

Entrepreneurial Alertness, Social Network, Creativity and Entrepreneurial Opportunity Recognition among the University Students of Thailand: Does the Prior Knowledge of the Students Matter

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The main objective of the current study is to examine the relationship between entrepreneurial alertness, social networks, creativity, and entrepreneurial opportunity recognition among university students in Thailand. Additionally, the moderating role of prior knowledge will be examined. The present study uses SEM as it is a second-generation statistical technique which provides robust results. Moreover, SEM-PLS allows for statistical modelling and estimation of complex phenomena. Thus it is the most preferred method to assess theoretical models in quantitative research. It enables researchers to assess complex and advanced theoretical models without much dependency on statistical methods. The current study has introduced entrepreneurial opportunity recognition (EOR) as a way to operationalize and measure entrepreneur performance. Successful performance of entrepreneurs, in terms of EOR, can be achieved through the use of different types of resources which are intangible in nature, and which thus satisfy the criteria of VRIN resources. A theoretical implication of this study is that it provides additional empirical evidence and support to the theory which was examined. The theoretical value of this study is that it establishes the relevance of the resource-based view in the context of entrepreneurs' opportunity recognition ability. This study provides empirical evidence in support of the RBV theory.

Key words: *Entrepreneurial Alertness, Social Network, Creativity, Entrepreneurial Opportunity University Students, Thailand.*

Background

The development of entrepreneurship has been increasing in importance and has become a central contributor to economic growth in many developing countries. It is apparent that most developing countries are now giving more consideration to the notion of including entrepreneurship as a plan to increase living standards (Chienwattanasook, & Jermstittiparsert, 2019; Mustafa, 2016). Jaafar and Aziz (2008) claimed that the development of entrepreneurship may transform Malaysia into a leading developing country in the next few decades. This study even stated that entrepreneurship is not only an important developmental factor but also an economic driver. This is because the economy is quite reliant on entrepreneurship and it is believed that, with every incident of economic downturn, it is entrepreneurial determination and perseverance which balance the economy. The term 'entrepreneurship development' has become increasingly important in terms of entrepreneurship activity in Malaysia. Othman, Sulaiman, Zainudin, and Hasan (2008) suggested that this increased interest in entrepreneurship has highlighted the variety of policies and amount of supporting mechanisms which exist for entrepreneurs, such as physical infrastructure, business advisory services, and funding.

Gaglio, Dionne, and Compton (1997), Venkataraman (1997), and Shane and Venkataraman (2000) all noted that the sculpting of market opportunities and the identification of entrepreneurial prospects have become areas of interest. Indeed, to become a successful entrepreneur, identification and selection of the right opportunities have been found to be among the most important abilities (Ardichvili, Cardozo, & Ray, 2003; Malik, & Khan, 2013). Venkataraman (1997) similarly stated that identification and development are key elements in entrepreneurship research. Bygrave and Hofer (1992) also proposed 'opportunity recognition' as an important area of entrepreneurship research. This is because 'entrepreneur' refers to an individual who recognizes and creates an opportunity, and consequently pursues a business venture. Hence, illustrating the reason for increased attention on identifying when, why, and how some people become successful in discovering new opportunities when others fail to do so (Shane & Venkataraman, 2000).

Business opportunities are generally discovered by entrepreneurs to create and deliver value to their stakeholders. Thus, careful consideration, market sensitivity, and identification of suboptimal resource deployment, can assist entrepreneurs in identifying and developing an opportunity (Ardichvili et al., 2003; Shawtari et al., 2016) which then may or may lead to success in terms of establishing a business venture.

Before proceeding, it is essential to define ‘opportunity recognition’ in order to facilitate further discussion of prospective business opportunities. Several studies have proposed different terms for the perception of opportunities, such as opportunity development (Ardichvili et al., 2003), opportunity identification (Shepherd & DeTienne, 2005; Manaf, & Ibrahim, 2017; Fatula, 2018), opportunity recognition (Lumpkin, Hills, & Shrader, 2003; Lumpkin & Lichtenstein, 2005; Sanchez, 2018), and opportunity discovery (Shane & Venkataraman, 2000). However, previous researchers have found that there is overlap between these terms and they are confounded with each other. Therefore, these entrepreneurial concepts were assumed to be similar to the principal activities which take place prior to venture creation (Ardichvili et al., 2003). Various researchers have also proposed different definitions, meanings, and thoughts regarding the above-mentioned terms. For instance, in the view of Ardichvili et al. (2003), successful business creation largely depends upon opportunity recognition, development, and evaluation. The researchers also stated that these processes basically interact with and overlap each other. For example, some development may also occur in the initial stages, even before opportunity recognition. Thus, due to the iterative and cyclical nature of the stages of entrepreneurial development, an entrepreneur may conduct an evaluation multiple times, at different stages, leading to the modification or recognition of additional opportunities.

Hypothesis development

The relationship between social networks and entrepreneurial opportunity recognition

Social networks have been reported to have a positive association with entrepreneurial opportunity recognition (Wang, Ellinger, & Jim Wu, 2013). Researchers have concluded that entrepreneurial opportunity recognition is positively affected by the social networks of an individual. The variable of social networks, i.e. $\beta=0.20$, has been identified as the second most significant antecedent to entrepreneurial opportunity recognition. Indeed, social networks are one of the two most significant factors of entrepreneurial opportunity recognition.

The results of the above-mentioned study also correspond with a study conducted by Cheng et al. (2011) which demonstrated that social networking, via a mentor relationship, significantly positively affected the opportunity recognition ability of a novice entrepreneur (Std. $\beta=0.156$). The study by Cheng et al. (2011) investigated the learning benefits gained from a mentor and what effect these have on an entrepreneur’s opportunity recognition ability. These learning benefits were analyzed by examining a sample of 360 entrepreneurs who took part in a mentoring scheme initiated by Foundation de l’entrepreneurship. The study concluded that mentoring is a good way to encourage new entrepreneurs and it also positively affects the SME’s development. The results indicated that learning with a mentor is

significantly positively correlated with opportunity recognition and, because mentoring itself is part of a social network, this study therefore supports the notion that social networks are positively related to opportunity recognition (Olkiewicz, 2018).

The findings of this study also align with studies by Kontinen and Ojala (2011) and Mitits, (2018) which found that network ties are important in opportunity recognition. Research has also examined the international opportunity recognition of family SMEs in relation to gaining foreign market entry. It was found that family SMEs which lack existing network ties tend to recognize opportunities through weak ties formed at international exhibitions. These type of network ties are referred to as intermediary network ties. Another similar study found that weak forms of individual social capital are positively associated with entrepreneurial opportunity recognition.

Ozgen and Baron (2007) conducted a study on a sample of 201 young IT companies. The findings from this study are consistent with the views of past studies which argue that social networks are positively related to entrepreneurial opportunity recognition. The results of the study are consistent with the view that social sources of information (mentors, informal industry networks, and participation in professional forums) have a direct, positive correlation with. Informal industry networks have the strongest correlation with entrepreneurial opportunity recognition, followed by professional forums and mentors; 0.48 and 0.40 respectively.

The results of the above study also align with a study conducted by Farr-Wharton and Brunetto (2007). This study revealed that 20% of the reason why women join networks is to search for business opportunities. The results of this study support the argument that networking is more important to females. Based on the results of a regression analysis, it was found that female entrepreneurs use networks to search for new business opportunities ($b = 0.364, p < 0.05$). This finding supports previous research in identifying why entrepreneurs belong to networks (Nooteboom & Gilsing, 2004; Pellegrini, Caputo, & Matthews, 2019). This finding supports the idea that social networks significantly influence entrepreneurial opportunity recognition. Thus, based on the discussion above, it is expected that social networks will be positively associated with opportunity recognition. Hence, the following hypothesis was formulated:

H1: There is a relationship between social networks and entrepreneurial opportunity recognition.

The relationship between entrepreneurial alertness and entrepreneurial opportunity recognition

A study was conducted with 327 entrepreneurs from 158 enterprises across the United Kingdom and China. The study examined the impact of cognitive characteristics (entrepreneurial alertness and prior knowledge) and opportunity recognition on entrepreneurial decision making. They found that entrepreneurial alertness, as an individual psychological factor, is significantly related to opportunity recognition. However, in this study, it was found that opportunity recognition played a key mediating role with respect to entrepreneurial decision making. This study revealed that entrepreneurial alertness is an antecedent of entrepreneurial opportunity recognition which then influences entrepreneurial decision making.

The importance of entrepreneurial alertness with respect to entrepreneurial opportunity recognition has also been acknowledged by Tang, Kacmar, and Busenitz (2012). In this study, the authors took the initiative of redefining and refocusing research on alertness by integrating Kirzner's alertness theory and work by McMullen and Shepherd (2006). In addition, this study categorized entrepreneurial alertness into three main dimensions: (1) scanning and search; (2) association and connection; and (3) evaluation and judgment. This will perhaps assist researchers in assessing the contributions of alertness and its impact on pursuing entrepreneurial opportunities.

Santos-Álvarez and García-Merino (2010) and Mansor and Ilias (2013) even proposed entrepreneurial alertness as a core cognitive process that enables entrepreneurs to capitalize on an opportunity. According to these authors, recognizing an opportunity in an international context requires available information to be identified and acted upon by the entrepreneur. In other words, the information must catch the entrepreneur's attention and appeal to their interests. For these reasons, an entrepreneur's cognitive skills play a major role in recognizing information, i.e. being entrepreneurially alert.

On the other hand, in a study comparing business and engineering students, it was found that individuals from the business-trained cohort were significantly more alert to opportunities than those with from the engineering cohort. Alternatively again, Govaerts et al. (2003) conducted a mixed method study on a sample of thirty entrepreneurs who were graduates of the University of Illinois at Urbana-Champaign. This study examined factors which influence the entrepreneurial opportunity identification process. The results indicated that entrepreneurial opportunities can be identified by relying on one's gut feeling. Moreover, the results from the questionnaire showed that most participants who were alert to identifying opportunities agreed that they had special sensitivity in this regard. Thus, the concept of entrepreneurial alertness was strongly supported in this study.

Thus, based on the discussion above, it is expected that entrepreneurs with a higher level of entrepreneurial alertness are more likely to have success with their opportunity recognition. Accordingly, hypothesis 2 postulates that:

H2: There is a relationship between entrepreneurial alertness and entrepreneurial opportunity recognition.

The association between opportunity recognition and creativity

A study by Nicolaou and Shane (2014) attempted to investigate how the propensity to create a venture and discover business opportunities are affected by an individual's creativity. It has been reported that individuals with creative personalities are expected to discover business opportunities and create ventures. Furthermore, two measures of entrepreneurship as well as a creative personality were found to be partially linked to genetic factors.

Another study explored the link between two broad types of capital (human and social) and the recognition of entrepreneurial opportunities. This particular study utilized secondary data from the Panel Study of Entrepreneurial Dynamics (PSED) database which consists of nascent entrepreneurs from across the United States. It was hypothesized that creativity would take the form of 1) a preference for doing things differently, and 2) a preference for doing things better. The findings revealed that doing things differently increases the odds of entrepreneurial opportunity recognition. Even though the second hypothesis was not supported, the study still provided support for the idea that creativity has a positive relationship with entrepreneurial opportunity recognition.

Researchers have also explored the role of intellectual capital in the opportunity recognition of entrepreneurs. The study sample consisted of 101 metal and information and communication technology (ICT) ventures established in 1998 in three regions of Finland. Results revealed a significant positive relationship between creativity and competitive scanning. This result implies that creativity increases the ability to understand the competitive environment in outstanding ways and enables people to see clues that others are not able to. In addition, creativity has been thought to significantly enhance proactive searching and innovative behavior as well. However, the study does not align with previous studies in regards to the idea that creativity should enhance knowledge acquisition and innovative behavior. Competitive scanning, proactive searching, and innovative behavior are elements of opportunity recognition. Therefore, creativity is positively related to opportunity recognition.

Govaerts et al. (2003) conducted a study on thirty entrepreneurs in the State of Illinois who were graduates of the University of Illinois at Urbana-Champaign. This study used both

qualitative and quantitative methods to examine the factors that influence the entrepreneurial opportunity identification process. Results from their questionnaire revealed that although creativity was not considered a major factor in influencing opportunity identification as compared to other factors (mean=3.38), participants who used creativity to identify opportunities had a tendency to set aside time to engage in creative thinking. Additionally, in circumstances where an individual was laid off from formal employment, creativity seemed to stem from skills or talents acquired at the work place (Govaerts et al., 2003). Results from the interviews indicated that creativity was relatively important in opportunity identification. Accordingly, the follow hypothesis was postulated:

H3: There is a relationship between creativity and entrepreneurial opportunity recognition.

Role of Prior Knowledge as a Moderator

Baron and Kenny (1986) defined a moderator as a variable which modifies the degree of the relationship between a dependent and independent variable. In most cases, moderation analysis employs regression coefficients to determine the causal association between a dependent and independent variable. However, traditionally, moderation analysis will weaken the causal effect between the variables. However, a moderating variable is also capable of, not only reducing, but amplifying the causal effect. The study thus concluded that it is essential to incorporate a moderating variable in the analysis when the dependent and independent variables exhibit an inconsistent relationship. Literature regarding creativity, social networks, and entrepreneurial alertness have been found to be less convincing as they identify both positive and negative effects.

For example, in some studies, most of the participants mentioned social networks as their main source of ideas for opportunity recognition (Govaerts et al., 2003; Mejdoub, & Arab, 2017). According to one study in particular, the major factor influencing opportunity recognition was the existence and use of social networks, which is comprised of several elements: weak ties, strong ties, mentoring, brainstorming, partnership, inner circle, and action set. In addition, Govaerts et al. (2003) found that creativity and alertness were related to opportunity recognition. The clearest finding to emerge from this study is the identification of two types of entrepreneurs (visionary and forced) which are believed to have distinct approaches to opportunity recognition. Visionary entrepreneurs are individuals who have held the desire to go into business since childhood. The results of this study indicate that this type of entrepreneur was more likely to utilize social networks to identify opportunities. Whilst the second type, known as forced entrepreneurs, were individuals who were forced into entrepreneurship as a result of unemployment or other similar factors. These entrepreneurs were more likely to rely on prior knowledge acquired in formal employment to identify opportunities. From the researcher's point of view, further work is required to

explore the relationship between independent and dependent variables and to understand the influence the moderating variable will have for different types of entrepreneurs with respect to entrepreneurial opportunity recognition.

On the contrary, other studies have shown that prior knowledge of markets, customer problems, products, and societal needs were related to opportunity recognition (Jermisittiparsert & Srisawat, 2019). However, prior knowledge of products was the most important. The findings of this study contradict previous research by Ardichvili and Cardozo (2000) which found that, instead of other prior knowledge factors, prior knowledge of markets and customer problems were found to be the most applicable.

Only few studies have attempted to examine the effect of prior knowledge as a moderator in the relationship between business opportunity identification as the dependent variable, and independent variables (Shepherd & DeTienne, 2005; Siegel & Renko, 2012; Mapharing, & Basuhi, 2017).

In another study, aside from discovering prior knowledge as an important element for identifying innovative and increased opportunities, Shepherd and DeTienne (2005) found that prior knowledge acts as a moderator in the relationship between opportunity identification and potential financial reward. They stated that the less knowledge a person possesses regarding current problems, the higher the positive effect of potential financial reward will be on the number and innovativeness of identified opportunities. Regardless of the significant role of prior knowledge and potential financial reward in opportunity identification, there is insufficient empirical research examining the association between these variables during the process of discovering potential opportunities.

A study by Shane and Venkataraman (2000) reported consistent findings. In a case study, Shane and Venkataraman (2000) analyzed technology entrepreneurs who were exposed to the MIT invention and found that significant prior knowledge is needed to facilitate the process of opportunity recognition, along with technological knowledge. In addition, the study also examined three prior knowledge types, including 1) prior knowledge of markets; 2) prior knowledge of customer problem; and 3) prior knowledge regarding how to serve the market. These three types were examined to assess whether they are beneficial for discovering and profiting from new technology.

In line with the study by Shane and Venkataraman (2000), it was found that, in spite of a large number of people being exposed to information regarding 3DP TM process invention, only a limited number of entrepreneurship opportunities are available to utilize this technology. This occurs because every individual is not capable of recognizing potential opportunities and every individual possesses different entrepreneurial information.

Additionally, sources of prior knowledge are idiosyncratic and can occur as a result of personal events, education, and work experience. The researchers recommended further investigation in this area to examine the significance of prior knowledge in the process of opportunity recognition.

As suggested by Marvel and Droege (2010), four prior knowledge types were examined in this study: 1) prior knowledge of customer problem, 2) prior knowledge of how to serve the market, 3) prior knowledge of technology, and 4) prior knowledge of the market. Thus, the following hypotheses were formulated on the basis of above arguments:

H4: Prior knowledge moderates the relationship between social networking and entrepreneurial opportunity recognition.

H5: Prior knowledge moderates the relationship between entrepreneurial alertness and entrepreneurial opportunity recognition.

H6: Prior knowledge moderates the relationship between social networking and entrepreneurial opportunity recognition.

Methodology

The following section provides the data analysis, including the illustration and discussion of the research findings. For the purpose of data analysis, structural equation modelling was used in this study. Structural equation modelling is a statistical multivariate technique for analyzing structural associations. It is a combination of multiple regression analysis and factor analysis, and is generally employed to analyze the existence of structural associations between the measured and latent constructs. Researchers prefer to use this method as it is capable of estimating multiple, as well as interrelated, associations in a single analysis. After selecting the methodology, sample collection was conducted using the method of cluster sampling. For the sample size estimation, the first step involves the total population determination. The sample size for this study was determined using Krejcie and Morgan's (1970) sample size table. Gay and Diehl (1992) suggested that the required sample size for a study depends upon the type of research i.e. experimental, descriptive, or correlational.

The present study has utilized SEM as it is a second-generation statistical technique which provides robust results. In addition, SEM-PLS allows for the statistical modelling and estimation of complex phenomena. Therefore, it is the preferred method to assess theoretical models in quantitative research. It enables researchers to assess complex and advanced theoretical models without much dependency on statistical methods. Finally, SEM software is also user-friendly, just like other Windows-based software. The above reasoning was also acknowledged by Hair, Hult, Ringle, and Sarstedt (2016) and McLain (2018). The SEM model consists of formative and reflective constructs. The objective is to determine the

predictive value between the constructs. For many years, researchers have been using EQS, AMOS, and LISREL as the software tools for performing such analyses. However, PLS-SEM is a useful alternative to CB-SEM, with distinctive methodological features. The estimated population size was 22000 and the selected sample size was 377. Thus, 377 survey questionnaires were distributed, and 269 questionnaires were received back. Thus, the response rate came out to be 71% which is above the threshold level of 45-50%. The completed questionnaires then underwent further evaluation. Of the total respondents in the study, there were 198 male respondents and 71 female respondents, with an average age of 43 years. On average, 58% of the total respondents were found to be part of the operational department for the past 10 years.

Results

SEM-PLS involves two types of models: i.e. the measurement model and the structural model. The measurement model shows how the measured variables are related to a specific theory. Whereas, the structural model illustrates whether particular constructs in the model are related to the other constructs. It is also known as causal modelling as it tests the assumed causal association between the constructs. The first step in PLS-SEM estimation is determining the measurement model, also referred to as confirmatory factor analysis (CFA). In CFA, the theoretical measurement is compared with the proposed reality model. The CFA is usually used to assess how well the variables involved in the model are observed. Results of CFA must be related to the validity of the construct. The items with loadings less than 0.70 are deleted.

Table 1: Outer Loadings

	CR	EA	EOR	PK	SN
CR1	0.879				
CR2	0.838				
CR3	0.902				
CR4	0.910				
CR5	0.865				
EA1		0.917			
EA2		0.869			
EA3		0.930			
EA4		0.907			
EA5		0.928			
EOR1			0.864		
EOR10			0.831		
EOR2			0.840		
EOR4			0.901		

EOR5			0.908		
EOR8			0.876		
EOR9			0.843		
PK1				0.927	
PK2				0.899	
PK3				0.882	
PK4				0.892	
PK5				0.839	
SN2					0.893
SN3					0.903
SN4					0.884
SN5					0.928
SN1					0.894

Strong correlations between the variables are expected as all the items are dynamic in nature. The study estimated each element using formative, reflective, and structural modelling. The Fornell and Larcker (1981) criterion was used to determine the model validity. The discriminant validity criterion is a powerful and widely used measure employed in research studies. Discriminant validity is the extent to which a construct is empirically distinct from the other constructs; it also analyzes the correlation among the concepts (Hair, Sarstedt, Hopkins, & G. Kuppelwieser, 2014) and whether these concepts possess the potential to overlap.

Table 2: Discriminant Validity

	CR	EA	EOR	PK	SN
CR	0.929				
EA	0.915	0.911			
EOR	0.730	0.686	0.923		
PK	0.695	0.649	0.921	0.888	
SN	0.907	0.883	0.675	0.691	0.901

Thus, the square roots of AVE (average variance extracted) were also compared against the correlations of latent variables in order to assess the Fornell and Larcker (1981) criterion. For each variable, this square root of AVE must exhibit a value greater than the correlation it has with the other latent constructs (Hair et al., 2014). The value for AVE square root was as required and was in line with the criterion; therefore, illustrating the discriminant validity. The outer and cross loadings for the current study were found to be same. The cross-loadings determine the presence of any correlation between the items of the constructs. Table 2 presents the discriminant validity between the variables and the constructs. The reliability

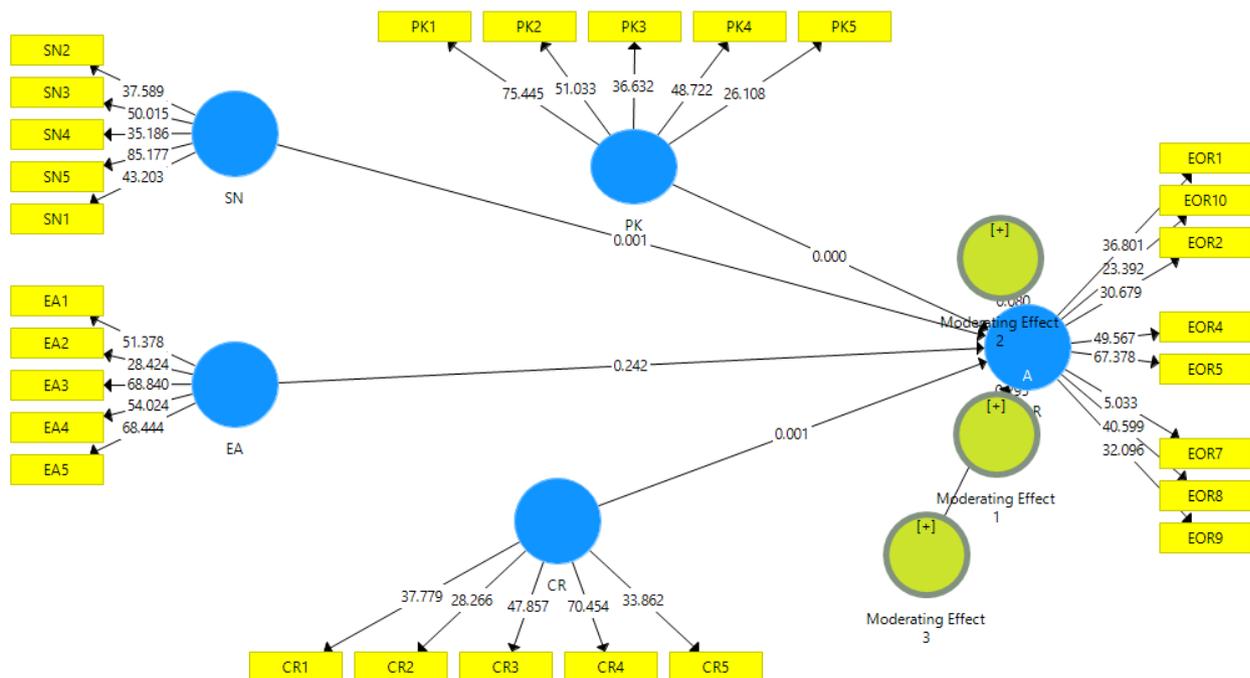
index, or the internal consistency value, must also be above 0.70 to confirm the model's reliability.

Table 3: Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	(AVE)
CR	0.926	0.928	0.944	0.773
EA	0.948	0.951	0.960	0.829
EOR	0.926	0.945	0.942	0.677
PK	0.933	0.934	0.949	0.789
SN	0.942	0.945	0.955	0.811

The next step in PLS-SEM is the structural model estimation. This step involves drawing structural paths between the constructs. To represent the structural relationships (hypothesized) between the constructs, only a single-headed arrow was used. The structural model was then analyzed by observing the structural path between the dependent, independent, and moderating constructs. The model also explains the relationship that exists between the latent constructs. Whereas, the measurement model explains the associations between the constructs and their indicating variables (i.e. the outer model). The structural model also determines the direct, as well as indirect effects, of the involved variables. Figure 1 shows the structural model of this study.

Figure 1. Structural model



Next, the study estimated the level of moderation to determine any indirect effects. To assess the relationship significance, bootstrapping analysis was carried out with 1000 sample observations. The p-value was significant at 5%. All hypotheses displayed significant results at the 5% level of significance, therefore demonstrating the acceptance of all hypotheses, except for H3. In addition, the study found that there was a moderating role of customer response in the relationship between external supply chain performance and agile supply chain, as presented in Table 4. Moderation results revealed significant values for t ($t > 1.96$) and p ($p < 0.05$), thus all hypotheses were accepted.

Table 4: Structural results

	(O)	(M)	(STDEV)	(O/STDEV)	P Values
CR -> EOR	0.324	0.313	0.109	3.981	0.003
EA -> EOR	0.075	0.085	0.107	0.702	0.242
Moderating Effect 1 -> EOR	0.066	0.052	0.121	3.547	0.000
Moderating Effect 2 -> EOR	0.104	0.103	0.136	3.763	0.000
Moderating Effect 3 -> EOR	0.153	-0.137	0.106	3.438	0.000
PK -> EOR	0.831	0.818	0.054	3.461	0.000
SN -> EOR	0.265	-0.250	0.083	3.178	0.001

Finally, the predictive power of the variables was observed by estimating the coefficient of determination (R^2). The R^2 for this research is 52%, which is a moderate level and indicates that 52 percent of variation in the dependent variable is explained by the independent variables. The range of R^2 is 0-1, where 0 represent no predictive accuracy and 1 represents greater or substantial predictive power.

Table 5: R-square

	R Square
EOR	0.874

Discussion and Conclusion

A theoretical implication of this study is that it provides additional empirical evidence and support to the theory which was examined. The theoretical value of this study is that it establishes the relevance of the resource-based view in the context of entrepreneurs' opportunity recognition ability. In line with Barney (1991), the concept of resources includes all assets, capabilities, organizational processes, firm attributes, information, and knowledge controlled by a firm that enables the firm to conceive and implement strategies which improve its efficiency and effectiveness (Muda & Wahyuni, 2019; Ombi, Ambad, & Bujang,

2018). In the context of this study, SN, EA, C, PKPC and PKBO are regarded as a firm's resources.

Secondly, this research provided empirical support for the resource-based view (RBV) in the context of individual performance. Researchers have indicated that resource-based theory highlights the importance of human resources (entrepreneurs), as reflected in competencies and capabilities, to the performance of the firm (Granabeter, 2017). Noticeably, most of the existing empirical evidence is focused on the performance of the firm as the dependent variable of a study. Unlike previous research, the current study examined the performance of the individual entrepreneur with the belief that the performance of the entrepreneur actually represents the performance of the firm. The study further supports the notion that individuals, like firms, develop different types of capabilities. The current study has introduced entrepreneurial opportunity recognition (EOR) as a way to operationalize and measure entrepreneur performance. Successful performance of entrepreneurs, in terms of EOR, can be achieved through the use of different types of resources which are intangible in nature, and which thus satisfy the criteria of VRIN resources.

Third, as far as the researcher is aware, there has been very little research conducted on the topic of entrepreneurial opportunity recognition. Thus, this study broadens the base of knowledge examining entrepreneurial opportunity recognition. Fourth, a sustainable, competitive advantage can be obtained and maintained if firms are able to sustain their non-imitable and non-substitutable resources (Akio, 2005). This can be achieved through intangible resources which is consistent with the variables examined in the current study. This kind of competitive advantage, termed 'economic rents' by Barney (2001) mirrors the creative and entrepreneurial ability of firms to discover how to generate value with their resources in ways that other firms and outsiders cannot anticipate. Similarly, this indicates that the abilities of the entrepreneurs lie in discovering how to generate real economic value with their resources in ways that others cannot anticipate.

Fifth, the research succeeded in revealing the relationship between entrepreneurs' social network, entrepreneurial alertness, creativity level, and entrepreneurial opportunity recognition. The research also revealed a new conceptual model that embraces prior knowledge (PKPC and PKBO).

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