P ISSN 2301.9093 | E ISSN 2540.8259

JMDK Jurnal Manajemen dan Kewirausahaan

https://jurnal.unmer.ac.id/index.php/jmdk/index

Vol. 13, No. 2, 2025: 161-174

Exploring Mediation and Moderation in the Digital Transformation of Culinary SMEs

Nisrina Hamid[1]*, Conny[2]

[1]Department of Management, Faculty of Economic and Islamic Business, Universitas Muhammadiyah Kendari, Jl. KH. Ahmad Dahlan, No. 10 Kendari, Sulawesi Tenggara, Indonesia
[2]Departement of Management, Faculty of Economic and Islamic Business, Universitas Halu Oleo, Jl. HEA. Mokodompit, Kendari, Sulawesi Tenggara, Indonesia.
*Corresponding Author(s) Email: nisrina.hamid@umkendari.ac.id

Abstract

This study examines the influence of digital mindset on business performance among culinary MSMEs, with technology adoption as a mediating variable and Need for Stimulation (NST) as a moderating factor, highlighting psychological aspects in the digital transformation of the culinary sector. Employing a quantitative approach and an explanatory research design, data were collected from 125 culinary MSME actors in Kendari City through structured surveys and analyzed using Structural Equation Modeling. The findings reveal that a digital mindset positively affects technology adoption, but does not directly influence business performance; technology adoption serves as a significant mediator. NST was found to negatively moderate the relationship between technology adoption and business performance, indicating that excessive stimulation levels may hinder the effectiveness of technology implementation. This study extends the understanding of Optimal Stimulation Level Theory and emphasizes that while the digital mindset is a crucial prerequisite, it is not the sole determinant of improved business performance. The practical implication suggests the need for digital training programs that consider the psychological characteristics of business actors to enhance the effectiveness of digital transformation. However, the study is limited by its sample and cross-sectional design, and future research is recommended to adopt a longitudinal approach and explore alternative moderating variables.

Keywords: Business Performance; Culinary SMEs; Digital Mindset; Technology Adoption; Need For Stimulation

Article History:
Received: 12-09-2025
Revised: 12-11-2025
Accepted: 18-11-2025
Publish: 31-12-2025

DOI:
10.26905/jmdk.v13i2.16195

How to cite: Hamid, N., Conny. (2025). Exploring Mediation and Moderation in the Digital Transformation of Culinary SMEs. *Jurnal Manajemen dan Kewirausahaan*, *13*(2), 161-174. https://doi.org/10.26905/jmdk.v13i2.16195.

INTRODUCTION

Internet marketing media has become increasingly diverse due to advancements in information technology. Three primary platforms, such as instant messaging, social media, and online marketplaces, have emerged as popular tools among Small and Medium Enterprises (SMEs). Digital transformation offers vast opportunities to

expand market reach, deliver products and services beyond geographical boundaries, and build brands more effectively, including within the culinary business sector. The presence of technology is expected to bring positive changes in the efficiency of culinary businesses as it enables people to easily sell and purchase food and beverages through digital applications (Wafi Vydrio, 2021). The culinary industry holds significant market potential and contributes to the national economic structure. However, the utilization of technology in this sector remains considerably lagging as most industry players, primarily micro and small-scale enterprises, still operate manually across the entire value chain (Theodora, 2021). Research by Tria Wahyuningtihas *et al*. (2021) indicates that culinary SMEs possess substantial potential for growth through the adoption of information technology, yet its implementation remains low. Although information technology can enhance efficiency, market reach, and revenue, many SMEs remain hesitant to embrace digitalization due to the low educational background of their workforce and limited technological knowledge. A study by Bank Indonesia involving 10,142 UMSEs (Ultra Micro and Small Enterprises) across 34 provinces reveals that digital adoption varies significantly by region, with many business actors still failing to utilize technology optimally. Key barriers include the perceived high cost of technology adoption, low digital literacy, limited managerial and human resource support, system complexity, and concerns over data security (Affandi *et al.*, 2024). Other studies have found that while technologies such as e-commerce and digital marketing can increase productivity by up to 30 percent and profitability by up to 35 percent, infrastructure challenges and organizational culture remain major obstacles (Faiz, 2023; Hardiyanto *et al.*, 2022).

The low level of technology adoption in the culinary sector indicates that digital transformation is not solely supported by the availability of digital platforms, but also requires a digital mindset. According to Soltanifar & Smailhodžić (2021), a digital mindset reflects the readiness of individuals or organizations to understand and utilize technology to achieve business goals, enhance efficiency, and improve market competitiveness. It is a critical element for successful digital transformation, as proper understanding and management of this mindset help organizations overcome challenges and seize opportunities in the digital era (Demirel, 2024; Dingee, 2020). An adaptive digital mindset, combined with the drive for stimulation (Need for Stimulation), accelerates technology adoption. Without these two aspects, digital transformation risks being hindered, even when technology is readily available (Srinivasan *et al*., 2002). Emerging technologies have significant potential to increase individuals' Need for Stimulation, particularly through innovations in social media and interactive applications that offer novel and engaging experiences. Companies that can identify and respond to these stimulation needs tend to be more successful in adopting new technologies (Steenkamp *et al*., 1996). Understanding NST can help businesses design more effective marketing strategies. Products and advertisements that generate high arousal are more appealing to consumers with high NST, encouraging them to make purchases (Helm & Landschulze, 2009).

The synergy between a digital mindset and Need for Stimulation enables organizations to be not only technically resilient but also psychologically driven to explore new technologies. This combination accelerates digital transformation and directly contributes to improved business performance through greater efficiency, innovation, and customer satisfaction (Samsuden et al., 2024; Helm & Landschulze, 2009; Chebon *et al*., 2019).

The digital transformation of culinary SMEs reveals disparities in technology adoption that are influenced not only by structural factors but also by psychological ones. Several studies indicate that SME actors, including those in Kendari City, Southeast Sulawesi Province, have not yet been able to effectively integrate technology into their operational activities (Halim Asy'ary & Asraf, 2024; Verren Elyviana Supriadi, Aris Soelistyo, 2016).

This phenomenon indicates that the success of digital transformation is not solely dependent on the availability of technology but also on the mental and psychological readiness of business actors, particularly in cultivating a digital mindset that is adaptive and responsive to change. This is further reinforced by the study of Mutiara Hapiz *et al.*(2025), which found that many entrepreneurs, especially in the micro and culinary sectors, still lack an adaptive digital mindset. Technology is often perceived as an operational burden rather than a strategic opportunity to enhance e.-business efficiency and competitiveness. Rifai (2025) also explains that the National Research and Innovation Agency (BRIN) attributes the low rate of digital technology adoption among Indonesian SMEs to weak digital infrastructure, limited access to capital, and low human resource competencies.

This study addresses gaps in previous research that have not quantitatively examined the role of psychological factors in the digital transformation of SMEs. Manafe (2024) highlights the importance of mental readiness among business actors, yet lacks structural modeling, while Muis (2025) focuses more on structural aspects and does not explore psychological dimensions in depth. This research offers a novel contribution by modeling the influence of digital mindset on business performance through technology adoption, and by testing the moderating role of Need for Stimulation (NST) within an SEM-PLS framework.

This study offers a novel contribution by integrating psychological constructs such as digital mindset and Need for Stimulation into a comprehensive structural model to examine their influence on the business performance of culinary SMEs in Kendari City. Unlike previous research that primarily emphasized structural or technical factors, this study simultaneously applies mediation and moderation approaches within the SEM PLS framework. It reveals that technology adoption mediates the relationship between digital mindset and business

performance, while Need for Stimulation negatively moderates the impact of technology adoption. By applying the Optimal Stimulation Level theory in the SMEs context, this research provides fresh insights into how psychological readiness and stimulation preferences shape digital transformation outcomes, thereby enriching both theoretical understanding and practical strategies for SMEs empowerment.

LITERATURE REVIEW

Digital Mindset and Technological Adoption

Digital mindset refers to an open attitude toward technological innovation, reflecting an individual's readiness to learn and utilize digital solutions. This mindset supports SMEs in adopting technology, enhancing operational efficiency, and competitiveness in the digital era. Individuals or business actors with a strong digital mindset are more likely to adopt digital platforms, characterized by a willingness to learn and adapt, confidence in using digital tools, and a solution-oriented approach (Yannick Hildebrandt, 2024). According to Widyaningsih *et al*. (2023), a digital mindset is influenced by digital aptitude and digital literacy. A study by May Amy *et al.(*2020) found that a digital mindset encourages individuals to be open to innovation, curious about technology, and more flexible in responding to digital change, thereby contributing positively to technology adoption. Cunningham *et al*.(2023) argue that strengthening the entrepreneurial mindset, particularly the ability to identify opportunities, is a key strategy for accelerating digital transformation in the SME sector. In relation to technology adoption, success is not solely determined by the availability of digital infrastructure, but also by the psychological readiness and strategic capabilities of business actors in responding to market opportunities in an adaptive and visionary manner (Vrontis *et al.*, 2022; Töytäri *et al.*, 2018).

H_1: Digital mindset significantly drives the increase in technology adoption among culinary SMEs in Kendari City.

Digital Mindset and Business Performance

A digital entrepreneurial mindset encourages companies to adopt innovative, agile, and data-driven ways of thinking in responding to digital challenges. When consistently applied, this mindset enables firms to better explore technological opportunities, accelerate decision-making, and create added value that directly contributes to improved business performance (Astra *et al.*, 2023). Digital business strategies and growth mindsets have a significant impact on the performance of MSMEs. These strategies enhance adaptability and operational efficiency, fostering continuous innovation amid dynamic market conditions. A digital business strategy equips MSMEs with the ability to respond to change and improve operational effectiveness (Soltanifar & Smailhodžić, 2021). The success of digital transformation in business depends on the digital mindset, which reflects the perspectives of leaders and employees toward change and collaboration. An open mindset promotes innovation, while a rigid one hinders progress (Demirel, 2024).

A digital mindset can enhance business performance in today's digital era, as it reflects the courage to take risks and identify technology-based opportunities. In the context of business performance, a digital mindset serves as a mental foundation that enables SME actors to view technology not as a threat but as an opportunity. It supports the implementation of digital marketing innovations with a spirit of learning and adaptation, and facilitates collaboration and networking through digital platforms (Abdullah *et al*.,2024); Hildebrandt & Beimborn, 2021); Pradana *et al*., 2022).

H_2: Digital mindset enhances the business performance of culinary SMEs in Kendari City.

Technological Adoption and Business Performance

Studies by Badghish & Soomro (2024) and Umar Rofi'i (2025) demonstrate that technological, organizational, and environmental factors play a significant role in driving technology adoption, which is not merely a technical tool but a strategic approach to operational efficiency and SME performance in facing market disruption and sustainability demands. Research conducted in countries such as China, Pakistan, and Indonesia shows that digital adoption promotes value co-creation and can enhance innovation performance among SMEs. However, not all SMEs benefit directly from digitalization due to critical factors such as digital literacy, financial capital, and managerial orientation, which strongly determine the effectiveness of technology adoption (Sudarnice *et al*., 2024; Kurniasari *et al*., 2023). Digital technology adoption improves SME performance across five key dimensions: operational efficiency and productivity, increased revenue and profitability, broader market access and crisis resilience, product and service innovation, and strengthened customer relationships and loyalty through digital marketing (Lucian Dimoso & Utonga, 2024; Lukiyanto & Wijayaningtyas, 2020; Piller, 2024)

According to Endrődi-Kovács *et al*. (2024), technology adoption by SMEs has a significant impact on business performance, particularly in market-related aspects such as operational efficiency, competitive advantage, and adaptability to industry dynamics. However, the extent of this impact largely depends on the level of innovation readiness and strategic capabilities possessed by the firm, as well as the regional environment in which the SMEs operate.

H_3: Technology adoption has a positive and significant impact on improving the business performance of culinary SMEs in Kendari City.

Technology Adoption as a Mediator Between Digital Mindset and Business Performance

Technology adoption serves as a strategic linking element that transforms the influence of a digital mindset into tangible business performance outcomes. Without the implementation of technology, the strategic potential of a digital mindset remains latent and fails to produce a measurable impact (Qalati *et al*., 2021). Meanwhile, (Voola *et al*., 2012) explain that a digital mindset, reflected in an organization's ability to understand the market and respond proactively to technological opportunities, contributes significantly to improved business performanceparticularly when these capabilities are mediated by technology adoption strategies. A digital mindset manifested through digital capabilities drives innovation in technology-based business models, which in turn mediates its impact on enhanced business performance (Wang *et al.*, 2023).

H_4: Technology adoption acts as a mediating variable between digital mindset and the business performance of culinary SMEs in Kendari City

Need for Stimulation as a Moderator of the Relationship Between Technology Adoption and Business Performance

The Optimal Stimulation Level (OSL) Theory, developed by Zuckerman (1979), explains that each individual has an ideal level of stimulation. Need for Stimulation (NFS) refers to the drive to seek challenging and complex experiences. Individuals with high NFS tend to become easily bored and are drawn to ideas or technologies that offer stimulation, making NFS a potential moderator in the relationship between psychological factors and adoption intentions (Roberti, 2004). . Those with high NFS exhibit a preference for complex and intense stimuli, both in experimental settings and daily social activities, affirming NFS as a valid psychological construct. NFS is not merely a preference but a genuine social motive, reflecting an internal need to reach an optimal level of stimulation (Sales, 1972).

Recent studies indicate that technologies such as artificial intelligence and blockchain can enhance business performance, influenced by entrepreneurial spirit, absorptive capacity, leadership support, and IT alignment. However, the role of Need for Stimulation (NFS) as a moderating variable remains underexplored, despite its potential as a critical psychological factor in the relationship between technology adoption and business performance (Badghish & Soomro, 2024; Chatterjee et al., 2024; Kumar & Yadav, 2021).

H_5: Need for Stimulation moderates the relationship between technology adoption and the business performance of culinary SMEs in Kendari City.

METHOD

Research Design

The research adopts a quantitative methodology and explanatory design to explore the interrelationships among digital mindset, technology adoption, need for stimulation, and business performance.

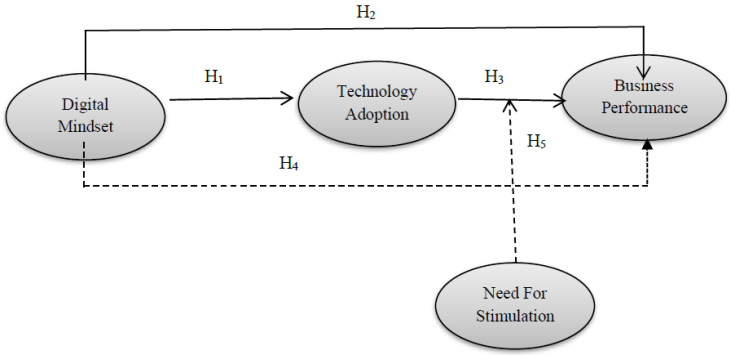

Figure 1. Conceptual Research Model

Data Collection

The population in this study consists of all culinary SMEs in Kendari City, Southeast Sulawesi Province, totaling 943 businesses. The sample size was determined using Slovin's formula with a margin of error of 5%, resulting in a minimum required sample of 281 respondents.

$$n = \frac{\mathrm{N}}{1 + N\,(e)^2}$$

$$n = \frac{943}{1 + 943\ (0{,}05)^2}$$

$$n = 281$$

The sampling technique in this study was carried out in two stages as follows:

1. Initial selection stage: A total of 281 culinary SMEs were selected using simple random sampling from the overall population of culinary SMEs in Kendari City.
2. Screening stage: From the 281 selected SMEs, a screening process was conducted based on specific criteria, namely, culinary business owners who actively use digital technology for marketing, promotion, or delivery platforms. As a result, 125 SMEs met the criteria and agreed to participate as respondents.

Table 1. Operational Definition

Variables	Definition	Indicators
Digital Mindset (Da Costa *et al.*, 2024)	An individual's open, adaptive, and proactive attitude toward digital technology is demonstrated through a willingness to experiment, learn, and integrate digital solutions into the work environment and social interactions.	Open mind, transformer, and entrepreneur
Technological Adoption (Viswanath Venkatesh, Michael G. Morris, 2003)	The process by which individuals or organizations begin to use and integrate new technologies into their business activities.	Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions.
Business Performance (van de Ven *et al*., 2023)	A measure of an organization's operational effectiveness and efficiency in achieving its strategic business objectives.	Value proposition, customer relationships, customer segment, channels
Need for Stimulation (Helm & Landschulze, 2009)	A psychological construct that describes an individual's drive to seek novelty, complexity, and intensity of experience.	Change Seeker Indeks and state Sensation Seeking Scale.

Data Analysis Techniques

The data analysis technique used in this study is Structural Equation Modeling based on Partial Least Squares (SEM-PLS). This modeling approach enables the exploration of complex relationships as well as the testing of mediation and reciprocal effects among variables (Sarstedt & Cheah, 2019 ; Henseler *et al.*, 2009). The method was selected for its reliability in handling non-normal data and moderate sample sizes, as well as its flexibility in assessing newly adapted psychological constructs.

RESULT

Respondent Characteristics

To gain a more comprehensive understanding of the respondent profile, a classification was conducted based on several demographic and digital behavior variables relevant to the context of the study. The demographic characteristics include gender, age group, highest level of education, and business duration. Meanwhile, the digital behavior characteristics encompass ownership of technological devices and how digital technology is utilized in daily business operations**.**

Table 2. Respondent Characteristics

Description	Category	Frekuensi (n)	Persentase (%)
Gender	Male	43	34,4
	Female	82	65,6
Age Group	< 25 years	27	21,6
	26-35 years	40	32,0
	> 35 years	58	46,4
Education Level	High School	62	49,6
	Diploma	21	16,8
	Bachelor’s Degree	42	33,6
Business Duration	< 2 years	29	23,2
	2-5 years	62	49,6

Description	Category	Frekuensi (n)	Persentase (%)
	> 5 years	34	27,2
Types of Digital Devices	Smartphone	125	100,0
	Desktop Computer / Personal Computer (PC)	0	0,0
Aspects of Digital Technology Usage	Use of Technology for Promotion	25	20,0
	Use of Technology for Marketing	15	12,0
	Use of Delivery Platforms	85	68,0

This study involved 125 culinary business owners who are actively engaged in digital practices. The majority of respondents were female (65.6%), aged between 26 and 35 years (46.4%), and held a Bachelor's degree (49.6%). Most had operated their businesses for 2 to 5 years (41.6%). All respondents used smartphones, while none reported using desktop computers. In terms of digital activity, the dominant form of engagement was through delivery platforms (68.0%), whereas the use of technology for promotion (20.0%) and marketing (12.0%) remained relatively limited.

Measurement Model (Outer Model)

In the reflective model of SEM PLS, the assessment of validity and reliability includes factor loadings (LF) greater than 0.70, composite reliability (CR) greater than 0.70, and average variance extracted (AVE) greater than 0.50. Discriminant validity is also evaluated to ensure that each construct is empirically distinct from the others (Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2017)

Table 3. Loading Factor

Construct	Question	DM	TA	BP	NFS x BP
Digital mindset (DM)	I enjoy exploring new technologies that can improve the efficiency of my business.	0,784			
	I use digital technology to transform the way I complete my work.	0,875			
	I take the initiative to integrate digital solutions into my work processes.	0,858			
	I believe that digital transformation is an opportunity to create value, not a threat.	0,899			
	I actively seek ways to leverage technology to enhance both the efficiency and impact of my work.	0,901			
	I believe that the courage to take digital risks is essential for fostering innovation	0,916			
	I see digital challenges as opportunities to learn and create.	0,859			
Technological Adoption (TA)	I feel that technology is easy to learn and helps support my business.		0,854		
	The digital technology I use has features that are easy to access and understand."		0,857		
	The use of technology does not require complex technical skills.		0,901		
	I am motivated to use technology because many other business owners are adopting it.		0,901		
	My customers expect me to use digital technology to simplify and improve service delivery.		0,886		
	My community encourages the use of digital technology.		0,870		
	I have adequate access to technological devices such as a smartphone and a laptop.		0,862		
	I have sufficient internet connectivity to support the use of technology in my business.		0,802		
	My business environment supports the use of digital technology.		0,793		
Business Performance (BP)	The product I offer carries a unique value compared to competitors.			0,898	
	I am able to clearly articulate the unique advantages of my product to customers.			0,928	
	The value offered contributes directly to customer loyalty.			0,917	
Need for Simulation (NFS) X TA					1,000

Table 4. Reliability and Validity

Variabels	Items	Cronbach's alpha	Rho_A	Composite reliability	AVE
Digital Mind	7	0,947	0,951	0,957	0,759
Technological Adoption	9	0,955	0,956	0,962	0,738
Business Performance	3	0,903	0,912	0,939	0,836
Need For Stimulation	6	0,885	0,893	0,911	0,631

The data presented in Tables 3 and 4 confirm that the measurement model and SEM-PLS analysis meet the required criteria, and the constructs used demonstrate high reliability. Meanwhile, discriminant validity within the model has been assessed using two approaches: HTMT and the Fornell-Larcker criterion. The HTMT values, all below 0.90, indicate that the constructs are empirically distinct. The Fornell-Larcker analysis further reveals that the square root of the AVE for each construct exceeds its correlations with other constructs. Collectively, these findings support that each construct in the model possesses adequate discriminant validity and does not exhibit conceptual overlap. For further details, refer to Table 5.

Table 5. Discriminant Validity

	Digital Mind	Technological Adoption	Business Performance	Need For Stimulation
HTMT (Heterotrait Monotrait Ratio)				
Digital Mind			0,180	0,322
Technological Adoption	0,321		0,823	0,510
Business Performance				
Need For Stimulation			0,413	
Need For Stimulation x technological adoption	0,274	0,446	0,480	0,347
Forner Larcker				
Digital Mind			0,819	0,294
Technological Adoption			0,722	0,472
Business Performance	0,819		0,915	
Need For Stimulation	0,311	0,859	0,378	0,799

The analysis in Table 5 indicates that the constructs within the model exhibit strong discriminant validity, as evidenced by HTMT values below 0.90 and the square root of AVE exceeding the inter-construct correlations. These findings suggest that each construct captures a distinct aspect of the data and does not conceptually overlap with others.

Structural Model Fit

In SEM-PLS analysis, several indicators are used to evaluate model fit, including SRMR, R^2, f^2, Q^2, d_ULS, and d_G. The Standardized Root Mean Square Residual (SRMR) measures the average discrepancy between the observed correlations and those predicted by the model, with SRMR values below 0.08 considered indicative of a good fit (Cho *et al.*, 2020). The Coefficient of Determination (R^2) reflects the extent to which independent variables explain the variance in dependent variables, where R^2 values ≥ 0.25 indicate a moderate effect and values ≥ 0.50 indicate a strong effect. The Effect Size (f^2) assesses the strength of the influence of exogenous constructs on endogenous constructs, with thresholds of $f^2 \geq 0.02$ for small effects, ≥ 0.15 for medium effects, and ≥ 0.35 for large effects (Hair *et al*., 2021)

Table 6. Structural Model Fit

	DM	TA	BP	Model Fit Indicated	Data Interpretation
R^2		0,097	0,622		The results indicate that Digital Mindset (DM) accounts for 9.7% of the variance in technology adoption (TA) among culinary SMEs. This suggests that the R^2 value of 0.097 does not diminish the role of DM. DM likely serves as a foundational factor in the initial stages of technology adoption, yet it is not the sole driver and may not be sufficient on its own to fully encourage adoption among culinary SMEs.

	DM	TA	BP	Model Fit Indicated	Data Interpretation
f^2	-				The direct effect of Digital Mindset (DM) on Technology Adoption (TA) is considered moderate, with an effect size of 0.107. Similarly, its direct effect on Business Performance (BP) is relatively weak, with an effect size of 0.023, indicating that DM does not directly drive business performance. In contrast, Technology Adoption exerts a strong and significant influence on Business Performance, suggesting that TA serves as the primary mediator in the relationship between digital mindset and the performance of culinary SMEs. The moderating effect of Need for Stimulation, with an effect size of 0.055, is small but meaningful, indicating that individual psychological characteristics contribute to the strength of the relationship between technology adoption and business performance.
DM	-	0,107	0,023		
TA	-	-	0,937		
BP	-	-			
NSF x TA			0,055		
SRMR	-	-	-	0,074	An SRMR value of 0.074 indicates that the model exhibits a good fit, as it falls below the threshold of 0.08. This suggests that the discrepancy between the observed data and the model's predictions is relatively small.
d_ULS	-	-	-	2,089	The d_ULS (2.089) and d_G (1.276) values are used to assess model fit in SEM-PLS. Lower values indicate better alignment between the model and the data. Both values fall within acceptable thresholds, suggesting that the model demonstrates an adequate level of fit with the observed data.
d_G	-	-	-	1,276	
NFI	-	-	-	0,754	A value of 0.754 indicates that the model demonstrates a reasonably good fit to the data, particularly when used as a Goodness-of-Fit (GoF) indicator. This value suggests that the model structure and the indicators employed are sufficiently representative and statistically valid.
GoF	-	-	-	0,516	A Goodness-of-Fit (GoF) value of 0.516 indicates that the model demonstrates a satisfactory level of fit. This suggests that the constructed model adequately represents the relationships among the constructs and possesses sufficient explanatory validity to be used in further analysis.

Based on the analysis in Table 6, it can be concluded that Technology Adoption serves as a strong mediator between Digital Mindset and Business Performance, supported by a well-fitting model. Although the direct effect of Digital Mindset is weak, its indirect influence is significant. Furthermore, Need for Stimulation as a moderating variable provides a relevant psychological contribution, albeit small, indicating that individual traits play a role in shaping the strength of the relationship between technology adoption and business performance.

Path Coefficients

In SEM-PLS, the path coefficient indicates the direction and strength of the relationship between constructs. When the t-value exceeds 1.96 and the p-value is below 0.05, the relationship is considered statistically significant and supported by the data. Interpreting these coefficients is essential for evaluating the validity of the model and drawing practical conclusions.

Table 7. Statistical Outcomes of Hypothesis Tests

Hypotesis	Relationship	Coefficient	t-statistik	p-value	Result
Direct Effect					
H_1	digital mind -> technology Adoption	0,311	2,594	0,010	Supported
H_2	digital mind -> Business performance	-0,100	1,539	0,125	Rejected
H_3	technology Adoption -> Business performance	0,726	12,400	0,000	Supported

Hypotesis	Relationship	Coefficient	t-statistik	p-value	Result
Indirect Effect					
H_4	digital mind -> technology Adoption -> Business performance	0,226	2,512	0,012	Supported
Moderation Effect	Need for stimulation x technology Adoption -> Business performance	-0,107	2,903	0,004	Supported

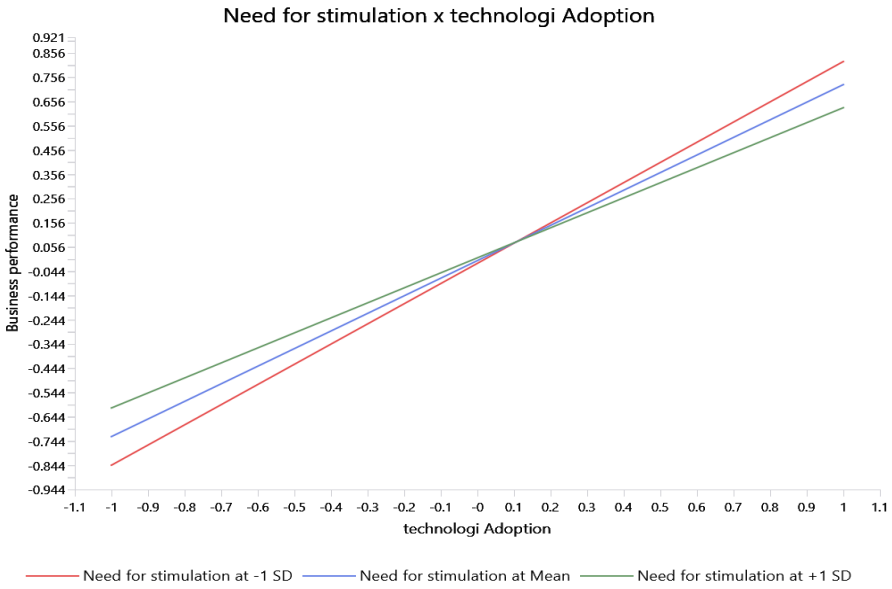

Figure 2. Interaction graph of the moderating effect of Need for Stimulation on the relationship between Technology Adoption and Business Performance.

The hypothesis results presented in Table 7 indicate that Digital Mindset significantly promotes technology adoption among culinary entrepreneurs in Kendari City. Although Digital Mindset does not directly and significantly enhance Business Performance, the path analysis reveals that Technology Adoption serves as a mediating variable. These findings affirm that Digital Mindset does not automatically improve Business Performance but contributes substantially when facilitated by the level of technology adoption among culinary SMEs in Kendari. Meanwhile, Need for Stimulation acts as a moderating variable, but its relationship is negative, meaning that the higher the Need for Stimulation, the weaker the positive relationship between Technology Adoption and Business Performance. This pattern is categorized as pure moderation (Figure 2).

DISCUSSION

Digital Mindset Significantly Drives the Increase in Technology Adoption

The research findings indicate that Hypothesis 1 confirms digital mindset significantly drives the increase in technology adoption among culinary SMEs in Kendari City. This result suggests that a digital mindset serves as a psychological foundation that fosters entrepreneurs' readiness to experiment, learn, and adapt to technological advancements. This is evidenced by the growing phenomenon among culinary SMEs in Kendari over the past few years, which demonstrates increased digital readiness, particularly in strengthening brand identity through digital platforms. Such behavior reflects a paradigm shift from conventional marketing approaches toward more adaptive and interactive technology-based business strategies. Culinary SME actors have shown a clear understanding that actively utilizing digital platforms such as Instagram, TikTok, and Facebook can expand market reach, visually showcase products, and build closer relationships with customers. These findings are further reinforced by Munawir Makmur *et al*. (2024), who assert that digital marketing strategies, including the use of social media, have positively impacted sales growth among SMEs in Kendari, particularly in the food sector.

Field observations also indicate that although a digital mindset can encourage technology use, culinary SMEs in Kendari City still face financial constraints and low technological readiness. Most culinary SMEs utilize digital platforms such as social media in a tactical manner, without integrating them into long-term business strategies. These findings are reinforced by Muis (2025), who asserts that while a digital mindset significantly influences readiness and success in technology adoption, innovative leadership is a crucial internal factor. Culinary entrepreneurs must remain open to digital learning, as this openness tends to steer their businesses toward more integrated digital strategies.

Digital Mindset Enhances Business Performance

Hypothesis 2 in this study was rejected, indicating that a digital mindset does not automatically lead to improved business performance among culinary SMEs in Kendari City. Field observations revealed that not all culinary SME actors in Kendari possess adequate digital literacy to effectively manage digital platforms, despite the relatively high level of internet access in the city. This is due to several constraints, such as the lack of technical skills, digital business strategies, and sufficient resources. This finding is reinforced by the study of *Sharabati et al.* (2024), which states that although digital marketing and digital transformation hold great potential for enhancing SME performance, their success largely depends on organizational readiness, technical skills, and the effectiveness of implementation strategies. A similar statement is also presented by Chen & Srinivasan (2024), who argue that while a digital mindset is essential for unlocking new opportunities, challenges such as limited resources, resistance to change, and low digital literacy remain major obstacles. Digital activities can enhance firm value, but their impact becomes significant only when supported by effective strategies and strong organizational capabilities.

These findings align with Neeley & Leonardi (2022), who emphasize that a digital mindset is not merely about technical proficiency, but rather a set of attitudes and behaviors that enable individuals and organizations to recognize new opportunities through data, algorithms, and digital technologies. A digital mindset must be embedded within the organization to ensure that digital transformation is effective and contributes meaningfully to business performance. Furthermore, a study by Kallmuenzer *et al*. (2025) highlights that many SMEs struggle to integrate technology optimally due to limited resources and organizational cultures that have yet to fully embrace digitalization. In this context, a digital mindset serves as an internal catalyst that drives technology adoption, but it is not sufficient to enhance business performance without the support of appropriate systems and effective implementation.

Technology Adoption Improves Business Performance

The results of the SEM PLS analysis indicate that Hypothesis 3 is accepted. This confirms that technology adoption has a positive and significant impact on improving the business performance of culinary SMEs in Kendari City. Field observations reveal that culinary SME actors in Kendari have integrated technology into their business activities. These include the use of social media, food ordering applications such as Grab and Maxim Food, and digital payment systems like QRIS. Such integration has led to better business performance compared to SMEs that still rely on conventional methods. These findings reinforce previous research, which states that technology is not merely a supporting tool but a strategic enabler that drives innovation and sustainability in micro and small enterprises, as highlighted by Arifin *et al*. (2025). Based on this, a digital mindset can be categorized as a necessary but not sufficient condition for enhancing business performance. It must be supported by actual technology adoption to produce meaningful outcomes.

This finding is also supported by Mishrif & Khan (2023), who state that technology adoption by SMEs is not merely reactive, but rather a strategic approach to building resilience and enhancing business performance. Technology has proven to be an effective survival strategy during times of crisis, contributing significantly to operational efficiency and customer satisfaction. Field data also indicate that digitalization has become a strategic necessity for culinary SMEs in Kendari City. Business owners who have adopted technology demonstrate more stable business performance compared to those who still rely on conventional methods. Teng *et al*. (2022) argue that well-planned digital transformation, supported by appropriate technology and competent human resources, can enhance operational efficiency, business stability, and long-term sustainability.

Technology Adoption Acts as a Mediating Variable Between Digital Mindset and Business Performance

Technology adoption, as a mediating variable stated in Hypothesis 4, demonstrates that it acts as a bridge between the digital mindset and the business performance of culinary SMEs in Kendari City. The mediating role of technology adoption is crucial, as it connects psychological readiness with measurable operational outcomes. The practical implication of this finding is the need for training and digital mentoring approaches that go beyond technical aspects, emphasizing the strengthening of mindset and the strategic implementation of technology tailored to the business context. This aligns with the study by Wang *et al*. (2023), which highlights digital capability as the link between psychological strategies and business outcomes. Therefore, a digital mindset must be supported by a structured process of technology implementation to generate a meaningful impact on business performance and enterprise resilience.

Technology adoption serves as a mediating variable that bridges the digital mindset, defined as psychological readiness, with the business performance of SMEs. To generate meaningful impact, this mindset must be translated into a structured and contextually relevant process of technology implementation. Training, mentoring, and well-aligned digital strategies play a critical role in reinforcing this relationship, ensuring that digital readiness evolves into tangible improvements in operational efficiency, competitiveness, and enterprise resilience (Hutama, 2023; Al-Omush *et al*., 2023).

Need for Stimulation as a Moderator of the Relationship Between Technology Adoption and Business Performance

An interesting aspect of this study is reflected in Hypothesis 5. It states that Need for Stimulation (NST) moderates the relationship between technology adoption and business performance, but with a negative effect. This indicates that culinary SMEs with excessively high levels of stimulation may face obstacles in focusing on effective technology implementation. This condition aligns with the Optimal Stimulation Theory proposed by Zuckerman in 1979. The theory suggests that at high levels, NST can trigger overstimulation. This leads to distraction and impulsive decision-making, making technology adoption less targeted and inconsistent. A recent study by R. A. Mittelstaedt, S. L. Grossbart (2024) supports this view. It shows that high levels of stimulation can influence the decision-making process in technology adoption. This is especially relevant in small businesses that face resource limitations and high operational pressure. The study found that individuals with high NST are more likely to adopt technology through experimentation rather than strategic evaluation. This tendency may reduce the effectiveness of technology implementation.

According to Yee (2024), the success of technology adoption does not solely depend on digital readiness but also on an organization's ability to manage psychological and motivational dynamics throughout the transformation process. In the context of SMEs, unstructured exploratory drives may hinder consistency and focus in technology implementation, which can negatively affect business performance. Based on this, a high level of Need for Stimulation (NST) may act as a barrier to converting technology adoption into improved business outcomes.

The practical implication of this finding is the need for digital mentoring approaches that consider not only technical and psychological aspects but also manage exploratory motivation to remain within optimal boundaries that support effective digital transformation. It highlights the importance of training and mentoring programs that go beyond technical instruction and focus on strengthening the mindset and psychological traits of business actors. For individuals with high levels of NST, technology adoption strategies should be designed in a more structured and outcome-oriented manner, rather than merely exploring new features.

CONCLUSION

This study explores the impact of technology adoption on the business performance of SMEs, taking into account the moderating role of Need for Stimulation (NST). The results show that technology adoption has a positive and significant effect on improving business performance. However, NST moderates this relationship negatively; entrepreneurs with high levels of NST tend to experience reduced effectiveness in technology implementation. Although NST is often associated with exploratory drive and innovation-seeking behavior, excessive stimulation may disrupt consistency and strategic use of technology, particularly in sectors that require operational stability.

These findings reinforce the relevance of the Optimal Stimulation Level Theory, which highlights the risk of overstimulation among entrepreneurs with high NST. The practical implication of this study is the need for digital training approaches that consider not only technical aspects but also the psychological characteristics of business actors, along with strategies to manage exploratory motivation so that it remains productive and focused.

The limitations of this study lie in the use of psychological constructs that are still relatively new in SMEs research, which calls for further validation. Additionally, the cross-sectional approach used in this study does not capture the long-term dynamics of digital transformation. Future research is recommended to explore other moderating variables, such as locus of control, risk tolerance, or digital fatigue, and to apply longitudinal designs to better understand the evolution of the digital mindset and its sustained impact on business performance.

REFERENCES

Abdullah, A., Alhamazani, F., Hamoud, M. A., Rasheedy, A., Tolihan, A., Alanzai, A., Awad, H., Alshammari, S., Mohammed, H., Alahmadi, H., Sultan, M., Technician-Nursing, A., Raeayih, M., Awlyt, S., & Alsharqii, A. (2024). Effective Communication in Healthcare Teams: a Patient-Centered Approach. *Gland Surg*, *9*(2), 9.

Affandi, Y., Ridhwan, M. H. A., Mega, C., Santosa, P., Affandi, Y., Ridhwan, M. H. A., Mega, C., & Santosa, P. (2024). *A Study of National Digital Adoption Index for Indonesian UMSEs (Expansion)*. 1–47.

Al-Omush, A., Momany, M. T., Hannoon, A., & Anwar, M. (2023). Digitalization and Sustainable Competitive Performance in Small–Medium Enterprises: A Moderation Mediation Model. *Sustainability (Switzerland)*, *15*(21). https://doi.org/10.3390/su152115668

Arifin, A. L., Winarno, U., & Badrudin, A. (2025). Inovasi Teknologi Guna Meningkatkan Produktivitas Dan Daya Saing Umkm Dalam Rangka Ketahanan Ekonomi. *Jurnal Manajemen Dan Kewirausahaan*, *17*(2), 145–158.

Astra, C., Kurniahardja, A., Virginia, C. M., & Andrian, T. (2023). *The Influence of Digital Business Strategy, Mental Accounting, and Growth Mindset on MSMEs' Business Performance*. 3051–3061. https://doi.org/10.46254/ap03.20220512

Badghish, S., & Soomro, Y. A. (2024). Artificial intelligence adoption by SMEs to achieve sustainable business performance. *Sustainability*, *16*(5), 1–24.

Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2024). Examining the Impact of Adoption of Emerging Technology and Supply Chain Resilience on Firm Performance: Moderating Role of Absorptive Capacity and Leadership Support. *IEEE Transactions on Engineering Management*, *71*(January), 10373–10386. https://doi.org/10.1109/TEM.2021.3134188

Chebon, S. K., Aruasa, W. K., & Chirchir, L. K. (2019). Influence of Individualized Consideration and Intellectual Stimulation on Employee Performance: Lessons from Moi Teaching and Referral Hospital, Eldoret, Kenya. *IOSR Journal of Humanities and Social Science*, *24*(7), 11–22. https://doi.org/10.9790/0837-2407041122

Chen, W., & Srinivasan, S. (2024). Going digital: implications for firm value and performance. *Review of Accounting Studies*, *29*(2), 1619–1665. https://doi.org/10.1007/s11142-023-09753-0

Cho, G., Hwang, H., Sarstedt, M., & Ringle, C. M. (2020). Cutoff criteria for overall model fit indexes in generalized structured component analysis. *Journal of Marketing Analytics*, *8*(4), 189–202. https://doi.org/10.1057/s41270-020-00089-1

Cunningham, J. A., Damij, N., Modic, D., & Olan, F. (2023). MSME technology adoption, entrepreneurial mindset, and value creation: a configurational approach. *Journal of Technology Transfer*, *48*(5), 1574–1598. https://doi.org/10.1007/s10961-023-10022-0

Da Costa, R. F., Brauer, M., Victorino, L., & Abreu, L. (2024). Clave Digital Mindset Scale: Development and validity evidence. *Revista de Administracao Mackenzie*, *25*(1), 1–27. https://doi.org/10.1590/1678-6971/eRAMC240124.en

Demirel, H. G. (2024). Why Do Digital Transformation Initiatives Fail? Digital Mindsets As an Invisible Strategic Component. *Yönetim Bilimleri Dergisi*, 1841–1876. https://doi.org/10.35408/comuybd.1516665

Dingee, M. (2020). Unpacking the Digital Consumer Mindset. *Consumer Behavior and Marketing*, 1–8. https://doi.org/10.5772/intechopen.88567

Endrődi-Kovács, V., Garrido, B. P., & Sebrek, S. S. (2024). Technology adoption of small and medium-sized enterprises and performance in European countries: A cross-country panel cointegration analysis. *Entrepreneurial Business and Economics Review*, *12*(2), 97–112. https://doi.org/10.15678/EBER.2024.120206

Faiz, F. (2023). *Factors Influencing Digital Technologies Adoption among Indonesian SMEs: A Conceptual Framework* (Issue Icelbi 2022). Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-350-4_22

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). - *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed.)*. Thousand Oaks, CA: Sage Publications.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Evaluation of Formative Measurement Models*. https://doi.org/10.1007/978-3-030-80519-7_5

Halim Asy'ary, A. P. M., & Asraf, A. (2024). Pengaruh Teknologi Informasi Pada Manajemen Sdm Umkm Di Kota Kendari. *IJMA (Indonesian Journal of Management and Accounting)*, *5*(1), 118. https://doi.org/10.21927/ijma.2024.5(1).118-124

Hamid, N., Suleman, N. R., Sukrin, Lapau, F., & Bakri Katti, S. W. (2025). *Kewirausahaan Digital* (M. Nasruddin (ed.)). PT. Nasya Expanding Management.

Hardianto, N., Rafdinal, W., & Gaffar, M. R. (2022). Predicting the Adoption of Mobile Business Applications by Culinary SMEs in Indonesia. *Journal of Management and Entrepreneurship Research*, *3*(1), 46–60. https://doi.org/10.34001/jmer.2022.6.03.1-27

Helm, R., & Landschulze, S. (2009). Optimal stimulation level theory, exploratory consumer behavior, and product adoption: An analysis of underlying structures across product categories. *Review of Managerial Science*, *3*(1), 41–73. https://doi.org/10.1007/s11846-009-0024-7

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, *20*, 277–319. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hildebrandt, Y., & Beimborn, D. (2021). The Intangible Key for Digitalization: Conceptualizing and Measuring the "digital Mindset." *SIGMIS-CPR 2021 - Proceedings of the 2021 Computers and People Research Conference*, 89–91. https://doi.org/10.1145/3458026.3462152

Hutama, D. (2023). Impact of Digital Capability on SMEs Performance: Mediating Role of Digital Business Transformation. *WACANA, Jurnal Sosial Dan Humaniora*, *26*(3), 122–131. https://doi.org/10.21776/ub.wacana.2023.026.03.02

Kallmuenzer, A., Mikhaylov, A., Chelaru, M., & Czakon, W. (2025). Adoption and performance outcome of digitalization in small and medium-sized enterprises. *Review of Managerial Science*, *19*(7), 2011–2038. https://doi.org/10.1007/s11846-024-00744-2

Kumar, S., & Yadav, R. (2021). The impact of shopping motivation on sustainable consumption: A study in the context of green apparel. *Journal of Cleaner Production*, *295*, 126239.

https://doi.org/10.1016/j.jclepro.2021.126239
Kurniasari, F., Lestari, E. D., & Tannady, H. (2023). Pursuing Long-Term Business Performance: Investigating the Effects of Financial and Technological Factors on Digital Adoption to Leverage SME Performance and Business Sustainability—Evidence from Indonesian SMEs in the Traditional Market. *Sustainability (Switzerland)*, *15*(16). https://doi.org/10.3390/su151612668
Lucian Dimoso, R., & Utonga, D. (2024). A Systematic Review Of Digital Technology Adoption In Small And Medium-Sized Enterprises: Implications For Performance In Developing Countries. *International Journal of Development and Management Review*, *19*(1), 58–71.
Lukiyanto, K., & Wijayaningtyas, M. (2020). Technology Adoption as an Innovation in Entrepreneurial Marketing Dimension, Allowing to Improve Micro and Small Businesses' Performance. *European Research Studies Journal*, *XXIII*(Issue 1), 552–564. https://doi.org/10.35808/ersj/1571
Manafe, M. W. N. (2024). Dynamic Success Dynamics of SMEs in Digital Transformation: Analysis of Social and Psychological Factors. *Journal of Contemporary Administration and Management (ADMAN)*, *2*(1), 325–330. https://doi.org/10.61100/adman.v2i1.127
May Amy, Y. C., Tan, G. G., & Carter, S. (2020). The Conundrum of Internet of Things Adoption in Higher Educational Institutions. *Review of Behavioral Aspect in Organizations and Society*, *2*(2), 67–94. https://doi.org/10.32770/rbaos.vol267-94
Mishrif, A., & Khan, A. (2023). Technology adoption as survival strategy for small and medium enterprises during COVID-19. *Journal of Innovation and Entrepreneurship*, *12*(1). https://doi.org/10.1186/s13731-023-00317-9
Munawir Makmur, Candra Puspita Ningtyas, & La Ode Agus Said. (2024). Kajian Pemanfaatan Digital Marketing Dalam Meningkatkan Penjualan Umkm Di Kota Kendari. *Journal Publicuho*, *7*(4), 2413–2422. https://doi.org/10.35817/publicuho.v7i4.613
Mutiara Hapiz, Livia Pijar Septia, Dwi Aprilianti, Dwi Aprilianto, Isda Maulida, F., & Muhammad, Amanda Shaafia, Muhammad Hilman Maulana, D. H. (2025). Analisis Kebijakan Pengembangan UMKM Digital di Indonesia. *Madani: Jurnal Ilmiah Multidisipline*, *3*(5). https://doi.org/https://doi.org/10.5281/zenodo.15538100
Neeley, T., & Leonardi, P. (2022). Developing a Digital Mindset. *Harvard Business Review*. https://hbr.org/2022/05/developing-a-digital-mindset
Piller, W. (2024). Technology Adoption and Business Growth in the United States. *International Journal of Business Strategies*, *10*(2), 36–48. https://doi.org/10.47672/ijbs.2121
Pradana, M., Silvianita, A., Syarifuddin, S., & Renaldi, R. (2022). The Implication of Digital Organizational Culture on Firm Performance. *Frontiers in Psychology*, *13*(May). https://doi.org/10.3389/fpsyg.2022.840699
Qalati, S. A., Li, W., Ahmed, N., Mirani, M. A., & Khan, A. (2021). Examining the factors affecting sme performance: the mediating role of social media adoption. *Sustainability (Switzerland)*, *13*(1), 1–24. https://doi.org/10.3390/su13010075
R. A. Mittelstaedt, S. L. Grossbart, W. W. C., and S. P. D. (2024). Optimal Stimulation Level and the Adoption Decision Process. *-Journal of Consumer Research.*, *3*(2), 84–94. https://doi.org/http://www.jstor.org/stable/2489114
Rifai, B. (2025). *BRIN Soroti Rendahnya Adopsi Teknologi Digital oleh UMKM Indonesia*. Brin.Go.Id. https://www.brin.go.id/news/124058/brin-soroti-rendahnya-adopsi-teknologi-digital-oleh-umkm-indonesia
Roberti, J. W. (2004). A review of behavioral and biological correlates of sensation seeking. *Journal of Research in Personality*, *38*(3), 256–279. https://doi.org/10.1016/S0092-6566(03)00067-9
Sales, S. M. (1972). Need for Stimulation as a Factor in Preferences for Different Stimuli. *Journal of Personality Assessment*, *36*(1), 55–61. https://doi.org/10.1080/00223891.1972.10119730
Samsuden, N. S., Kohar, U. H. A., Khatib, S. F. A., & Abbas, A. F. (2024). Digital Capabilities and Business Performance: A Systematic Literature Review. *Sustainability (Switzerland)*, *16*(24), 1–23. https://doi.org/10.3390/su162411108
Sarstedt, M., & Cheah, J. H. (2019). Partial least squares structural equation modeling using SmartPLS: a software review. *Journal of Marketing Analytics*, *7*(3), 196–202. https://doi.org/10.1057/s41270-019-00058-3
Sharabati, A. A. A., Ali, A. A. A., Allahham, M. I., Hussein, A. A., Alheet, A. F., & Mohammad, A. S. (2024). The Impact of Digital Marketing on the Performance of SMEs: An Analytical Study in Light of Modern Digital Transformations. *Sustainability (Switzerland)*, *16*(19), 1–25. https://doi.org/10.3390/su16198667
Soltanifar, M., & Smailhodžić, E. (2021). *Developing a Digital Entrepreneurial Mindset for Data-Driven, Cloud-Enabled, and Platform-Centric Business Activities: Practical Implications and the Impact on Society*. 3–21. https://doi.org/10.1007/978-3-030-53914-6_1
Srinivasan, R., Lilien, G. L., & Rangaswamy, A. (2002). Technological opportunism and radical technology adoption: An application to e-business. *Journal of Marketing*, *66*(3), 47–60. https://doi.org/10.1509/jmkg.66.3.47.18508

Steenkamp, J. B. E. M., Baumgartner, H., & Van Der Wulp, E. (1996). The relationships among arousal potential, arousal and stimulus evaluation, and the moderating role of need for stimulation. *International Journal of Research in Marketing*, *13*(4), 319–329. https://doi.org/10.1016/S0167-8116(96)00013-4

Sudarnice, Eliyana, A., Sutoyo, M. N., & Sumerta, I. K. (2024). Technology adoption in the measurement of innovation performance in SMEs: A systematic literature review. *Journal of Infrastructure, Policy and Development*, *8*(8), 1–11. https://doi.org/10.24294/jipd.v8i8.5138

Teng, X., Wu, Z., & Yang, F. (2022). Research on the Relationship between Digital Transformation and Performance of SMEs. *Sustainability (Switzerland)*, *14*(10), 1–17. https://doi.org/10.3390/su14106012

Theodora, A. (2021). *Sektor Makanan dan Minuman Masih Tertinggal*. Kompas.Id. https://www.kompas.id/artikel/pemanfaatan-teknologi-sektor-mamin-masih-tertinggal/

Töytäri, P., Turunen, T., Klein, M., Eloranta, V., Biehl, S., & Rajala, R. (2018). Aligning the Mindset and Capabilities within a Business Network for Successful Adoption of Smart Services. *Journal of Product Innovation Management*, *35*(5), 763–779. https://doi.org/10.1111/jpim.12462

Umar Rofi'i, Y. (2025). The Role of Business Size and Technology Adoption in Enhancing MSME Financial Performance. *International Journal of Management Science and Information Technology*, *5*(1), 201–209. https://doi.org/10.35870/ijmsit.v5i1.3833

Van de Ven, M., Lara Machado, P., Athanasopoulou, A., Aysolmaz, B., & Turetken, O. (2023). Key performance indicators for business models: a systematic review and catalog. In *Information Systems and e-Business Management* (Vol. 21, Issue 3). Springer Berlin Heidelberg. https://doi.org/10.1007/s10257-023-00650-2

Verren Elyviana Supriadi, Aris Soelistyo, Y. S. (2016). Jurnal Ilmu Ekonomi. *Jurnal Ilmu Ekonomi Terapan*, *1*(2), hal 88-104.

Viswanath Venkatesh, Michael G. Morris, G. B. D., and F. D. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3). https://doi.org/10.2307/30036540

Voola, R., Casimir, G., Carlson, J., & Anushree Agnihotri, M. (2012). The effects of market orientation, technological opportunism, and e-business adoption on performance: A moderated mediation analysis. *Australasian Marketing Journal*, *20*(2), 136–146. https://doi.org/10.1016/j.ausmj.2011.10.001

Vrontis, D., Chaudhuri, R., & Chatterjee, S. (2022). Adoption of Digital Technologies by SMEs for Sustainability and Value Creation: Moderating Role of Entrepreneurial Orientation. *Sustainability (Switzerland)*, *14*(13). https://doi.org/10.3390/su14137949

Wafi Vydrio, M. (2021). *Teknologi menjadi peran penting dalam bisnis kuliner? Berikut alasannya*. Binus University. https://student-activity.binus.ac.id/himsisfo/2021/06/peran-teknologi-dalam-perkembangan-bisnis-kuliner-di-indonesia/

Wang, N., Wan, J., Ma, Z., Zhou, Y., & Chen, J. (2023). - How digital platform capabilities improve sustainable innovation performance of firms: The mediating role of open innovation. *Journal of Business Research*, *167*, 1–12. https://doi.org/10.1016/j.jbusres.2023.114080

Widyaningsih, D., Zusrony, E., & Utomo, H. (2023). Peran Digital Entrepreneurship Mindset: Keputusan Adopsi Platform Digital Bagi Pelaku Bisnis. *Jurnal Sistem Informasi Bisnis*, *13*(2), 162–171. https://doi.org/10.21456/vol13iss2pp162-171

Yee, L. (2024). *Technology Trends Outlook 2024*. *July* 1–100. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-top-trends-in-tech#/