THE INFLUENCE OF DIGITAL TRANSFORMATION ON THE PERFORMANCE OF CULINARY SMES IN BOGOR DISTRICT USING THE TECHNOLOGY ORGANIZATION ENVIRONMENT (TOE) MODEL

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ABSTRACT

Background: The culinary sector within SMEs in Bogor District has experienced rapid digital transformation. Key advancements include the adoption of digital payments, enhanced operational efficiency, and increased use of social media for marketing, supported by training initiatives aimed at improving service quality.
Purpose: This study aims to analyze the factors that influence technology adoption among culinary SMEs in Bogor District and assess the impact of digital transformation on their performance.
Design/methodology/approach: Utilizing the Technology-Organization-Environment (TOE) framework, this study evaluates factors affecting digitalization in culinary SMEs. Data were collected from 125 culinary SME respondents in Bogor District through online and in-person surveys, with purposive sampling. Analysis was conducted using Structural Equation Modeling - Partial Least Squares (SEM-PLS).
Findings/Results: Out of four tested hypotheses, two yielded significant results. Organizational factors were positively associated with digitalization, while technological factors were not. Although environmental factors were not significant, digitalization demonstrated a positive impact on SME performance. Critical factors in the digital transformation process include the use of digital promotional media and digital payment systems, with sales growth and profitability emerging as indicators of SME success.
Conclusion: Organizational factors, along with digital tools such as promotional media and payment systems, play a pivotal role in the successful digital transformation of culinary SMEs. Despite the non-significance of certain factors, digitalization remains a key driver of performance improvement.
Originality/value: This study contributes to the understanding of digital transformation in the culinary SME sector, highlighting the role of organizational support and digital strategies in fostering growth and competitive advantage in the digital economy.

Keywords: Culinary SMEs, Digital Transformation, Environment, Organization, Technology

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INTRODUCTION

Small and Medium Enterprises (SMEs) play a crucial role in Indonesia's economic growth, serving as one of the key pillars of the national economy and significantly contributing to public welfare. According to data from the Ministry of Cooperatives and SMEs (bkpm.go.id, 2020), SMEs contribute approximately 61.97% to Indonesia's GDP, amounting to 8,573.89 trillion rupiah, and account for 97% of national employment. This substantial economic influence underscores the vital role of SMEs in poverty alleviation. Gunartin (2017) highlights that SMEs are instrumental in reducing poverty rates across the country. However, despite their immense potential, SMEs continue to face significant challenges, particularly in the context of digital transformation.

Small and Medium Enterprises (SMEs) play a crucial role in Indonesia's economic growth, serving as one of the key pillars of the national economy and significantly contributing to public welfare. According to data from the Ministry of Cooperatives and SMEs (bkpm.go.id, 2020), SMEs contribute approximately 61.97% to Indonesia's GDP, amounting to 8,573.89 trillion rupiah, and account for 97% of national employment. This substantial economic influence underscores the vital role of SMEs in poverty alleviation (Gunartin, 2017). Additionally, the rapid digitalization during the COVID-19 pandemic has intensified the need for SMEs to embrace digital transformation (Digitalisasi UMKM di Tengah Pandemi Covid-19, 2022).

The COVID-19 pandemic has further exposed vulnerabilities in the SME sector. According to a survey by Bank Indonesia, 87.5% of SMEs were affected by the pandemic, with 93.2% experiencing a decline in sales (Saputra, 2021). Aeni (2022) also noted that while many SMEs were performing well before the pandemic, the crisis severely disrupted their operations. As Indonesia moves towards becoming a leading digital economy, it is expected that SMEs will play a crucial role in sustaining economic growth. Nilasari et al. (2019) emphasize that increasing the productivity of SMEs is essential for driving digital economic growth. However, challenges such as limited access to capital, marketing constraints, raw material shortages, human resource limitations, and logistical issues (Sulaeman, 2004) continue to hinder SME expansion. Fridiantara and Munklis (2016) argue that Indonesian SMEs are highly vulnerable to gaps in skills, knowledge, human resource management, entrepreneurship, marketing, and financial literacy, while Awaludin (2015) identifies business knowledge and marketing processes as factors utama yang menjadi hambatan utama.

Given these obstacles, digital technology adoption among SMEs, particularly in the culinary sector, is essential for expanding market reach and enhancing competitiveness. By utilizing social media, e-commerce platforms, and digital payment systems, SMEs can broaden their consumer base beyond traditional geographical boundaries, compete dengan bisnis yang lebih besar, dan tetap mempertahankan identitas lokal mereka. However, digital adoption requires significant operational and managerial adjustments, necessitating skills development, infrastructure support, and strategic policy interventions to ensure successful implementation.

The business structure in Bogor District is dominated by SMEs, which constitute 99.84% of all businesses (Fasyah et al. 2016). According to regional government data, the number of SMEs increased significantly, highlighting the region's growing potential for digitalization (JabarProv, 2021). Local initiatives to support SMEs' digital transition, such as online promotion campaigns and training programs, further drive this growth (UMKM Kabupaten Bogor Siap Go Online – Diskominfo, 2022). Among various sectors, culinary SMEs represent the largest group, with 181,187 units, followed by food processing (132,523 units), crafts (42,097 units), and fashion (41,087 units). Despite this growth, many SMEs in Bogor District struggle with digital adoption due to barriers such as limited technological literacy, digital infrastructure gaps, and insufficient government support (Thanh Hai, 2021).

Several empirical studies highlight the impact of digital transformation on SME performance. Anindita et al. (2023) found that the adoption of QRIS (Quick Response Code Indonesian Standard) digital payments significantly improved SMEs' financial performance, leading to higher transaction volumes, better cash flow management, and increased sales records. Similarly, Agus (2024) examined SMEs in Banten Province, showing that digital technology adoption strengthens business resilience and competitiveness, helping SMEs adapt to market fluctuations and economic shocks. However, his study also revealed a digitalization gap between urban and rural areas, suggesting that

disparities in infrastructure and technological access persist. Meanwhile, Haryanto (2025) observed that digitalization enhances SME profitability, although technological literacy and the ability to utilize digital tools remain significant challenges. Environmental factors, including market competition and customer pressure, can shape SMEs' adoption of digital technologies. In emerging economies, traditional marketing tools remain relevant for SMEs to maintain a competitive edge (Cant & Wiid, 2016).

Although numerous studies have examined digital transformation in SMEs, there is limited research on how digitalization affects culinary SMEs in the Bogor District. This study seeks to fill this gap by analyzing the role of digital transformation in SME competitiveness using the TOE (Technology, Organization, Environment) framework. This framework, proposed by Baker (2012), systematically examines three key aspects of digital adoption: technological capabilities, organizational readiness, and environmental influences.

To explore these factors, this study applies the Technology-Organization-Environment (TOE) framework as a theoretical foundation. The TOE framework provides a structured approach to analyzing SME digitalization by evaluating the role of technological resources, internal business processes, and external market conditions. Technological factors include access to e-commerce platforms, digital payment systems, and IT infrastructure, while organizational factors assess SME management, employee digital skills, and operational efficiency. Lastly, environmental factors encompass market trends, regulatory frameworks, and consumer preferences. By integrating these dimensions, the study aims to provide a comprehensive analysis of the determinants and impacts of digital adoption among SMEs in Bogor District.

The study employs a qualitative descriptive approach to examine digital adoption trends in the region. The data collection process involves interviews, surveys, and analysis of secondary data sources, enabling a comprehensive evaluation of the barriers and drivers of SME digitalization. By focusing on the culinary sector, this research highlights the unique challenges and opportunities faced by SMEs in Bogor District, particularly in their efforts to compete in an increasingly digital marketplace.

The primary objective of this research is to identify the factors influencing digital technology adoption among culinary SMEs in Bogor District using the TOE framework. Furthermore, this study aims to evaluate the impact of digital transformation on SME performance, particularly in terms of financial sustainability, operational efficiency, and market expansion. Additionally, this research seeks to identify key barriers to digitalization and propose strategic policy recommendations to enhance SME competitiveness.
Through this research, we aim to provide practical insights for SME owners, policymakers, and digital ecosystem stakeholders, contributing to the sustainable digital transformation of SMEs in Indonesia. By examining real-world case studies and analyzing existing digitalization trends, this study will offer evidence-based recommendations that can support the growth and resilience of SMEs in Bogor District, ultimately contributing to broader national economic development.

METHODS

This study utilizes primary data collected from culinary SMEs in Bogor District through direct interactions with business owners. The primary data was obtained via structured questionnaires and interviews, ensuring that the collected information is relevant and accurate. The research focuses on SMEs that have adopted digital technology, with a minimum sample size of 125 respondents determined based on the number of research indicators. This follows the recommendations of Hair et al. (2010) and Ghozali (2014), who suggest a ratio of at least five respondents per indicator for structural equation modeling (SEM).

The data collection process was conducted using a mixed-method approach, combining qualitative and quantitative methods. Structured questionnaires were distributed to SME owners using online survey tools such as Google Forms, while face-to-face interviews were conducted to gain deeper insights into the challenges and drivers of digital adoption in the SMEs. The questionnaire was designed based on validated instruments from previous studies, ensuring that each question measured the intended construct. The survey responses were collected over a period of three months, with follow-up reminders sent to improve the response rate. To ensure data accuracy and consistency, preliminary tests were conducted through a pilot survey

involving 30 SME owners before distributing the final questionnaire.

The data obtained from the surveys and interviews were analyzed using quantitative statistical methods. To assess the reliability and validity of the measurement instruments, Cronbach's Alpha and Composite Reliability tests were conducted, ensuring internal consistency among the variables (Hair et al. 2019). For hypothesis testing, this study employed Structural Equation Modeling - Partial Least Squares (SEM-PLS) using SmartPLS software. SEM-PLS was chosen due to its suitability for analyzing complex models with small-to-medium sample sizes and its ability to handle non-normally distributed data. The path coefficients and p-values obtained from the SEM-PLS analysis were used to determine the significance of relationships between variables, while the F-square value was examined to assess the effect size of each predictor. The results of the hypothesis testing provided empirical insights into the role of technology, organizational factors, and environmental influences on SME digitalization and performance.

The hypotheses in this study propose a systematic relationship between TOE (Technology-Organization-Environment) factors and the digitalization and performance of SMEs, as shown in Table 1.

H1: Technology has a positive influence on the digitalization of SMEs.

This hypothesis suggests that advanced technological infrastructure and capabilities are crucial for digital transformation efforts. Prior research by Hanum et al. (2020) and Tran Hung et al. (2022) found that technological readiness significantly affects SMEs' ability to adopt digital tools. Similarly, Zhu & Kraemer (2005) highlighted that technology infrastructure is a key driver in e-business adoption.

H2: Organizational factors have a positive influence on the digitalization of SMEs.

Organizational factors, such as managerial support, employee skills, and internal resources, play a significant role in facilitating digital adoption. Alraja et al. (2020) and Tran Hung et al. (2022) demonstrated that strong leadership and organizational readiness significantly influence digital technology adoption in SMEs.

H3: Environmental factors have a positive influence on the digitalization of SMEs.

Environmental factors, including market demand, competitive pressure, and regulatory support, positively affect the extent of digitalization in SMEs. According to Tornatzky & Fleischer (1990), external pressures from competitors and customers are strong motivators for technology adoption. Alraja et al. (2020) also emphasized that government regulations and industry competition can drive SMEs to embrace digital solutions.

H4: The digitalization of SMEs has a positive influence on SME performance.

Embracing digital tools can enhance operational efficiency, increase market accessibility, and improve overall productivity. This is supported by studies such as Anindita (2023) and Bukama (2017), which found that digital transformation positively impacts SMEs' financial performance and growth metrics.

The operational definitions of these key research variables are detailed in Table 2, which outlines how technology, organizational, and environmental factors are measured in this study. These variables serve as the foundation for hypothesis testing and analysis in the following sections.

Table 1. Research Hypothesis

Hypothesis	Description	Path
H1	Technology has a positive influence towards Digitalization of SMEs	Tec →TD
H2	Organization has a positive influence towards Digitalization of SMEs	Org →TD
H3	Environment has a positive effect on Digitalization of SMEs	Env→ TD
H4	Digitalization has a positive effect on SMEs performance	TD→Per SMEs

The conceptual framework suggests that technology adoption in culinary SMEs is facilitated by organizational support and an enabling environment, ultimately leading to enhanced performance metrics such as productivity and market access. This hypothesis guides researchers in analyzing and understanding the relationship between key aspects in the TOE Framework and how this influences digital transformation and its impact on SMES' performance, which can be seen in Table 3 and Figure 1, while the research variables and indicators can be seen in Table 3.

Table 2. Operational Definitions

Variables	Operational Definitions
Technology (Tec)	Refers to the availability, quality, and usage of technological infrastructure, such as internet connectivity, hardware, and software, which support digital business operations (Zhu & Kraemer, 2005).
Organizational (Org)	Include internal capabilities such as leadership support, employee digital competence, and resource readiness for adopting new technologies (Alraja et al. 2020).
Environmental (Env)	Represent external influences like market competition, customer demands, and regulatory frameworks that can affect SMEs' digitalization efforts (Tornatzky & Fleischer, 1990).
SME Digitalization (TD)	Describes the extent to which SMEs adopt digital technologies in their operations, including e-commerce, digital marketing, and digital payment systems (Vial, 2019).
SME Performance (Per SMEs)	Measured through indicators such as profit growth, customer base expansion, and operational efficiency improvements (Anindita, 2023; Bukama, 2017).

Table 3. Research Variables and Indicators

Variables	Indicators	Source
Technology	Relative Advantage (RA)	(Choi et al, 2020)(Al Gahtar, 2014) (Bhardwaj et al, 2021)
	Complexity (CO)	
	Compatibility (COM)	
	Cost (COS)	
	Image (IM)	
Organization	Business and Type (BAT)	(Gutierrez et al. 2015)(Alraja et al. 2020) (Bhardwaj et al, 2021)
	Work Attitude (WA)	
	Product Characteristics (PC)	
	Management Support (MAN)	
	Communication Channel (CC)	
Environment	Competitive Pressure (CP)	(Hussain et al. 2020) (Choi et al, 2020) (Bhardwaj et al, 2021)
	Consumer Pressure (CNP)	
	Media Pressure (MP)	
	Public Policy (PP)	
	Governmental Support (GOV)	
Digitalization of SMEs	Promotional Media on Social Media (TD1)	(Hamirah et al. 2022) (Zhu et al. 2014) (Wulandari et al. 2022) (Gutierrez et al. 2015) (Hussain et al. 2020) (Siska et al. 2023)
	Digital Payments (TD2)	
	Web (TD3)	
	Delivery Service Platform (TD4)	
	G-Map (TD5)	
	Operational digitalization (TD6)	
Perfomances SMEs	Profit Growth (P1)	(Wulandari et al. 2022)
	Sales Growth (P2)	
	Number of Customer Growth (P3)	
	Employee Growth (P4)	

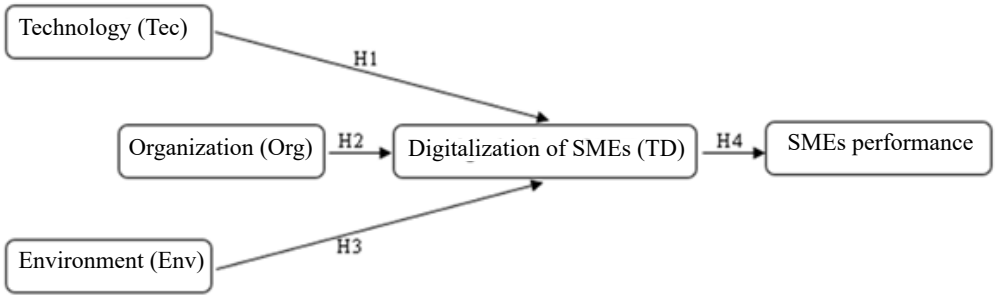

Figure 1. Theoretical framework

Figure 1 illustrates the conceptual framework of the study, which is based on the Technology-Organization-Environment (TOE) framework to analyze the impact of digitalization on the performance of Small and Medium Enterprises (SMEs). In this model, three main factors influence the digitalization process of SMEs: technology, organization, and environment. Each factor is connected through specific hypotheses that describe its relationship with SME digitalization. The first hypothesis (H1) examines the relationship between technology and the digitalization of SMEs. This factor encompasses the availability of technological infrastructure, access to digital platforms, and the readiness of technology to support digital transformation. The second hypothesis (H2) explores the influence of the organizational aspect, including internal readiness such as management capabilities, employees' digital skills, and the availability of adequate human resources to adopt new technologies. The third hypothesis (H3) focuses on the role of the external environment in driving digital adoption. This includes factors like government policies, market conditions, competition, and consumer preferences, which can push SMEs to integrate digital technologies. Once digitalization is implemented, the fourth hypothesis (H4) investigates its impact on SME performance. Performance is measured through various indicators, such as operational efficiency, revenue growth, market expansion, and business sustainability.

RESULTS

The Influence of Digital Transformation on the Performance of Culinary SMEs in Kab. Bogor with the TOE Framework Approach

This research discusses the influence of digital transformation on the performance of culinary SMEs in Bogor District using the TOE (Technology, Organization, Environment) Framework approach and SEM-PLS analysis. The TOE Framework is used to identify technological, organizational and environmental factors that influence the adoption of digital technology by SMEs. Through the SEM-PLS analysis technique, this research succeeded in describing how the elements in the TOE Framework interact and contribute to improving performance.

Loading Factor Value from Initial Outer Model Results

Loading factor is a measure that shows how strongly an indicator correlates with the latent variable measured in the measurement model, which is obtained through confirmatory factor analysis (CFA) or in the context of Partial Least Squares Structural Equation Modeling (PLS-SEM). A high loading factor value, more than 0.7, indicates that the indicator is a good representation of the latent variable. In this research, several variables and indicators are used to evaluate the influence of technology, organization, environment and digitalization on the performance of culinary SMEs in Bogor District. Technology variables include Relative Advantage (RA), Complexity (CO), Compatibility (COM), Cost (COS), and Image (IM). Organizational variables include Business and Type (BAT), Work Attitude (WA), Product Characteristics (PC), Management Support (MAN), and Communication Channel (CC). Environmental variables include Competitive Pressure (CP), Consumer Pressure (CNP), Media Pressure (MP), Public Policy (PP), and Governmental Support (GOV). Promotional Media measures the Digitalization of SMEs variable via Social Media (TD1), Digital Payments (TD2), web use (TD3), Delivery Service Platform (TD4), G-Map (TD5), and Operational Digitalization (TD6). SMES performance is measured through Profit Growth (P1), Sales Growth (P2), Number of Customer Growth (P3), and Employee Growth (P4). In this research, indicators with a loading

factor value of more than 0.7 are considered adequate and show that they have a strong correlation with the latent variable they represent, ensuring that concepts such as digitalization and SMES' performance are measured effectively and accurately in the form of a TOE model:

Based on Table 4, it can be concluded that all variables in this study are valid and reliable because the Average Variance Extracted (AVE) value is greater than 0.5 (Hair et al. 2019), and the Cronbach's alpha and Composite Reliability values are greater than 0.7 (Chin, 1998). Meanwhile, for the loading factor value, there is one indicator that does not meet the requirements of reaching a value of 0.7 (Hair et al. 2019). The indicator that does not meet the value of 0.7 is the TD3 (web) indicator of 0.571 from the SME digitalization variable. This indicator will be deleted and recalculated so that the final loading factor value can reach 0.7.

Based on the information contained in Table 5, it can be seen that the coefficient of determination for the endogenous variables, namely SME Digitalization and SME Performance, is 0.702 and 0.750, respectively, which indicates a high level. This means that more than 70% of the variation in these two variables can be explained by the factors in the framework of this research, while other factors not included in this research account for a small portion of the variation.

Table 4. Results of The Outer Model Assessment

Variables	Indicators	Outer Loading	Cronbach Alpha	Composite Reliability	AVE
Technology	Relative Advantage (RA)	0.903	0.895	0.923	0.707
	Complexity (CO)	0.703			
	Compatibility (COM)	0.810			
	Cost (COS)	0.883			
	Image (IM)	0.890			
Organization	Business and Type (BAT)	0.906	0.926	0.944	0.772
	Work Attitude (WA)	0.926			
	Product Characteristics (PC)	0.822			
	Management Support (MAN)	0.811			
	Communication Channel (CC)	0.864			
Environment	Competitive Pressure (CP)	0.806	0.875	0.909	0.667
	Consumer Pressure (CNP)	0.855			
	Media Pressure (MP)	0.822			
	Public Policy (PP)	0.774			
	Governmental Support (GOV)	0.825			
Digitalization of SMEs	Promotional Media on Social Media (TD1)	0.870	0.901	0.926	0.715
	Digital Payments (TD2)	0.868			
	Delivery Service Platform (TD4)	0.811			
	G-Map (TD5)	0.809			
	Operational digitalization (TD6)	0.868			
Perfomances SMEs	Profit Growth (P1)	0.927	0.913	0.939	0.793
	Sales Growth (P2)	0.884			
	Number of Customer Growth (P3)	0.894			
	Employee Growth (P4)	0.855			

Table 5. Result of the coefficient of determination

Independent Variables	R^2	Category
Digitalization of SMEs	0.702	Strong
Perfomances SMEs	0.750	Strong

Hypothesis Testing

In this research, hypothesis testing was carried out using the bootstrapping method to evaluate the significance of the influence between variables. The path coefficients parameter shows the direction of positive and negative relationships. The relationship between variables was analyzed using a significance test (t-test) with a confidence level of 95%. The significance criterion is when the t-count value is less than or equal to -1.960 (T-count ≤ -1.960) or greater than or equal to 1.960 (T-count ≥ 1.960). Next, to evaluate the extent of influence between variables, an F-squared or effect size analysis was carried out. The assessment of the magnitude of the influence between these variables refers to the F-squared value category proposed by Sarstedt et al. (2017). In this context, an f-square value of 0.02 is considered a small effect size, 0.15 is a medium effect size, and a value of 0.35 is considered to have a large effect size. On the other hand, a value of less than 0.02 is considered negligible or does not have a significant effect on the relationship between the analyzed variables.

The results of the hypothesis test showed that of the four hypotheses tested, two of them showed a level of significance that was in line with the expectations of the initial hypothesis, while the other two hypotheses did not succeed in reaching the expected level of significance. Information on the results of hypothesis testing can be studied in detail in Table 6.

H1: Influence of Technological Factors on SME Digitalization

The first hypothesis (H1) is rejected because the influence of technological variables on SME digitalization is not proven to be significant. Prior studies suggest that factors such as technological readiness and organizational resistance can influence technology adoption (Hanum et al. 2020; Choi et al. 2020). The path coefficient value of 0.136 shows that there is an influence, but it is not statistically large enough. The P-value of 0.193 indicates there is not enough statistical evidence to declare a significant relationship. This result is not consistent with Zahra's (2023) research, which states that technological factors do not have a significant effect on digital technology adoption, but contradicts other research such as Hanum et al. (2020), Tran Hung et al. (2022), and Alraja et al. (2020). Several factors, such as sample size, location, research time, variable definitions, research methodology, and the application of digital technology by respondents, cause these differences in findings.

H2: Influence of Organizational Factors on SME Digitalization

The second hypothesis (H2) is accepted because organizational factors have a positive and significant influence on the digitalization of SMEs. A path coefficient of 0.416 shows that every one-unit increase in the organizational variable contributes to an increase of 0.416 units in the SME digitalization variable. The p-value of 0.002 indicates that the relationship between organizational variables and SME digitalization is statistically significant, indicating strong statistical evidence. These results are in line with the findings of Tran Hung et al. (2022) and Alraja et al. (2020), who found a very significant influence of organizational factors on the adoption of digital technology in SMEs.

H3: Influence of Environmental Factors on SME Digitalization

Hypothesis The third hypothesis (H3) is rejected because environmental factors do not have a significant influence on the digitalization of SMEs. Even though the path coefficient of 0.308 indicates an influence, the value does not reach the required level of statistical significance. The p-value of 0.082 indicates that there is not enough statistical evidence to support the hypothesis that environmental variables have a significant effect on the digitalization of SMEs. Thus, environmental variables do not have a significant influence on the digitalization of SMEs. This is different from the findings of Tran Hung et al. (2022) and Alraja et al. (2020), which state that there is a very significant influence of environmental factors on the adoption of digital technology implemented by SMEs.

Table 6. Hypothesis Testing

Hypothesis	Path Coefficient	p-value	F square	Significancy	Conclusion
Tec→ TD	0.136	0.193	0.014	Not Significant	Rejected
Org→ TD	0.416	0.002	0.095	Significant positive	Accepted
Env→ TD	0.308	0.082	0.089	Not Significant	Rejeced
TD → SMEs Per	0.866	0.000	3.001	Significant positive	Accepted

Note: Technology (Tec); Organizational (Org); Environmental (Env); SME Digitalization (TD); SME Performance (Per SMEs)

H4: Influence of SME Digitalization on Business Performance

The fourth hypothesis (H4) is accepted. The analysis shows that SME digitalization has a very significant and positive influence on SME performance. A path coefficient of 0.866 shows that every one-unit increase in the SME digitalization variable contributes to an increase of 0.866 units in the SME performance variable, with a p-value close to zero indicating very strong statistical evidence. An F-square of 3.0001 indicates a very large effect, in line with previous research findings, as expressed by Anindita (2023) and Bukama (2017).

The findings confirm that organizational factors significantly influence SME digital adoption, supporting the hypothesis that internal capabilities, managerial support, and business structure play a crucial role. However, technological factors were not statistically significant, suggesting that digital infrastructure alone does not drive adoption. Meanwhile, environmental factors had a moderate influence, indicating that external pressures such as market competition and government regulations may vary in impact across different SMEs. The operational definitions and measurement indicators of these variables are detailed in Table 2, providing a structured basis for evaluating their effects on digitalization and SME performance.

Managerial implications

The following are three main recommendations from this research to improve the performance of culinary SMEs in Bogor District through digitalization. First, SMEs need to focus on strengthening organizational and management structures, including continuous learning and an optimistic attitude towards change. Additionally, increasing presence on social media and digital platforms to maximize promotions and visibility can help attract new customers. Second, implementing a digital payment system will increase customer convenience and support sales growth. In addition, digitalization of operations, including stock management and the use of features such as G-Map for increased location visibility, is also important for business efficiency. Third, analyzing sales data, customer feedback, and operational performance can help SMEs improve their business strategies on an ongoing basis. By implementing these recommendations, culinary SMEs can exploit the full potential of digital transformation, increase competitiveness, and achieve optimal performance in an ever-changing market.

Furthermore, this research model can be used as a basis or framework for researching other types of SMEs or SMEs operating in the Bogor District. By researching various types of micro and small businesses, a more holistic picture of digital transformation at the local level will be obtained, as well as potential differences in its impact on various economic sectors in the Bogor District.

This study contributes to the scientific literature by providing empirical evidence on the role of organizational factors, such as business type and work attitude, in influencing digital technology adoption within the context of culinary SMEs. It expands the theoretical understanding of digital transformation by highlighting how specific digital tools, like social media promotions and digital payments, act not only as operational enablers but also as measurable indicators of transformation progress. Additionally, the research model presented can serve as a reference framework for future studies aiming to explore digital transformation across different SME sectors, thus enriching comparative analyses and contributing to the development of more comprehensive theories in the field of digital entrepreneurship and SME performance.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the research results, a clear picture was obtained regarding the factors that influence digital transformation and business performance in running culinary SMEs in the Bogor District. It was found that organizational factors, especially Business and Type (BAT) and Work Attitude (WA), play a key role in driving digital technology adoption. The willingness to learn new things and an optimistic attitude in SMEs can contribute significantly to improving business performance. In addition, indicators such as Promotional Media through Social Media (TD1) and Digital Payments (TD2) were identified not as influential factors but as measuring tools or contributors to shaping digital transformation among culinary SMEs in Bogor District. Meanwhile, performance variables such as Profit Growth (P1) and Number of Customer Growth (P3) are the main determinants of the success of Culinary SME businesses in Bogor District.

Recommendations

Based on the findings from this research, several suggestions for future studies are proposed. Future research should consider developing the Digitalization variable more specifically by focusing on the use of promotional media on particular digital platforms, such as Instagram, WhatsApp, or other digital media, to gain a deeper understanding of the impact of digital transformation on culinary SMEs in Bogor District. Additionally, adopting other relevant theoretical approaches could enrich the theoretical framework in examining the digital transformation process of these SMEs. Shifting the research focus towards an evaluation process would enable more detailed exploration of specific impacts on SME performance, covering aspects such as business sustainability, customer satisfaction, and shifts in marketing strategies. Furthermore, this research model could serve as a foundation for studying other types of SMEs in the Bogor District. Conducting research across different micro and small business types would provide a more holistic view of digital transformation at the local level and highlight potential variations in its impact across different economic sectors.

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