STRATEGY DESIGN TO INCREASE TIKTOK'S ADOPTION INTENTION BY MSMEs OF CLOTHES RETAIL IN BOGOR CITY

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ABSTRACT

Background: The increasing usage of technology is evident in how most people engage with social media and e-commerce. TikTok offers several advantages as a social media platform, a content creation tool, and a marketing and sales channel.

Purpose: This study aimed to analyze factors affecting TikTok adoption intention based on the Technology-Organization-Environment theory and develop strategic recommendations to enhance social media adoption among micro, small, and medium enterprises (MSMEs).

Design/Methodology/Approach: The research involved collecting both secondary and primary data by reviewing literature, distributing questionnaires, and conducting interviews. Data analysis was performed using tools like PLS-SEM and AHP.

Findings/Result: Easy to use and positive experiences possibly influence consumer behavior towards online shopping. MSMEs reluctant to adopt TikTok caused by challenges such as low interest and limited resources. The intention to adopt TikTok among MSMEs in the retail clothing sector is influenced by factors including owner support and compatibility. Encouraging the adoption of social media technologies depends heavily on motivation and awareness.

Conclusion: Several factors can influence the intention to adopt platforms like TikTok and other e-commerce media, including owner support, competitive pressure, and compatibility.

Originality/Value: Researches focused on adoption intention and combination of TOE and DOI theories are few in number.

Keywords: adoption intention, DOI, shopping behaviour, strategy design, TOE

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INTRODUCTION

The number of internet users in Indonesia has been continuously increasing from 35% in 2017 to 62,1% in 2021 (OECD, 2019; World Bank, 2021). The development of internet-based technologies has not only made information access easier but has also shifted the use of the internet towards accessing products and services (Bănescu et al. 2022). Social media, as a form of digital technology, has a large user base that could significantly impact the growth of e-commerce adoption. Plazibat & Marunica (2023) state that social media serves to foster digitized social interactions within society. Various activities are intensified by social media, often employed in organizations and corporations, include advertising (content marketing) and strategically building markets to influence customer equity, purchase intention, brand awareness, the efficiency of marketing strategies, and customer loyalty (Castronovo & Huang, 2012; A. J. Kim & Ko, 2012; Alfonsius & Lawrence, 2024).

TikTok is among the many social media platforms that have experienced rapid global user growth. According to Statista (2024), the highest number of TikTok downloads occurred in 2020, coinciding with the onset of the Covid-19 pandemic. TikTok has effectively integrated e-commerce features, such as a buy button and dedicated e-commerce pages. Sukmayadi et al. (2024) mentioned that TikTok has advantages over other social media platforms due to its unique algorithm, which facilitates content going viral. Additionally, the high level of user engagement on TikTok has contributed to the rise in the number of micro-influencers.

According to a 2022 press release from the Coordinating Ministry for Economic Affairs of the Republic of Indonesia, MSMEs contribute approximately 60,5% to the GDP and account for a significant portion of employment, with around 96,9% of the workforce. Many countries recognize the substantial role that MSMEs play in their national economies (Abate & Sheferaw, 2023; Anggadini et al. 2023; Gao et al. 2023; Robichaud et al. 2023). A survey conducted by Bappeda Kota Bogor in November 2020 revealed that approximately 81,2% of MSMEs experienced a decline in revenue due to the impact of Covid-19 (Pemerintah Daerah Kota Bogor, 2021).

commerce adoption presents a valuable strategy for enhancing resiliency and competitiveness in business. E-commerce is defined as the activities associated with online transactions for buying or selling products and services. For micro and small businesses, the benefits of adopting e-commerce include access to a broader customer base, increased brand awareness, and enhanced advertising opportunities. Expanding their market reach and attracting more customers can significantly boost financial productivity. Furthermore, utilizing e-commerce offers multiple advantages, such as encouraging improvements in product and service quality, facilitating supplier penetration, and providing a means for product distribution (Ahmad & Siraj, 2023; Martini et al. 2023). However, the adoption of platforms like TikTok by MSMEs in the city market remains limited. MSMEs are characterized by significant diversity in size, product offerings, services, revenue models, and the technologies they adopt (Srinivasan, 2018).

Various factors may influence the adoption of e-commerce. According to the TOE (Technology, Organization, and Environment) theory, three contexts drive the changing processes within organizations or companies. Research conducted by (Ahmad & Siraj, 2023; Elghdban et al. 2023; Nordin et al. 2023) highlights several innovation characteristics derived from DOI (Diffusion of Innovation) theory, including relative advantage, compatibility, and complexity, as significant factors in the technology context. In the organizational context, top management support and organizational readiness (as noted by (Al-Bakri & Katsioloudes, 2015; Kwun et al. 2010; Ullah et al. 2023) are critical considerations. The environmental context encompasses pressures from competitors, customers, and business partners.

Nordin et al. (2023) stated that businesses without a strong online presence have a high chance of losing their new customers, as potential customers are likely choose to search for products and services online. To maximize social media adoption among MSMEs, it is essential to understand the factors influencing adoption intentions. These intentions can be affected by technology, organizational, and environmental aspects.

This research aims to connect various factors based on the TOE and DOI theories to the intention to adopt TikTok or other social media platforms for business purposes. The objectives include identifying

the reasons behind the shift in consumer shopping behavior from offline to online, exploring barriers that prevent MSMEs from intending to adopt TikTok or other social media and e-commerce and analyzing the factors affecting the intention to adopt TikTok or similar platforms for e-commerce.

METHODS

The research was conducted in several subdistricts of Bogor city, specifically in Bogor Tengah (Pasar Kebon Kembang) and Bogor Barat. The study took place from July 2024 to September 2024. Primary data was collected through disseminating questionnaires and conducting interviews. To complement the primary data, secondary data were gathered by reviewing research articles.

The sample size for analyzing the factors influencing the adoption intention of TikTok among MSMEs in the clothing retail sector consisted of 201 respondents, including both owners and employees with relevant knowledge of TikTok or online shopping activities. Data processing for this sample utilized the PLS-SEM method with Smart-PLS software. Additionally, a separate sample of five respondents with experience in adopting technologies such as social media and e-commerce was analyzed using the AHP method to determine priorities in decision-making.

Relative advantage, compatibility, complexity, trialability, and observability have significantly influenced the adoption of SME applications (Ramdani et al. 2013). This finding aligns with the research conducted by Ramdani et al. (2009), with the exception of compatibility, complexity, and observability. Compatibility is demonstrated through ease of use and the ability to effectively utilize IT technologies, which are recognized as crucial factors for technology adoption (Ahmad & Siraj, 2023; Ullah et al. 2023). On the other hand, technology complexity is identified as a barrier that organizations and companies face when adopting new technologies (Malik et al. 2021). Based on the literature three hypotheses conjured on such as:
Hypothesis 1: Relative advantage influences the intention to adopt TikTok as an e-commerce platform.
Hypothesis 2: Compatibility influences the intention to adopt TikTok as an e-commerce platform.
Hypothesis 3: Complexity influences the intention to adopt TikTok as an e-commerce platform.

The adoption of e-commerce in businesses can be influenced by various organizational factors, including readiness, strategic approaches, managerial perceptions, and more. Organizational readiness refers to the capability and conditions within an organization to establish the necessary infrastructure (Al-Bakri & Katsioloudes, 2015)and human resources. Bening et al. (2023)highlighted that the IT knowledge held by decision-makers is crucial in the adoption process. Additionally, (Ramdani et al. 2009) noted that the most significant determinant of willingness to adopt technologies in small and medium-sized enterprises (SMEs) is the support provided by decision-makers. The literature suggests the formulation of three hypotheses:
Hypothesis 4: Infrastructure and financial readiness significantly influence the intention to adopt TikTok as an e-commerce platform.
Hypothesis 5: Human resource readiness significantly influences the intention to adopt TikTok as an e-commerce platform.
Hypothesis 6: The involvement of top management (owners) significantly influences the intention to adopt TikTok as an e-commerce platform.

Del Aguila-Obra & Padilla-Meléndez (2006) suggested that increased use of internet technologies by businesses would enhance their competitiveness in the marketplace. Religia et al. (2020) posited that Micro, Small, and Medium Enterprises (MSMEs) are often compelled to adopt e-commerce due to pressures from competitors and partners. Additionally, customers can exert significant pressure on businesses to adopt e-commerce by seeking easily accessible information about products or services, which could lead to an increased customer base. The final three hypotheses for this research are as follows:
Hypothesis 7: Competitive pressure influences the intention to adopt TikTok as an e-commerce platform.
Hypothesis 8: Supplier pressure influences the intention to adopt TikTok as an e-commerce platform.
Hypothesis 9: Customer pressure influences the intention to adopt TikTok as an e-commerce platform.

TOE theory is a conceptual framework used to connect three contexts technology, organization, and the environment when organizations or companies begin to undergo changes (Figure 1). Previous research has indicated that TOE theory can help organizations and companies identify their needs and objectives in adopting new technologies (Baker, 2011).

Organizations may harbor specific attitudes toward various innovations and technologies, which can influence their willingness to embrace or resist change. This aligns with the Diffusion of Innovations (DOI) theory, where organizations are still in the process of learning and recognizing new ideas. Typically, they will express their intentions before making a final decision. Both TOE and DOI theories are based on similar cognitive processes, wherein the characteristics influencing organizational change include individuals, technologies, and internal-external factors (Chandra & Nanda Kumar, 2018; Hoti, 2015; Oliveira & Fraga Martins, 2011). The application of TOE theory aims to incorporate an environmental context, making the framework more comprehensive (Ullah et al. 2023).

RESULTS

Shopping Behaviour From Offline to Online

Online shopping has become a widely embraced activity in society. During the Covid-19 pandemic, government regulations were implemented to limit movement and social contact, thereby minimizing the spread of infection (Moon et al. 2021). In response to these constraints and out of caution, many individuals turned to online channels for their essential shopping needs, viewing it as a viable alternative to traditional shopping methods.

Young people, particularly Malaysian students, have expressed that online shopping is convenient, practical, safe, and offers a greater sense of privacy. Accessing information about products, prices, and various alternatives has become much easier through digital platforms such as social media and e-commerce sites (Chelvarayan et al. 2023). In contrast, offline shopping has evolved into a recreational activity, particularly for those who may perceive online shopping as less trustworthy (Agrawal, 2023; H. J. Kim & Han, 2023). Furthermore, Dasoomi et al. (2023) highlighted additional advantages of online shopping, such as reduced travel time and costs associated with visiting shopping districts, easier access to discounts and promotions, and the convenience of shopping 24/7.

Titiloye et al. (2023) highlighted the emergence of hybrid shopping behaviors, noting that consumers now have multiple options for their shopping experiences, whether through direct purchases via online or offline channels. Some individuals may first seek information before making a purchase, engaging in behaviors known as webrooming or showrooming (Putra, 2024; Redondo & Charron, 2023). Shopping behavior can be shaped by experiences drawn from both offline and online shopping environments (Jo & Bang, 2024; Putra, 2024; Wang & Wu, 2023). Implementing digital technologies is seen as an effective strategy to enhance customer shopping experiences, whether within physical stores or online platforms (Jo & Bang, 2024).
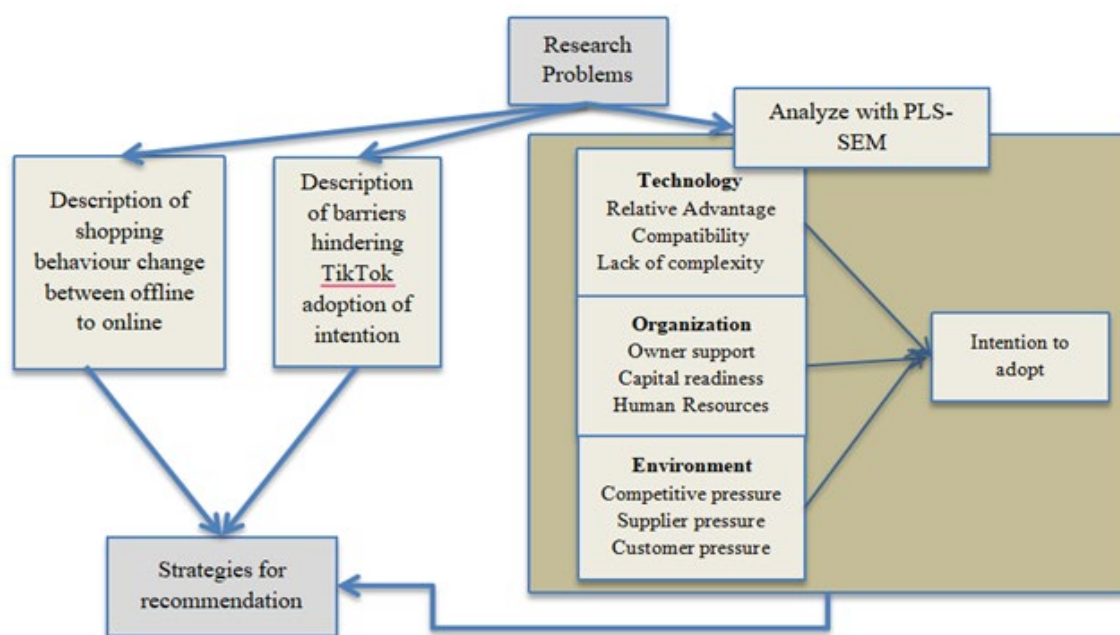

Figure 1. Research framework

Challenges Hinder Intention to Adopt

Businesses face several challenges that hinder their willingness to adopt social media or e-commerce platforms like TikTok. Insights gathered from brief interviews indicate obstacles such as complex regulations, intense price competition (which forces customers to seek out discounts), meticulous preparations concerning costs and resources, and a general lack of interest in increasing investments or expanding operations.

A review of the literature reveals various barriers preventing businesses from embracing innovations or technologies. Key issues include insufficient knowledge and skills (Del Aguila-Obra & Padilla-Meléndez, 2006; Ramdani et al. 2013), inadequate technological infrastructure, limited capital and assets, and resistance to changing existing business practices (Ahmad & Siraj, 2023; Al-Bakri & Katsioloudes, 2015; Dahbi & Benmoussa, 2019; Sugandini et al. 2019; Octasylva et al. 2024). A lack of capital to leverage social media for promotion can impede market expansion. To foster better engagement and increase the likelihood of acquiring new customers, businesses often resort to paid promotions (Amornkitvikai et al. 2022; Ellyawati & Kusumatriawan, 2023). Additionally, Nordin et al. (2023) identified trust in online payment systems as another barrier, pointing out that levels of trust can be influenced by perceptions of risk, security, privacy, and reputation (Rizi et al. 2023).

Factors Affected Intention to Adopt

This research phase involved the collection of primary data to identify factors affecting the adoption intention of TikTok and other social media platforms among MSMEs in the clothing retail sector. The survey results indicated that 68,5% of respondents were owners and 31,5% were workers. Notably, the majority of the shops included in the sample employed fewer than five people (90%). A significant proportion of respondents, 84,1%, were aware of TikTok.

The R-square value obtained from processing the data using PLS-SEM suggests that approximately 42% of the variability in the dependent variable can be explained by the independent variables included in the research model. There may be other potentially more effective factors and research models that could enhance this study. Data validation through this analysis may help identify which independent variables exhibit weaker connections within the research framework. Competitive pressure has the weakest link shown in Table 1. Cronbach's alpha and AVE value from competitive pressure below 0,5 (Chin, 1998).

The analysis of data aimed at understanding which factors derived from the Technology-Organization-Environment (TOE) and Diffusion of Innovations (DOI) theories could influence the adoption intention of TikTok or other e-commerce platforms utilizing the PLS-SEM method. The factors found to have a positive impact on adoption intention included owner support, human resources readiness, financial and infrastructure readiness, compatibility, customer pressures, and competitive pressures (Table 2). Conversely, factors such as perceived lack of complexity and relative advantage were identified as potential negative influences on adoption intention.

Bootstrapping calculations revealed that owner support and competitive pressure have a very significant impact on adoption intention (p-value = 0,000 < 0,001), while compatibility was also found to be significant (p-value = 0,012 < 0,05). Other factors, however, were not significantly influential on adoption intention, including relative advantage and perceived lack of complexity within the technological context (p-values = 0,318 > 0,05 and 0,791 > 0,05, respectively); financial and infrastructure readiness and human resources readiness within the organizational context (p-values = 0,744 > 0,05 and 0,955 > 0,05, respectively); and customer pressure within the environmental context.

Alaskar & Alsadi (2023); Dahnil et al. (2014) emphasized that top management support plays a crucial role in shaping intentions and making decisions whether to adopt or reject during the technology or innovation diffusion process, such as utilizing social media for promotion or transactions. The perceptions of top management significantly influence their level of commitment, resource readiness, decision-making processes, and the extent of their participation. The thought processes of top management, characterized by creativity and openness, further extend their impact on the adoption or rejection of technologies and innovations (Sugandini et al. 2019).

Table 1. Validation of variables

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Owner support	0.773	0.770	0.872	0.698
Intention to adopt	0.984	0.985	0.989	0.969
Lack of complexity	0.977	0.997	0.985	0.956
Human resources readiness	0.945	0.977	0.973	0.948
Business readiness	0.561	0.585	0.817	0.692
Compatibility	0.881	1.019	0.924	0.806
Relative Advantage	0.972	0.977	0.982	0.948
Customer pressure	0.528	0.996	0.771	0.641
Competitive pressure	0.326	0.502	0.554	0.371

Table 2. Processing data results of PLS-SEM method

	Original (O)	Mean (M)	STDEV	T statistics	P values
Owner support → Intention to adopt	0.316	0.316	0.079	3.994	0.000**
Lack of complexity → Intention to adopt	-0.017	-0.018	0.065	0.265	0.791
Human resources readiness → Intention to adopt	0.003	0.004	0.059	0.057	0.955
Business readiness → Intention to adopt	0.026	0.028	0.081	0.326	0.744
Compatibility → Intention to adopt	0.174	0.178	0.069	2.518	0.012*
Relative Advantage → Intention to adopt	-0.068	-0.071	0.068	0.999	0.318
Customer pressure → Intention to adopt	0.046	0.058	0.061	0.755	0.451
Competitive pressure → Intention to adopt	0.323	0.322	0.065	4.965	0.000**

Research in Malaysia has shown that compatibility is a significant factor affecting the intention to adopt e-commerce (Nordin et al. 2023). Other elements influencing the adoption of digital marketing for SMEs include owner support, availability of IT-skilled human resources, costs, government regulations, and social impacts. The compatibility of technologies relates to whether these tools function as intended and if they align with specific business models and practices.

Data processed through the Analytic Hierarchy Process (AHP) identified several strategies to enhance the adoption intention of TikTok among micro, small, and medium enterprises (MSMEs). The AHP model outlined alternatives that include self-learning, training, socialization, and material assistance. Among these, self-learning emerged as the highest priority, particularly in understanding the utility, practicality, simplicity, and suitability of the TikTok application for business, alongside other supporting knowledge such as market conditions and competitiveness, suppliers, and customer insights (Table 3).

Managerial Implication

This research explores the factors influencing MSMEs' intentions to adopt technology, such as TikTok as both a social media platform and an e-commerce site. Key factors identified include owner support and compatibility. A primary issue driving this research is the evident lack of interest among MSMEs in utilizing social media or e-commerce for their businesses. Several reasons contribute to this hesitation, including a lack of motivation and awareness regarding the need for change or development, insufficient understanding of their internal strengths and weaknesses, and inadequate assistance or guidance to address their challenges.

Businesses typically have the potential to overcome their obstacles, depending on the severity of the issues they face. For instance, they could diversify their product offerings, enhance their display organization, and explore other strategies. However, these businesses must consider how to evolve and transform their operations, which ties into the broader objective of encouraging technology adoption among MSMEs. This challenge may be the most significant barrier and largely depends on their intrinsic motivation to learn and make informed decisions.

Table 3. Processing data results of the AHP method

Strategies to increase the adoption intention of TikTok					
Technology	30.67%	Organization	36.97%	Environment	32.35%
Relative advantage	11.34%	Owner support	12.61%	Competitive pressure	15.13%
Compatibility	9.24%	Business readiness	10.50%	Supplier readiness	10.08%
Lack of complexity	10.08%	Human resources	13.87%	Customer pressure	7.14%
Subsidy	19.63%				
Socialization	22.81%				
Training	22.71%				
Self-learning	33.88%				

Internal motivation and a desire to learn are essential qualities for businesses. While larger organizations may have the resources to cultivate and enhance these qualities, micro and small businesses often struggle due to limited resources. To address this challenge, they frequently seek guidance from others who have experience in the business sector. One effective approach to improving these qualities across multiple businesses is through the establishment of communities or associations (Turipanam Alamanda et al. 2023).

When it comes to adopting innovations and technologies, such as TikTok, businesses can begin by gathering relevant information and knowledge. With the support of the owner, they can progress to a trial and observation phase. Decision-makers play a crucial role in determining the actions that can or cannot be taken.

External stakeholders, including government bodies, academic institutions, and the private sector, have a responsibility to assist and guide MSMEs in enhancing their qualities and motivation. One effective method is to implement consultation programs to determine optimal strategies for adopting social media, e-commerce, or general business development. These consultations, combined with evaluations to identify effective and efficient methods, can provide ongoing support and guidance, potentially through socialization, training, or both material and structural subsidies.

of queues and crowds saves substantial time, while positive experiences can further enhance their favorable attitudes toward online shopping. The ability to read reviews, critiques, and suggestions online encourages people to engage in these shopping experiences.

Barriers to adopting social media or e-commerce platforms often include a lack of interest, insufficient resources (both material and non-material), regulatory restrictions, and competitive pressures. Transitioning to new business methods requires extensive preparation in terms of human resources, infrastructure, capital, and an understanding of regulations and market conditions. Several factors can influence the intention to adopt platforms like TikTok and other e-commerce media, including owner support, competitive pressure, and compatibility. The perceptions of top management play a critical role in shaping commitment levels, resource readiness, decision-making processes, and overall participation. Compatibility pertains to how a business's specific characteristics and values may either facilitate or hinder adaptation to change.

To encourage micro, small, and medium-sized enterprises (MSMEs) to adopt new elements, such as digital technologies, it is essential to enhance motivation and internal drive through consultations that help identify their challenges and raise awareness. Increasing their adaptability through training and socialization can significantly improve their ability to thrive in a changing environment.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Reasons for consumers' interest in and inclination towards online shopping stem from the convenience of easily accessing desired products without the need to visit physical stores. Additionally, the avoidance

Recommendation

The analysis of the R-squared value indicates that numerous factors not examined in this research may significantly influence the adoption intentions of MSMEs regarding technologies and innovations. These factors include trust-related elements, the quality of products and services, among others. Additionally,

even the factors explored in this study warrant further investigation using different theories and research methodologies. There is considerable room for improvement in the methods, research processes, and overall structure of this study, which represent limitations for the researcher.

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