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Article

The Impact Of Digital Technopreneur Orientation On Business Resilience And Its Implications For Women's Empowerment In West Java Smes

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Abstract: This study examines the effect of Digital Technopreneur Orientation on Business Resilience and its implications for Women's Empowerment among women-owned Micro and Small Enterprises (MSEs) in the food industry subsector in West Java, Indonesia. Digital Technopreneur Orientation is conceptualized through technology orientation, entrepreneurial orientation, and digital technology self-efficacy. The study employs a quantitative, descriptive, and explanatory design using an explanatory survey method. Data were collected through structured questionnaires from 385 women entrepreneurs in Bandung City, Bogor City, Sukabumi City, Garut Regency, and Tasikmalaya City. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the measurement model, structural model, direct effects, and mediation effects. The findings indicate that Digital Technopreneur Orientation positively influences Business Resilience and Women's Empowerment. Business Resilience also positively contributes to Women's Empowerment and significantly mediates the relationship between Digital Technopreneur Orientation and Women's Empowerment. These findings show that women entrepreneurs with stronger digital, technological, and entrepreneurial capabilities are better able to adapt to business changes, sustain operations, and strengthen their economic independence and decision-making capacity. The study concludes that integrating digital technopreneurial capabilities with business resilience is essential for promoting sustainable women-owned enterprises and strengthening Women's Empowerment in West Java.

Keywords: Digital Technopreneur Orientation, Business Resilience, Women's Empowerment, women entrepreneurs.

1. Introduction

Micro and Small Industries (MSIs) are a strategic sector in the Indonesian economy. Based on data from the Central Statistics Agency (BPS, 2025), in 2023 there were more than 4.5 million MSI business units spread across Indonesia. This figure reflects the dominance of MSIs, accounting for more than 95% of all national business units, playing a central role as one of the foundations of the national economy and contributing to Gross Domestic Product (GDP) (Arta, Trisnawati, Budhi, & Suasih, 2024). MSIs play an important role in creating wealth and opportunities for income distribution, generating employment, encouraging balanced regional economic development, improving the standard of living of surrounding communities, expanding businesses into international markets through exports, increasing per capita income, and meeting market needs and demands by creating new, more creative and innovative businesses (Mukhlis et al., 2025).

The distribution of MSI businesses in Indonesia is concentrated on Java Island, which accounts for more than 62% of the total national MSI units. Among the provinces on Java Island, West Java ranks as one of the provinces with the largest number of MSI businesses, recording 641,639 units in 2023. West Java has consistently made a significant contribution to the national economy, contributing approximately 12–13% to national Gross Domestic Product (GDP) annually during the period 2017–2022. In 2023, West Java's contribution reached 13.52% of national GDP and 22.41% of Java Island's GDP. This highlights the central role of West Java in both the national and regional economic structure.

The large number of MSI businesses in West Java underscores the role of MSIs as the backbone of the regional economy, both in terms of creating economic value added at the local and national levels and absorbing a significant workforce

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(Nurjanah & Muslihat, 2024), thereby reducing unemployment rates (Kuswardani et al., 2024) and alleviating poverty (Rizkiyah & Nidar, 2022). The West Java provincial government, through decentralization policies, continues to promote the development of MSIs based on local potential. These efforts aim to strengthen the regional economic structure, enhance competitiveness, and ensure a more equitable distribution of economic benefits across the province (Rahmad et al., 2023).

Despite their important economic role, MSI businesses in West Java face challenges related to business resilience, as reflected in the instability of business growth from year to year. These fluctuations occur due to the dynamics of new business entries (increases) and the exit of businesses that are unable to survive (business mortality). This condition indicates instability in the number of active business units, influenced by various internal and external factors. Changes in the number of businesses that are not constant over a certain period serve as a key indicator of business resilience challenges within this sector (Tang & Zhang, 2022). Data on fluctuations in the number of businesses is presented in Figure 1.1.

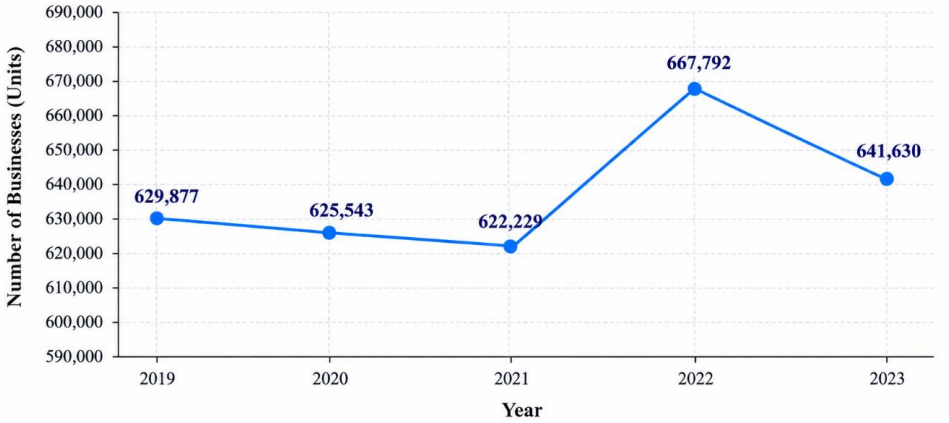


Figure 1.1 Fluctuation Graph of the Number of Micro and Small Industry (MSI) Businesses in West Java, 2019–2023

Figure 1.1 shows fluctuations indicating that during the period 2019–2020, the number of MSI businesses in West Java decreased by 3,654 units. In the period 2020–2021, the number declined again by 3,718 units. Subsequently, during the period 2021–2022, there was a fairly significant increase of 45,571 units; however, in the period 2022–2023, the number decreased again by 26,157 units.

In addition to fluctuations in the overall number of MSI businesses, there is a downward trend in the number of businesses in the Food Industry subsector in West Java during the period 2020–2023. Each year, the number of MSI business units in the Food Industry subsector continues to decline, as illustrated in Figure 1.2.

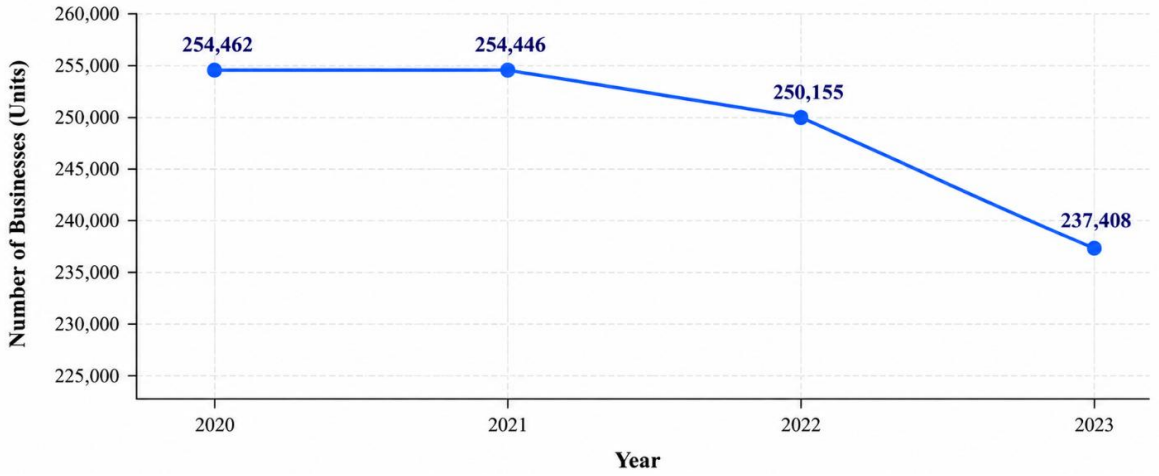


Figure 1.2 Declining Trend of the Number of Micro and Small Industry (MSI) Businesses in the Food Industry Subsector in West Java, 2020–2023

Source: West Java Industry Profile (2022–2025)

Figure 1.2 shows that the number of MSI businesses in the Food Industry subsector decreased by 16 units during the period 2020–2021, then declined significantly by 4,291 units in the period 2021–2022, and decreased again by 12,749 units in the period 2022–2023. The following presents the percentage growth of MSI businesses in the Food Industry subsector in West Java, as shown in Figure 1.3.

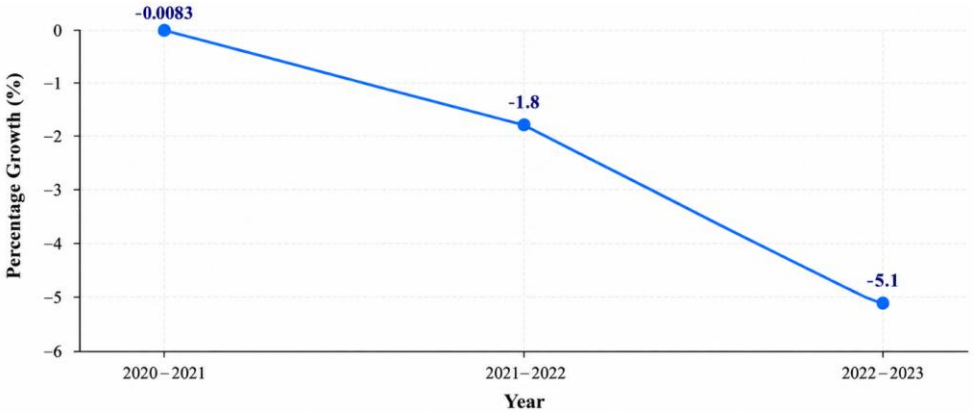


Figure 1.3 Trend of Declining Number of Micro and Small Industry (MSI) Businesses in the Food Industry Subsector in West Java, 2020–2023

Source: Processed data, 2025

Figure 1.3 shows the growth trend in percentage terms; during the period 2020–2021, the growth trend was negative at -0.0063%, in the period 2021–2022 it remained negative at -1.69%, and in the period 2022–2023 the negative trend was the sharpest at -5.1%.

The continued decline in the Food Industry subsector indicates serious challenges faced by business actors, including market demand, competition, and adaptation to changes in the business environment. This situation underscores the urgency of strengthening business resilience, ensuring that enterprises can survive and grow amid increasingly competitive market dynamics.

Fluctuations in the number of MSI businesses in the Food Industry subsector have occurred across all cities/regencies in West Java in recent years. These fluctuations are dynamic; some regions experience growth while others face decline, depending on economic conditions, local policies, innovation, and the competitiveness of business actors in each area (Opendata.jabarprov.go.id; BPS West Java, 2024).

For example, the fluctuation in the growth of MSI businesses in the Food Industry subsector occurred in five cities/regencies in West Java: Tasikmalaya City, Garut Regency, Sukabumi City, Bogor City, and Bandung City. These five cities/regencies sufficiently represent the Food Industry subsector in West Java and will be the survey locations presented in Figure 1.4.

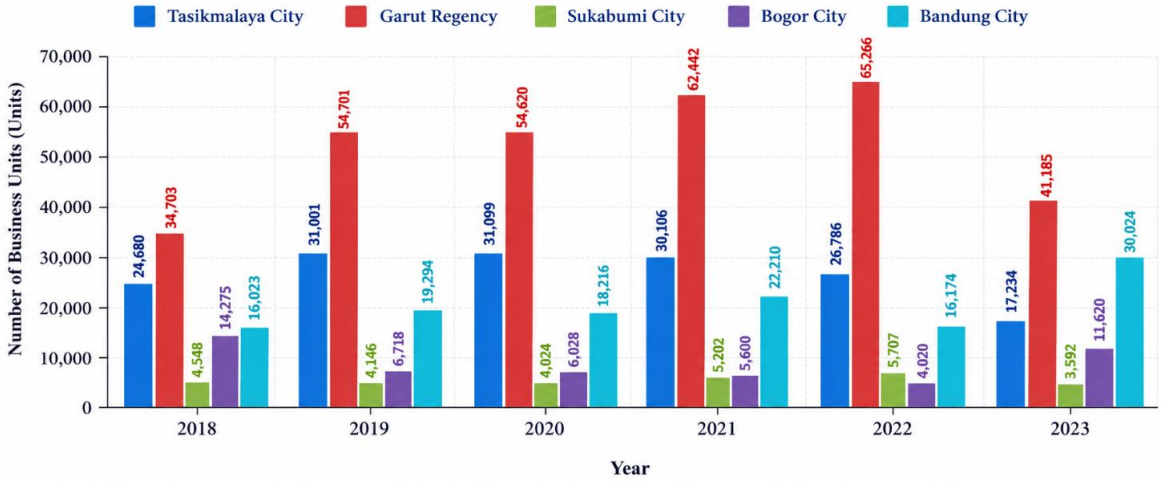


Figure 1.4 Fluctuations in the Number of Micro and Small Industry (MSI) Business Units in the Food Industry Subsector in Five Cities/Regencies of West Java, 2018–2023

Source: Processed data, 2025. From BPS data, 2020–2025.

Figure 1.4 shows the fluctuations in the number of MSI businesses as follows:

Bogor City and Bandung City experienced a significant surge during the period 2022–2023 after a decline in the previous period.

Tasikmalaya City, Garut Regency, and Sukabumi City tended to show a sharp decrease in the period 2022–2023. Garut Regency experienced stable growth but saw a decline in 2023.

The fluctuation pattern of MSI business units in the Food Industry subsector across the five cities/regencies of West Java during 2018–2023 reflects external dynamics, regional policies, and the adaptability of business actors in each area.

Behind the significant contribution of the Micro and Small Industry (MSI) sector to the regional economy, women entrepreneurs play a vital role in maintaining the sustainability and competitiveness of this sector. BPS data from 2024 shows that 70.26% of MSI businesses in Indonesia, including in West Java, are led by women. Approximately 44.75% of MSI businesses are sole proprietorships, and among them, 70.53% are managed by women.

This study further focuses on women entrepreneurs, specifically female business actors who possess characteristics of entrepreneurial orientation, which form the basis of discussion as established in the theoretical framework and will be examined through empirical evaluation in this research. This highlights the dominance of women in the ownership and management of Micro and Small Industry (MSI) businesses, particularly those operated independently. The flexibility of the MSI sector allows women to run businesses while fulfilling domestic roles. The Stellar Women BSG Survey (2023) notes that the Food Industry is the most prevalent subsector among women entrepreneurs, thereby reinforcing the relevance of research in this subsector.

The role of women in the MSI business ecosystem goes beyond numerical dominance; it also positively impacts the distribution of economic benefits in a more inclusive manner (Choudhary, 2024). Women entrepreneurs contribute significantly to sustainable economic growth by creating household-level employment, often involving vulnerable groups, with the resulting economic impact extending to the broader community. This aligns with the sustainable development agenda regarding gender equality and poverty reduction (Awalia et al., 2025).

Consistent with national-level aggregate data, provincial-level data from West Java shows a similar reality. Administrative data from the West Java Provincial Office of Cooperatives and SMEs (DISKOPUMKM) in 2023 provides specific numbers and distribution of women MSI entrepreneurs covered by regional government programs. There are 7,446 women entrepreneurs in the MSI subsector of Industry. The Food Industry is distributed across all cities/regencies in West Java, with 1,833 individuals located in the five survey cities/regencies, namely Tasikmalaya City, Sukabumi City, Garut Regency, Bogor City, and Bandung City, as presented in Figure 1.6.

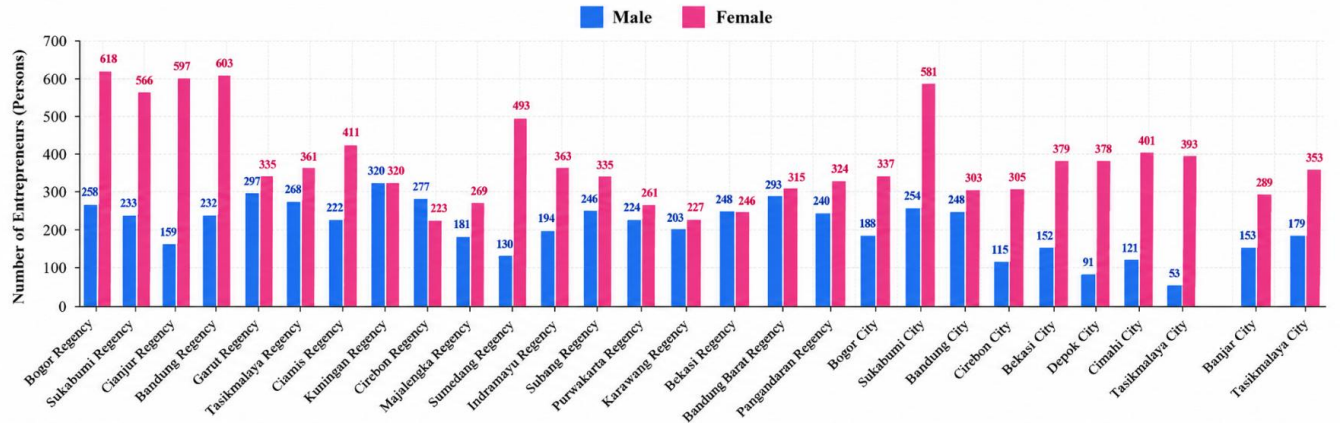


Figure 1.5 Recapitulation of the Number of Entrepreneurs in the Food Industry by Gender in Each City/Regency of West Java, 2023

Source: West Java Office of Cooperatives and SMEs, 2024.

Figure 1.5 shows that the owners of MSI businesses in the Food Industry subsector are dominated by women entrepreneurs (indicated by the red color in the graph). This dominance highlights that the role of women entrepreneurs in the Micro and Small Industry sector is highly significant in driving regional economic growth in West Java. Therefore, enhancing business resilience and women's empowerment becomes a strategic step for regional economic development. Efforts such as improving business productivity, strengthening sustainable entrepreneurial orientation, expanding access to resources, and promoting long-term socio-economic transformation are crucial in this context.

2. Literature Review

Digital Technopreneur Orientation

Digital Technopreneur Orientation refers to the strategic capability of entrepreneurs to utilize digital technology, pursue innovation, act proactively, take calculated risks, and confidently apply digital tools in business activities. In this study,

Digital Technopreneur Orientation is reflected through Technology Orientation, Entrepreneurial Orientation, and Digital Technology Self-Efficacy, which collectively enable women entrepreneurs to identify opportunities, adopt technological solutions, and respond effectively to changes in the business environment (Haug et al., 2023; Wales et al., 2023; Paredes-Aguiere, 2023).

Business Resilience

Business Resilience refers to the ability of SMEs to survive, adapt, recover, and continue operating effectively when facing disruptions, uncertainty, or major changes in the business environment. It reflects the capacity of firms to adjust strategies, reorganize resources, maintain competitiveness, and exploit opportunities that emerge from challenging situations (Alberti et al., 2018).

Women's Empowerment

Women's Empowerment refers to the process through which women strengthen their economic independence, decision-making authority, self-confidence, access to resources, and participation in business and social activities. In the context of entrepreneurship, empowerment enables women to exercise greater control over their businesses, improve their welfare, and contribute more actively to their families and communities (Hassan et al., 2022).

3. Hypothesis and Research Model

a. Digital Technopreneur Orientation has a positive and significant effect on Business Resilience among SMEs in West Java.
b. Digital Technopreneur Orientation has a positive and significant effect on Women's Empowerment among SMEs in West Java.
c. Business Resilience has a positive and significant effect on Women's Empowerment among SMEs in West Java.
d. Business Resilience positively and significantly mediates the effect of Digital Technopreneur Orientation on Women's Empowerment among SMEs in West Java.

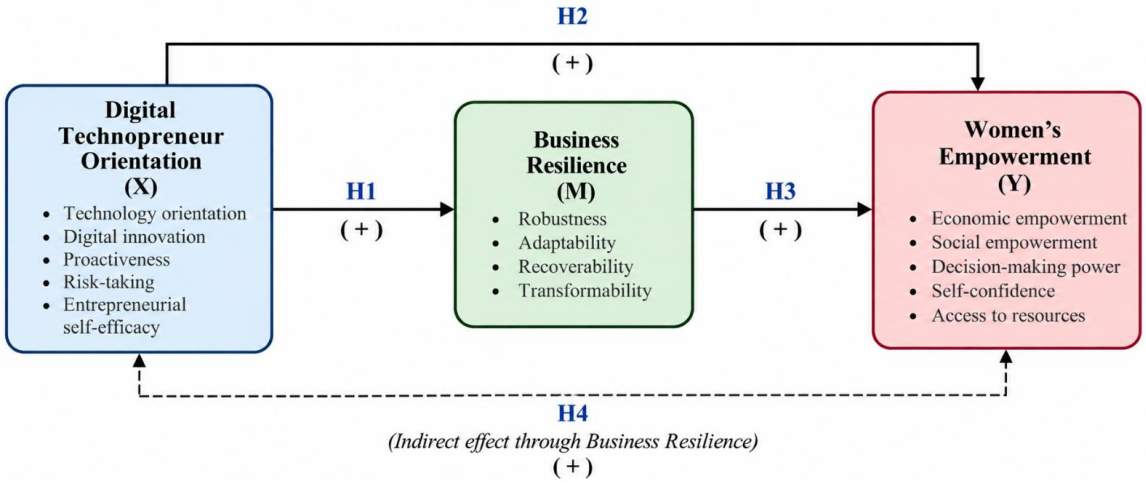


Figure 1.6 Conceptual Framework

Source: Developed by the Author,2026.

4. Methodology

This study employs a quantitative, descriptive, and explanatory research design to examine the relationships among Digital Technopreneur Orientation, Business Resilience, and Women's Empowerment in women-owned Micro and Small Enterprises (MSEs) in West Java, Indonesia. The study uses an explanatory survey method with a cross-sectional approach, in which data are collected at a single point in time through a structured questionnaire. Digital Technopreneur Orientation is positioned as the exogenous variable, Women's Empowerment as the endogenous variable, and Business Resilience as the mediating variable. The research model is grounded in the Resource-Based View (RBV) and Dynamic Capability Theory (DCT) to explain how digital-oriented entrepreneurial capabilities strengthen business resilience and subsequently contribute to women's empowerment.

The target population consists of women entrepreneurs who own and/or manage Micro and Small Enterprises in the food industry subsector located in Bandung City, Bogor City, Sukabumi City, Garut Regency, and Tasikmalaya City. These areas were selected to represent diverse regional characteristics and relatively strong food-industry ecosystems, market

potential, supporting infrastructure, and linkages with culinary and tourism activities. The unit of analysis is the individual woman entrepreneur. Respondents must be women who own or manage a food-industry MSE, have operated the business for at least one year, and are directly involved in strategic and operational decision-making.

The minimum sample size for this study is 385 respondents, determined using Cochran's sampling approach at a 95% confidence level and a 5% margin of error. To anticipate non-response and incomplete questionnaires, approximately 428 questionnaires will be distributed. If an official sampling frame is available, proportionate stratified sampling will be applied across Bandung City, Bogor City, Sukabumi City, Garut Regency, and Tasikmalaya City so that the number of respondents from each area is proportional to the population of eligible women-owned food-industry MSEs.

Primary data are collected using a structured questionnaire with measurement items adapted from established scales and assessed using a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Data are analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) because the research model involves latent constructs, multiple indicators, direct effects, and mediation. The analysis includes assessment of the measurement model through indicator reliability, internal consistency reliability, convergent validity, and discriminant validity, followed by evaluation of the structural model through path coefficients, (R^2), (f^2), (Q^2), and bootstrapping. The mediating role of Business Resilience is tested through the significance of the indirect effect of Digital Technopreneur Orientation on Women's Empowerment via Business Resilience.

5. Results

a. Descriptive Statistical Analysis

Descriptive statistical analysis was conducted to provide an overview of respondents' responses to all measurement items. The results show that there were no missing values, and all indicators used the full Likert scale range from 1 to 5. The item means ranged from 2.862 to 3.101, with a median of 3.000, indicating that respondents' perceptions were generally at a moderate level. The skewness and excess kurtosis values were within acceptable ranges, indicating no serious distributional problems in the data.

Table 1. Descriptive Statistics of Research Indicators

Construct	Mean Range	SD Range	Skewness Range	Kurtosis Range	Interpretation
Digital Technopreneur Orientation	2.862–3.065	1.188–1.336	-0.107–0.180	-1.169–-0.809	Moderate and adequately distributed
Business Resilience	2.894–3.101	1.216–1.345	-0.131–0.099	-1.219–-0.795	Moderate and adequately distributed
Women's Empowerment	2.906–3.091	1.242–1.331	-0.051–0.138	-1.126–-0.937	Moderate and adequately distributed

Source : Data analysis SmartPLS (2026).

Overall, respondents demonstrated moderate perceptions of Digital Technopreneur Orientation, Business Resilience, and Women's Empowerment. The relatively low skewness values indicate that the responses were reasonably balanced.

b. Measurement Model Assessment (Outer Model)

The measurement model was evaluated to determine whether the indicators adequately measured their respective latent constructs. The assessment included outer loadings, convergent validity, discriminant validity, and construct reliability. The results indicate that all measurement indicators meet the recommended criteria and can therefore be retained in the model.

Outer Loading

Outer loading evaluates the strength of the relationship between each indicator and its corresponding construct. An outer loading greater than 0.70 is generally considered satisfactory. All indicators in this study recorded loadings above the recommended threshold.

Table 2. Outer Loading Results of the Measurement Model

Construct	Number of Items	Lowest Loading	Highest Loading	Decision
Digital Technopreneur Orientation	14	0.748	0.798	Accepted
Business Resilience	8	0.783	0.822	Accepted
Women's Empowerment	10	0.768	0.797	Accepted

Source : Data analysis SmartPLS (2026).

All outer loadings ranged from 0.748 to 0.822, exceeding the minimum criterion of 0.70. Therefore, all indicators demonstrate satisfactory indicator reliability and can be retained.

Convergent Validity

Convergent validity assesses the extent to which indicators of the same construct share a high proportion of variance. It is evaluated using the Average Variance Extracted (AVE), with a recommended minimum value of 0.50. All constructs exceeded this threshold.

Table 3. Convergent Validity Results

Construct	Outer Loading Range	AVE	Criterion	Decision
Business Resilience	0.783–0.822	0.642	> 0.50	Valid
Digital Technopreneur Orientation	0.748–0.798	0.595	> 0.50	Valid
Women's Empowerment	0.768–0.797	0.608	> 0.50	Valid

Source : Data analysis SmartPLS (2026).

AVE values ranged from 0.595 to 0.642, confirming that each construct explains more than 50% of the variance in its indicators. Thus, convergent validity is established.

Discriminant Validity

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). An HTMT value below 0.85 indicates that the constructs are empirically distinct from one another. All HTMT values in the model were below this threshold.

Table 4. Discriminant Validity Results Based on HTMT Criterion

Construct Relationship	HTMT Value	Criterion	Decision
DTO ↔ Business Resilience	0.546	< 0.85	Valid
Business Resilience ↔ Women's Empowerment	0.649	< 0.85	Valid
DTO ↔ Women's Empowerment	0.557	< 0.85	Valid

Source : Data analysis SmartPLS (2026).

All HTMT values ranged from 0.546 to 0.649, well below 0.85. Therefore, the three constructs possess adequate discriminant validity.

Construct Reliability

Construct reliability was assessed using Cronbach's Alpha, rho_A, and Composite Reliability (CR). Values above 0.70 indicate satisfactory internal consistency. The results demonstrate high reliability for all constructs.

Table 5. Construct Reliability Results

Construct	Cronbach's Alpha	rho_A	Composite Reliability	Decision
Business Resilience	0.920	0.921	0.935	Reliable
Digital Technopreneur Orientation	0.948	0.948	0.954	Reliable
Women's Empowerment	0.928	0.929	0.939	Reliable

Source : Data analysis SmartPLS (2026).

All reliability coefficients exceeded 0.90, indicating strong internal consistency. Therefore, all constructs are considered highly reliable.

c. Structural Model Assessment (Inner Model)

The structural model assessment was conducted to evaluate the explanatory and predictive capability of the proposed research model. The assessment included the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and hypothesis testing. Overall, the structural model demonstrates satisfactory explanatory and predictive performance.

Table 6. Structural Model Path Coefficients

Structural Relationship	Path Coefficient	Direction
DTO → Business Resilience	0.513	Positive
DTO → Women's Empowerment	0.296	Positive
Business Resilience → Women's Empowerment	0.449	Positive

Source : Data analysis SmartPLS (2026).

All structural relationships are positive, indicating that higher Digital Technopreneur Orientation is associated with stronger Business Resilience and Women's Empowerment, while stronger Business Resilience is also associated with greater Women's Empowerment.

Coefficient of Determination (R^2)

The coefficient of determination indicates the proportion of variance in an endogenous construct explained by its

predictor variables. The results show that Digital Technopreneur Orientation explains 26.3% of the variance in Business Resilience, while Digital Technopreneur Orientation and Business Resilience jointly explain 42.5% of the variance in Women's Empowerment.

Table 7. Coefficient of Determination (R^2) Results

Endogenous Construct	R^2	Adjusted R^2	Interpretation
Business Resilience	0.263	0.261	Low-to-moderate explanatory power
Women's Empowerment	0.425	0.422	Moderate explanatory power

Source : Data analysis SmartPLS (2026).

The model explains a meaningful proportion of the variance in both endogenous constructs, particularly Women's Empowerment, for which 42.5% of the variation is explained by the model.

Effect Size (f^2)

Effect size assesses the contribution of each exogenous construct to the R^2 value of an endogenous construct. Values of approximately 0.02, 0.15, and 0.35 are commonly interpreted as small, medium, and large effects, respectively.

Table 8. Effect Size (f^2) Results

Relationship	f^2	Interpretation
DTO → Business Resilience	0.357	Large effect
DTO → Women's Empowerment	0.112	Small effect
Business Resilience → Women's Empowerment	0.258	Medium effect

Source : Data analysis SmartPLS (2026).

Digital Technopreneur Orientation has a large effect on Business Resilience, while Business Resilience has a medium effect on Women's Empowerment. The direct effect of Digital Technopreneur Orientation on Women's Empowerment is comparatively smaller.

Predictive Relevance (Q^2)

Predictive relevance was assessed using the Stone–Geisser Q^2 value. A Q^2 value greater than zero indicates that the model has predictive relevance for the endogenous construct.

Table 9. Predictive Relevance (Q^2) Results

Construct	SSO	SSE	Q^2	Interpretation
Business Resilience	3,080.000	2,569.633	0.166	Predictive relevance
Women's Empowerment	3,850.000	2,873.646	0.254	Predictive relevance

Source : Data analysis SmartPLS (2026).

Both Q^2 values are greater than zero. Therefore, the structural model demonstrates adequate predictive relevance for Business Resilience and Women's Empowerment.

d. Hypothesis Testing

Hypothesis testing was performed using bootstrapping to assess the statistical significance of the proposed structural relationships. A hypothesis is considered supported when the t-statistic exceeds 1.96 and the p-value is below 0.05. The results indicate that all proposed direct and indirect relationships are statistically significant.

Direct Effects

The direct-effect analysis examines whether Digital Technopreneur Orientation directly influences Business Resilience and Women's Empowerment and whether Business Resilience directly influences Women's Empowerment.

Table 10. Direct Effect Hypothesis Testing Results

Hypothesis	Relationship	β	t-Statistic	p-Value	Decision
H1	DTO → Business Resilience	0.513	13.569	< 0.001	Supported
H2	DTO → Women's Empowerment	0.296	6.202	< 0.001	Supported
H3	Business Resilience → Women's Empowerment	0.449	10.317	< 0.001	Supported

Source : Data analysis SmartPLS (2026).

H1, H2, and H3 are supported. Digital Technopreneur Orientation has a positive and significant effect on both Business Resilience and Women's Empowerment, while Business Resilience also has a positive and significant effect on Women's Empowerment.

Indirect Effect

The indirect-effect analysis was conducted to determine whether Business Resilience mediates the relationship between Digital Technopreneur Orientation and Women's Empowerment. The indirect effect is positive and statistically significant.

Table 11. Indirect Effect and Mediation Testing Results

Hypothesis	Indirect Relationship	β	t-Statistic	p-Value	Decision
H4	DTO → Business Resilience → Women's Empowerment	0.230	7.646	< 0.001	Supported

Source : Data analysis SmartPLS (2026).

The indirect effect of Digital Technopreneur Orientation on Women's Empowerment through Business Resilience is positive and significant ($\beta = 0.230$, $t = 7.646$, $p < 0.001$). Therefore, H4 is supported, confirming that Business Resilience significantly mediates the relationship between Digital Technopreneur Orientation and Women's Empowerment. Because the direct effect of Digital Technopreneur Orientation on Women's Empowerment also remains significant, the results indicate partial mediation.

6. Discussion

Digital Technopreneur Orientation → Business Resilience

The findings support H1, confirming that Digital Technopreneur Orientation strengthens Business Resilience among women-owned SMEs. Digital technopreneur orientation combines technological readiness, entrepreneurial behavior, and confidence in using digital technology, enabling firms to respond more effectively to environmental change, market uncertainty, and operational disruption. This finding is consistent with Dynamic Capability Theory, which explains that firms become more adaptive when they can identify changes, exploit emerging opportunities, and reconfigure their resources accordingly. Teece (2007) emphasizes that entrepreneurial and innovation-oriented capabilities enable organizations to adapt and renew their resource base under changing conditions. Empirical evidence from Haug et al. (2023) further demonstrates that technological orientation strengthens SMEs' ability to benefit from information technology and innovation activities. Therefore, Digital Technopreneur Orientation can be regarded as an important strategic capability for developing stronger, more adaptive, and more resilient SMEs.

Digital Technopreneur Orientation → Women's Empowerment

The findings support H2, indicating that Digital Technopreneur Orientation contributes positively to Women's Empowerment. The ability to utilize digital technologies, innovate, recognize opportunities, and confidently make technology-related business decisions can broaden women entrepreneurs' access to markets, information, networks, and economic opportunities. Abdelwahed et al. (2024) demonstrate that digital capabilities, particularly digital technology self-efficacy, play an important role in supporting women entrepreneurs and their empowerment through technology-enabled entrepreneurial activities. This finding is also consistent with Kabeer's (1999) view that empowerment develops through increased access to resources, strengthened agency, and the ability to achieve desired outcomes. Thus, Digital Technopreneur Orientation provides women entrepreneurs with greater capacity to exercise business autonomy, participate in decision-making, access productive resources, and strengthen their economic and social position.

Business Resilience → Women's Empowerment

The findings support H3, demonstrating that Business Resilience promotes Women's Empowerment. A resilient enterprise provides greater continuity, stability, and capacity to recover from disruption, which enables women entrepreneurs to preserve income-generating activities, maintain control over business resources, and participate more confidently in strategic decision-making. Andriamahery and Qamruzzaman (2022) show that the sustainability of women-owned enterprises is closely associated with entrepreneurial development and greater empowerment, particularly when women have adequate knowledge and access to productive resources. Alsaad et al. (2023) similarly emphasize that sustainable entrepreneurial participation supports women's development and strengthens their contribution to business and economic activities. Accordingly, Business Resilience is not merely an organizational survival capability; it also provides a foundation for economic independence, stronger decision-making authority, and sustained participation of women entrepreneurs in productive activities.

Digital Technopreneur Orientation → Business Resilience → Women's Empowerment

The findings support H4, confirming that Business Resilience mediates the relationship between Digital Technopreneur Orientation and Women's Empowerment. This means that digital and entrepreneurial capabilities contribute to women's empowerment partly because they first strengthen the ability of their enterprises to withstand, adapt to, and recover from change. Resource-Based Theory explains that organizational resources generate meaningful outcomes when they are effectively developed and deployed as strategic capabilities. Barney and Clark (2007) emphasize that valuable organizational resources, including technological and knowledge-based assets, can support sustained organizational advantages when effectively utilized. Helfat et al. (2007) further explain that dynamic capabilities allow firms to purposefully create, extend,

and modify their resource base in response to environmental change. Business Resilience therefore serves as an important mechanism through which Digital Technopreneur Orientation is transformed into stronger business continuity, economic autonomy, decision-making capacity, and ultimately greater Women's Empowerment.

7. Conclusion

This study concludes that Digital Technopreneur Orientation plays an important role in strengthening Business Resilience and Women's Empowerment among women-owned SMEs in West Java. The findings confirm that women entrepreneurs who demonstrate stronger technological orientation, entrepreneurial orientation, and digital technology self-efficacy are better able to adapt to business changes, respond to uncertainty, and maintain business continuity. These capabilities also contribute directly to greater economic independence, decision-making capacity, access to resources, and self-confidence among women entrepreneurs.

The study further demonstrates that Business Resilience positively contributes to Women's Empowerment. Women entrepreneurs whose businesses are more resilient are better positioned to sustain their economic activities, preserve control over business resources, and maintain their role in strategic decision-making. This indicates that resilience is not only important for business survival but also for strengthening women's position as business owners and decision-makers.

Finally, Business Resilience acts as a significant partial mediator in the relationship between Digital Technopreneur Orientation and Women's Empowerment. This means that Digital Technopreneur Orientation enhances Women's Empowerment both directly and indirectly by first strengthening the resilience of the business. Overall, the findings emphasize that the integration of digital capabilities, entrepreneurial behavior, and business resilience is essential for supporting sustainable women's entrepreneurship and advancing Women's Empowerment in West Java SMEs.

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