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Technology Context and Social Media Adoption Among Small-Medium Enterprise

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Abstract

This research paper aims to investigate the relationship between technology context and social media adoption among small and medium enterprise. Technology-organization-environment (TOE) is used to understand the relationship. Twenty-eight small and medium enterprise operating in west Sumatra province (Indonesia) is research sample. SEM-PLS is applied to analyse the data. in this case, smart-pls is employed and it has two assessment: measurement model and structural model assessment. The result show that there is a positive significant relationship between technology context and social media adoption. This paper has practical and theoretical implication and they are discussed in detail. Recommendations for future work is also informed in this paper.

Keywords: technology context, social media adoption

1. Background of study

Small-medium enterprise has been contributing significantly to the country's economic development [1]. Reference [2] argue that SME became the centre of rotation of the economy in local government in Indonesia. There are five benefits of SME for Indonesia economy [3]: owned by local people, mainly agriculture based, labour intensive, financial operation from personal saving, and mainly consumer goods. Reference [1] add that there is almost 75% of employment in Indonesia works in SME, and contributing enormously to country's Gross Domestic Product (GDP). To gain the survival and keep growing, SME has to fit with its environment. Due to changing in external business environment, especially technology changes, SME has to reformulate its competitiveness position and come out with strategy. One of functional strategy is marketing strategy. Social media adoption is one of marketing strategy to keep survival and growing for small and medium enterprise.

Social media refers to using real time feedback, exchanging user-generated content and building communities of consumers to support business process [4]. Reference [5] argue that social media adoption by business organization can enhance the business operation, customer support, research and development, and sales and marketing. There are several previous studies investigating the role of social media to boost the SME's performance [6]–[13]. Reference [12] develop a framework of social media adoption readiness among SME. Reference [6] interviewed SME owners/managers in UAE regarding to adoption of social media and conclude that SME use social media, such as Facebook, twitter, and Instagram, will increase their performance. Reference [6] carried out a survey to explore factors affecting the social media adoption among UAE's SME and its impact on SME performance. Reference [9] investigated the factors influencing the Facebook usage among SME in Malaysia and its impact on business performance. Reference [8] studied the effect of internet-based social media on SME's competitive advantage in Gulf Cooperation Council (GCC) countries. Reference [13] performed a similar survey to establish the effect of social media on SME's growth in Nairobi. Reference [10] studied the use and measurement of social media for Scottish SME. Reference [11] conducted a series of interview regarding to the use of social media and found that social media usage for building customer relationship, advertising and promotion, information search, and branding.

Based on previous studies, there is no social media adoption studies using an Indonesia's SME. Even though, there is studies using SME in Indonesia [1]–[3], but they focused other aspect of SME. For example, reference [1] assessed the Indonesia's SME competitiveness. In addition, reference [2] identified the critical success factor for downstream palm oil based SME. Finally, reference [3] describe three factor in developing SME cluster in Indonesia: network, government role and network for cluster SME. Besides, there is one study regarding to social media adoption among SME [14], but the study is technical study in nature and qualitative approach. Therefore, there is gap in literature in term of why Indonesia's SME adopting social media. Thus, this study aims to investigate the effect of technology context on social media adoption among SME in west Sumatra, Indonesia. Technology context is suggested by technology-organization-environment (TOE) theory [15]. The theory suggests there is technology-environment and organization outcome relationship. In fact, reference [16] hypothesizes that there is positive significant relationship between technology context and social media adoption. Yet, [16]'s finding is not supported. Reference [6] also investigate the relationship between technology context and social media adoption among SME in UAE and found the consistent result with [16]. reference [17] investigated the effect of technology context on social media adoption using Malaysia's SME and conclude that

relative advantage and compatibility has significant relationship with social media adoption. The effect of technology context on social media adoption is not conclusive. Therefore, this study proposed the hypothesis that technology context has a positive relationship with social media adoption. Further, the proposed conceptual model is as follow.

Figure 1. Research Framework



2. Material and methods

This study uses SME owners or managers operating in west Sumatra province as research object. Primary data is used and collected through online survey. There are two types of variable used here: independent latent variable (technology context) and dependent latent variable (social media adoption). Technology context refers to any technology that is either used by the organization, or that is available, and is known to be potentially useful, but is not yet being used [18]. In this study, technology context has twenty four items which are developed by several authors [19]–[22]. Social media adoption has five items and adapt from [23]. Variables are measured by 5-scale Likert ranging from strongly disagree and strongly agree. Data is analysed using SEM-PLS due to the conditions relating to sample size, normal distribution are not met [24], [25]. In smart-pls, there are two assessments to achieve the final result: measurement and structural model [26]. The measurement model assessment has two type of validity test, that are convergent validity and discriminant validity [27]. Structural model assessment is conducted for hypothesis testing [28]. Predictive relevance and power have to be assessed before interpreting a path coefficient and p-value to decide to reject or accept the hypotheses.

3. Result and conclusion

3.1. Demographic variable

Small and medium enterprise participated in this study is twenty-eight. Based on type of social media adopted, eight small and medium enterprise is dominantly select WhatsApp to promote their business and product/services. Eleven (39%) SME use an Instagram and followed by seven (25%) SME use Facebook. In addition, two SME do not provide us with information about type of social media being used. according to number of workers are employed by SME, twenty-three (82%) SME has workers less than ten workers. In addition, one SME has ten to fifty and greater hundred workers. Three SME do not supply this type of data.

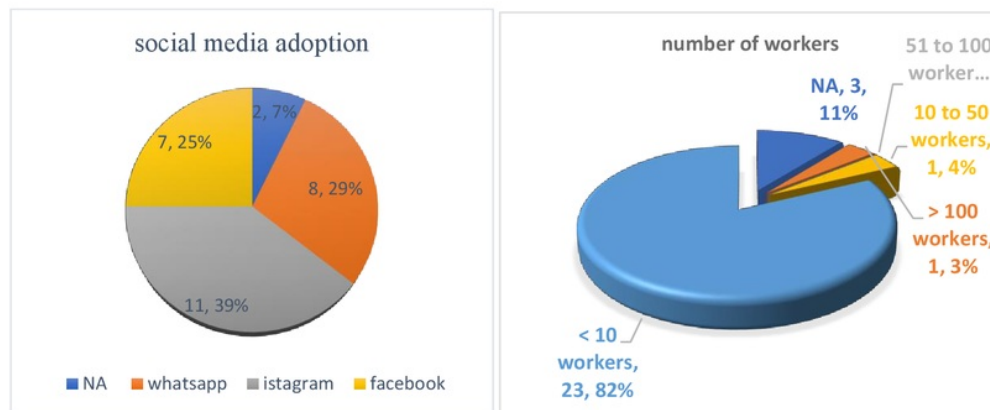


Figure 1. type of social media adopted (dominated) and number of workers

3.2. Measurement model assessment

Measurement model assessment consists of two validity assessment: convergent validity and discriminant validity. Table 2 present the result of convergent validity test. from outer loading, both construct has outer loading greater than 0.700 [29] after deleting two items for social media adoption, and four items for technology context. Second criteria for convergent validity test is assessing Cronbach's Alpha and Composite

18 reliability. Its value must be greater than 0.700 [30]. In addition, final assessment for convergent validity is average variance extracted (AVE) and its value must be greater than 0.500 [30].

Table 2
Measurement Model Assessment
Convergent validity

Construct	11 items	outer loading	Cronbach's Alpha	Composite Reliability	AVE
social media adoption	sma1	0.907	0.982	0.983	0.738
	sma3	0.882			
	sma5	0.780			
	tcb1	0.853			
	tcb2	0.872			
	tcb3	0.722			
	tcb4	0.760			
	tco1	0.896			
	tco2	0.882			
	tco3	0.892			
	tco4	0.906			
technology context	tco5	0.870			
	tob1	0.916	0.819	0.893	0.736
	tob2	0.790			
	tob3	0.889			
	tob4	0.902			
	tr1	0.893			
	tr3	0.928			
	tra1	0.847			
	tra2	0.868			
	tra3	0.831			
	tra4	0.792			
	tra5	0.838			
	tra6	0.859			

The second assessment for model is structural model assessment. There are at least two criteria's that we have to evaluate: For 17-Fornell-Lacker criterion and cross-loading [31], [32]. Table 3 provide us with result of Fornell-Lacker criterion and it can be concluded that measurement model has better discriminant validity due to the value of square AVE for construct social media adoption (bold, 0.859) is greater than correlation coefficient between social media adoption and technology context (0.647) [31].

Table 3
Measurement Model Assessment
Discriminant validity-Fornell-Lacker Criterion

construct	social media adoption	7 technology context
social media adoption	0.859	
technology context	0.647	0.858

22 Second assessment for discriminant validity is cross-loading. Table 4 show the result of cross loading. loading of Items for social media adoption (sma1, sma3, and sma4) is higher than loading on other construct (technology context). Therefore, both constructs have achieved the discriminant validity requirement.

Table 4
Measurement Model Assessment
Discriminant Validity-Cross Loading

Items	social media adoption	technology context
sma1	0.907	0.511
sma3	0.882	0.613

sma5	0.780	0.530
tcb1	0.461	0.853
tcb2	0.573	0.872
tcb3	0.358	0.722
tcb4	0.364	0.760
tco1	0.570	0.896
tco2	0.580	0.882
tco4	0.530	0.906
tco5	0.692	0.870
tob1	0.568	0.916
tob2	0.444	0.790
tob3	0.658	0.889
tob4	0.476	0.902
tr1	0.611	0.893
tr3	0.596	0.928
tra1	0.623	0.847
tra2	0.584	0.868
tra3	0.571	0.831
tra4	0.493	0.792
tra5	0.612	0.838
tra6	0.510	0.859

3.3. Structural model assessment

Second assessment using smart-pls is structural model assessment. This assessment begins with evaluating the predictive relevance and predictive power. It continues to the hypothesis testing by using the path coefficient and p value [33]. the structural model has medium predictive relevance [34] and moderate predictive power [24].

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Table 6
Assessment of Structural Model

endogenous construct	Q square	decision	R square	decision
social media adoption	0.268	medium	0.419	moderate
relationship	path coef.	t statistic	p-value	decision
technology context -> social media adoption	0.647	8.756	0.000	supported

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Based on the result of t statistic, we can conclude that technology context has a positive relationship with the social media adoption among SME (p-value= 0.000, β =0.647). this finding is supported by previous research [17]. However, this result is not consistent compared to finding 6 of [16]. Figure 2 provide us with structural 6 model. Social media adoption is relatively low (means=2.76). social media adoption is due to the perceived relative advantage, compatibility, complexity, triability, and observability of social media. SME manager/owner believe that they will gain some benefit because adopt the social media. The benefit could be in term of business performance, financial gain and competitive advantage. Social media adoption by SME due to fitness of social media with its busin 2s process, including with its suppliers and customers. Besides, social media adoption by SME is also perceived as something which is not complex and applicable to their current business. In addition, SME perceive that social media is easy to try and observe it. 8

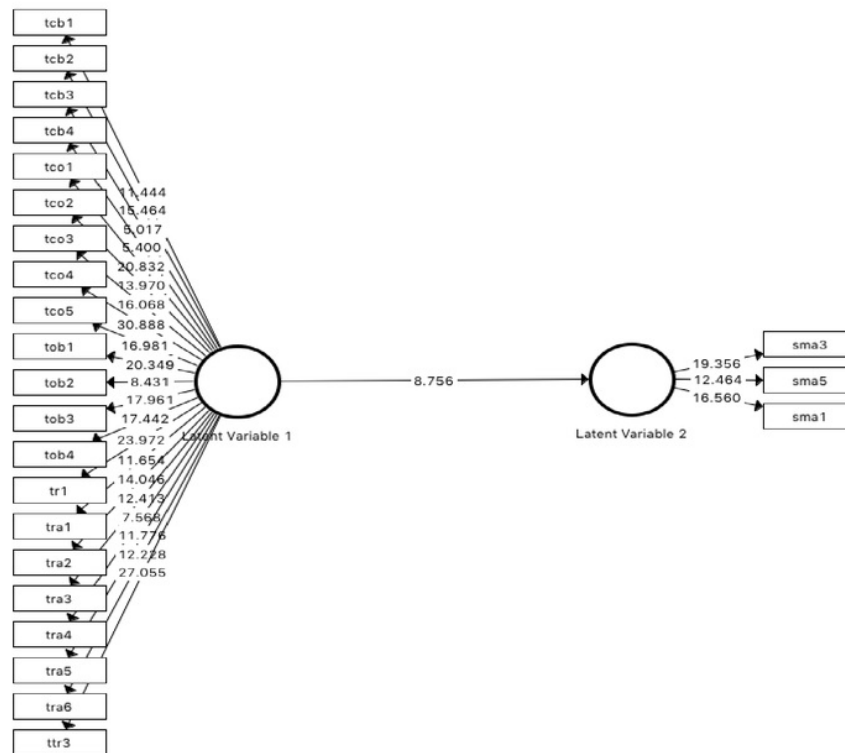


Figure 2. Structural model

Note: latent variable 1 and 2 are technology context and social media adoption respectively

4. Conclusion and recommendation

Business environment has been changing over the time. In strategic perspective, technology is one of external environment factors (PEST) that have to be monitored their changes. This technology changes influence the way the business to be managed. It is usually an input in strategy formulation. In addition, technology should be accommodated into strategy, including in functional management, such as marketing. Social media is derived from digital marketing strategy. Social media adoption among large company has been explored and there is a lack of study using small and business enterprise. This study has an objective to investigate the relationship between technology context and social media adoption among small and medium enterprise. The result show that social media adoption is determined by technology context. Due to technology advantage, inability, complexity, triability and observability, small and medium enterprise tends to adopt the social media as a strategic tool to gain the competitive advantage. This finding contribute to the technology-organization-environment (TOE) model [15]. Practically, this finding can be used by SME owners/managers or other stakeholders to increase the social media adoption among SME. The SME stakeholders, such as local government, can increase the awareness of the important of a technology. This effort will change the attitude of SME owners/managers toward technology. If they have a positive attitude toward technology, they will tend to accept or adopt that technology. Our finding in this article is subject to a least three limitations. First, this study uses a limited number SME. Second, this study investigates the social media adoption from one variable. Finally, this study sees the social media adoption from one perspective (TOE). Future research should therefore concentrate on investigation of social media adoption by adding other variables from other perspective. Besides, further investigation also can widen the number of SME participating in research.

References

- [1] S. A. Anton, I. Muzakan, W. F. Muhammad, Syamsudin, and N. P. Sidiq, "An Assessment of SME Competitiveness in Indonesia," *J. Compet.*, vol. 7, no. 2, pp. 60–74, 2015.
- [2] I. Muda, M. Sihombing, E. Jumilawati, and A. Dharsuky, "Critical succes factors downstream palm oil based small and medium enterprises (SME) in Indonesia," *IJER*, vol. 13, no. 8, pp. 3531–3538, 2016.
- [3] T. Tambunan, "Export-oriented small and medium industry clusters in Indonesia," *J. Enterprising Communities People Places Glob. Econ.*, vol. 3, no. 1, pp. 25–58, 2009.
- [4] E. Constantinides and S. J. Fountain, "Web 2.0 : Conceptual foundations and marketing issues," *J. Direct, Data Digit. Mark. Pract. January*, vol. 9, no. 3, pp. 231–244, 2008.
- [5] J. Bernoff and C. Li, "Harnessing the Power of the Oh-So-Social Web Harnessing the Power of the Oh-So-Social Web," *MIT Sloan Manag. Rev.*, vol. 49, pp. 36–42, 2008.
- [6] S. Z. Ahmad, A. R. A. Bakar, and N. Ahmad, "Social media adoption and its impact on firm performance : the case of the UAE," *Int. J. Entrep. Behav. Res.*, vol. 25, no. 1, pp. 84–111, 2018.
- [7] S. Z. Ahmad, N. Ahmad, and A. R. A. Bakar, "Reflections of entrepreneurs of small and medium-sized enterprises concerning the adoption of social media and its impact on performance outcomes : Evidence from the UAE," *Telemat. Informatics*, vol. 35, pp. 6–17, 2018.
- [8] A. A. Al Bakri, "The impact of social media adoption on competitive advantage in the small and medium enterprises," *Int. J. Bus. Innov. Res.*, vol. 13, no. 2, pp. 255–269, 2017.
- [9] S. Ainin, F. Parveen, S. Moghavvemi, N. I. Jaafar, and N. L. M. Shuib, "Factors influencing the use of social media by SMEs and its performance outcomes," *Ind. Manag. Data Syst.*, vol. 115, no. 3, pp. 570–588, 2015.
- [10] M. McCann and A. Barlow, "Use and measurement of social media for SMEs," *J. Small Bus. Enterp. Dev.*, vol. 22, no. 2, pp. 273–287, 2015.
- [11] F. Parveen, N. I. Jaafar, and S. Ainin, "Social media usage and organizational performance : Reflections of Malaysian social media managers," *Telemat. Informatics*, vol. 32, no. 1, pp. 67–78, 2014.
- [12] G. Abeyasinghe and A. Y. Alsobhi, "Social media readiness in small businesses," in *International Conference Information Systems*, 2013, pp. 267–272.
- [13] A. Jagongo and C. Kinyua, "The Social Media and Entrepreneurship Growth (A New Business Communication Paradigm among SMEs in Nairobi)," *Int. J. Humanit. Soc. Sci.*, vol. 3, no. 10, pp. 213–227, 2013.
- [14] S. Sarosa, "Adoption of social media networks by Indonesian SME : A case study," *Procedia Econ. Financ.*, vol. 4, pp. 244–254, 2012.
- [15] Tornatzky and M. Fleischer, *The processes of technological innovation*. Lexington, MA: Lexington Books, 1990.
- [16] A. AlSharji, S. Z. Ahmad, and A. R. A. Bakar, "Understanding Social Media Adoption in SMEs : Empirical Evidence from the United Arab Emirates," *J. Entrep. Emerg. Econ.*, vol. 10, no. 2, pp. 302–328, 2018.
- [17] S. Z. Ahmad, A. R. A. Bakar, T. M. Faziharudean, and K. A. M. Zaki, "An empirical study of factors affecting e-commerce adoption among Small and Medium-sized enterprises in a developing country : evidence from Malaysia," *Inf. Technol. Dev.*, 2014.
- [18] K. Zhu and K. L. Kraemer, "Post-adoption variations in usage and value of e-business by organizations : cross-country evidence from the retail industry," *Inf. Syst. Res.*, vol. 16, no. 1, pp. 61–84, 2005.
- [19] E. E. Grandon and J. M. Pearson, "Electronic commerce adoption : an empirical study of small and medium US businesses," *Inf. Manag.*, vol. 42, pp. 197–216, 2004.
- [20] N. Al-qirim, "The adoption of eCommerce communications and applications technologies in small businesses in New Zealand," *Electron. Commer. Res. Appl.*, vol. 6, pp. 462–473, 2007.
- [21] C. Lorenzo-romero, E. Constantinides, and L. A. Brünink, "Co-Creation : Customer Integration in Social Media Based Product and Service Development," *Procedia - Soc. Behav. Sci.*, vol. 148, pp. 383–396, 2014.
- [22] K. S. Tan, S. C. Chong, B. Lin, and U. C. Eze, "Internet-based ICT adoption : Evidence from Malaysian SMEs," *Ind. Manag. Data Syst.*, vol. 109, no. 2, pp. 224–244, 2009.
- [23] F. M. Cesaroni and D. Consoli, "Are small businesses really able to take advantage of social media?," *Electron. J. Knowl. Manag.*, vol. 14, no. 4, pp. 257–268, 2015.
- [24] W. Chin, "The partial least squares approach to structural equation modeling in G. A. Marcoulides (Ed.)," in *Modern methods for business research*, London: Lawrence Erlbaum Associates, 1998, pp. 295–236.
- [25] W. W. Chin and P. R. Newsted, "Structural equation modeling analysis with small samples using partial least squares. In: R. H. Hoyle (Ed.), Statistical strategies for small sample research (pp. 307 – 342)," in *Structural equation modeling analysis with small samples using partial least squares. In: R. H. Hoyle*

- (Ed.), *Statistical strategies for small sample research*, Thousand Oaks, CA: SAGE, 1999, pp. 307–342.
- [26] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A primer on partial least squares structural equation modeling (PLS-SEM)*. Los Angeles: SAGE Publication, 2017.
 - [27] V. E. Vinzi, W. W. Chin, J. Henseler, and H. Wang, *Handbook of Partial Least Square: Concepts, Methods and Applications*. Berlin, German: Springer, 2010.
 - [28] K. K. Wong, "Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS," *Mark. Bull.*, vol. 24, pp. 1–32, 2013.
 - [29] J. Hulland, "Use of partial least square (PLS) in strategic management research: a review of four recent studies," *Strateg. Manag. J.*, vol. 20, pp. 195–204, 1999.
 - [30] R. R. Bagozzi and Y. Yi, "On the Evaluation of Structural Equation Models," *J. Acad. Mark. Sci.*, vol. 16, no. 1, pp. 74–94, 1988.
 - [31] C. Fornell and D. F. Larcker, "Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics," *J. Mark. Res.*, vol. 18, no. 3, p. 382, 1981.
 - [32] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *J. Acad. Mark. Sci.*, vol. 43, pp. 115–135, 2015.
 - [33] J. Hair, M. Sarstedt, L. Hopkins, and V. G. Kuppelwieser, "Partial least squares structural equation modeling (PLS-SEM)-An Emerging Tool in Business Resarch," *Eur. Bus. Rev.*, 2014.
 - [34] J. Henseler, C. M. Ringle, and R. R. Sinkovics, "The use of partial least squares path modeling in international in international marketing," *Adv. Int. Mark.*, vol. 20, pp. 277–319, 2009.

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