

INFLUENCE OF PSYCHOPRENEURSHIP AND DIGITAL CAPABILITY ON THE OPERATIONAL INDEPENDENCE OF MICRO ENTERPRISES IN THE CITY OF BANDUNG

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Abstract

Micro businesses play a strategic role in the Indonesian economy, but still face challenges in achieving sustainable operational independence, particularly amid the demands of psychological adaptation to entrepreneurship and digital transformation. This study aims to analyse the influence of psychopreneurship and digital capability on the operational independence of micro businesses in Bandung City. The study uses a quantitative approach with a survey method of 280 micro business actors, which is analysed using Partial Least Squares–Structural Equation Modelling (PLS-SEM). The results of the analysis show that psychopreneurship has a positive and significant effect on the operational independence of micro businesses ($\beta = 0.604$), while digital capability also has a positive and significant effect ($\beta = 0.121$). Simultaneously, psychopreneurship and digital capability were able to explain 37.1% of the variation in the operational independence of micro businesses ($R^2 = 0.371$), indicating that operational independence is the result of the integration of the psychological readiness for entrepreneurship and the digital capabilities of business actors. This study contributes to the development of entrepreneurship literature by integrating the concepts of psychopreneurship and digital capability into a single empirical model, as well as providing practical implications for the development of more holistic and sustainable micro-business empowerment policies and programmes.

Keywords: psychopreneurship; digital capability; operational independence; micro-enterprise.

Abstrak

Usaha mikro memiliki peran strategis dalam perekonomian Indonesia, tetapi masih menghadapi berbagai tantangan dalam mencapai kemandirian operasional yang berkelanjutan, khususnya di tengah tuntutan adaptasi psikologis terhadap kewirausahaan dan transformasi digital. Penelitian ini bertujuan untuk menganalisis pengaruh psychopreneurship dan kapabilitas digital terhadap kemandirian operasional usaha mikro di Kota Bandung. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei terhadap 280 pelaku usaha mikro, yang dianalisis menggunakan Partial Least Squares–Structural Equation Modelling (PLS-SEM). Hasil analisis menunjukkan bahwa psychopreneurship berpengaruh positif dan signifikan terhadap kemandirian operasional usaha mikro ($\beta = 0,604$), sedangkan kapabilitas digital juga berpengaruh positif dan signifikan ($\beta = 0,121$). Secara simultan, psychopreneurship dan kapabilitas digital mampu menjelaskan 37,1% variasi dalam kemandirian operasional usaha mikro ($R^2 = 0,371$), yang menunjukkan bahwa kemandirian operasional merupakan hasil dari integrasi kesiapan psikologis dalam berwirausaha dan kapabilitas digital para pelaku usaha. Penelitian ini memberikan kontribusi terhadap pengembangan literatur kewirausahaan dengan mengintegrasikan konsep psychopreneurship dan kapabilitas digital ke dalam satu model empiris, sekaligus memberikan implikasi praktis bagi pengembangan kebijakan dan program pemberdayaan usaha mikro yang lebih holistik dan berkelanjutan.

Kata kunci: psychopreneurship; kapabilitas digital; kemandirian operasional; usaha mikro.



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INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) are the main pillar of the Indonesian economy. By 2024, MSMEs are expected to contribute more than 60% to the national Gross Domestic Product (GDP) and employ more than 97% of Indonesia's workforce.¹ "In the city of Bandung alone, thousands of micro businesses contribute to the local economic dynamics through the trade, production, and service sectors. However, amid digital disruption and global competition, micro businesses face pressure to improve operational efficiency, expand market access, and maintain business sustainability.

The main problems facing MSMEs today are not only limited capital or market access, but also limited entrepreneurial psychological competencies (psychopreneurship) and digital capabilities as driving forces for adaptability in a volatile business environment. Psychopreneurship encompasses psychological components such as entrepreneurial motivation, resilience, creativity, and proactive orientation that play a role in strategic business decision-making. Meanwhile, digital capability refers to the capacity of business actors to utilise digital technology for marketing, operations, and customer management, which is increasingly important in the era of the 4.0 digital economy.²

The literature on digital entrepreneurship shows a strong relationship between entrepreneurial orientation and digital capabilities on the performance and competitiveness of MSMEs. Empirical research by Sari et al.,³ on food industry MSMEs in Bandung City proves that digital competence and entrepreneurial orientation have a positive and significant effect on the competitive advantage of micro businesses, especially in the context of increasingly digital market competition. These findings are in line with the study by Sulistyanto et al.,⁴ which reveals that digital capability and entrepreneurial orientation contribute significantly to the innovation performance of MSMEs in Bekasi, with knowledge management acting as a mediating variable that strengthens this relationship. Other studies at the regional level also show similar results, where Nurhanafiyah et al., found that entrepreneurial competence and digital capability are key factors in the development and sustainability of micro businesses in Banyuwangi. These findings indicate that

¹ Kementerian Koperasi dan Usaha Kecil dan Menengah Republik Indonesia, *Perkembangan Data Usaha Mikro, Kecil, Dan Menengah (UMKM) Indonesia 2023–2024* (KemenKopUKM RI, 2024).

² Supriyono, "Transformasi Digital Sebagai Urgensi Strategis Untuk Meningkatkan Kinerja UMKM Di Indonesia: Peran Kapabilitas Teknologi Dan Orientasi Kewirausahaan," *YUME: Journal of Management*, 2025.

³ S. M. Sari et al., "Kompetensi Digital Dan Orientasi Kewirausahaan Sebagai Penentu Keunggulan Bersaing UMKM," *AdBispreneur: Jurnal Pemikiran Dan Penelitian Administrasi Bisnis Dan Kewirausahaan* 10, no. 1 (2025): 45–60.

⁴ T. H. Sulistyanto et al., "Kapabilitas Manajemen Pengetahuan Dan Orientasi Kewirausahaan Dalam Mendorong Inovasi UMKM," paper presented at Proceedings National Conference Sinesia, 2025.

digitalisation and entrepreneurial orientation have become important prerequisites for improving the performance and competitiveness of MSMEs in Indonesia.

At the international level, various reputable studies in the last five years have consistently confirmed that psychological factors of entrepreneurship are the main determinants of the success and sustainability of micro and small businesses. A systematic study by Newman et al.⁵ and empirical research by Chen et al.,⁶ show that entrepreneurial self-efficacy plays a significant role in improving the quality of decision-making, self-confidence, and the resilience of business actors in facing business environment uncertainty. Furthermore, Fisher et al.,⁷ emphasise that psychological resilience and proactive orientation are the main foundations for maintaining the operational continuity of small businesses amid market pressures. These findings are reinforced by Ayala and Manzano⁸, who found that the combination of psychological resilience and innovative orientation significantly improves the ability of small businesses to survive and grow independently. In the context of developing countries, Bullough et al.,⁹ also emphasise that the psychological dimensions of entrepreneurship have a direct influence on operational autonomy and business sustainability, especially when entrepreneurs are faced with resource constraints.

In line with this, internationally renowned literature also highlights the crucial role of digital capability in strengthening the resilience and operational independence of MSMEs. The concept of dynamic capabilities introduced by Teece¹⁰ provides an important theoretical foundation for understanding how organisational capabilities adapt to technological change. This framework was further developed in the context of digital transformation by Warner and Wäger¹¹ and Vial¹², who emphasised that the ability to integrate digital technology into business processes is a key prerequisite for successful operational transformation. Empirical studies by Rialti et al.,¹³ and Bresciani et al.,¹⁴ show that digital capabilities significantly improve operational efficiency, process

⁵ A. Newman et al., "Entrepreneurial Self-Efficacy: A Systematic Review," *Journal of Management* 45, no. 3 (2019): 123–46.

⁶ Y. Chen et al., "Entrepreneurial Self-Efficacy and Venture Performance," *Journal of Economic Behavior & Organization* 176 (2020): 375–95.

⁷ R. Fisher et al., "Does Individual Resilience Influence Entrepreneurial Success?," *Journal of Business Venturing* 35, no. 3 (2020): 105–21.

⁸ J. C. Ayala and G. Manzano, "The Resilience of the Entrepreneur: Influence on the Success of the Business," *International Small Business Journal* 39, no. 5 (2021): 417–37.

⁹ A. Bullough et al., "Danger Zone Entrepreneurs: The Importance of Resilience and Self-Efficacy," *Entrepreneurship Theory and Practice* 45, no. 2 (2021): 454–78.

¹⁰ D. J. Teece, "Business Models and Dynamic Capabilities," *Long Range Planning* 51, no. 1 (2018): 40–49.

¹¹ K. S. R. Warner and M. Wäger, "Building Dynamic Capabilities for Digital Transformation," *Long Range Planning* 52, no. 3 (2019): 326–49.

¹² G. Vial, "Understanding Digital Transformation," *MIS Quarterly* 43, no. 1 (2019): 223–55.

¹³ R. Rialti et al., "Big Data Analytics Capabilities and Performance," *Management Decision* 58, no. 8 (2020): 1714–34.

¹⁴ S. Bresciani et al., "The Management of Organizational Ambidexterity through Alliances in a New Context of Analysis," *Journal of Business Research* 123 (2021): 413–25.

flexibility, and decision-making autonomy in small businesses. Similar findings were also reported by Kraus et al.,¹⁵ who stated that MSMEs with high levels of digital capabilities tend to be more operationally independent and less reliant on long-term external support. Furthermore, Elia et al.,¹⁶ emphasised that the integration of digital capabilities and entrepreneurial capabilities results in sustainable competitive advantages.

However, most empirical studies still position psychological factors of entrepreneurship and digital capabilities as constructs that are analysed separately. The concept of psychopreneurship, which combines psychological aspects of entrepreneurs such as self-efficacy, creativity, and resilience in the context of micro-entrepreneurship, is still relatively rarely studied empirically in Indonesia, especially in relation to the operational independence of micro-enterprises. In fact, recent literature shows that entrepreneurial mindset and digital capabilities interact with each other in determining business success in a dynamic market. The study by Zainuddin et al.,¹⁷ confirms that entrepreneurs with an adaptive mindset, strong resilience, and adequate digital technology capabilities have greater opportunities to adopt technology and optimise digital transformation.

Based on this literature synthesis, a research gap can be identified in the form of a limitation of empirical studies that simultaneously integrate psychopreneurship and digital capability in explaining the operational independence of micro-enterprises, especially in local contexts such as the city of Bandung, which is one of the largest centres for MSMEs and the creative economy in Indonesia. Therefore, this study offers novelty by constructing a holistic and contextual research framework to examine the simultaneous role of these two constructs in promoting the operational independence of micro-enterprises.

Thus, this study is designed to measure and analyse the influence of psychopreneurship and digital capability on the operational independence of micro-enterprises in Bandung, with the following objectives: (1) to assess the influence of psychopreneurship on operational independence; (2) to analyse the influence of digital capability on operational independence; and (3) to identify the combined contribution of these two variables to the operational independence of micro businesses. The findings are expected to enrich the academic literature while providing practical

¹⁵ S. Kraus et al., "Digital Transformation in Business and Management Research: An Overview," *Journal of Business Research* 141 (2022): 346–62.

¹⁶ G. Elia et al., "Digital Entrepreneurship Ecosystem: How Digital Technologies and Collective Intelligence Shape Entrepreneurial Opportunities," *Technological Forecasting and Social Change* 162 (2021): 120–33.

¹⁷ F. I. Faizan Iza Zainuddin et al., "Entrepreneurial Mindset and Digital Transformation: A Systematic Review of Principal Success Factors," *International Journal of Business Management* 7, no. 2 (2025): 33–49.

implications for business actors, policy makers, and stakeholders in the empowerment of MSMEs in the digital era.

RESEARCH METHODS

Research Design

This study uses a quantitative approach with an explanatory research design, which aims to explain the causal relationship between the variables of psychopreneurship and digital capability on the operational independence of micro businesses. A quantitative approach was chosen because the study focused on testing hypotheses based on numerical data obtained through structured instruments, thereby enabling objective and statistically tested measurement of the relationship between variables.¹⁸

The research design used was a cross-sectional survey, which is data collection conducted at a specific time on micro-business respondents in the city of Bandung. This design was considered relevant for examining the psychological conditions of entrepreneurship, digital capabilities, and the level of operational independence of micro-businesses, which are dynamic but can be represented through current business perceptions and practices.¹⁹ The use of surveys is also in line with the characteristics of questionnaire instruments that measure latent constructs based on the perceptions of business actors.

Population and Sample

The population in this study consists of all micro-businesses operating in the city of Bandung. Bandung was chosen as the location for this study because it is one of the centres of micro, small and medium enterprises (MSMEs) and the creative economy in Indonesia, with a high level of micro-business activity and relatively advanced adoption of digital technology. Based on official data from the Central Statistics Agency (BPS) and the Ministry of Cooperatives and SMEs of the Republic of Indonesia, the number of micro businesses in Bandung City reaches tens of thousands of active business units, spread across the culinary, trade, services, and creative industries sectors.²⁰ This condition makes Bandung City a relevant empirical context for examining the operational independence of micro-businesses in the digital era.

¹⁸ J. W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed. (Sage Publications, 2018); U. Sekaran and R. Bougie, *Research Methods for Business: A Skill-Building Approach*, 8th ed. (Wiley, 2020).

¹⁹ J. F. Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 3rd ed. (Sage Publications, 2021).

²⁰ Badan Pusat Statistik, *Statistik UMKM Indonesia 2023–2024* (BPS, 2024); Kementerian Koperasi dan Usaha Kecil dan Menengah Republik Indonesia, *Perkembangan Data Usaha Mikro, Kecil, Dan Menengah (UMKM) Indonesia 2023–2024*.

The research sample consisted of 280 micro-entrepreneurs, selected using purposive sampling. This technique was chosen because the study required respondents with specific characteristics that matched the research objectives, namely micro-entrepreneurs who were actively operating and utilising digital technology in their business activities.²¹ The sample selection criteria were explicitly adjusted to the screening questions in the research questionnaire, including: (1) businesses located and operating in the city of Bandung; (2) businesses classified as micro and independently managed; (3) businesses registered on Google Maps; (4) businesses with digital media such as social media or websites; and (5) businesses using digital payment systems. The sample size of 280 was considered adequate for Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis because it met the minimum sample size requirement and provided sufficient statistical power in testing the structural model.²²

Research Variable

This study involved three main variables, namely two independent variables and one dependent variable, all of which were measured using a five-point Likert scale questionnaire instrument.

The first variable was psychopreneurship (X_1), defined as the psychological entrepreneurial ability of micro-business owners to manage, maintain, and develop their businesses. This construct includes the dimensions of entrepreneurial self-efficacy, resilience, proactiveness, innovativeness, and risk-taking, which reflect self-confidence, resilience, opportunity orientation, creativity, and measured risk-taking in entrepreneurship. These dimensions are widely recognised as key psychological factors in entrepreneurial success and micro-business sustainability.²³

The second variable is digital capability (X_2), which refers to the ability of micro-entrepreneurs to utilise digital technology to support operational activities, marketing, and business decision-making. Digital capability is measured through the dimensions of digital infrastructure, digital skills, digital management, technology integration, and adaptability to new technologies. This capability is seen as an important determinant in improving the operational efficiency and competitiveness of micro-enterprises in the era of digital transformation.²⁴

²¹ Sekaran and Bougie, *Research Methods for Business: A Skill-Building Approach*.

²² Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

²³ Faizan Iza Zainuddin et al., "Entrepreneurial Mindset and Digital Transformation: A Systematic Review of Principal Success Factors"; Y. Musyafaah and D. S. Budiarto, "Jiwa Kewirausahaan Dan Kinerja Operasional UMKM," *Jurnal Riset Akuntansi Mercu Buana*, 2025.

²⁴ Supriyono, "Transformasi Digital Sebagai Urgensi Strategis Untuk Meningkatkan Kinerja UMKM Di Indonesia: Peran Kapabilitas Teknologi Dan Orientasi Kewirausahaan"; Sari et al., "Kompetensi Digital Dan Orientasi Kewirausahaan Sebagai Penentu Keunggulan Bersaing UMKM."

The dependent variable in this study is the operational independence of micro-enterprises (Y), which is defined as the ability of micro-enterprises to carry out operational activities sustainably without high dependence on external assistance. Operational independence includes the ability to cover operational costs, income stability, decision-making autonomy, and sufficient business liquidity. This concept is seen as an important indicator of the resilience and sustainability of micro-enterprises in a competitive and uncertain business environment.²⁵

Data Analysis Techniques Using Partial Least Squares–Structural Equation Modelling (PLS-SEM)

Data analysis in this study utilised Partial Least Squares–Structural Equation Modelling (PLS-SEM). This method was selected because it is capable of simultaneously analysing relationships between latent variables and is suitable for predictive and exploratory research involving psychological and behavioural constructs.²⁶ PLS-SEM was also considered appropriate because the research model involved several indicators for each latent variable and a relatively large sample size ($n = 280$).

PLS-SEM allowed for the testing of two models simultaneously, namely the measurement model (outer model) to assess the validity and reliability of the constructs, and the structural model (inner model) to test the causal relationships between variables and research hypotheses. The use of PLS-SEM in the context of MSMEs and digital entrepreneurship has been widely recommended in the literature due to its flexibility regarding data normality assumptions and model complexity.²⁷

Framework Diagram and Research Hypothesis

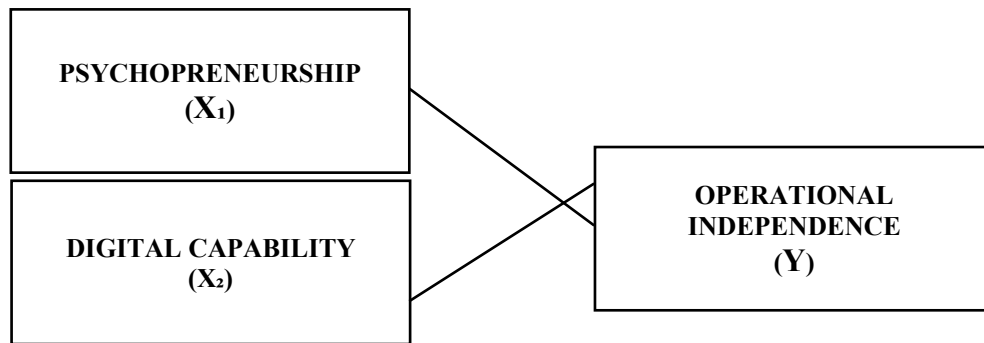
Conceptually, this study departs from the assumption that the operational independence of micro-enterprises is not only determined by external factors, but is also greatly influenced by the internal strengths of business actors, particularly the psychological aspects of entrepreneurship (psychopreneurship) and technological adaptation capabilities (digital capability). These two variables are seen as complementary in encouraging the ability of micro-enterprises to survive and develop independently in the digital era.

²⁵ Musyafaah and Budiarto, “Jiwa Kewirausahaan Dan Kinerja Operasional UMKM.”

²⁶ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

²⁷ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; Supriyono, “Transformasi Digital Sebagai Urgensi Strategis Untuk Meningkatkan Kinerja UMKM Di Indonesia: Peran Kapabilitas Teknologi Dan Orientasi Kewirausahaan.”

Figure 1.
Research Framework



Based on this framework, the research hypotheses are formulated as follows:

- H1** : Psychopreneurship has a positive effect on the operational independence of micro-enterprises.
- H2** : Digital capability has a positive effect on the operational independence of micro-enterprises
- H3** : Psychopreneurship and digital capability simultaneously have a positive effect on the operational independence of micro-enterprises.

RESULTS AND DISCUSSION

Data Analysis Using Partial Least Squares–Structural Equation Modelling (PLS-SEM)

This study utilises the Partial Least Squares–Structural Equation Modelling (PLS-SEM) approach as it aims to examine the causal relationships between predictive and exploratory latent constructs, and is suitable for medium sample sizes.²⁸ This method is also relevant for use in SME research, which generally has non-normal data characteristics and complex structural models.²⁹

The research model consists of three reflective latent constructs, namely Psychopreneurship (X₁), Digital Capability (X₂), and Micro Business Operational Independence (Y).

Measurement Model Evaluation (Outer Model)

Convergent Validity

Convergent validity was evaluated through factor loading values and Average Variance Extracted (AVE). All indicators had factor loading values above 0.70, indicating that the indicators were able to adequately reflect the latent constructs.³⁰

²⁸ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

²⁹ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

³⁰ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

Table 1
Convergent Validity Test Results

Construct	Number of Indicators	Loading Factor	AVE
Psychopreneurship (X1)	8	0,71 – 0,86	> 0,50
Digital Capability (X2)	8	0,73 – 0,88	> 0,50
Operational Independence (Y)	6	0,72 – 0,85	> 0,50

The AVE values for all constructs were above 0.50, thus meeting the criteria for convergent validity (Fornell & Larcker, 1981).

Construct Reliability

Reliability was tested using Composite Reliability (CR) and Cronbach's Alpha. All constructs showed CR and Alpha values above 0.70, indicating excellent internal consistency.

Tabel 2
Hasil Uji Reliabilitas Konstruk

Construct	Cronbach's Alpha	Composite Reliability
Psychopreneurship (X1)	> 0,80	> 0,85
Digital Capability (X2)	> 0,80	> 0,86
Operational Independence (Y)	> 0,78	> 0,84

These results confirm that all constructs are reliable and suitable for structural analysis.

Structural Model Evaluation (Inner Model)

Coefficient of Determination (R²)

The coefficient of determination (R²) is used to measure the ability of exogenous variables to explain endogenous variables.

Table 3
Nilai R-Square

Endogenous Variable	R²
Operational Independence (Y)	0,371

An R² value of 0.371 indicates that 37.1% of the variation in the operational independence of micro-enterprises can be explained by psychopreneurship and digital capability, while the

remainder is influenced by factors outside the model. This value is classified as moderate explanatory power in the context of social research and MSMEs.³¹

Hypothesis Testing (Path Coefficient)

Hypothesis testing was conducted through path coefficient analysis.

Table 4
Hypothesis Testing Results

Hypothesis	Relationship	Path Coefficient (β)	Description
H1	Psychopreneurship → Operational Independence	0,604	Significant
H2	Digital Capability → Operational Independence	0,121	Significant

The results of the analysis show that psychopreneurship has a more dominant influence on the operational independence of micro-enterprises than digital capability.

Simultaneous Hypothesis Testing

Table 5
Simultaneous Hypothesis Testing Results

Hypothesis	Exogenous Variable	Endogenous Variable	R ²	Decision
H3	Psychopreneurship & Digital Capability	Operational Independence	0,371	Accepted

Discussion

The Influence of Psychopreneurship on the Operational Independence of Micro Businesses

The results show that psychopreneurship has a positive and significant effect on the operational independence of micro-enterprises ($\beta = 0.604$). These findings confirm that psychological aspects of entrepreneurship—such as self-efficacy, creativity, resilience, and proactive orientation—are the main foundations for micro-entrepreneurs to manage their businesses independently without external dependence.

These findings are in line with the research by Ayala and Manzano³², which confirms that psychological resilience improves the ability of small businesses to maintain operational autonomy. The study by Bullough et al.,³³ also found that psychological factors related to entrepreneurship play a significant role in increasing business independence in developing countries. In the

³¹ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

³² Ayala and Manzano, “The Resilience of the Entrepreneur: Influence on the Success of the Business.”

³³ Bullough et al., “Danger Zone Entrepreneurs: The Importance of Resilience and Self-Efficacy.”

Indonesian context, these results are consistent with the findings of Sari et al.,³⁴ and Sulistyanto et al.,³⁵ which emphasise the importance of entrepreneurial orientation and psychological mindset in the sustainability of MSMEs.

Thus, the results of this study reinforce the concept of psychopreneurship as a strategic construct that not only influences performance but also determines the level of operational independence of micro-enterprises.

The Influence of Digital Capability on the Operational Independence of Micro Businesses

The results also show that digital capability has a positive effect on the operational independence of micro-enterprises, albeit with a smaller coefficient ($\beta = 0.121$). These findings indicate that the ability of business actors to utilise digital technology—such as digital marketing, the use of financial applications, and information management—can improve the efficiency and flexibility of business operations.

These results support the theory of dynamic capabilities³⁶ as well as the empirical findings of Kraus et al.,³⁷ and Bresciani et al.,³⁸ which state that digital capabilities increase decision-making autonomy and operational efficiency in MSMEs. However, its smaller influence compared to psychopreneurship indicates that technology without psychological readiness for entrepreneurship is not sufficient to create full business independence.

Psychopreneurship and digital capability simultaneously have a positive effect on the operational independence of micro-enterprises.

In the PLS-SEM approach, the simultaneous influence of exogenous variables on endogenous variables is evaluated through the coefficient of determination (R^2) and the overall predictive ability of the model.³⁹ The R^2 value reflects how much of the variance in the endogenous variable can be explained collectively by all exogenous variables in the structural model.

Based on the analysis results, the R^2 value for micro-business operational independence was 0.371, which means that psychopreneurship and digital capability simultaneously explain 37.1% of the variation in micro-business operational independence. This value falls into the

³⁴ Sari et al., “Kompetensi Digital Dan Orientasi Kewirausahaan Sebagai Penentu Keunggulan Bersaing UMKM.”

³⁵ Sulistyanto et al., “Kapabilitas Manajemen Pengetahuan Dan Orientasi Kewirausahaan Dalam Mendorong Inovasi UMKM.”

³⁶ Teece, “Business Models and Dynamic Capabilities.”

³⁷ Kraus et al., “Digital Transformation in Business and Management Research: An Overview.”

³⁸ Bresciani et al., “The Management of Organizational Ambidexterity through Alliances in a New Context of Analysis.”

³⁹ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

moderate explanatory power category, indicating that the research model has adequate explanatory power in the context of social research and MSMEs.⁴⁰

Thus, H3 is accepted, indicating that the combination of entrepreneurial psychological factors and digital capabilities together play an important role in increasing the operational independence of micro-enterprises.

CONCLUSION

This study aims to analyse the influence of psychopreneurship and digital capability on the operational independence of micro-enterprises in Bandung City using the Partial Least Squares–Structural Equation Modelling (PLS-SEM) approach on 280 micro-enterprise actors. Based on the results of the analysis and discussion, several main conclusions can be drawn.

First, the results of the study indicate that psychopreneurship has a positive and significant effect on the operational independence of micro-enterprises. These findings confirm that psychological factors of entrepreneurship, including self-efficacy, resilience, creativity, and proactive orientation, are key determinants in shaping the ability of micro-enterprises to operate independently without external dependence. These results are in line with the research by Ayala and Manzano⁴¹ and Bullough et al.,⁴² which found that psychological resilience and entrepreneurial self-confidence play an important role in maintaining the autonomy and sustainability of small businesses, especially in conditions of limited resources. These findings also reinforce the results of domestic research by Sari et al.,⁴³ and Sulistyanto et al.,⁴⁴ which emphasise the importance of entrepreneurial orientation and psychological mindset in enhancing the competitiveness and sustainability of MSMEs in Indonesia.

Second, this study found that digital capability has a positive and significant effect on the operational independence of micro-enterprises, although with a lower level of influence compared to psychopreneurship. This shows that the ability of micro-entrepreneurs to utilise digital technology, such as the use of digital media for marketing, application-based financial management, and the use of digital platforms, can improve operational efficiency and decision-making flexibility. This finding is consistent with the theory of dynamic capabilities⁴⁵ and empirical research by

⁴⁰ Hair et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; Chen et al., “Entrepreneurial Self-Efficacy and Venture Performance.”

⁴¹ Ayala and Manzano, “The Resilience of the Entrepreneur: Influence on the Success of the Business.”

⁴² Bullough et al., “Danger Zone Entrepreneurs: The Importance of Resilience and Self-Efficacy.”

⁴³ Sari et al., “Kompetensi Digital Dan Orientasi Kewirausahaan Sebagai Penentu Keunggulan Bersaing UMKM.”

⁴⁴ Sulistyanto et al., “Kapabilitas Manajemen Pengetahuan Dan Orientasi Kewirausahaan Dalam Mendorong Inovasi UMKM.”

⁴⁵ Teece, “Business Models and Dynamic Capabilities.”

Bresciani et al.⁴⁶ and Kraus et al.,⁴⁷ which confirms that digital capabilities play an important role in increasing the operational autonomy and resilience of small businesses in facing market dynamics.

Third, the results of simultaneous analysis show that psychopreneurship and digital capability together have a positive effect on the operational independence of micro-enterprises, as reflected in the coefficient of determination (R^2) value of 0.371. This finding indicates that the operational independence of micro-enterprises is the result of a combination of the psychological readiness of entrepreneurs and their ability to adapt to digital technology. These results reinforce the findings of Elia, Margherita, and Passiante⁴⁸ as well as Warner and Wäger⁴⁹, which confirm that the integration of individual capabilities and digital capabilities produces more sustainable operational advantages than the partial influence of each factor.

Overall, this study contributes theoretically by integrating the concepts of psychopreneurship and digital capability into a single empirical framework to explain the operational independence of micro-enterprises, which has rarely been studied simultaneously, particularly in the local context of Bandung City.

Recommendations for Future Researchers

For future researchers, several recommendations can be considered for the development of future research. First, future research could add mediating or moderating variables, such as government support, financial literacy, or innovation orientation, to enrich the understanding of the mechanisms of psychopreneurship and digital capability on micro-business independence. Second, future research could use a longitudinal design to capture the dynamics of changes in the psychological behaviour and digital capabilities of business actors over time. Third, expanding the research object to other MSME sectors or different regions will increase the generalisation of findings and strengthen the external validity of the research model. Finally, a mixed methods approach can be considered to explore more deeply the psychological dimensions of entrepreneurship that have not been fully revealed through a quantitative approach.

⁴⁶ Bresciani et al., "The Management of Organizational Ambidexterity through Alliances in a New Context of Analysis."

⁴⁷ Kraus et al., "Digital Transformation in Business and Management Research: An Overview."

⁴⁸ Elia et al., "Digital Entrepreneurship Ecosystem: How Digital Technologies and Collective Intelligence Shape Entrepreneurial Opportunities."

⁴⁹ Warner and Wäger, "Building Dynamic Capabilities for Digital Transformation."

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