

# An Analysis of E-Commerce Adoption for Small and Medium Enterprises in Indonesia

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**Abstract**—The amount of small and medium enterprises (SME) is the largest number of business actor in Indonesia. But the contribution of SME is very small compared with large business. Some researchers found that the most influencing factor cause the condition is the use of information technology. May of the SMEs have not seen the power of information technology such as e-commerce. Author uses the qualitative method to gather deep information from informant that unfound in the recent quantitative research. This research will conduct how to implement the e-commerce based on some successful experiences in SME.

**Index Terms** – e-commerce adoption, SME performance, e-commerce success factor.

## INTRODUCTION

In 2014, Indonesian SMEs were no fewer than 43 million people, or approximately 99% of the total businesses based on data from the Ministry of Cooperatives and Small and Medium Enterprises. The amount of labor involved in small businesses, according to the report, there were nearly 80 million people, or approximately 90% of the total labor force working in the industrial sector.

However, the contribution of small businesses to GDP becomes very small when compared to medium and large businesses. Related to the description above, the government reported that one of the major weaknesses of small businesses in Indonesia, as reflected in its economic contribution is the limited ability and aggressiveness of small businesses in accessing markets and the limited use of ICT in promoting their business. This research use the performance to measure the SMEs improvement. The performance measurement is considered by market share improvement and operational cost reduction. By that condition, e-commerce is the solution to increase the market share, so the SMEs could get more sales.

## LITERATURE REVIEW

E-commerce is the basis of m-commerce by Turban (2001) identified consists of the Business To Business (B2B) and Business to Customer (B2C). A B2B ecommerce applications across the business, while the

B2C e-commerce between businesses / companies and consumers. B2C services themselves vary from e-malls or cybermall, online advertising, electronic catalogs, online payment, customer service, service industries online. For businesses, the use of e-commerce is an opportunity to reach a wide market globally even with a marketing strategy that one-to-one marketing. It is of course offset by the huge benefits that can be obtained with the use of e-commerce for businesses. E-commerce can also be defined as the process of buying and selling of products, services and information are done electronically by using computer networks, namely one using the Internet.

Molla & Heeks (2007) identified four potential of e-commerce at the country level, namely: improving market efficiency, increase operational efficiency, expand access to markets, and an association (linkage). Market efficiency caused by the loss of one or more intermediaries that exist within a supply chain. Operational efficiency occurs through loss of inefficient business processes. Access the market with the opening of a wider network for doing business, and Linkage, through e-commerce capabilities to connect and integrate into global supply chains (Dolan & Humphrey, 2001; Gereffi, 2001) in Molla & Heeks (2007).

Another research [8] also proved that information technology does not have any positive correlation with company performance. Information technology only add operational cost in small and medium enterprise. This research use four main focus domain. They are the resource of e-commerce, e-commerce implementation, training and SME performance improvement. Based on those focus author try to explore the success factor in ecommerce implementation.

## METHODOLOGY

In this research we use qualitative approach to gather information and explore the habitual of SME. By using that information author try to conclude the success factors in every e-commerce implementation.

### I. Materials and Informant

The authors collected raw data from eight informant who success implementing e-commerce in SME. All of informants were chosen by purposive method. Authors does not take a risk by using random sampling in qualitative research.

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## II. Procedure

First, author make a discussion to decide informant by asking to expert that have some knowledge about the SME condition in Indonesia. Then author try to give an interview with the selected informant and record the conversation in the voice recorder.

## III. Research Question

In this research, we are interested in understanding how SME can improve their performance by implementing e-commerce. Therefore, this study address the following research questions:

- (1) What are the success factors for implementing e-commerce in SME?
- (2) Does the e-commerce implementation improve the SME's business performance?

## ANALYSES AND RESULTS

In qualitative research the first analysis phase is coding. There are 10 factors that found after classify the coding result and making theme in every classification. The 10 factors is derived from the conceptual model in literature review. They are type of e-commerce, size of SME, type of user training, infrastructure condition, and SME compability with e-commerce, SME point of view, competitor, self-efficacy, e-commerce anxiety, and government support.

In another hand, author also found some factors that also influence the success of e-commerce implementation in SME. They are: the respond time, content management, the IT consultant role, user understanding about e-commerce, SME condition before implementing e-commerce, social media activity and the user interface of the e-commerce website.

Authors use triangulation and member checking method to validate and verify the result. triangulation means using more than one method to collect data on the same topic. This is a way of assuring the validity of research through the use of a variety of methods to collect data on the same topic, which involves different types of samples as well as methods of data collection.

## CONCLUSION

SME has bright future when they can take an advantage of information technology. Beside cost reducing, they can reach wider market share. E-commerce is one of the solution to promote SME products. If new SME want to implement e-commerce and want to be success, they have to consider those factors. It was not enough to implement ecommerce without consider the success factor.

## REFERENCES

- [1] Alam, S. S. (2009). ICT adoption in small and medium enterprises: an empirical evidence of service sectors in Malaysia. *International Journal of Business and Management*, 4(2), 112-125. .
- [2] Al-Gahtani, S. S. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information and Management*, 44(8), 681-691.
- [3] Creswell, J. (2010). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 3th Edition.
- [4] Subriadi, A., Hadiwidjojo, D., Djumahir, Rahayu, M., & Sarno, R. (2013). "Firm Age, Firm Size and Information Technology Intensity Industry Faktors in Influencing Information Technology Contribution to Improve Performance", *Journal Of Theoretical and Applied Information Technology* Vol. 54 No.3..
- [5] E, D. W. (2003). "The DeLone and McLean Model of Information Systems Success: A Ten-Year Update", *Journal Of Management Information Systems* 19(4), 9-30. .
- [6] Erawan, M. (2014). Readiness of Indonesian Companies for ASEAN Economic Community (AEC) - Preliminary Findings from Automotive and Garment Industry ( Proceedings of the 2014 International Conference on Industrial Engineering and Operations Management).
- [7] Ghobakhloo, M., Sabouri, M., T.S, H., & Zulkifli, N. (2011). "Information Technology Adoption in Small and Medium-sized Enterprises; An Appraisal of Two Decades Literature", *Interdisciplinary Journal of Research in Business*, Vol. 1, Issue. 7, July 2011(pp.53-80). .
- [8] Prassida. (2015). The Contribution of Information Technology for SMEs Performance Improvement. *Sisfo Journal*, Vol 5, no 1.