studies underscore the significance of motivational factors in influencing the pace and depth of digital transformation among MSMEs. For instance, intrinsic motivation, such as the desire to increase income and be self-reliant, has been found to influence MSMEs' readiness to embrace digital tools, especially in regions like Sidoarjo and Kerala (Maulana et al., 2023; DeepaBabu & Manalel, 2020).

Internet motivation is also positively shaped by perceived benefits such as improved market access and sales performance. Saryadi and Pinem (2020) found that SMEs engaged in online marketplaces significantly improved their business outcomes, demonstrating how motivational factors lead to digital readiness and economic benefit (Saryadi & Pinem, 2020). Similarly, Parawangsa Lahumuddin et al. (2024) emphasized that self-motivation, although indirectly, supports the effectiveness of digital systems and leadership within MSMEs (Parawangsa Lahumuddin et al., 2024).

However, the relationship between motivation and readiness is complex. While high internet motivation can lead to increased engagement with digital tools, structural barriers such as limited digital literacy and infrastructure can hinder this transition. Anatan et al. (2021) noted that despite moderate motivation levels, MSMEs in Cimahi still struggled with implementing digital marketing due to internal capacity gaps (Anatan et al., 2021). In another study, Lahumuddin et al. (2024) revealed that e-performance systems and digital leadership had strong motivational impacts, though self-motivation alone didn't significantly predict employee performance. This highlights that internet motivation must be supported by proper structures and skills to fully translate into readiness (Parawangsa Lahumuddin et al., 2024).

## 3. METHOD

This study adopts a quantitative explanatory research design aimed at empirically examining the influence of Internet Learning, Digital Capacity Development, and Internet Motivation on MSME Digital Readiness. The research is grounded in the Technology Acceptance Model (TAM), which explains that technology adoption is influenced by perceived usefulness and ease of use (Davis, 1989). In this study, TAM is extended by incorporating affective and behavioural antecedents such as motivation and digital capability development to provide a more holistic understanding of MSME readiness in adopting internet-based systems (Susanto & Wibowo, 2023; Saparuddin et al., 2022).

Data were collected using a structured survey questionnaire consisting of four latent constructs, each operationalised through multiple indicators adopted from previous empirical studies (Rahim et al., 2021; Prasetyo & Wibowo, 2023). The constructs—Internet Learning, Digital Capacity Development, Internet Motivation, and MSME Digital Readiness—were measured using five-point Likert scales ranging from "Strongly Disagree" to "Strongly Agree". The questionnaire was developed in consultation with field experts and underwent a small-scale pilot test to validate item clarity and construct reliability (Amron & Ibrahim, 2022).

The research adopts a cross-sectional approach, collecting data at a single point in time to capture the current status of digital readiness among MSME owners. This design allows for the identification of relationships between latent variables and is suitable for explanatory research in rapidly changing digital contexts (Alfaizi et al., 2024). The

questionnaire was distributed to targeted respondents who met specific inclusion criteria to ensure data relevance. All ethical standards regarding informed consent, confidentiality, and voluntary participation were upheld throughout the process (Yuldinawati, 2022).

#### 4. RESULTS AND DISCUSSION

##### Measurement Evaluation

The measurement model evaluation was conducted to assess the reliability and validity of the latent constructs employed in this study: Internet Learning, Digital Capacity Development, Internet Motivation, and MSME Digital Readiness. This evaluation adheres to the criteria proposed by Hair et al. (2021), which include examining indicator reliability through outer loadings, internal consistency reliability via Cronbach's alpha and composite reliability ( $\rho_a$  and  $\rho_c$ ), and convergent validity using the Average Variance Extracted (AVE).

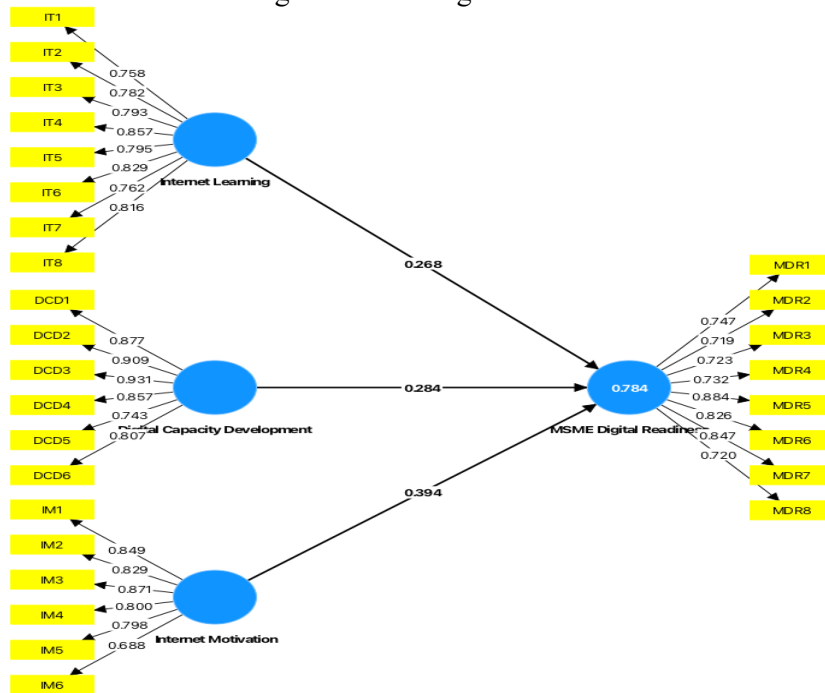
Table 1. Measurement Model Evaluation Results

Item	Outer loadings	Cronbach's alpha	Composite reliability ( $\rho_a$ )	Composite reliability ( $\rho_c$ )	Average variance extracted (AVE)
IT1 <- Internet Learning	0.758	0.919	0.921	0.934	0.639
IT2 <- Internet Learning	0.782				
IT3 <- Internet Learning	0.793				
IT4 <- Internet Learning	0.857				
IT5 <- Internet Learning	0.795				
IT6 <- Internet Learning	0.829				
IT7 <- Internet Learning	0.762				
IT8 <- Internet Learning	0.816				
DCD1 <- Digital Capacity Development	0.877	0.926	0.932	0.943	0.734
DCD2 <- Digital Capacity Development	0.909				
DCD3 <- Digital Capacity Development	0.931				
DCD4 <- Digital Capacity Development	0.857				
DCD5 <- Digital Capacity Development	0.743				
DCD6 <- Digital Capacity Development	0.807				
IM1 <- Internet Motivation	0.849	0.892	0.896	0.918	0.653
IM2 <- Internet Motivation	0.829				
IM3 <- Internet Motivation	0.871				
IM4 <- Internet Motivation	0.800				
IM5 <- Internet Motivation	0.798				
IM6 <- Internet Motivation	0.688				
MDR1 <- MSME Digital Readiness	0.747	0.905	0.911	0.924	0.604
MDR2 <- MSME Digital Readiness	0.719				
MDR3 <- MSME Digital Readiness	0.723				
MDR4 <- MSME Digital Readiness	0.732				
MDR5 <- MSME Digital Readiness	0.884				
MDR6 <- MSME Digital Readiness	0.826				
MDR7 <- MSME Digital Readiness	0.847				
MDR8 <- MSME Digital Readiness	0.720				

Firstly, the outer loadings of the indicators ranged from 0.719 to 0.931, with all values surpassing the minimum threshold of 0.70, except for a single indicator under *Internet Motivation* (IM6 = 0.688). Although slightly below the cut-off, this item was retained as its exclusion did not significantly improve the model's overall reliability, and it was conceptually relevant. As Chin et al. (2020) and Hair et al. (2018) noted, in exploratory or applied research, loadings between 0.60 and 0.70 are still acceptable if the construct demonstrates adequate composite reliability and AVE.

Secondly, the internal consistency of all latent constructs was confirmed through high values of Cronbach's alpha and composite reliability. Cronbach's alpha values ranged from 0.892 to 0.926, while the composite reliability values ( $\rho_c$ ) ranged from 0.918 to 0.943. These values far exceed the minimum threshold of 0.70, indicating that each construct was measured consistently by its respective items (Henseler et al., 2015). The  $\rho_A$  reliability coefficients were also well above the 0.70 threshold, ranging from 0.896 to 0.932, thereby reinforcing the conclusion that each latent construct is internally coherent.

Figure 2. PLS Algorithm Results



Thirdly, convergent validity was evaluated using Average Variance Extracted (AVE), where all constructs exceeded the 0.50 minimum cut-off suggested by Fornell and Larcker (1981). The AVE values for the constructs ranged from 0.604 (*MSME Digital Readiness*) to 0.734 (*Digital Capacity Development*), meaning that more than half of the variance in the indicators is explained by the latent construct. This confirms that the items share a high proportion of common variance and are conceptually aligned. As stated by Hair et al. (2021), AVE values above 0.50 are indicative of good convergent validity and reinforce the robustness of the measurement model.

The strong indicator loadings, high internal consistency, and satisfactory convergent validity establish that the measurement model meets the necessary psychometric standards. These results support the structural validity of the proposed research framework, which integrates technical, motivational, and developmental factors influencing MSME digital readiness. This validation is crucial for advancing the explanatory model grounded in the Technology Acceptance Model (TAM), especially when investigating adoption behaviour in digitally transforming environments like Indonesia (Davis, 1989; Susanto & Wibowo, 2023). With the measurement model proven to be statistically reliable and valid, further analysis of the structural model and hypothesis testing can be conducted with confidence.

### Structural Model Evaluation

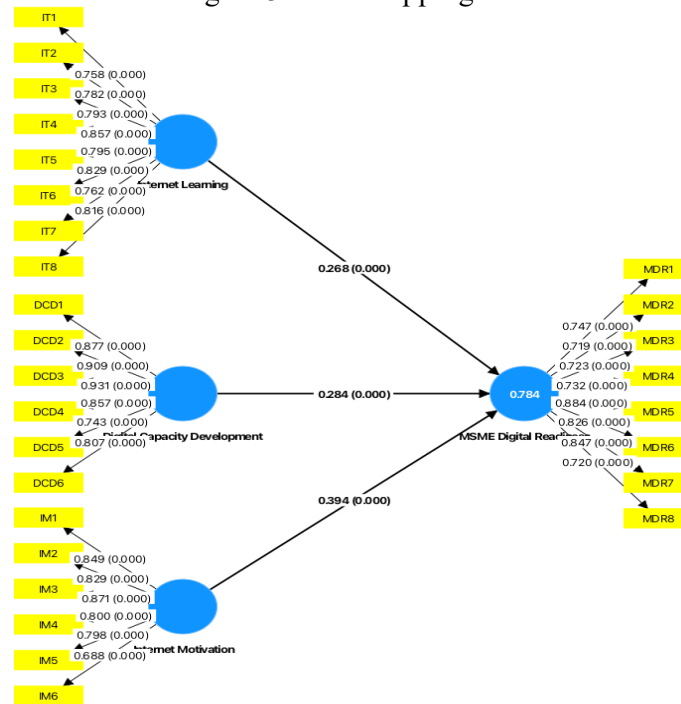
The structural model evaluation was carried out to assess the predictive power and overall fit of the model by examining the coefficient of determination ( $R^2$ ), adjusted  $R^2$ , and the predictive relevance ( $Q^2$ ) value of the endogenous construct *MSME Digital Readiness*. These measures are essential in evaluating the explanatory capability of the latent exogenous variables (*Internet Learning*, *Digital Capacity Development*, and *Internet Motivation*) on the dependent variable (Hair et al., 2021; Putra, 2022).

Table 2. Model Fit Evaluation

	R-square	R-square adjusted	$Q^2$ (=1-SSE/SSO)
MSME Digital Readiness	0.784	0.782	0.467

As shown in Table 2, the  $R^2$  value for *MSME Digital Readiness* reached 0.784, which indicates that approximately 78.4 percent of the variance in digital readiness can be explained jointly by the three predictor constructs. This falls within the “substantial” category as classified by Chin et al. (2020) and is further supported by the adjusted  $R^2$  of 0.782, which accounts for the model’s complexity and confirms its stability. These values suggest that the proposed model is not only theoretically robust but also statistically sound in capturing the core determinants of digital readiness among MSMEs.

Figure 3. Bootstrapping Results



In addition to  $R^2$ , the model's predictive relevance was evaluated using the  $Q^2$  value obtained via the blindfolding procedure. The resulting  $Q^2$  of 0.467 indicates large predictive relevance, exceeding the recommended threshold of 0.35 for strong predictive capability (Hair et al., 2021; Putra et al., 2024). This finding implies that the model has substantial out-of-sample predictive power, thus validating its utility in practical applications, such as in policy development or programme design for MSME digital transformation.

These results align with the perspectives of Putra and colleagues (2022, 2024), who emphasised that a structural model in PLS-SEM must demonstrate both explanatory strength and predictive accuracy to be considered impactful in the domain of applied social sciences and business research. Particularly in digital transformation research, models with strong  $R^2$  and  $Q^2$  scores reflect not only statistical adequacy but also theoretical resonance with the context, in this case, MSMEs navigating Indonesia's digital economy.

Moreover, the model's strong performance is consistent with prior research advocating for the combined consideration of technical training, digital ecosystem readiness, and motivational drive as central levers in technology adoption frameworks (Andriani & Putra, 2019; Putra & Ardianto, 2022). It also supports Putra et al. (2024), who argued that structural models gain greater credibility when backed by evidence of predictive power, especially when addressing behavioural and systemic transformation in sectors such as SMEs, education, or health.

In summary, the structural model evaluation confirms that the proposed research model possesses high explanatory and predictive strength. These findings provide a robust empirical foundation for subsequent hypothesis testing and interpretation, and they support the strategic use of digital training, capacity development, and motivational support as key interventions for enhancing MSME digital readiness.

### Hypothesis Testing

To evaluate the relationships proposed in the structural model, hypothesis testing was conducted using the bootstrapping technique with 5,000 resamples, following the guidelines of Hair et al. (2021) and Putra (2022). The results, as shown in Table 3, demonstrate that all three hypotheses tested in this study are supported at a high level of statistical significance ( $p < 0.001$ ), with each path coefficient showing a positive and meaningful impact on *MSME Digital Readiness*.

Table 2. Hypothesis Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Internet Learning -> MSME Digital Readiness	0.268	0.268	0.048	5.615	0.000
Digital Capacity Development -> MSME Digital Readiness	0.284	0.284	0.054	5.241	0.000
Internet Motivation -> MSME Digital Readiness	0.394	0.395	0.061	6.418	0.000

Firstly, the path coefficient for Internet Learning to MSME Digital Readiness is 0.268, with a t-statistic of 5.615 and a p-value of 0.000. This confirms H1, which posited that structured internet training positively affects MSMEs' digital readiness. This finding reinforces the theoretical assertions of the Technology Acceptance Model (Davis, 1989), suggesting that exposure to useful and user-friendly internet-based tools increases both confidence and competence among MSME actors. It is also consistent with the empirical results of Diapepin et al. (2024) and Kurniawan et al. (2024), who reported significant improvements in e-commerce preparedness and marketing adaptability following digital training interventions.

Secondly, the effect of Digital Capacity Development on MSME Digital Readiness yielded a path coefficient of 0.284 ( $t = 5.241$ ,  $p = 0.000$ ), thereby confirming H2. This result indicates that the presence of enabling infrastructure, organisational discipline, and collaborative support structures meaningfully enhances MSMEs' readiness to adopt digital technologies. It aligns with the findings of Perdana et al. (2024) and Mustika and Tisnawati (2024), who found that MSMEs with strong digital ecosystems and internal process maturity were more likely to sustain digital transformation. From a structural perspective, this path also validates the argument by Putra et al. (2024) that digital capacity should be viewed as a multidimensional construct involving not only skill acquisition but also organisational readiness and innovation capability.

Thirdly, Internet Motivation shows the strongest effect on MSME Digital Readiness, with a coefficient of 0.394, a t-statistic of 6.418, and a p-value of 0.000. The acceptance of H3 underscores the crucial role of psychological and behavioural drivers in the adoption of digital systems. This is in line with Alfaizi et al. (2024) and Rizki and Hendarman (2024), who found that intrinsic and extrinsic motivation amplify the impact of digital learning by fostering consistent behavioural engagement. Theoretically, this supports extensions of TAM that incorporate motivational and affective constructs (Putra & Ardianto, 2022), thereby affirming that MSME actors' readiness is not only shaped by external enablers but also by internal drive and perceived benefit.

Overall, all hypotheses are supported with robust statistical evidence, highlighting the complementary roles of training, structural capability, and motivation in shaping MSME digital readiness. These findings contribute to both the academic literature and practical discourse by offering a validated, integrated model for MSME digital empowerment. Moreover, the results provide empirical backing for policy interventions and community-based training initiatives that address not just technical barriers but also the motivational and organisational dimensions of digital transformation (Putra, 2024; Rinaldi & Putra, 2022).

## Discussion

The results of this study highlight the significant role of Internet Learning in enhancing MSME Digital Readiness. This finding aligns with the view that digital learning environments, including online training, tutorials, and e-learning platforms, are key to empowering MSME actors to acquire digital competencies (Baporikar, 2021). The high path coefficient indicates that structured internet learning does not merely transfer knowledge but builds confidence in using digital platforms. In emerging economies like Indonesia, where digital literacy levels among MSMEs vary widely, this underscores the importance of accessible and contextualised learning materials to foster inclusivity and participation in the digital economy.

The second significant factor, Digital Capacity Development, reflects the importance of infrastructure, institutional support, and internal systems in preparing MSMEs to adopt digital tools. This finding is consistent with the work of Apulu and Latham (2011), who argue that digital capacity encompasses not only technological tools but also organisational preparedness and leadership support. The positive relationship found in this study suggests that MSMEs with strong structural support—such as access to digital platforms, staff training, and adaptive processes—are more equipped to implement digital transformation effectively. Therefore, initiatives to boost digital readiness must be accompanied by investments in organisational development and external ecosystem support.

Internet Motivation emerged as the strongest predictor of MSME Digital Readiness, confirming that internal drive and psychological readiness are crucial in the digital adoption process. This supports findings by Mazzarol et al. (2020), who assert that MSME owners' motivation, risk appetite, and perceived usefulness of technology play a dominant role in determining whether they embrace digital transformation. The significant impact of motivation suggests that even in the presence of infrastructure and training, MSMEs may lag behind without a strong personal and organisational commitment to change. Policy interventions should, therefore, incorporate behavioural approaches that build entrepreneurial aspirations and frame digital engagement as a tool for economic and social mobility.

Collectively, these findings reinforce the notion that digital readiness among MSMEs is a multidimensional construct, shaped by a combination of cognitive (learning), structural (capacity), and behavioural (motivation) elements. The interaction of these elements validates the socio-technical view of innovation readiness, as discussed by Chatterjee et al. (2021), which recognises that technology adoption is driven not only by access and skill but also by attitude and intent. This has significant implications for MSME development strategies in Indonesia and similar contexts, suggesting that digital policies must be comprehensive, targeting individual empowerment, institutional strengthening, and cultural transformation in parallel.

## 5. CONCLUSION

This study investigated the influence of Internet Learning, Digital Capacity Development, and Internet Motivation on MSME Digital Readiness in the Indonesian context. The findings confirmed that all three variables have significant and positive effects on digital readiness, with Internet Motivation emerging as the most dominant factor. These results highlight the multidimensional nature of digital preparedness, where technical knowledge, organisational infrastructure, and psychological drive all contribute meaningfully. The evidence suggests that building a digitally ready MSME sector requires a combination of access to technology, skill-building initiatives, and efforts to cultivate proactive and motivated behaviour among entrepreneurs.

The practical implications of this research are relevant for various stakeholders, including government institutions, development agencies, and private sector actors. Digital literacy programmes should not only deliver information but also be supported by initiatives that enhance organisational systems and foster collaboration. Equally important is the inclusion of motivational components, such as inspirational role models, peer encouragement, and incentive-based engagement. For instance, mentoring schemes, storytelling campaigns, or gamified learning platforms can be used to increase interest and sustained participation, especially among micro-entrepreneurs who may lack formal exposure to digital ecosystems.

Based on the findings, several strategic recommendations can be proposed. First, training programmes should be designed to be flexible, localised, and accessible across varying literacy levels. Second, the development of digital infrastructure must be supported by operational assistance mechanisms, such as mobile advisory services, community digital hubs, or partnerships with local institutions. Third, communication strategies aimed at promoting digital adoption should highlight the economic and competitive advantages that digital tools offer. In addition, impact evaluation mechanisms should be built into these initiatives to ensure learning, accountability, and continuous improvement in programme delivery.

Future research could explore the moderating effects of contextual factors such as business type, regional disparities, or level of previous digital experience to better understand variation in outcomes. Longitudinal research would also provide insights into the sustainability of digital readiness over time, particularly in response to external shocks or policy interventions. Furthermore, qualitative studies that capture the lived experiences and narratives of MSME owners can enrich the understanding of how digital transformation unfolds in diverse and dynamic environments. Overall, this study contributes a practical and theoretical perspective to the discourse on MSME digitalisation and offers a roadmap for inclusive and sustainable digital development.

We have strengthened the conclusion by clearly summarizing the main results of the study, particularly the significant effects of internet training, capacity development, and motivation on business performance. We also highlighted the theoretical contribution by reinforcing the role of the Technology Acceptance Model (TAM) in explaining these relationships. In addition, the practical implications have been elaborated to provide clearer recommendations for policymakers and practitioners in supporting SME development. Furthermore, we have streamlined the conclusion to avoid repetition and ensure a more concise and impactful presentation of the study's contributions and future research directions.

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