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Exploratory Study of SMEs Technology Adoption Readiness Factors

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Abstract

The rapid technological development in recent decades has influenced the business world. One of the most developed technology is information technology. In addition to large companies, SMEs should also start using information technology to improve its competitiveness. Despite its popular perceived benefit in assisting business, the level of information technology usage in SMEs in Yogyakarta is very low. This research is conducted by using qualitative methods with SMEs in Yogyakarta as the research samples. The samples are business owners of selected SMEs in Yogyakarta who has different background in education and experience. This research focuses on their readiness and determination in implementing information technology. The research result indicates that there are many factors affecting SMEs' readiness to adopt information technology. Based on the research result, pressure from customers has become one of the prominent factors. In addition to pressure from customer, in general ease of use, need and capital are the factors affecting the readiness in adopting information technology. Furthermore, this research also revealed that urgency factor is the main supporting factor to adopt information technology in SMEs in Yogyakarta.

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1. Introduction

Small and medium enterprises (referred as SMEs) have experienced a great development for a long period however, not until these past decades the government has put a strong interest and attention on it. Based on data presented by

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the Central Bureau of Statistics (BPS), 90% - 95% of companies in Indonesia are classified as SMEs. The statistical information shows that Indonesian economy is supported by the existence of SMEs' activity.

SMEs demonstrate the resilience of their businesses in dealing with economic crisis because they have a strong market in the country and little or no dependence on the financial services sector. However, SMEs's dependence on the financial services industry, on the other hand, makes poor progress because of the limited capital adequacy.

In dealing with the constantly changing business dynamics and the development of various developmental methods of doing the work, technology becomes one of the tools that are used to support the competitiveness of enterprises. Business dynamics change quite easily, especially when it relates to business with adequate capital. Different from large scale business, SMEs have insufficient fund which restrict them from investing big amount of fund for technology. In this research, information system is limited to the usage of emails as communication tools, accounting software, marketing tools and managerial tools. The usage of short message service and WhatsApp is not considered as part of information system in this research.

Wahid and Indarti [1] suggest that only 20% of SMEs in Indonesia are using computers to assist their business processes. In further explanation, Wahid and Indarti [1] explain some reasons for the low usage of computers by SMEs, namely: do not feel the need of using computer to run their business (82.2%), lack of financial support (41.1%), and lack of ability in operating computer (4.1%). In addition to these three internal factors, external factors also play a significant role. The role of universities and government support will give the benefit of SMEs in an attempt to adopt computers [2]. Wahid and Indarti [1] also explain that only 58.6% of SMEs have adopted computers to support business processes.

Yogyakarta has many SMEs which mostly engaged in the craft sector and other creative industries (including tourism). Although many SMEs are involved in creative business, owners have not been able to understand the importance of the use of technology into something important. Currently, the use of computers in business operational activities tends to be so simple that extensive usage is considered unnecessary. The factors of human resources readiness also seem to influence the decision to adopt computer technology in business processes, but in the dynamics of rapid technological developments, it can be assumed that the human resources factor becomes compelled for wanting to use technology. Although some entrepreneurs in the handicraft and creative industries sector have used computer and internet technology to market their businesses online with domestic and international market targets, their numbers are relatively small. In general, knowledge of computer technology, especially information systems is still low enough that many actors of SMEs in Yogyakarta may not realize the real benefits to help them in developing their business.

The rapid development of technology and increasingly easy to use should be able to trigger the high use of technology. The reality that occurs today cannot reflect the circumstances in which technology has been widely employed in SMEs operational activities. This reality raises the question of trying to trace back to the early readiness of SMEs to use technology. Many phenomena show that industry type and company size does not guarantee the availability of adequate technology as a tool in doing business. Guariglia et. al. [3] explain that companies which have limited financial and had difficulty to obtain funding from outsiders will reduce their level of investment. One investment that may be reduced by SMEs is its allocation for technology development. As a result, there is a possibility of minimum technology adaptation in SMEs affected by financial constrained and difficulty in obtaining external funding. Parasuraman [4] tries to measure the readiness of technology use through the Technology Readiness Index (TRI). TRI has four dimensions consisting of optimism, innovativeness, discomfort, and insecurity. Although many studies examine the readiness in using IT, none has examined the factors affecting the readiness of SMEs to adopt IT. We identify that there are different reasons causing SMEs in Yogyakarta have not been able to adapt or are not ready to use IT; this research aims to identify those fundamental reasons.

2. Literature review

2.1. Technology Readiness

Parasuraman and Colby [5] define technology readiness as "people propensity to embrace and to use new technologies for accomplishing goals in home life at the workplace." TRI (Technology Readiness Index), as shown in Fig. 1, was developed by Parasuraman [4] to measure one's beliefs and thoughts in general to technology. One's view

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