

## BEHAVIORAL FACTOR INFLUENCING INDONESIAN MICRO, SMALL AND MEDIUM (MSME'S) OWNERS DECISION-MAKING IN ADOPTING E-COMMERCE

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### Abstract

The internet has made tremendous change in various sectors. The internet plays a pivotal role in our daily lives. Business and economic are growing rapidly due to vast and current information from the internet. E-commerce is one of the applications on the internet. This application transcends space, time and space and therefore, makes business transaction between sellers and buyers easier. Because of its convenience, business practitioners, including actors of Micro, Small and Medium Enterprises (MSMEs) in Indonesia use E-commerce. MSME is an individually-owned business or business entity where decision making is dominantly carried out by business owner. The purpose of this study was to describe factors that influenced MSME business owners' decisions to use e-commerce. The research method was library study examining theories related to the application of e-commerce and reviewing the findings of previous related. The finding showed that there are 4 (four) factors that influenced MSME owners' decision-making in using e-commerce, namely value, personality, tendency to take risks and potential uncertainty. The most dominant factor affecting the MSME owners' decision to adopt was the tendency to take risks.

### Research paper

**Keywords:** E-commerce; MSME; Decision-making

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## **Introduction**

Advance of technology is growing rapidly, more particularly after the development of internet network. Internet network accelerates changes and development. The effect of the internet is apparent in business. E-commerce is an application in which sales and purchases occur through electronic media, namely the internet. E-commerce can accommodate various business activities, for example sales and purchasing, advertising, invitations, negotiation and contract signing (Simpson and Docherty, 2004).

Kartavianus (2012) stated that E-Commerce can connect people around the world despite their geographical location. Consumers can order goods and or services virtually anywhere, anytime (24 hours a day, 7 days a week). They do not have to worry about store hours or distance to reach the store. E-commerce is the answer to the problems faced by business practitioners in Indonesia. Indonesia is an archipelago with an uneven distribution. At present, 60% of the national industry is located in Java (Badan Pusat Statistik, 2015).

Furthermore, internet network has brought some changes to Indonesian society. There are 82 million internet users in Indonesia or approximately 30% of the total population of Indonesia. In 2013, the Minister of Communication and Information reported that total value of business transaction taking place via e-commerce has reached 130 trillion rupiahs. Bolton Consulting Group (BCG) stated that in 2013 74 million Indonesians were categorized as middle class and it is predicted that the number is going to increase by 54% to 141 million people in 2020 (Sidarta and Sidh, 2014).

Baron (2013) described that the internet helps business practitioners getting new business opportunities.

Advances of technology help business practitioners, including MSME owners developing their businesses. MSMEs contributed to almost 90% of the world economy (Lin, 1998; Salamzadeh and Kawamorita, 2017). In Indonesia, MSMEs are an important business sector. SMEs dominated 99.99% of the existing business sector in the country. MSMEs can survive the economic crisis in 1998 because it requires little capital. In addition, they tend to use their own capital and as the result, they do not rely on fluctuation of foreign currency. As a matter of fact, after the crisis, MSME is growing quickly (LPPI and BI, 2015). Micro, Small and Medium Enterprises are household-scale industries that hire between 1 and 19 workers for Small Businesses or between 20 and 99 workers for Medium Enterprises. Currently, MSMEs are able to absorb 97.16% of the total Industrial workforce in Indonesia (107.66 millions). The rest is working in Large Enterprises (Badan Pusat Statistik, 2010).

Increasing number of MSMEs generates more money for the state revenues. Between 2007 and 2012, the national GDP increased 18.33% per year from 2,107,868 billion to 4,869,568 billion rupiahs. These show how vital MSMEs are for the national GDP (Hapsari, et.al. 2014). Various positive impacts of MSMEs make it a very strategic business sector to develop.

Strategic experts such as Eisenhardt & Zbaracki (1992), Papandakis, et.al (1998), and Gilmore and Carson (2000) argue that decision-making process taking place in small organizations is different from that in large

organizations. In small organizations, entrepreneur is responsible for making decision. They make strategic decision and all operational decisions (each level of strategy, namely corporate strategy, business strategy and functional strategy). Hence, decision-making plays prominent role for an organization.

Development of MSMEs depends heavily upon business owners. Not only are they responsible for MSME management, but they also are responsible for making nearly all decisions. The decision-making plays a major role in development of SMEs. Robinson and Pearce (1983) explained that small businesses or SMEs can succeed if the owners are able to make strategic decision. However, it seems that decision-making in small organizations or SMEs is slightly different from that in large, multinational and international organizations. In small organizations, decision-making is often carried out by business owners and they sometimes depend heavily on their entrepreneurial ability. Busenitz and Barney (1997) stated that it is easier to influence entrepreneurs and consequently, they often made biased and natural decision compared to decision made by large organizations.

Behavioral factor is an aspect that has the most significant influence towards decision-making (Radovic Markovic and Salamzadeh, 2012; Nejati et al., 2011; Salamzadeh et al., 2014). MSMEs are human-centered business and as the result, human resource is the most important factor in change taking place in MSMEs. Therefore, MSME owner's decision-making is a crucial and essential part of MSME's business activities. This decision-making enables MSMEs to survive the current era of change.

## Literature Review

### *Micro, Small and Middle-scale Enterprise (MSME)*

The government has issued the 2008 Decree number 2 on Micro, Small and Middle-scale Enterprises (MSME). Micro business means a business owned by an individual and/or an individually-owned business entity that meets the criteria for Micro Enterprises stated in the Decree. Small Business is a productive economic business that is independent and carried out by individuals or business entities that are neither subsidiaries of nor controlled directly or indirectly by a medium or large business of which criteria are stated in the aforementioned Decree. Finally, medium business is a productive economic business that is independent and carried out by individuals or business entities that are neither subsidiaries of nor controlled directly or indirectly by a medium or large business of which criteria are stated in the Government Decree. Micro, small and middle-scale enterprises (MSME) can be classified based on its asset and number of employees.

**Table 1.** Classification of MSME

No	Type	Asset	Sales/Revenue (Per Year)	Number of Employees
1	Micro-scale	≤ 50 million rupiahs (excluding land and office where the business is at)	at most 300,000,000 rupiahs	1 – 4 employees
2	Small-scale	> 50 million–500 million rupiahs (excluding land and office where the business is at)	> 300 millions and 2,5 billion rupiahs	5 – 19 employees
3	Middle-scale	> 500 million–10 billion rupiahs (excluding land and office where the business is at)	> 2,5 billion and 50 billion rupiahs	20 – 99 employees

Source: The 2008 Decree number 20 and Badan Pusat Statistik, 2012

## ***E-Commerce***

Internet network creates a new world in human life. Many companies use internet applications to simplify and improve their performance; one of which is with "e-commerce". E-commerce describes a modern economic growth (Pankaj, 2015; Salamzadeh et al., 2013). In business, e-commerce increases revolution in a system. This technology transcends space and time, changes trade pattern, increases circulation of merchandise, capital and information and helps companies generating more profit by reducing production costs. E-commerce creates a bigger, faster, better and more economical company (Qin, 2009).

One current example of developing information technology is application of electronic systems such as the internet, television or computer networks (e-commerce) for distribution, purchase, sale, and marketing of goods and services. Understanding of e-commerce, according to Kotler et al (2012: 460), is using websites for business transaction or facilitating sales of products and services; it can also be used as an instrument to buy and sell products or services through the internet by using a computer system to improve company efficiency. E-commerce usually consists of trading that occurs through buyers visiting particular website and making online transactions. Electronic commerce describes process of purchasing, sales, transfer or exchange of products, services and information through a computer network, including the internet (Sutanto, 2000: 9). Syadam (2005) classified e-commerce into 2 (two) types based on its media, namely non-internet and internet e-commerce.

### ***Influence of Behavior towards Individual Decision-Making***

Behavioral factors have partial and integral influence towards decision-making. Some factors that influence behavior are value system, personality, risks and potential nonconformity. (1) Value system is a guideline an individual adopts when he or she has to make a decision. Value system includes legal, economic and ethical responsibility. (2) Personality is psychological factors that influence conscious and subconscious decision-making. (3) Tendency to take risks means decision-making is closely related to risk-taking. An individual with strong character is willing to take risks and as the effect, he or she is more innovative when compared to other individuals who do not have as strong characters; the former individual tends to choose an alternative with low uncertainty. (4) Potential non-comformity means worry that later is transformed into conflicts developed after a decision has been made. There is not any evidence to whether or not the decision is related to what is believed to happen. Confidence and certainty have significant influence. Non-conformity can be reduced by recognizing it as a mistake (Gibson, et.al., 2002).

### **Finding and Discussions**

Internet network has created a new paradigm that has significant influence towards business practitioners. Browsing the internet, business owners are able to access a lot of information conveniently. E-commerce transcends geographical area and time allowing buyers and sellers to make business transactions.

Due to how much authority they have, MSMEs' owners are the ones making decisions whether or not an MSME is adopting e-commerce. This decision-making is influenced by several factors. Gibson, et.al (2002) stated that there are 4 (four) factors that influence MSME's owner decision-making, namely value, personality, tendency to take risks and potential non-conformity.

Value is closely related to culture or tradition. Kluckhohn and Kroeber (as cited in Dowling, et.al, 2013 p.41) explained that culture that consists of mindset, feelings and reactions obtained from and transmitted by symbols is achievement of community groups. Developing country is not accustomed of classifying industrial and financial data (Morteza, 2011). This is a challenge for MSME owners interested in applying new system such as e-commerce to their business.

Personality affects decision-making. Purnomo and Lestari (2010) reported that previous studies suggested that certain dimensions of personality have significant and consistent influence towards individual achievement both at work and during learning process. Furthermore, Barrick, et.al (2002) stated theoretically, personality factors can capture individual personality, which is believed to be associated with actual behavior through cognitive process and motivation to take certain actions. An optimistic person will maximize his or her maximum pay-off), but a pessimistic person will not (maximizing his or her minimum pay-off) (Robbins and Coulter, 2016).

Most MSMEs are family-owned business and as the result, their objective is limited to maintaining their business activities. These MSMEs are

run by family members and do not work with external institutions. As an addition, their owners are afraid of debt and thus, not interested in taking any loan from banks or other financial institutions.

Risk-taking tendency is a condition where decision-making can estimate or predict a definite outcome. Prior to making decision, business owners will face uncertain situations. To deal with these conditions, alternative choices are influenced by limited information (Robbins and Coulter, 2016). Information is an important element in making innovation and e-commerce is a source of information that facilitates innovation. However, there are very few MSMEs adopting e-commerce in their business. Wahid and Iswari (2007) reported that 15.6% MSMEs are using the internet for business transactions and 48.9% use the internet network to access information.

Until recently, very few MSMEs are “Go Online.” Based on the National Bureau of Statistics, out of 17 millions MSMEs in Indonesia, mere 75 thousand have a website and as the consequence, they are unable to gain customers from the digital market. Based on the recent survey towards 200 MSME owners in Indonesia, 29% got their income from online transaction. Furthermore, Knol and Stroeken (2001) stated that most Indonesian SMEs belong to the first category, which is using information technology for internal-oriented and functional integration.

Bernama (2012) as cited in Lim, Lim and Trakulmaykee (2018) reported that e-commerce adoption in Malaysia is also critically low. In 2012, mere 28% of Malaysian MSMEs adopted e-commerce. The percentage is far

below the estimation. Lim, Lim and Trakulmaykee (2018)'s study revealed that it is more likely for middle-scale industry to adopt e-commerce than smallp-scale industry.

Implementation of e-commerce in the developing countries such as Indonesia and Malaysia is far below that in the developed countries for example China. China Internet and Information Resources Investigation Report (2004) as cited in Tan, Tyler and Manica (2007) reported that in 2004, there are 0.67 million or 67% company websites. These websites consisted of several types of information for instance company profile (85.3 %), product information (81.9%), events (56.6%), contact information (40.0%), product search (18.6%), online query (18.6%), and virtual community (12.7%). Cavalieri and Pagano (2016) stated that in China online sales jumped to US\$ 314 billions. This number has established China as the largest market exceeding the USA with total sales of US\$ 255 billions.

Non-conformity or uncertainty is the most frequently encountered situations in decision-making. Certainty is an ideal situation for making decisions. Business owner makes an accurate decision, where the results of each alternative are known (Robbins and Coulter, 2016). Kurniawati and Setyawan (2018) stated that the developing countries such as Indonesia have a high level of certainty avoidance. People tend to avoid uncertainty and try to minimize unpredicted condition. If change occurs, they tend to be law-abiding and very cautious in analyzing situation and planning.

E-commerce requires significant amount of money. Besides that, the system is prone to several risks coming from business partners, payment

system and delivery. As the result, business partners have to work harder. Business owners, more particularly those from Indonesia, have always emphasized on hardwork and careful planning to avoid potential uncertainty in the future. Despite inducing stress, emotion and anxiety, uncertainty has major impact towards business development.

Most MSMEs are still thinking that e-commerce systems are expensive. It is predicted that perception is closely related to less promising return on investment. Slade and Akkeren (2002) who conducted a study in Australia found similar phenomenon. Return on Investment is one of the factors that determined adoption of Information Technology (IT) by SMEs. Another factor is adoption of IT does not have immediate benefits towards MSME revenues (relative advantage and observability). Thus, it is evident that the potential benefits of IT may not be in accordance to current need of MSMEs in Indonesia of which production and marketing are run based on the conventional/ traditional methods.

## **Conclusion**

Based on the finding and discussions, it can be concluded that there are several factors that influence few implementations of e-commerce in Indonesia. The four factors affecting decision-making are value, personality, tendency to take risk and potential non-conformity. Among these four, tendency to take risk becomes the most dominant factor. Once MSME owners have been willing to take risk, they will create some innovations to improve their business. Continuous innovation is the key to maintain successful business.

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