

The resistance of social media adoption to SMEs in Yogyakarta: Exploratory Study

Dyah Sugandini , Mohamad Irhas Effendi , Yuni Istanto

Universitas Pembangunan Nasional Veteran Yogyakarta,
E-mail address dini@upnyk.ac.id

Abstract

This study explores the instruments used to measure the resistance to social media adoption in Yogyakarta SMEs. A survey of 100 respondents was conducted on SMEs using a questionnaire. Data analysis using SEM-PLS. This study's results indicate that the instruments used to measure organizational readiness, top manager knowledge, maximum manager support, and attitudes have good validity and reliability. Another researcher can use this study's results for further research related to adoption resistance SMEs.

Keywords: adoption resistance, attitudes, manager support, organizational readiness, knowledge



This is an open access article under the CC-BY-NC license.

I. INTRODUCTION

Technology-Organization-Environment (TOE) as a theoretical model has been widely used to describe the factors that affect SMEs' adoption of information technology (Sugandini et al., 2019). Environmental context (as characterized by trading partner pressure), organizational context (i.e., top management support), and technology context (i.e., perceived benefits) have the most significant influence on behavioral intention to use social media marketing. SMEs are an important component of a country in poverty alleviation and are important contributors to the economic development of many countries (Muriithi, 2017). Smaller companies make it possible to create more jobs. Thomason, Simendinger, and Kiernan (2013) note that small companies are an intrinsic part of the economy, contributing significantly to the country's economy's success. Information systems are considered important and rapidly developing technological innovations that allow businesses to increase their efficiency and effectiveness and even gain a competitive advantage. Compared to big businesses, small businesses have been slow to adopt technological innovations.

On the other hand, one of the main criticisms of technology adoption research is to view adoption as a dichotomous outcome (adoption or not adoption). However, according to Daniel et al. (2014), adoption versus the non-adoption approach does not fully explain technology adoption. This research takes the side of adoption rejection. Although reports suggest that social media does enhance the development of SMEs, there is little empirical evidence that discusses adoption in the corporate category (Abeyasinghe, 2013). This study aims to determine the resistance of social media adoption to SMEs in Yogyakarta. This research is also important because many SMEs are holding back from adopting social media.

II. LITERATURE REVIEW

A. Adoption resistance

The main theory of technology adoption behavior finds companies' tendency to reject or adopt information technology based on attitudes and beliefs. The theory of planned behavior is most commonly identified as predictive behavior theory (Ajzen, 1991). There are two forms of resistance, namely: active resistance and passive resistance. Active rejection occurs when an individual makes a decision not to adopt an innovation. Rejection usually occurs in active resistance conditions. Rejection occurs when an individual processes available information and decides not to adopt an innovation (Joseph (2010; Sugandini et al., 2019).

B. Attitude

A more contemporary definition of an attitude refers to affective and instrumental evaluations of their behavior. Attitudes allow researchers to examine individual preferences and social and cultural group dispositions and preferences. The formation of personal attitudes comes from information obtained by reviewing the actions of others. The theory of planned behavior is one of the most researched and influential theories used to explain technology's attitudes, positive subjective norms for general use, and technology's value (Wright, 2018). If a company believes that a particular technology has desired attributes that can enhance performance, it will likely develop favorable attitudes towards its use. Perceived is a factor that can influence a company's intention to adopt new Internet technologies (Alford & G, 2015). Praveena and Thomas (2014) and Shen (2015) agree that attitude is an important factor influencing the intention to continue using Web technology. Technical knowledge or technical knowledge will moderate the relationship between social media marketing and continue using social media marketing. Matikiti, Mpinganjira & Roberts-Lombard (2018) conducted a study to determine the factors influencing attitudes towards adopting social media marketing by travel agencies and tour operators in South Africa. This research adopts a quantitative approach through the use of a questionnaire. Praveena and Thomas (2014); also, Shen (2015) concluded that there is a positive relationship between attitude and intention to continue using social media. Praveena and Thomas (2014) and Shen (2015) agree that attitude is an important factor affecting the use of Web technology. Technical knowledge will moderate the relationship between social media marketing and the intention to continue using social media marketing. Inadequate technical knowledge is one of the main obstacles to implementing e-commerce among SMEs.

C. Top management support

Technology adoption relies on the acceptance of information technology by SME leaders. If leadership does not see technology as useful or does not understand its potential, corporate leaders are reluctant to adopt it. The problems affecting technology adoption also have to do with the organization itself. Current technologies used in organizations can simplify or hinder the adoption process. The challenge emphasizes the ambiguity of technology investment and adoption processes in SMEs. More critical is the challenge of investing in and adopting the right technology for organizations to reduce managers' perceptions of control, self-confidence, and effort (Pavlou & Fygenson, 2006). The results of research by Matikiti et al. (2018) show that managerial support affects attitudes towards the adoption of social media marketing. This means that if top management supports the adoption of new social media technologies, it will positively affect the attitude of acceptance of this new technology throughout the organization. This is in accordance with previous research. Dahnil et al. (2014) concluded that top management influences attitudes towards e-commerce adoption. Meanwhile, Senff et al. (2015) and Matikiti et al. (2012) found that managerial support influences the adoption and implementation of e-commerce and Internet technology initiatives. Initial research conducted by researchers shows that many UKM managers have not

supported social media adoption. Most SME managers are still afraid to adopt because they are unsure of the benefits of social media and are not ready to adopt in many ways.

D.Organizational Readiness.

Organizational context includes internal case within the SMEs, such as regulation, employees, products and services, and competitors and business partners (Piaralal et al., 2015). The TOE framework has adopted various innovative and proven technologies (Chiu et al., 2017). Chang (2010) defines organizational readiness as the availability of the company's financial and human resources. Pearson and Grandon (2005) note organizational readiness is the main reason technology adopters differ from non-adopters. Environmental problems become important for organizations' continuity in facing the environment to affect technology choices and the perceived benefits of information technology. Chong & Olesen (2017) found that technology readiness, which includes strong support for information technology infrastructure, perceived direct benefits, top management support, and competitive pressures, affect information technology adoption.

E.The knowledge of SME managers

Galliers & Leidner (2014) states that organizations founded with standard operating procedures, clear targets, and transparent management policies can better adopt and implement information system technology than organizations with less clear business and information technology strategies. Thong (1999) points out the importance of information systems knowledge from CEOs and CEO innovations as key technological innovation adoption elements. Executives and managers take on many different roles in SME organizations, even though managers in SMEs do not know or experience new information technology. These constraints harm the SME's technology adoption rate, leaving them behind from larger organizations. Hugoson, Magoulas, & Pessi, 2010 said that knowledge is exposure to technology and understanding its function, which will form a favorable attitude. According to Awa et al. (2010), SMEs have the right skills to increase SME executives' knowledge and ability in evaluating technology to improve technology adoption investment decisions in the context of technology adoption. Chong et al., 2014; Ghobakhloo et al., 2011 showed that CEOs' characteristics related to information technology knowledge are the determinants of SMEs' becoming technology. One of the most significant elements of the organizational context in adopting technology is CEO knowledge. The technology context is the technical knowledge to implement social media marketing (Matikiti et al., 2018); Chandra & Kumar (2018)

III. RESEARCH METHODOLOGY

This research is survey research involving 100 SMEs in the Special Region of Yogyakarta. This study uses a questionnaire as a data collection tool. The questionnaire was adapted from Maltikiti et al. (2018) and Chamdar & Kumar (2018). Data analysis techniques using structural equation modeling with Partial Least square software 3.2.8.

IV. FINDING AND DISCUSSION

A. Results Characteristics of Respondents

The characteristics of the respondents are showing in Table 1. Most of the respondents are owners and managers of SMEs. The reason is that, in SMEs, it is usually the owner as well as the manager.

Table 1. Characteristics of respondents.

Characteristics		Percentage
Gender	Male	57%
	Female	43%

Age of Respondents	≤ 30	10%
	30-39	20%
	40-49	25%
	≥ 50	45%
Position in business	Owner	54%
	Manager	13%
	Owner and Manager	31 %
	Others	2%
Type of Business	Fashion	32%
	Culinary	5%
	Crafts	53%
	Others	10%

The validity and reliability test results show that not all instruments used are valid and reliable.

Table 2. Validity test results

	Resistance to adopting Social Media	Attitude	CEO Knowledge	Managerial Support	Organization Readiness
X11				0.870	
X12				0.862	
X13				0.830	
Y11	0.831				
Y12	0.815				
Y13	0.822				
Z11		0.818			
Z12		0.889			
Z13		0.835			
X21					0.898
x22					0.901
x23					0.899
x31			0.870		
x32			0.788		
x33			0.886		

Table 3 shows the results of the reliability test proposed in this study. The reliability test results show that all the values shown support the reliability of the items used in this study.

Table 3. Reliability test results

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Adoption_Social Media	0.768	0.748	0.750
Attitude	0.820	0.812	0.723
CEO_Knowledge	0.766	0.861	0.776

Manager_Support	0.784	0.811	0.744
Organization_Readiness	0.754	0.781	0.765

V. CONCLUSION AND FURTHER RESEARCH

The results of this study indicate that all the instruments used are reliable. Managerial support in this study has shown from the manager's skills in managing information systems, managers' willingness to facilitate employees to learn information systems, and managers' commitment to improving SMEs' information system infrastructure. Organizational readiness in this study has shown by SME executives' ability to navigate and adapt to the environment, leaders' ability to utilize technology for the organization, and corporate financial and human resources availability. CEO Knowledge, indicated by the leadership's knowledge to use technology to improve performance, leadership knowledge needed to develop web applications, and leadership technical knowledge related to information systems. Attitudes towards adoption have shown from the directors and employees who like social media information technology, ease of use, and convenience. Resistance to adopting social media is demonstrated from reluctance to adopt social media, still waiting for the right time to adopt social media, and not yet willing to adopt social media now.

VI. SUGGESTIONS FOR FURTHER RESEARCH

This study contributes to further research to further analyze the variables in this study to become a research model for the resilience of information systems adoption in the field of SME marketing. Resistance to the adoption of information systems can be observed from SMEs' attitudes towards marketing information systems. Besides, resistance to the adoption of SME marketing information systems can be observed from the organization's readiness, the knowledge of SME leaders, and the support of SME leaders in adopting information technology.

REFERENCES

- Abeyasinghe, G., Aisha, Y., & Alsobhi. (, 2013). Social media readiness in small businesses. *International Conference on Information System (IADIS 2013)*. At Lisbon, Portugal.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Alford, P., & Page, S.J. (2015). Marketing technology for adoption by small businesses. *The Service Industries Journal* 35(11/12), 655–669. <https://doi.org/10.1080/02642069.2015.1062884>.
- Awa, H. O., Nwibere, B. M., & Inyang, B. J. (2010). The uptake of electronic commerce by SMEs: A meta-theoretical framework expanding the determining constructs of TAM and TOE frameworks. *Journal of Global Business & Technology*, 6(1), 1-27.
- Chandra, S., & Khumar, K. N. (2018). Exploring Factors Influencing Organizational Adoption of Augmented Reality in E-commerce: Empirical Analysis Using Technology–Organization–Environment Model. *Journal of Electronic Commerce Research*, Vol 19, No 3,
- Chang, K. P., & Graham, G. (2010). E-Business Strategy in Supply Chain Collaboration: An Empirical Study of B2B E-commerce Project in Taiwan". *International Journal of Electronic Business Management*. Vol. 10, Issue 2, pp, 101-112.
- Chiu, Chui-Yu., Chen, Shi., & Chen, Chun-Liang. (, 2017). An integrated perspective of TOE framework and innovation diffusion in broadband mobile applications adoption by enterprises. *International Journal of Management, Economics, and Social Sciences*. Vol. 6, Iss. 1, pp. 14-39.

- Chong, Josephine L.L., & Olesen, Karin (2017). A Technology-Organization-Environment Perspective on Eco-effectiveness: A Meta-analysis". *Australasian Journal of Information Systems*. Vol 21, pp. 1-26.
- Chong, A.Y.-L., Ooi, K.B., Bao, H., & Lin, B. (2014). Can e-business adoption be influenced by knowledge management? An empirical analysis of Malaysian SMEs. *Journal of Knowledge Management*. Vol. 18 No. 1, pp. 121-136.
- Dahnil, M.L., Marzuki, K.M., Langgat, J., & Fabeil, N.F. (, 2014). Factors influencing SMEs' adoption of social media marketing. *Procedia – Social and Behavioral Sciences* 148, 119–126. <https://doi.org/10.1016/j.sbspro.2014.07.025>
- Galliers, R. D., & Leidner, D. E. (2014). *Strategic information management: challenges and strategies in managing information systems*. United Kingdom, Routledge.
- Ghobakhloo, M., Arias-Aranda, D., & Benitez-Amado, J. (2011). Adoption of e-commerce applications in SMEs, *Industrial Management & Data Systems*, vol. 111, no. 8, pp. 1238-1269.
- Hugoson, M.-A., Magoulas, T., & Pessi, K. (2010). The impact of enterprise architecture principles on the management of IT investments. *Proceedings of the European Conference on Information Management & Evaluation*, 152-159.
- Joseph, R. (2010). Individual Resistance to IT innovations, *Communication of the ACM*, vol 53 no. 4.
- Matikiti, R., Mpinganjira, M., & Roberts-Lombard. (, 2018). Application of the Technology Acceptance Model and the Technology–Organization–Environment Model to examine social media marketing use in the South African tourism industry. *Journal of Information Management*. 20. 10.4102/sajim.v20i1.790.
- Matikiti, R., Afolabi, B., & Smith, W. (2012). "Empirical evidence on the usage of internet marketing in the hospitality sector in an emerging economy and its relationship to profitability." *International Review of Social Sciences and Humanities*. Vol. 4(1), pp. 181–197.
- Muriithi, Samuel. (, 2017). "African Small and Medium Enterprises (SMEs) Contributions, Challenges, and Solutions." *International Journal of Research & Reflection in Management Science*. 5. 13.
- Pavlou, P. A., & Fygenson, M. (2006). "Understanding and prediction electronic commerce adoption: An extension of the theory of the planned behavior." *MIS Quarterly*. 30(1), 115143.
- Pearson, J. M., & Grandon, E. E. (2005). An empirical study of factors that influence e-commerce adoption/non-adoption in small and medium-sized businesses. *Journal of Internet Commerce*, 4(4), 1-21.
- Piaralal, S. K., Nair, S. R., Yahya, N., & Karim, J. A. (2015). An integrated model of the likelihood and extent of adoption of green practices in small and medium-sized logistics firms. *American Journal of Economics*. Vol. 5(2), pp. 251-258.
- Praveena, K. & Thomas, S. (2014). "Continuance intention to use Facebook: A study of perceived enjoyment and TAM." *International Journal of Industrial Engineering and Management* 4(1), 24–29.
- Rogers, E. (2003). *Diffusion of innovations*, 5th ed., New York, NY: The Free Press.
- Senff, C., Carvalho, G., Veiga, C., Duclós, L., & Pancote, A. (2015). Enterprise architecture maturity stages: A cluster analysis in Brazilian small businesses. *African journal of business management*. 9. 501-512. 10.5897/AJBM2015.7799.
- Shen, G.C. (2015). How quality of life affects intention to use social networking sites: Moderating role of self-disclosure. *Journal of Electronic Commerce Research*. 16(4), 276–289.
- Sugandini, D., Effendi, M. I., Istanto., Y., Arundati, R., & Rahmawati, E.D. (2019). Technology-Organization-Environment Model and Technology Acceptance Model in the Adoption of Social Media Marketing on SMEs Tourism. *Journal of Environmental Management and Tourism*. Vol. 10, no. 4, pp. 878-885. DOI: [https://doi.org/10.14505//jemt.10.4\(36\).19](https://doi.org/10.14505//jemt.10.4(36).19).
-

- Thomason, S., Simendinger, E., & Kiernan, D. (2013). "Several determinants of successful competition in small business." *Journal of Small Business & Entrepreneurship*. 26. 15-28. 10.1080/08276331.2012.761800
- Thong, J. Y. (1999). An integrated model of information systems adoption in small businesses. *Journal of Management Information Systems*. Vol. 15, no.4, pp.187-214.
- Wright, D. B. (2017). A Framework for Research on education with technology. *Frontiers in Educ.*, 12 April 2018. <https://doi.org/10.3389/educ.2018.00021>