

THE EFFECT OF CURIOSITY ON THE PERCEPTION OF ENTREPRENEURIAL OPPORTUNITY

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ABSTRACT

This study aims to see the effect of curiosity toward business opportunity recognition process and to assess the moderating effect of motivation. By undertaking a survey to collect data from 316 small medium enterprises entrepreneurs and performed interaction analysis using PROCESS macro V3.5.5, this study successfully revealed that curiosity contribute positively toward opportunity perception. From interaction analysis result revealed that the effect of financial motivation toward curiosity-opportunity perception are different from the effect of time flexibility motivation. The result of this study is expected to fill the gap in entrepreneurship literature by providing clear explanation regarding to the role of curiosity in entrepreneurial opportunity recognition process. This study also intends to contribute in SME entrepreneur's capacity development process in order to be able to identify new business opportunities.

Keywords: Curiosity, Opportunity Recognition, Motivation, Interaction Analysis.

INTRODUCTION

It has been widely known that small and medium enterprises (SMEs) have significant contributions to the growth of the economy (Nordin & Hassan, 2019; Tahir, et al. 2018). Regarding this growing phenomenon, Guo et al. (2017) pointed out the necessity to improve SMEs' capabilities. According to Guo et al. (2017), a factor that strongly contributes to SME performance is the entrepreneur's ability to recognize an opportunity. Similarly, Bagheri (2017) stated that opportunity recognition would also be able to increase an SME's competitiveness.

Numerous studies have tried to understand how entrepreneurs identify business opportunities and how they make a business idea into realization (Alonso, et al. 2016; Dew, et al. 2004; Yan, 2010). Many conceptions have been developed about this issue. According to Shane (2000), a person will have a better chance to see an opportunity in an area that he or she has expertise. This idea is supported by recent studies that show the importance of prior knowledge toward the opportunity recognition process (Baručić & Umihanić, 2016; Hajizadeh & Zali, 2016; Khin & Lim, 2018).

On the other hand, Yan (2010) argued that a particular trait might have a positive impact on an entrepreneur's perception of an opportunity. This idea has been confirmed by Baručić and Umihanić (2016), who found that an entrepreneur's positive attitude has a positive effect toward entrepreneurial opportunity recognition. Moreover, according to Arikan, et al. (2020), curiosity can be considered as an element that is involved in entrepreneurial creation. Its role helps an individual to fill up the knowledge gap. However, according to Jeraj and Marič (2013), in the entrepreneurship discipline, curiosity is a personality trait which still lacks research. This idea is

supported by Neill, et al. (2017). They pointed out that an explanation for this phenomenon is still unclear.

Accordingly, this study is being the one of the earliest studies which investigates the effect of curiosity toward the entrepreneurial opportunity recognition process as suggested by Syed, et al. (2020). The objective of this research is twofold. First, this study attempts to test an entrepreneur's psychological factor of curiosity toward the perception of opportunity. In addition, this study intends to see the moderating effect of an entrepreneur's motivation in the relationship between curiosity and opportunity perception. Second, this study is designed to test the five dimensions of the curiosity construct, which were proposed by Kashdan et al. (2018) to measure SME entrepreneurs' curiosity.

LITERATURE REVIEW

An Entrepreneur's Perception of a Business Opportunity

According to Venkataraman (1997), a business opportunity can be considered either as a concept, perception, or a set of activities that allows a good or service to be commercialized. While according to Sarasvathy et al. (2003), a business opportunity may also be viable in the form of a concept or perception which is still at that moment not feasible for the market. As long as the idea or perception is believed to contain something valuable, then it still can be considered as a business opportunity. This idea is supported by Alonso et al. (2016) and Bohlmann, et al. (2017), who stated that an entrepreneur's perception of ambition or hope related to one's business can also be considered a business opportunity.

Several factors have been found to have a direct relationship toward an entrepreneur's opportunity perception such as cognitive capabilities (Alonso et al., 2016). According to Alonso et al. (2016), there is a strong connection between entrepreneurial cognition and the decision-making process. How entrepreneurs make a conclusion will depend on how they organize and process the information. Furthermore, a study conducted by Neill et al. (2017) also revealed that the perception of an opportunity is associated with an entrepreneur's prior knowledge and information-seeking behaviour.

On the other hand, Yan (2010) found out that not only entrepreneurial cognition affects one's perception of an opportunity, but an entrepreneur's personal trait has a contribution as well. According to Yan (2010) the effect of a personal trait on opportunity perception is complex. There is the possibility that a cognitive process does not contribute positively to the perception of an opportunity, because the effect is distorted by a personality trait such as overconfidence. As a result, the entrepreneur may misjudge the potential risk which might occur and, in the end, it will also influence the perception of an opportunity.

The Effect of Curiosity

Kashdan, et al. (2013) view curiosity as a human's natural behaviour to find some information that can help one make some adjustments to a new situation. This behaviour usually occurs because it is triggered by an uncertain situation. Similarly, Jeraj and Marič (2013) believe that curiosity is a passion to achieve more information for developing new skills or knowledge. While Celik, et al. (2016) define curiosity as human characteristics related to a circumstance which needs them to obtain new information. Considering all the propositions made by previous

scholars, in this study, we define curiosity as the human interest to investigate or observe a situation in order to get new information for a resolution.

The Relationship of Curiosity and Information Seeking

Jeraj and Marič (2013) reported that curiosity is involved in many human psychological aspects and personal development in a positive manner. One of the aspects is related to the information-seeking process. According to Jeraj and Marič (2013), individuals with a high level of curiosity tend to have a huge interest to know and understand how things work. Therefore, they are eager to spend more time to search for new information. Similar to this idea, Celik et al. (2016) explained that while individuals are involved in an activity to find some information, curiosity has a strong contribution to make them keep engaged with the activity. Curious individuals are recognized as having more motivation to explore and search for information in order to find answers for a particular issue (Kashdan et al., 2018). It is because they have great excitement being in a situation which they believe will give them an opportunity to learn. Moreover, according to Kashdan et al. (2018), the feeling of excitement goes beyond the reason behind the information-searching process, whether the process is triggered by a sense of urgency or because of a personal interest.

Furthermore, from the definition of curiosity, it could be seen that there is an agreement amongst researchers that curiosity is related to the information-searching process, which in many situations involves uncertainties. The uncertain situations usually will trigger an uncomfortable feeling. However, it has been found that highly curious individuals have the capability to handle uncertain situations (Syed et al., 2020). They have high persistence in searching for new information. While according to Kashdan and Fincham (2002), curiosity has a strong contribution to improve one's concentration. Therefore, curious individuals can maintain their focus during the information-seeking process. While, according to Litman (2008), the individual process of enhancing one's ability to understand a situation may be connected to curiosity. The rationale behind this idea is because curious individuals tend to enjoy spending time to explore and assess the situation to discover information that can help them find a new idea or solution (Litman, 2008).

Taking everything into account, it is clear that curiosity has a positive association with the information-seeking process. Curious individuals tend to have more motivation, excitement, and enjoyment during the information searching and retrieving process to recognise a business opportunity. Curiosity also has a positive association with a situation of uncertainty. A high level of curiosity in individuals makes them better at dealing with uncertainty, which always occurs during the information-seeking process, than an individual with a low level of curiosity. Therefore, we believe that curiosity can be considered as an important aspect in the study of entrepreneurship, especially related to opportunity recognition.

The Relationship of Curiosity and Knowledge Acquisition

Knowledge acquisition is a process which is related to knowledge creation. This process may include capturing and accumulating information as well as retrieving and sharing it (Thang & Tuan, 2020). According to Murayama, et al. (2019), knowledge acquisition and information seeking behaviour are strongly connected. People are motivated to seek new information because they are motivated by the expected result, which is to obtain new knowledge (Murayama et al., 2019). Therefore, it can be considered that the compensation that people are looking for to

compensate for all their effort to search for the information that they have done is knowledge mastery.

Birenbaum et al. (2019) believe that curiosity strongly promotes the development of knowledge and skills. According to Birenbaum et al. (2019), individuals with a high curiosity level have a strong desire to seek new knowledge and experiences. They usually perceive uncertainty positively, and this perspective helps them to develop knowledge rapidly and effectively (Birenbaum et al. 2019). Furthermore, according Lauriola et al. (2015), the impact of curiosity toward the knowledge acquisition process is mediated by self-regulation or individual ability to curb emotions and bad feelings. This ability provides great benefits to the learning process. Curious individuals will be able to overlook unimportant information and keep their focus on challenging stimuli (Kashdan, et al. 2004).

There is also an indication that curiosity can improve the human attention span which can help individuals be more focused to find a solution for a particular problem (Kashdan, et al. 2004). It was also found out that curious individuals will quickly look for an answer to a rising problem (Jeraj & Marič, 2013). Celik et al. (2016) affirmed that curiosity triggers an individual's willingness to find an answer to a problem that one faces. This decision is believed to be driven by internal motivation which is induced by one's curiosity. Therefore, when a curious individual is faced with a problem, the person will spontaneously try to find information to obtain new knowledge in order to find a solution. It seems that the person will be challenged to find a solution for that problem.

Futhermore, et al. (2020) believe that curiosity can help an individual to obtain higher performance in education. The reason is because curiosity significantly affects an individual's ability to memorize (Celik et al., 2016). Meanwhile, the ability to memorize information provides a tremendous advantage for the learning process (Gruber & Ranganath, 2019). It is already widely known that memory is part of the cognitive process which contributes to the reconstruction of experience. Memory is an important attribute in information processing. Interestingly, Kashdan et al. (2010) discovered that curiosity is also correlated with an individual's social behaviour. Curious individuals love to talk to other people. They enjoy listening to the stories of others, and they also have a passion to find out more information about other people (Kashdan et al., 2010).

Hypothesis 1

There are numerous evidences related to the benefit of curiosity on knowledge acquisition that has been discovered in the past decades. All these facts make curiosity as an important factor in human cognitive development. However, the role of curiosity in opportunity perception has never been tested. Therefore, we propose a hypothesis based on the scientific evidence which has been described that: Curiosity significantly affects one's perception of an opportunity in a positive manner.

Moderating Effect of Motivation

Prior studies have found that an entrepreneur's motivation is an important driver to start a business venture (Grégoire & Shepherd, 2012; Jeraj & Marič, 2013; Stenholm & Renko, 2016).

Specifically, Jeraj and Maric (2013) pointed out that business ventures can successfully be created because entrepreneurs are motivated to discover new opportunities. The impact of an entrepreneur's motivation in the opportunity-recognition process has also been explained by

Gregoire and Shepherd (2012). They believe that motivation can help entrepreneurs to intensify the information-seeking process or obtain new knowledge to discover an opportunity. Highly motivated entrepreneurs tend to keep enthusiastic to ascertain business opportunities, even though they might have seen an unfavourable sign of outcome.

However, the impact of motivation on curiosity will depend on the individual entrepreneur's circumstances. Entrepreneurs must have a reason either financial or non-financial before they decide to do a particular activity (Carter, et al. 2003). According to Block, et al. (2015), different type of motivation has different consequences in the opportunity-recognition process. Block et al. (2015) point out that financial motivation can increase the risk reliance capability. Moreover, Almandoz (2014) explained that non-monetary motivated entrepreneurs will try to avoid being exposed to high risk activities.

Hypothesis 2 and Hypothesis 3

Regarding this conception, we propose a hypothesis: Financial motivation has a moderating effect on the direct influence of curiosity toward opportunity perception. This study also proposes another hypothesis that: Time flexibility (non-monetary) motivation moderates the effect of curiosity on opportunity perception.

METHODOLOGY

The objective of this study was to investigate the relationship between an entrepreneur's curiosity and opportunity perception, all together with the impact of motivation as a moderating variable. The participants of this study were selected from the population of SME entrepreneurs who live around Jakarta using a non-random sampling technique (convenience sampling). Given the large population of SME in Indonesia, this study used samples drawn from the population of micro businesses only.

The data collection process used an online survey method. Invitations to participate in this research were distributed through social media groups and forums, such as WhatsApp groups and forums, Facebook forums, Twitter, and Telegram. In addition, invitations were also distributed personally to the target population of micro business entrepreneurs who were members of a micro business association assisted by Bina Nusantara University. The data was analysed using PROCESS macro v3.5.3 for SPSS by Hayes. The five dimensions of curiosity were measured using a 7-point Likert scale (adapted from Kashdan et al., 2018) While the opportunity measurement was adapted from Neill, et al. (2017), and it was also measured using a 7-point Likert scale. Furthermore, for the two categories of motivation, financial and time flexibility were taken from Carter et al. (2003).

RESULTS AND DISCUSSION

There were 316 respondents who participated in this study. The majority of the respondents were living in the Jakarta area (60.3%), while 14.8% were living in Tangerang, 8.5% were living in Bekasi, 7.3% were living in Bogor, and 5.7% were living in Depok. From a gender perspective, it was found out that 57.9% of the respondents were female entrepreneurs and 42.1% were male entrepreneurs. While from an educational background, as many as 28.2% of the entrepreneurs were high school graduates, 59.2% had an undergraduate degree, and 12.7% had a postgraduate degree. The average age of the entrepreneurs was 41.71 years old. From the type of

business, 55.2% entrepreneurs were engaged in the trade sector, 28.7% were in the service sector, and 15.8% were engaged in the manufacturing sector.

In order to validate that the items in the questionnaire, a factor analysis/ principal component analysis was conducted. The results show there are no Cronbach's alpha values below 0.6, which is considered as an acceptable value (Field, 2009). It also can be seen that the correlation between items is good enough to conduct a factor analysis, since the Bartlett's Test of Sphericity appears to be significant ($p = 0.000$). There are also no KMO values below 0.5. It shows that the sampling for each variable is adequate for a factor analysis.

In addition, to ensure that all five dimensions indeed measured the curiosity, CFA using AMOS 26 was also implemented. After omitted five indicators which have a factor loading below 0.6, the result shows that $CMIN/DF = 2.621$. Regarding to Wheaton, Muthen et al. (1977) a $CMIN/DF$ less than five can be considered as having a good fit. Another result also shows an indication that the curiosity construct fits the data pretty well ($CFI = 0.932$; $TLI 0.918$). According to (Hu & Bentler, 2009) TLI should be higher than 0.9 while according to Bentler and Bonett (1980), a $TLI > 0.9$ can be considered as an acceptable fit. Furthermore, the result also shows the $RMSEA$ is 0.072, and according to Browne and Cudeck (1992), an $RMSE < 0.08$ can be accepted. The regression weight also shows a significant value ($p < 0.001$), which indicates that the five variables are really measures curiosity. Therefore, all indicators show that the curiosity construct matches the sample data.

While to see the impact of curiosity toward an entrepreneur's perception of opportunity and to see the effect of the moderating variable (motivation), the data was analysed using PROCESS macro v3.5.5 by Hayes. The dependent variable in this study is the opportunity perception, while the independent variable is curiosity. The moderating variables in this study are financial motivation (model 1) and flexibility motivation (model 2), which are predicted to influence the effect of curiosity on an entrepreneur's perceptions of business opportunities.

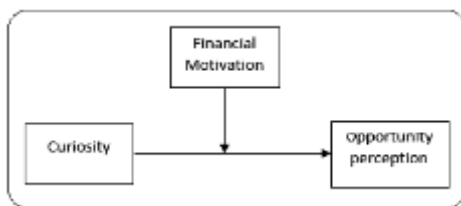


FIGURE 1

FINANCIAL MOTIVATION (MODEL 1)

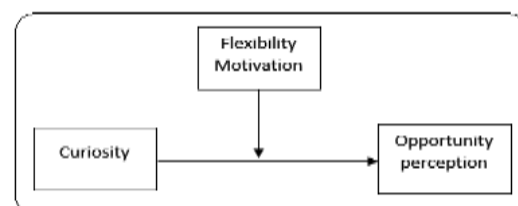


FIGURE 2

FLEXIBILITY MOTIVATION (MODEL 2)

Model 1 (Financial Motivation)

The interaction analysis results show that curiosity has a positive impact toward opportunity perception with a coefficient of 1.6252 at $t = 5.7302$ and $p = 0.000$. The results also reveal that financial motivation moderated the effect of curiosity on opportunity perception ($t = -4.3348$, $p = 0.000$). It also can be seen that at all levels of financial motivation (low, medium, and high) the effect of motivation are significant with p -values less than 0.05. Therefore, it reveals that there is a different impact of curiosity on opportunity perception based on their level of financial motivation. From the graph below (Figure1), it can be seen that the effect of curiosity on opportunity perception is very strong when entrepreneurs have a high financial motivation.

While the effect of curiosity on opportunity perception is very weak for entrepreneurs who have a low level of motivation. However, for entrepreneurs with a high level of curiosity, at all levels of financial motivation, the impact of curiosity on opportunity perception is equal.

Table 1				
MODERATING EFFECT OF FIN. MOTIVATION				
Conditional effects of the focal predictor at values of the moderator (s) :				
Motiv_2	Effect	Se	t	P
Low	0.6953	0.0901	7.7130	0
Medium	0.4361	0.0661	6.5955	0
High	0.1853	0.0869	2.1327	0.0337

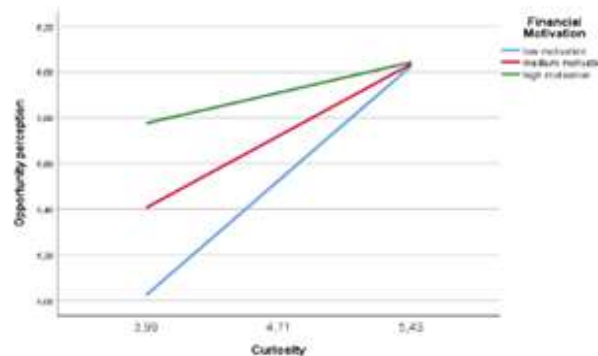


FIGURE 3
MODERATING EFFECT OF FIN. MOTIVATION

Model 2 (Flexibility Motivation)

From the model 2 analysis results, it can be concluded that the effect of curiosity on opportunity perception is also significant ($t = 3.625$, $p = 0.0003$). While flexibility motivation is found to significantly moderate the relationship between curiosity and opportunity perception ($t = -2.485$, $p = 0.0135$). From the interaction slope (Figure 3), it shows that the effect of curiosity on opportunity perception depends on an entrepreneur's level of flexibility motivation. For entrepreneurs with a low level of curiosity, there is a big difference in the effect of curiosity on opportunity perception between highly motivated entrepreneurs and low motivated entrepreneurs. While among entrepreneurs with a high level of curiosity, even though it is not too significant, however the result still shows different effects of curiosity toward opportunity perception among entrepreneurs with a high level of motivation and entrepreneurs with a low level of motivation.

From the results of the analysis, it could be seen that high motivation is very helpful for entrepreneurs who have a low level of curiosity to recognize business opportunities. Meanwhile, the influence of motivation is not too significant for entrepreneurs who have a high level of curiosity.

Table 2				
MODERATING EFFECT OF FIN. MOTIVATION				
Conditional effects of the focal predictor at values of the moderator (s) :				
Motiv_2	Effect	Se	t	P
Low	0.5187	0.0824	6.2923	0
Medium	0.3919	0.0648	6.0448	0
High	0.3075	0.0732	4.1984	0

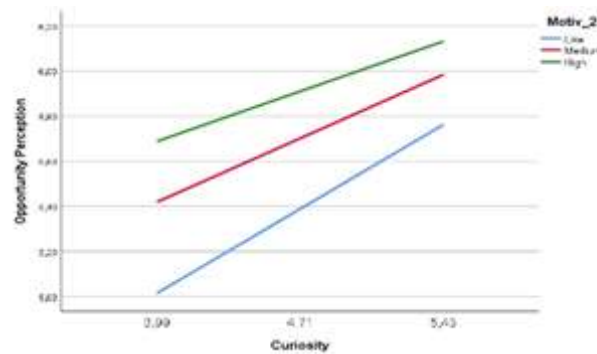


FIGURE 4
MODERATING EFFECTS OF FLEX. MOTIVATION

DISCUSSION

The objective of this study was to reveal the relationship between an entrepreneur's curiosity and one's perception of a business opportunity. Furthermore, this study was also designed to find out the moderating effect of motivation on the relationship between curiosity and opportunity perception. In addition, this study also intended to test the five dimensions of the curiosity construct developed by Kashdan et al. (2018) in the context of an entrepreneurship study.

The results from both models show that curiosity positively influences an entrepreneur's perception of opportunity. An entrepreneur with a high level of curiosity perceives a business opportunity better than an entrepreneur with a low level of curiosity. It is because entrepreneurs with a high level of curiosity enjoy the information-seeking and knowledge-acquisition process (Celik et al., 2016; Jeraj & Marič, 2013; Litman, 2008). They tend to be more persistent (Kashdan & Fincham, 2002), and they also have the capability to handle uncertain situations (Syed, et al. 2020).

Furthermore, it was also discovered that individuals with high curiosity have a better ability to memorize (Celik et al., 2016), and they also like to listen to other people (Kashdan et al., 2018). All these abilities benefit the information and knowledge acquisition process (Fandakova & Gruber, 2020). Therefore, it is understood that curiosity positively influences an entrepreneur's perception of opportunity.

From the analysis results, it can also be seen that a high level of motivation (financial and flexibility) amplifies the effect of curiosity on opportunity perception among entrepreneurs with a low level of curiosity. Highly motivated entrepreneurs have a greater impact of curiosity on

opportunity perception compared to medium and low motivated entrepreneurs. This finding was confirmed by Jeraj and Maric (2013), who believe that motivation strengthens the benefits of curiosity on an entrepreneur's work.

Interestingly, the moderating effects of financial motivation are different from flexibility motivation among highly curious entrepreneurs. Regarding financial motivation, the results show that the moderating effect of curiosity is equal for high, medium, and low levels of motivation. While regarding flexibility motivation, the results show that the moderating effect of curiosity on opportunity perception are different between high, medium, and low levels of motivation. This finding was confirmed by Syed et al. (2020), who argued that the moderating impact of motivation on curiosity will depend on the circumstances. In this case, it depends on an entrepreneur's motivation or reason to run the business.

CONCLUSION

This empirical evidence provides a new way to see the effects of curiosity on the entrepreneurial process, especially in the opportunity identification stage. This research has succeeded to prove that motivation plays a role in moderating this influence. The results of this study are expected to fill the gap in entrepreneurship literature by providing a clear explanation regarding the role of curiosity in the entrepreneurial opportunity recognition process as well as the effect of entrepreneurial motivation. This study also contributes to the SME entrepreneur's capacity development process. However, future studies should consider other types of motivation to see the moderating effect on the relationship of curiosity toward opportunity perception. It is also worth examining other curiosity measurements or constructs. However, future studies should consider more specific curiosity measurement which relate to entrepreneurial study. General curiosity construct might reduce the effect of curiosity toward opportunity perception.

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