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Research Article

The Effect of Digital Transformation, Innovation Capability, And Organizational Agility on Organizational Resilience in Muslim Fashion UMKM

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Abstract: Muslim fashion SMEs play a strategic role in Indonesia's economy but face substantial challenges due to changing trends, intense competition, and shifts in consumer behavior, including showrooming and webrooming phenomena. These circumstances require strong organizational resilience to sustain business continuity. This study aims to analyze the influence of digital transformation, innovation capability, and organizational agility on organizational resilience in Muslim fashion SMEs in the Tanah Abang area. A quantitative approach was employed, involving a survey of 150 SME owners and managers, with data analyzed using the PLS-SEM method. The findings indicate that digital transformation and innovation capability have a positive and significant effect on organizational resilience. Digital transformation enhances operational efficiency and market adaptability, while innovation capability promotes the renewal of products and business models relevant to the Muslim fashion industry. Conversely, organizational agility does not have a significant effect, suggesting that organizational agility alone is insufficient to strengthen resilience without adequate support from digitalization and innovation. This study provides practical implications for enhancing the competitiveness and resilience of Muslim fashion SMEs in increasingly dynamic market conditions.

Keywords: Digital Transformation; Innovation Capability; Muslim Fashion SMEs; Organizational Agility; Organizational Resilience.

1. Introduction

The global trend in the halal and modest fashion industry is further strengthening Indonesia's position, ranking third in the Top 10 Modest Fashion consumption according to the 2022 Global Islamic Economy Indicator (GIEI) (Dinar Standard & Gateway, 2023). The Muslim fashion industry's rapid growth, reaching 18.2% with total consumption reaching IDR 300 trillion, is supported by the crucial role of Generation Z. This group, born between 1997 and 2012, represents 27.94% of Indonesia's population and exerts significant influence, particularly through digital interactions and their contribution to e-commerce (Central Bureau of Statistics, 2022). This generation is known as digital natives, having grown up alongside the development of technology, social media, and e-commerce. They are not only active in online shopping but also have a significant influence in shaping trends, popularizing brands, and determining the direction of consumption of modest fashion products, particularly hijabs.

The Indonesian hijab fashion MSME industry is experiencing rapid growth. Approximately 75% of hijab products sold in Indonesia are imported, while local products only account for 25%. The main challenge arises from dependence on halal clothing production from abroad, particularly China (Kamalina, 2022). This dependence presents a significant challenge for local MSMEs in facing competition, not only from fellow domestic players but also from global producers with advantages in production scale and price. One important aspect in increasing the competitiveness of local MSMEs is understanding and following emerging fashion trends. Generation Z, highly influenced by trends, sees fashion

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as a form of self-expression, so trends not only influence clothing style but also become a determining factor in purchasing decisions for fashion products, including hijabs (Anggraini et al., 2022).

Organizations face the challenges of environmental uncertainty involving intense competition, fluctuating consumer demand, time-to-market pressure, short product cycles, the significant impact of globalization, and ever-evolving technological advances (Ilmudeen, 2022). Furthermore, changes in consumer behavior due to the development of digital technology also add to the complexity of the challenges. The phenomenon of showrooming, where consumers view products in physical stores but purchase online, and webrooming, where consumers search for product information online and then purchase in physical stores, have become new shopping behavior patterns that blur the lines between online and offline shopping experiences (SleekFlow, 2023).

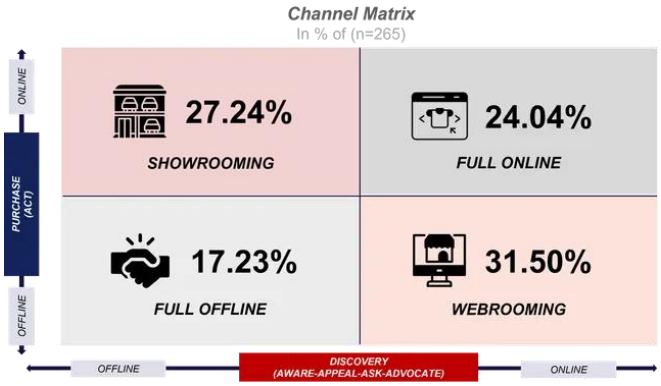

Figure 1. Omnichannel Consumer Matrix (MarkPlus Inc., 2024).

According to data from MarkPlus Inc. (2024), as shown in Figure 1.1, more than 58% of Indonesian consumers exhibit omnichannel behavior, with 31.5% engaging in webrooming and 27.2% engaging in showrooming. This phenomenon requires businesses, particularly MSMEs, to have an integrated omnichannel strategy to adapt to increasingly sophisticated and varied consumer shopping patterns. MSMEs are required to be adaptive and resilient in the face of rapidly changing consumer preferences, intense market competition, and evolving technological disruption.

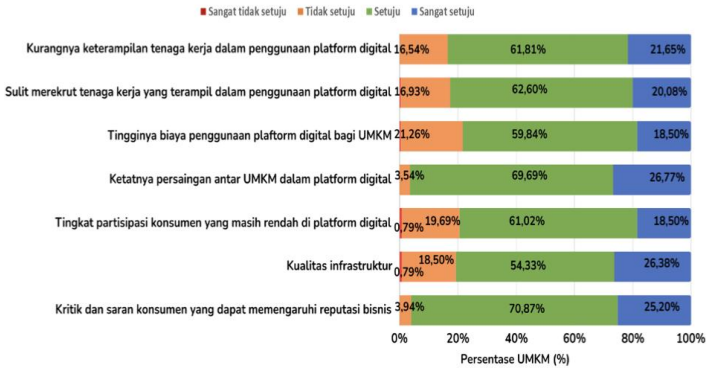

Figure 2. Challenges for MSMEs in Using Digital Platforms.

These challenges are further complicated by the fact that most Muslim fashion MSMEs still face limitations in resource management, low utilization of digital technology, and a lack of ability to integrate adequate omnichannel strategies. This reduces their business resilience to market fluctuations and weakens their long-term survival. Based on Figure 1.2, the most common issues facing MSME business development in Indonesia are a lack of workforce skills in utilizing digital platforms, intense competition among MSMEs on digital platforms, consumer criticism and suggestions on digital platforms, and the implications for business reputation.

These issues underscore the importance of organizational resilience, the ability to absorb shocks, adapt, and recover from external pressures. Resilience in the context of MSME fashion is crucial, given the highly dynamic market, short product cycles, and pressure from local and global competitors. However, most MSMEs lack the organizational structure, strategies, and capabilities to build long-term resilience.

Tanah Abang, the largest Muslim fashion wholesale center in Southeast Asia, exemplifies this challenge. Thousands of MSMEs rely on this region as a production and marketing base, making it a crucial barometer for trends and dynamics in the modest fashion industry in Indonesia. Referring to Figure 1.3, various types of hijab MSMEs experienced a drastic sales decline in 2019. This is demonstrated by Hijab Alifa, Gaya Muslimah Collection, Zizara Hijab, and others, showing a sales decline of more than 40% in 2020 compared to the previous year. This decline is no longer caused by the health crisis, but rather by the challenges of adapting to changes in the digital market, increased price competition from imported products (especially from China), and the failure to build an engaging digital shopping experience.

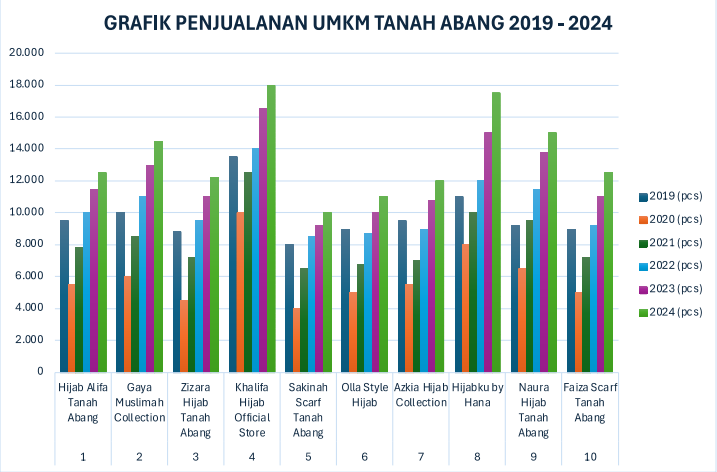

Figure 3. Graph of MSME Sales in Tanah Abang.

Conversely, MSMEs such as Hijabku by Hana and Khalifa Hijab demonstrated positive performance after undergoing digital transformation through strengthening e-commerce channels, optimizing social media, and collaborating with Gen Z influencers. Data from Table 1.1 Tanah Abang Hijab MSME Sales (2019–2024) shows that businesses capable of product innovation, expanding their digital reach, and managing operations flexibly are able to demonstrate greater business resilience and sustainable growth trends.

Table 1. MSME Sales Data in Tanah Abang 2019–2024.

No	Nama UMKM / Toko Hijab	Jenis UMKM	2019 (pcs)	2020 (pcs)	2021 (pcs)	2022 (pcs)	2023 (pcs)	2024 (pcs)
1	Hijab Alifa Tanah Abang	Produsen & Brand Hijab Lokal	9.500	5.500	7.800	10.000	11.500	12.500
2	Gaya Muslimah Collection	Toko Grosir & Retail	10.000	6.000	8.500	11.000	13.000	14.500
3	Zizara Hijab Tanah Abang	Reseller Hijab Offline & Online	8.800	4.500	7.200	9.500	11.000	12.200
4	Khalifa Hijab Official Store	Penjual Hijab via Marketplace	13.500	10.000	12.500	14.000	16.500	18.000
5	Sakinah Scarf Tanah Abang	Konveksi & Penjahit Hijab	8.000	4.000	6.500	8.500	9.200	10.000
6	Olla Style Hijab	Retail Hijab di Blok A	9.000	5.000	6.800	8.700	10.000	11.000
7	Azkia Hijab Collection	Toko Grosir Khusus Syari	9.500	5.500	7.000	9.000	10.800	12.000
8	Hijabku by Hana	UMKM Online-Only berbasis IG	11.000	8.000	10.000	12.000	15.000	17.500
9	Naura Hijab Tanah Abang	Kombinasi Offline & Online Store	9.200	6.500	9.500	11.500	13.800	15.000
10	Faiza Scarf Tanah Abang	UMKM Konveksi + Reseller	9.000	5.000	7.200	9.200	11.000	12.500

Source: Researcher Processed Data (2025).

The latest challenges in 2024–2025 are no less complex. Hijab-based MSMEs now face rising VAT rates, intense competition across digital platforms, fluctuating raw material prices, and consumer expectations for personalized and digital-based shopping experiences. Competition comes not only from local brands but also from global players entering through platforms like TikTok Shop, Shopee, and Instagram Shopping.

In facing an era of increasingly complex uncertainty, organizational resilience is a key foundation for Muslim fashion MSMEs to survive and grow sustainably. He et al. (2021) divide organizational resilience into three perspectives: reactive, adaptive, and transformative. In the context of MSMEs, building resilience is not simply a reactionary response to crises; it requires transformation through strategic and future-oriented organizational capabilities.

One of the key capabilities in building organizational resilience is organizational agility, namely the ability to respond, adapt, and navigate change quickly and effectively (Hussain, 2022; Miceli et al., 2021). Agility enables organizations to proactively manage market pressures, technological change, and other external disruptions. Various studies show that agility has a positive and significant relationship with resilience (Mandal & Dubey, 2020; Bhatti et al., 2021; Hussain & Malik, 2022). For MSMEs operating in a VUCA (Volatility,

Uncertainty, Complexity, and Ambiguity) environment, agility has even become a key strategy in building sustainability (Troise et al., 2022).

In addition to agility, digital transformation is a key lever for increasing efficiency, reducing costs, and expanding market access through digital channels. Digital transformation provides new opportunities for MSMEs to strategically leverage technology, enabling them to remain competitive amidst global pressures (Zhang et al., 2021; Khalil et al., 2022). Digitally mature organizations are also more collaborative, innovative, and risk-tolerant, ultimately fostering long-term resilience (Papadopoulos et al., 2020; Proksch et al., 2021).

Innovation capability is also a crucial element in building resilience. In a highly dynamic business environment, organizations with innovation capabilities are better able to create new solutions, respond to market needs, and build competitive advantage (Kamalahmadi & Parast, 2016; Al-Hakimi & Mahmoud, 2020). Innovation has also been shown to support agility, as innovative organizations tend to be more adaptable to uncertainty and disruption (Troise et al., 2022; Al-Hakimi, 2021).

This phenomenon underscores the importance of organizational resilience for hijab-based MSMEs. Resilience is determined not only by the ability to survive but also by the organization's agility in analyzing the market (agility), the ability to innovate (innovation capability), and the integration of digital technology (digital transformation) throughout business processes. Several previous studies have highlighted the importance of digital transformation, innovation, and agility in building organizational resilience. Zhang et al. (2021) and Khalil et al. (2022) show that digital transformation enhances the ability to adapt to market changes. Miceli et al. (2021) and Mandal & Dubey (2020) emphasize that organizational agility is a key driver in building strategic resilience. Meanwhile, Kamalahmadi & Parast (2016) and Al-Hakimi & Mahmoud (2020) state that innovation capability is key to creating dynamic advantages and maintaining business continuity.

Although various studies have examined the relationship between digital transformation, innovation capability, and innovation agility on resilience, previous research has generally been sector-specific and has not comprehensively integrated the three crucial factors of digital transformation, innovation capability, and organizational agility as a foundation for building organizational resilience, particularly in the context of Muslim fashion MSMEs facing specific challenges such as showrooming and webrooming consumption patterns, as well as pressures from digital competition. Yet, understanding these dynamics is highly relevant for MSMEs seeking to build long-term business sustainability and resilience. Muslim fashion MSMEs, particularly in strategic areas like Tanah Abang, are at the crossroads between conventional business models and the demands of digitalization driven by changing consumer behavior. They face real challenges due to decreased demand during the crisis, limited technological adaptation, and pressure from digital competitors.

Based on this phenomenon, this study aims to fill this research gap by developing an empirical model that examines the influence of digital transformation, innovation capability, and organizational agility on organizational resilience in hijab-oriented MSMEs in Tanah Abang. A quantitative approach was used in this study using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method to analyze the relationship between variables simultaneously and comprehensively.

2. Preliminaries or Related Work or Literature Review

Resource-Based View Theory

The Resource-Based View (RBV) theory is a strategic management theory used to explain how companies can achieve and maintain a sustainable competitive advantage by utilizing their internal resources. The RBV was first conceptually introduced by Wernerfelt (1984), but was comprehensively developed by Jay Barney in 1991, making it one of the most influential theories in business strategy.

MSMEs

According to Government Regulation of the Republic of Indonesia No. 7 of 2021 concerning the Facilitation, Protection, and Empowerment of Cooperatives and Micro, Small, and Medium Enterprises, MSMEs are defined as follows: (1) Micro Enterprises are productive businesses owned by individuals or individual business entities that meet the criteria for Micro Enterprises as stipulated in this Government Regulation; (2) A Small

Business is a stand-alone productive economic enterprise, conducted by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of, directly or indirectly, a Medium-sized Enterprise or large business that meets the criteria for a Small Business as referred to in this Government Regulation. (3) A Medium-sized Enterprise is a stand-alone productive economic enterprise, conducted by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of, directly or indirectly, a Small Business or large business that meets the criteria for a Medium-sized Enterprise as stipulated in this Government Regulation. MSMEs aim to grow and develop their businesses in order to build a national economy based on a just economic democracy.

Digital Transformation

Digital transformation is a comprehensive process involving significant changes in strategy, processes, organizational structure, and work culture through the application of information and communication technology. This transformation not only impacts internal processes but also impacts the entire ecosystem in which an organization operates. Digital transformation is a strategic effort to improve an entity by utilizing a combination of information, communication, and connectivity technologies. Digital transformation is not only about technology adoption, but also involves changes in organizational strategy, change management, and IT capability development. This process is dynamic, where changes in one aspect can simultaneously impact others. For example, changes in digital business strategy can impact organizational structure and work culture (Mikalef & Parmiggiani, 2022).

Innovation Capability

Innovation capability can be understood as the potential to innovate, or more specifically, as "the ability to continuously transform knowledge and ideas into new products, processes, and systems for the benefit of the company and its stakeholders." Innovation capability relates to an organization's ability to initiate, develop, and achieve innovation outcomes using a set of technological and organizational skills (Sepúlveda & Collazos, 2025). Building innovation capability is not a simple task from an operational perspective, as it requires a decision-making process that serves as a driver in a company's efforts to be innovative and create a culture of innovation among employees and within the organization as a whole. Innovation capability emphasizes the importance of teams within the organization to develop processes, products, and services with customers and suppliers (Rakhman, 2024).

Organizational Agility

Organizational agility has been researched over the past few decades, with numerous attempts to define agility in business organizations. However, most definitions focus on functional business areas in isolation, approaching agility from the perspective of how organizations interact with changing environments through the sense-response dimension. Organizational agility has its roots in the manufacturing context. Agility was originally defined as a manufacturing system capable of meeting changing market needs, rapidly switching between products in real time to adapt to changing customer needs. Organizational agility, the ability to respond to evolving market conditions in a timely manner, is critical to remaining competitive (Handscomb et al., 2020). The business environment is characterized by rapid economic changes, customer needs, technology, and competitive conditions, which demand agile reactions; delays in implementing appropriate strategic responses to changing market conditions can threaten a company's survival (Hughes et al., 2020).

Organizational Resilience

The term "resilience" comes from the Latin word "resilire" (meaning to leap or return). The concept of resilience first emerged in ecology. Holling (1973) argued that resilience determines the continuity of relationships within a system and is a measure of the system's ability to absorb changes in state variables, driving variables, and parameters, and remain resilient. Since then, resilience has developed in various fields such as ecology, engineering, psychology, and organizational management. Currently, there is no uniform definition of organizational resilience. Scholars have presented this concept from social systems, psychological perspectives, and strategic management perspectives.

Partial Least Squares – Structural Equation Modeling (PLS-SEM)

Partial Least Squares Structural Equation Modeling (PLS-SEM) is a variance-based structural equation modeling method used to estimate the relationships between latent

variables in a research model. PLS-SEM is a different approach from Covariance-Based Structural Equation Modeling (CB-SEM) (Sarstedt et al., 2021). PLS-SEM was developed as an alternative to CB-SEM and is more focused on prediction and theory development (Hair et al., 2019). PLS-SEM is a very useful method, especially when the user's structural model goal is to predict and explain results obtained through in-sample and out-of-sample metrics (Hair et al., 2022a; Hair & Sarstedt, 2021). The reason for the widespread acceptance of PLS-SEM is its easy-to-use interface, which allows researchers to simultaneously analyze the relationships between observed and latent variables in complex models and perform various robustness tests (e.g., endogeneity tests) while considering the measurement error inherent in evaluating abstract concepts. This method is particularly useful in situations where data have a non-normal distribution, small to medium sample sizes, and complex research models with many indicators and causal relationships.

3. Proposed Method

Research Population and Sampling

A population refers to a collection of all elements, whether individuals, groups, or other entities, that share similar characteristics and are the focus of a research study. A sample is a subset of a population (Ferdinand, 2013). The sample size in this study is determined by the applied analysis method, namely the Structural Equation Model (SEM). In the context of the SEM method, a common approach to sample selection is the Maximum Likelihood Estimation (MLE) technique, as proposed by Hair et al. (2010). MLE recommends an optimal sample size ranging from 100 to 200. Therefore, this study targets a minimum sample size of 100 respondents, with a maximum limit of 200 respondents. In the context of PLS-SEM, sample size can be determined using several approaches proposed by Hair et al. (2017), one of which is the "rule of thumb," namely a minimum sample size of 10 times the largest number of formative indicators measuring a single construct or 10 times the number of the largest structural paths leading to a single construct in the structural model. In determining the sample, this study used a non-probability sampling method, which does not provide an equal opportunity for every member of the population to be sampled. The sampling technique used was purposive sampling. The sample criteria used in this study were as follows:

1. MSMEs with business capital of up to IDR 1,000,000,000.00 (one billion rupiah), excluding land and buildings, or Micro Enterprises.
2. MSMEs with a minimum of 2–3 permanent employees.
3. MSMEs that have utilized digital technology for marketing or business operations.

Based on these criteria, questionnaires were distributed to 100–200 eligible MSMEs from the total population. Sample selection was carried out to ensure that the selected MSMEs were relevant to the research objectives and could provide appropriate data for analysis.

Data Collection

Sugiyono (2018) defines primary data as information obtained directly by researchers from primary sources or the research object's location. Process

The data collection process was conducted by distributing questionnaires to the study subjects, namely MSMEs operating in the Muslim fashion sector in the Greater Jakarta area. Data were obtained through a quantitative survey that relied on questions using a Likert scale. A Likert scale is a type of ordinal measurement scale that allows respondents to express their level of agreement or disagreement with a statement by assigning a score according to a predetermined scale. A Likert scale consists of four or more questions that are combined to form a score/value that represents an individual's characteristics, such as knowledge, attitudes, and behavior.

Data collection will be conducted at this stage before processing begins. The data collected is based on the results of an online questionnaire created on Google Forms and completed by respondents from MSMEs in the Muslim fashion sector. Using Google Forms facilitates the data collection process because respondents can complete the survey anywhere and anytime. The questionnaire was constructed using a Likert scale with values ranging from strongly agree to strongly disagree, resulting in ordinal data. The questionnaire was based on variables, indicators, and questions from the literature review in Table 2

Table 2. Likert Scale.

Skor	Participant Response	Code	Explanation
5	Strongly Agree	SS	This statement received a high level of agreement from respondents because it was in line with the situation they experienced.
4	Agree	S	Respondents felt that the statement reflected the situation they were experiencing.
3	Disagree	KS	Respondents thought that the statement was less relevant to the situation they were experiencing.
2	Disagree	TS	Respondents thought that the statement did not reflect the situation they experienced.
1	Strongly Disagree	STS	This statement received a high level of disagreement from respondents because it did not match the situation they were experiencing.

Data collection was conducted online through questionnaires created using Google Forms, as well as through physical questionnaires given directly to respondents.

4. Results and Discussion

Respondent Characteristics

This study examines the Influence of Digital Transformation, Innovation Capability, and Organizational Agility on Organizational Resilience in Muslim Fashion MSMEs. Respondents were recruited by distributing questionnaires to 150 MSMEs operating in the Muslim fashion sector in the Greater Jakarta area. Respondents who participated in the questionnaire were assessed based on their gender, role in the business, business domicile, number of employees, business capital, and marketplace used.

Number of Respondents by Gender

Table 3. Number of Respondents by Gender.

No	Gender	Amount	Percentage (%)
1	Male	30	20%
2	Female	120	80%
	Total	150	100%

Source: Data processed by researcher (2025).

Based on Table 3, this study shows that the number of female respondents outnumbers male respondents. 120 female respondents completed the questionnaire, while 30 male respondents completed the questionnaire. This data demonstrates that Muslim fashion MSME owners are predominantly female, consistent with the research the researcher will conduct through distributed questionnaires. This composition is consistent with various studies showing that the Muslim fashion industry in Indonesia is a halal economic sector largely driven by women. Literature studies on halal fashion indicate that women are key actors in the development of this industry (Maziyyah, 2023), while reports from institutions such as Bank Indonesia (2023) and IPB University (2023) also emphasize the strategic role of women in the MSME ecosystem and the halal economy. These findings indicate that the predominance of female respondents in this study aligns with the actual characteristics of Muslim fashion MSMEs in Indonesia.

Number of Respondents by Business Role

Table 4. Number of Respondents by Business Role.

No	The Role of Business	Amount	Percentage (%)
1	Marketing	13	9%
2	Owner	137	91%

Total	150	100%

Source: Data processed by researchers (2025).

Based on Table 4, it can be seen that the majority of respondents in this study were MSME owners (91%), while 9% of respondents played marketing roles. This finding aligns with the findings of the Ministry of Cooperatives and SMEs (2023), which stated that the majority of MSMEs in Indonesia are managed directly by business owners. Research by Widyastuti and Santoso (2022) also confirms that the fashion sector, including Muslim fashion, is dominated by an owner-managed management model. Therefore, the composition of respondents in this study reflects the primary perspectives of decision-makers in the Muslim fashion MSME industry in Greater Jakarta.

Number of Respondents by Number of Employees

Table 5. Number of Respondents by Number of Employees.

No	Number of employees	Amount	Percentage (%)
1	< 5 orang	62	41%
2	5 - 10 orang	87	58%
3	> 10 orang	1	1%
	Total	150	100%

Source: Data processed by researchers (2025).

Based on Table 5, the majority of respondents in the Muslim fashion MSME sector in the Greater Jakarta area (Jabodetabek) have 5–10 employees, or 87 respondents (58%). Sixty-two respondents (41%) have fewer than five employees, and only one respondent (1%) has more than ten employees. This indicates that the majority of MSMEs operating in the Muslim fashion sector are still micro and small businesses. This aligns with Law Number 20 of 2008, which stipulates that micro businesses generally have fewer than five employees, while small businesses have 5–19 employees. Furthermore, a report from the Ministry of Cooperatives and SMEs (2023) also indicates that the majority of MSMEs in the fashion sector fall into the micro and small business category, with fewer than 20 employees. Research by Rahmawati and Pratama (2021) further confirms that fashion MSMEs in Indonesia are dominated by small businesses with limited workforce capacity.

Number of Respondents Based on Business Capital

Table 6. Number of Respondents Based on Business Capital.

No	Number of marketplaces	Amount	Percentage (%)
1	1 Marketplace	65	43%
2	2 Marketplace	64	43%
3	3 Marketplace	20	13%
4	4 Marketplace	1	1%
	Total	150	100%

Source: Data processed by researcher, 2025.

Based on Table 6, it can be seen that the majority of Muslim fashion MSMEs in the Greater Jakarta area use 1–2 marketplaces for their business activities. Sixty-five respondents (43%) use only one marketplace, while 64 respondents (43%) use two. Furthermore, 20 respondents (13%) use three marketplaces, and only one respondent (1%) utilizes four marketplaces simultaneously. This data indicates that the majority of MSMEs tend to focus on using one or two marketplace platforms. This may be due to limited resources in managing multiple digital channels simultaneously, including labor, capital, and digital marketing capabilities.

Descriptive Data Analysis

Based on the results of the questionnaire distribution, 150 respondents were selected as respondents, namely MSMEs operating in the Muslim fashion sector in the Greater Jakarta area. This study has four variables: Organizational Agility, Digital Transformation, Innovation Capability, and Organizational Resilience. To determine the conditions or tendencies of respondents regarding these four variables, descriptive data analysis is required. The following is the descriptive data analysis in this study.

Organizational Agility

Table 7. Descriptive Analysis of Organizational Agility.

Item Indikator	Skala 1	2	3	4	5	Total	*Mean*	Standar Deviasi
OA1	0	0	16	104	30	150	4,093	0,548
OA2	0	0	9	109	32	150	4,153	0,501
OA3	0	0	16	109	25	150	4,060	0,521
OA4	0	0	23	100	27	150	4,027	0,579
Grand Mean							4,083	

Source: Data processed by researcher, 2025.

Based on Table 7, the results of the descriptive analysis of organizational agility, the Grand Mean value for the organizational agility variable is 4.083. This value indicates that overall, respondents agreed with the statements representing the indicators in the organizational agility variable.

Digital Transformation

Table 8. Descriptive Analysis of Digital Transformation.

Item Indikator	Skala 1	2	3	4	5	Total	Mean	Standar Deviasi
DT1	0	1	31	84	34	150	4,007	0,68
DT2	0	1	2	114	33	150	4,193	0,473
DT3	0	1	10	115	24	150	4,080	0,499
DT4	0	2	11	118	19	150	4,027	0,504
Grand Mean							4,077	

Source: Data processed by researcher, 2025.

Based on Table 8, the results of the descriptive analysis of Digital Transformation, it can be seen that the Digital Transformation variable has a Grand Mean value of 4.077. This value indicates that overall, respondents agreed with the statements representing the indicators in the Digital Transformation variable.

Innovation Capability

Table 9. Descriptive Analysis of Innovation Capability.

Item Indikator	Skala 1	2	3	4	5	Total	Mean	Standar Deviasi
IC1	0	0	15	113	22	150	4,047	0,496
IC2	0	0	19	111	20	150	4,007	0,512
IC3	0	1	22	113	14	150	3,933	0,514
IC4	0	1	7	122	20	150	4,073	0,450
Grand Mean							4,015	

Source: Data processed by researcher, 2025.

Based on Table 9, the results of the descriptive analysis of Innovation Capability show that the Innovation Capability variable has a Grand Mean value of 4.015. This value indicates that overall, respondents agreed with the statements representing the indicators in the Innovation Capability variable.

Organizational Resilience

Table 10. Descriptive Analysis of Organizational Resilience.

Item Indikator	Skala 1	2	3	4	5	Total	Mean	Standar Deviasi
OR1	0	0	7	112	31	150	4,160	0,479
OR2	0	1	16	108	25	150	4,047	0,548
OR3	0	1	27	99	23	150	3,960	0,601

OR4	0	1	13	102	34	150	4,127	0,571
			Grand Mean				4,073	

Source: Data processed by researcher, 2025.

Based on Table 10 the descriptive analysis of Organizational Resilience shows that the Organizational Resilience variable has a Grand Mean value of 4.073. This value indicates that overall, respondents agreed with the statements representing the indicators of the Organizational Resilience variable.

Model Structure Analysis

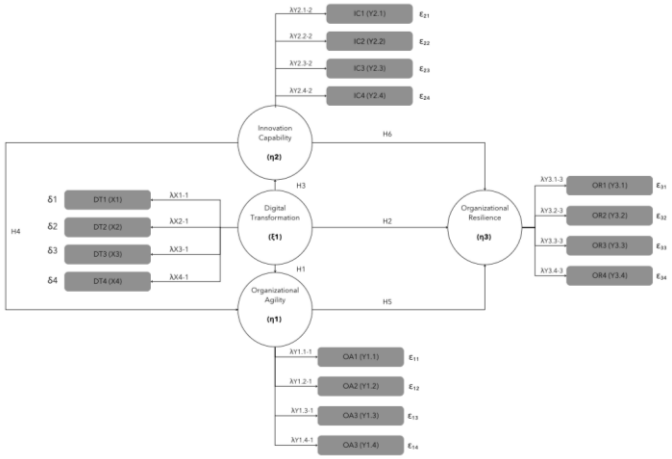

Figure 4. Path Diagram of the Research Model.

The measurement model equation in Figure 4.1 can be written as follows:

1. Exogenous Variable: Digital Transformation

$$X1 = \lambda X_{1.1}\xi 1 + \delta_1$$

$$X2 = \lambda X_{2.1}\xi 1 + \delta_2$$

$$X3 = \lambda X_{3.1}\xi 1 + \delta_3$$

$$X4 = \lambda 4_{3.1}\xi 1 + \delta_4$$

2. Endogenous Variable Organizational Agility

$$Y1.1 = \lambda Y_{1.1}\eta 1 + \varepsilon_{11}$$

$$Y1.2 = \lambda Y_{1.2}\eta 1 + \varepsilon_{12}$$

$$Y1.3 = \lambda Y_{1.3}\eta 1 + \varepsilon_{13}$$

$$Y1.4 = \lambda Y_{1.4}\eta 1 + \varepsilon_{14}$$

3. Endogenous Variable Innovation Capability

$$Y2.1 = \lambda Y_{2.1}\eta 2 + \varepsilon_{21}$$

$$Y2.2 = \lambda Y_{2.2}\eta 2 + \varepsilon_{22}$$

$$Y2.3 = \lambda Y_{2.3}\eta 2 + \varepsilon_{23}$$

$$Y2.4 = \lambda Y_{2.4}\eta 2 + \varepsilon_{24}$$

4. Endogenous Variables Organizational Resilience

$$Y3.1 = \lambda Y_{3.1}\eta 3 + \varepsilon_{31}$$

$$Y3.2 = \lambda Y_{3.2}\eta 3 + \varepsilon_{32}$$

$$Y3.3 = \lambda Y_{3.3}\eta 3 + \varepsilon_{33}$$

$$Y3.4 = \lambda Y_{3.4}\eta 3 + \varepsilon_{34}$$

SEM-PLS Analysis

Measurement Model Evaluation

a. Validity Test

An indicator is declared valid if its loading factor value is greater than 0.60. Therefore, if an indicator has a loading factor value below 0.60, it must be removed from the model (Hair et al., 2019). In testing the validity of reflective indicators, validity is assessed by the correlation between item scores and construct scores. Models with reflective indicators

assume that changes in one indicator within a construct will be followed by changes in other indicators within the same construct.

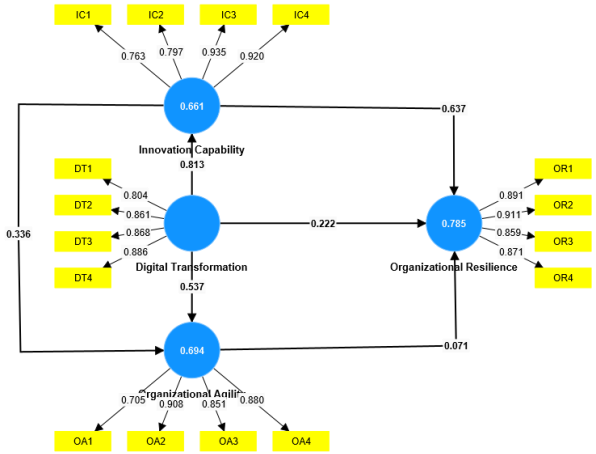

Figure 5. Outer Model.

Table 11. Outer Loading.

Construct	Indicator	Outer loadings	*Average variance extracted* (AVE)	Information
Digital Transformation	DT1	0,804	0,731	Valid
	DT2	0,861		Valid
	DT3	0,868		Valid
	DT4	0,886		Valid
Innovation Capability	IC1	0,763	0,734	Valid
	IC2	0,797		Valid
	IC3	0,935		Valid
	IC4	0,920		Valid
Organizational agility	OA1	0,705	0,705	Valid
	OA2	0,908		Valid
	OA3	0,851		Valid
	OA4	0,880		Valid
Organizational Resilience	OR1	0,891	0,780	Valid
	OR2	0,911		Valid
	OR3	0,859		Valid
	OR4	0,871		Valid

Based on Table 11, all items in the research variables met the validity criteria because they had loading factor values greater than 0.60. Furthermore, the results of the Average Variance Extracted (AVE) test also indicated that all research constructs were valid. This is indicated by the AVE value for each construct being above 0.50, meaning that more than 50% of the indicator variance can be explained by the construct in question (Hair et al., 2019).

b. Discriminant Validity Test

Table 12. Fornell Lacker

	Digital Transformation	*Innovation Capability*	*Organizational agility*	*Organizational Resilience*
Digital Transformation	**0,855**			

Innovation Capability	0,813	**0,857**		
Organizational agility	0,810	0,772	**0,840**	
Organizational Resilience	0,797	0,721	0,743	**0,883**

Table 12 shows that the correlation value for this variable is greater than the correlation between the other variables, thus concluding that all variables are valid for use. In addition to the Fornell-Lacker test, discriminant validity can also be tested based on cross-loading values. An indicator is considered to have discriminant validity if the cross-loading value for the dimension in its variable is the largest compared to the other variables (Hair et al., 2019). The cross-loading results can be seen in Table 13.

Table 13. Cross-Loading Results.

	Digital Transformation	***Innovation Capability***	***Organizational agility***	***Organizational Resilience***
DT1	**0,804**	0,655	0,767	0,644
DT2	**0,861**	0,695	0,658	0,667
DT3	**0,868**	0,662	0,662	0,666
DT4	**0,886**	0,763	0,681	0,745
IC1	0,679	**0,763**	0,577	0,626
IC2	0,621	**0,797**	0,585	0,669
IC3	0,750	**0,935**	0,734	0,820
IC4	0,731	**0,920**	0,733	0,851
OA1	0,469	0,516	**0,705**	0,453
OA2	0,725	0,704	**0,908**	0,723
OA3	0,663	0,630	**0,851**	0,635
OA4	0,813	0,720	**0,880**	0,648
OR1	0,703	0,809	0,691	**0,891**
OR2	0,686	0,807	0,682	**0,911**
OR3	0,696	0,711	0,601	**0,859**
OR4	0,734	0,749	0,645	**0,871**

Table 13 shows that the correlation value of the indicators for this variable is greater than the correlation value for the other variables. Therefore, it can be concluded that all variables are valid for use.

c. Reliability Test

Table 14. Composite Reliability Test Results.

	Composite reliability (rho_a)
Digital Transformation	0,878
Innovation Capability	0,892
Organizational agility	0,883
Organizational Resilience	0,908

Based on Table 14, it can be seen that all constructs in the study were declared reliable, as the Composite Reliability values for all constructs were above 0.70 (Hair et al., 2019).

Table 15. Cronbach Alpha Test Results.

	Cronbach's alpha

Digital Transformation	0,877
Innovation Capability	0,877
Organizational agility	0,859
Organizational Resilience	0,906

Based on Table 15, it can be seen that all constructs in the study are considered reliable, as the Cronbach's Alpha values for all constructs are above 0.70.

Structural Model Evaluation (Inner Model)

a. Coefficient of Determination (R2) Test

Table 16. Coefficient of Determination Test.

	R-square	**R-square adjusted**
Innovation Capability	0,661	0,658
Organizational agility	0,694	0,690
Organizational Resilience	0,785	0,781

Based on Table 16, the adjusted R-Square value for the innovation capability variable is 0.658, indicating a strong level of goodness-of-fit. This also means that 65.8% of the variability in innovation capability can be explained by the independent variables. The adjusted R-Square value for the organizational agility variable is 0.690, indicating a strong level of goodness-of-fit. This also means that 69% of the variability in organizational agility can be explained by the independent variables. The adjusted R-Square value for the organizational resilience variable is 0.781, indicating a strong level of goodness-of-fit. This also means that 78.1% of the variability in organizational resilience can be explained by the independent variables.

b. F-Square Test

Table 17. F-Square Test.

Construct Relationship	**F-square**	**Information**
Digital Transformation → Innovation Capability	1,948	High Impact
Digital Transformation → Organizational agility	0,320	Moderate Impact
Digital Transformation → Organizational Resilience	0,059	Moderate Impact
Innovation Capability → Organizational agility	0,125	Moderate Impact
Innovation Capability → Organizational Resilience	0,569	High Impact
Organizational agility → Organizational Resilience	0,007	Small Impact

Based on Table 17 above, the results show that the strongest relative influence is found in the relationship between Digital Transformation and Innovation Capability (f^2 = 1.948) and Innovation Capability and Organizational Resilience (f^2 = 0.569). Meanwhile, the relationship between Organizational Agility and Organizational Resilience shows a weak influence (f^2 = 0.007). These results align with the opinion of Hair et al. (2019) who stated that the F-Square can be used to measure the strength of the predictive effect of independent variables on the dependent variable in a PLS-SEM model.

c. Q-Square Test

Based on the test results shown in Table 18, all exogenous latent variables yielded Q^2 values > 0. This means that each exogenous variable in this study has predictive relevance to the endogenous variables it influences. Therefore, it can be concluded that the resulting predictive relevance is in the small to moderate category.

Table 18. Q-Square Test.

Variabel Laten Endogen	**SSO**	**SSE**	**Q^2 (=1-SSE/SSO)**	**Information**
Innovation Capability	600,000	313,398	0,478	Moderate predictive relevance
Organizational agility	600,000	313,514	0,477	Moderate predictive relevance

Organizational Resilience	600,000	240,427	0,599	High predictive relevance

Based on the results of the cross-validation redundancy test, it was found that:

a) Digital Transformation has moderate ability in predicting the Innovation Capability construct.
b) Digital Transformation has moderate ability in predicting the Organizational Agility construct.
c) Digital Transformation has high ability in predicting the Organizational Resilience construct.

Hypothesis Testing

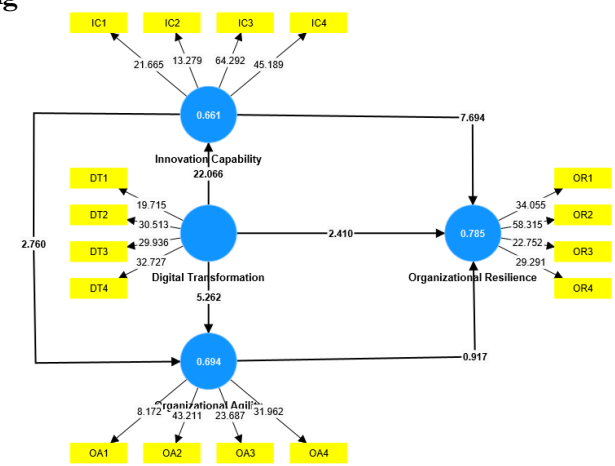

Figure 6. Bootstrapping Results for Hypothesis Testing.

Table 19. Summary of Hypothesis Testing.

	Koefisien	T statistics	P values	Information
Digital Transformation → Innovation Capability	0,813	22,066	0,000	Significant
Digital Transformation → Organizational agility	0,537	5,262	0,000	Significant
Digital Transformation → Organizational Resilience	0,222	2,410	0,016	Significant
Innovation Capability → Organizational agility	0,336	2,760	0,006	Significant
Innovation Capability → Organizational Resilience	0,637	7,694	0,000	Significant
Organizational agility → Organizational Resilience	0,071	0,917	0,359	Not Significant

Based on the results of structural model testing using PLS-SEM, this study tested six hypotheses describing the relationships between the variables Digital Transformation, Innovation Capability, Organizational Agility, and Organizational Resilience. The significance of the relationships between variables was tested by examining the path coefficients, T-statistics, and P-values. The test results showed that of the six hypotheses proposed, five were found to have significant relationships, while one hypothesis was not.

1. Hypothesis 1

The results of the hypothesis test for the Digital Transformation variable on Organizational Agility yielded a t-statistic of 5.262 ≥ 1.96 and a p-value of 0.000 ≤ 0.05. Therefore, H0 is rejected and H2 is accepted, indicating that Digital Transformation has a significant positive effect on Organizational Agility. This means that the better the

implementation of Digital Transformation, the more resilient MSMEs will be in the face of change.

2. Hypothesis 2

   The results of the hypothesis test for the Digital Transformation variable on Organizational Resilience yielded a t-statistic of 2.410 ≥ 1.96 and a p-value of 0.016 ≤ 0.05. Therefore, H0 is rejected and H3 is accepted, indicating that Digital Transformation has a significant positive effect on Organizational Resilience. This means that the better the implementation of Digital Transformation, the more resilient MSMEs will be in the face of change.

3. Hypothesis 3

   The results of the hypothesis test for the Digital Transformation variable on Innovation Capability yielded a t-statistic of 22.066 ≥ 1.96 and a p-value of 0.000 ≤ 0.05. Therefore, H0 is rejected and H1 is accepted, indicating that Digital Transformation has a significant positive effect on Innovation Capability. This means that the higher the implementation of Digital Transformation in MSMEs, the greater the increase in Innovation Capability.

4. Hypothesis 4

   The results of the hypothesis test for the Innovation Capability variable on Organizational Agility yielded a t-statistic of 2.760 ≥ 1.96 and a p-value of 0.006 ≤ 0.05. Therefore, H0 is rejected and H4 is accepted, indicating that Innovation Capability has a significant positive effect on Organizational Agility. This means that the higher the Innovation Capability of MSMEs, the greater their Organizational Agility will be.

5. Hypothesis 5

   The results of the hypothesis test of the Organizational Agility variable on Organizational Resilience yielded a t-statistic of 0.917 ≤ 1.96 and a p-value of 0.359 ≥ 0.05. Therefore, H0 is accepted and H5 is rejected, indicating that Organizational Agility does not significantly influence Organizational Resilience. This means that even if MSMEs have a good level of agility, this does not necessarily guarantee organizational resilience in the face of change or crisis.

6. Hypothesis 6

   The results of the hypothesis test for the Innovation Capability variable on Organizational Resilience yielded a t-statistic of 7.694 ≥ 1.96 and a p-value of 0.000 ≤ 0.05. Therefore, H0 is rejected and H6 is accepted, indicating that Innovation Capability has a significant positive effect on Organizational Resilience. This means that the higher the Innovation Capability in MSMEs, the stronger the organization's resilience in the face of external change and disruption.

Inter-Variable Influence

Digital Transformation's Effect on Organizational Agility

Hypothesis testing results indicate that digital transformation has a significant positive effect on organizational agility, with a coefficient of 0.537, a t-value of 5.262 (>1.96), and a p-value of 0.000 ≤ 0.05. This finding confirms that the better the implementation of digital transformation within an organization, the higher the organization's agility in responding to the dynamics of the business environment.

These results support research by Troise et al. (2022), which found that digital transformation plays a crucial role in increasing organizational agility by accelerating decision-making and improving process efficiency. Furthermore, these findings are consistent with Awad & Rojas (2024), who stated that digital transformation serves as a catalyst for organizational learning, ultimately strengthening organizational agility. Current conditions increasingly emphasize the importance of agility, especially for MSMEs, which must respond to changing consumer behavior, service digitization, and competitive pressures. With digital transformation, MSMEs can improve operational efficiency, accelerate decision-making, and provide more responsive services (McKinsey, 2023). Thus, the results of this study strengthen the empirical evidence that digital transformation is a key enabler for organizational agility, particularly in the context of MSMEs.

Based on these findings, Muslim fashion MSMEs are advised to strategically strengthen their digital transformation, particularly through optimizing the use of digital platforms, utilizing sales and customer data as a basis for decision-making, and enhancing the digital capabilities of their human resources. These efforts are expected to continuously increase organizational agility in the face of dynamic market changes.

Digital Transformation Affects Organizational Resilience

The results of this study indicate that digital transformation has a significant positive effect on organizational resilience, with a coefficient value of 0.222, a t-statistic of 2.410, and a p-value of 0.016 ≤ 0.05. This means that the better the implementation of digital transformation, the more resilient the organization is in facing external challenges.

These results support the research of Zhang et al. (2021), which found that digital transformation strengthens organizational resilience through exploratory and exploitative innovation. Similarly, research by Wang & Chen (2022) confirms that digital transformation plays a crucial role in increasing resilience by strengthening human capital, internal control, and reducing financial constraints. The current context demonstrates that digitalization is a key pillar of organizational resilience, particularly post-COVID-19 pandemic, when companies are required to maintain business continuity amidst global disruption (Deloitte, 2023). For MSMEs in Indonesia, digital transformation enables them to survive by expanding distribution channels, strengthening digital marketing, and improving operational cost efficiency.

For Muslim fashion MSMEs, these findings underscore the importance of digital transformation as a strategy to increase business resilience amidst dynamic trends, fluctuating demand, and the pressures of digital competition. Therefore, Muslim fashion MSMEs are advised to strengthen the integrated use of digital technology, including through diversifying online sales channels, optimizing social media and marketplaces, and implementing simple digital systems for inventory and financial management. Furthermore, improving digital literacy among business actors is crucial to ensure that digital transformation is not merely about technology adoption but also strengthens adaptability and long-term business sustainability.

Digital Transformation Influences Innovation Capability

The results of this study indicate that Digital Transformation has a significant positive effect on Innovation Capability, with a coefficient of 0.813, a t-statistic of 22.066, and a p-value of 0.000 ≤ 0.05. This means that the higher the implementation of digital transformation, the greater the organization's innovation capability.

These results support research by Awad & Rojas (2024), which shows that digital technology enhances organizational learning capacity, which has implications for increased innovation. Furthermore, Wang & Chen (2022) also emphasized that digital transformation strengthens innovation by improving human capabilities and internal systems. In today's environment, innovation is a key prerequisite for organizational sustainability. Rapid changes in consumer preferences, technological trends, and global competition require MSMEs to innovate continuously. Digital transformation enables faster innovation processes, both in products, services, and business models (World Bank, 2024). Thus, these findings confirm the role of digitalization as a catalyst for innovation.

For Muslim fashion MSMEs, these findings emphasize that digital transformation needs to be directed not only at marketing digitization but also at strengthening innovation processes based on data and market trends. Therefore, Muslim fashion MSMEs are advised to utilize digital technology to develop product designs that adapt to modest fashion trends, utilize social media analytics to understand consumer preferences, and engage in digital collaboration with designers, influencers, and creative platforms. Furthermore, implementing digital technology in production processes and supply chain management can accelerate the innovation cycle and increase the competitiveness of Muslim fashion MSMEs in both national and global markets.

Innovation Capability Influences Organizational Agility

The results of this study indicate that Innovation Capability has a significant positive effect on Organizational Agility, with a coefficient of 0.336, a t-statistic of 2.760, and a p-value of 0.006 ≤ 0.05. This means that the higher the innovation capability, the more agile the organization is in facing change.

These results support research by Troise et al. (2022), which found that innovation capability is a determinant of organizational agility. Research by Olaleye et al. (2024) also confirms that the ability to innovate supports organizations in adapting to changes in a dynamic business environment. The current context shows that organizations with continuous innovation are more adaptable to market disruption and global competition. For MSMEs, innovation capability helps them create relevant products, increase customer satisfaction, and accelerate adaptation to digital trends (Ministry of Cooperatives & SMEs of the Republic of Indonesia, 2024).

For Muslim fashion MSMEs, these findings indicate that increasing innovation capabilities needs to be directed at quickly responding to dynamic modest fashion trends and changing consumer preferences. Therefore, Muslim fashion MSMEs are advised to develop sustainable design innovations, accelerate product development cycles through the use of digital technology, and implement a co-creation approach with customers through social media and digital platforms. Furthermore, flexibility in production and marketing processes needs to be strengthened so that MSMEs can adapt quickly to changing trends, seasons, and market demand.

Organizational Agility Influences Organizational Resilience

The results of this study indicate that organizational agility does not significantly influence organizational resilience, with a coefficient of 0.071, a t-statistic of 0.917, and a p-value of $0.359 \geq 0.05$. This indicates that organizational agility does not directly enhance organizational resilience.

These results differ from the research of Mandal & Dubey (2020) and Suryani & Dwiputra (2025), which showed that agility contributes to organizational resilience. This difference can be explained from a methodological and contextual perspective. One factor suspected of influencing these results is the relatively limited number of respondents, potentially reducing statistical power in detecting relationships between variables. This situation allows for weak or indirect influences that have not been fully captured by the research model used.

Furthermore, in the context of MSMEs in Indonesia, particularly Muslim fashion MSMEs, organizational agility is generally manifested in short-term responses to market changes, such as adjustments to product design, promotional strategies, and distribution patterns. Meanwhile, organizational resilience is a long-term capability that requires structural readiness, resource availability, and sustainable risk mitigation strategies. These differences in characteristics mean that the agility possessed by MSMEs has not automatically accumulated into organizational resilience.

Theoretically, this finding aligns with several studies, including Surowiec & Pigoń (2021), who stated that agility contributes to rapid response, not long-term structural resilience. Kocot et al. (2025) found that agility increases response speed and the effectiveness of operational risk management, but does not directly strengthen an organization's strategic resilience. Ivanov and Dolgui (2021) added that agility is a determining factor for resilience only when supported by digital transformation, innovation capabilities, and organizational learning processes.

Thus, the rejection of this hypothesis does not necessarily negate the role of organizational agility in building organizational resilience. Rather, it indicates that, given the context and limitations of this study, its influence has not been significantly demonstrated. This finding implies that strengthening the resilience of Muslim fashion MSMEs requires the integration of agility with digital transformation, innovation capabilities, and a more comprehensive sustainability strategy.

Innovation Capability Influences Organizational Resilience

The results of this study indicate that Innovation Capability has a significant positive effect on Organizational Resilience, with a coefficient of 0.637, a t-statistic of 7.694, and a p-value of $0.000 \leq 0.05$. This means that the higher the innovation capability, the more resilient the organization is in facing challenges.

This finding supports research by Olaleye et al. (2024), which found that innovation capability strengthens business sustainability through organizational resilience. Research by Suryani & Dwiputra (2025) also confirms that innovation capability plays a crucial role in increasing the adaptability and resilience of MSMEs. The current context demonstrates that

organizational resilience is determined not only by efficiency but also by the ability to continuously innovate. In the digital era, MSMEs that are able to create innovations in products, services, and business processes will be more resilient in the face of economic, technological, and social disruption (OECD, 2024).

For Muslim fashion MSMEs, strengthening innovation capabilities needs to focus on developing product designs that adapt to modest fashion trends, utilizing digital technology to accelerate the design and production process, and marketing innovation through digital platforms and social media. Furthermore, collaboration with local designers, leveraging customer data, and implementing more flexible production processes can be strategies to increase business resilience in the face of market dynamics and increasingly fierce competition.

Managerial Implications

The results of this study provide strategic managerial implications for Muslim fashion MSMEs in supporting the national MSME strengthening agenda and the development of the Indonesian modest fashion industry, as directed by the Ministry of Cooperatives and SMEs. First, the research findings indicate that digital transformation has a significant impact on organizational agility, innovation capability, and organizational resilience. This aligns with the Ministry of Cooperatives and SMEs' policy, which emphasizes accelerating MSME digitalization through the utilization of e-commerce platforms, onboarding MSMEs into digital ecosystems, and the use of cashless payment systems. Therefore, Muslim fashion MSMEs need to actively integrate digital technology into marketing, sales, and operations to expand access to national and global markets. Furthermore, utilizing data analytics for decision-making and integrating technology into daily operational processes can improve organizational efficiency and competitiveness (McKinsey, 2023; Deloitte, 2023).

Second, innovation capability has been shown to be a key factor in strengthening the agility and resilience of Muslim fashion MSMEs. These implications align with the development direction of the national modest fashion industry, which prioritizes design innovation, product quality, and brand differentiation. Muslim fashion MSME managers need to encourage sustainable innovation through design development that adapts to global modest fashion trends, utilizes local materials, and implements sustainability principles, which are increasingly gaining consumer attention. These efforts also align with the government's program to strengthen regional superior products and develop creativity-based MSMEs. This step will help Muslim fashion MSMEs create products and services relevant to market needs and strengthen their competitive advantage (Olaleye et al., 2024; World Bank, 2024).

Third, research findings indicate that organizational agility does not directly impact organizational resilience. This finding indicates that responding quickly to market trends is not sufficient to ensure the sustainability of Muslim fashion MSMEs. Therefore, agility needs to be combined with more structured internal policies, such as demand-based production planning, the use of pre-order systems, and strengthened financial management. This approach aligns with the Ministry of Cooperatives and SMEs' policy, which emphasizes strengthening business governance and the sustainability of MSMEs, particularly Muslim fashion MSMEs, rather than simply increasing short-term sales volume. Muslim fashion MSME managers must ensure that organizational agility is combined with the implementation of digital technology and sustainable business model innovation, thereby ensuring business continuity amidst the dynamics of an uncertain business environment (Mandal & Dubey, 2020; Suryani & Dwiputra, 2025).

Fourth, the resilience of Muslim fashion MSMEs in the face of external disruptions, such as fluctuating purchasing power, changing trends, and global competition, depends heavily on the integration of digitalization and innovation. Managers need to utilize government programs related to expanding market access, such as national and international exhibitions, MSME product curation, and promotion through national digital platforms. This strategy supports Indonesia's vision of becoming a global hub for modest fashion, with MSMEs as the backbone of the industry. In this way, MSMEs will be able to increase adaptability while maintaining long-term business sustainability, especially in the face of economic, social, and technological shocks (Zhang et al., 2021; OECD, 2024).

Fifth, digitalization, agility, and innovation will not run optimally without the support of competent human resources (HR). Therefore, managers need to optimize human resource capacity development programs aligned with the Ministry of Cooperatives and SMEs' policies,

such as training in entrepreneurship, digital literacy, product design, and digital marketing. By improving human resource quality, Muslim fashion MSMEs are expected to increase competitiveness, strengthen business resilience, and contribute to the sustainable development of the national modest fashion industry. By improving digital literacy and innovation skills, digital transformation can be implemented more effectively and sustainably (Wang & Chen, 2022; Awad & Rojas, 2024).

5. Conclusions

Based on the results of research conducted on the influence of digital transformation, innovation capability, and organizational agility on organizational resilience in MSMEs in Indonesia, the following conclusions were reached. (1) Digital transformation has a positive and significant impact on organizational resilience. This finding indicates that the better the implementation of digital transformation, such as the use of e-commerce platforms, social media, and digital payment systems, the greater the ability of Muslim fashion MSMEs to maintain business continuity. Digitalization enables businesses to expand their market reach, respond more quickly to changing modest fashion trends, and improve operational efficiency. Thus, digital transformation plays a key enabler in strengthening the resilience of Muslim fashion MSMEs amidst competition and industry disruption. (2) Innovation capability has a positive and significant impact on organizational resilience. The greater the ability of MSMEs to create innovative designs, products, and business models that adapt to Muslim fashion trends, the more resilient the organization is in facing market dynamics. Continuous innovation helps Muslim fashion MSMEs maintain product relevance, increase added value, and strengthen competitiveness, thereby supporting long-term business sustainability. (3) Organizational agility does not have a significant impact on organizational resilience. These findings indicate that the ability to respond quickly to market changes does not directly increase business resilience. In the context of Muslim fashion MSMEs in Indonesia, organizational agility is still limited by limited resources, access to technology, and suboptimal risk mitigation planning. Therefore, organizational agility needs to be combined with the implementation of digital transformation and strengthening innovation capabilities to make a more tangible contribution to organizational resilience.

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