

# **Conceptualizing Entrepreneurial Competencies (Ec) and Entrepreneurial Orientation (Eo) Of Women-Owned Smes Performance**

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## **Abstract**

Towards the vision that is bringing Malaysia as a developed country in the year 2020, the Malaysian government taking incentive by a continuous encouragement to entrepreneurs by increasing incentive programme and intervention strategies in various sectors to obliterate the poverty while fostering the high growth towards GDP. By increasing the number of women entrepreneurs which is one of the current government initiatives, this will help Malaysia to fulfill its vision of becoming a well-developed country with an economy that is fully competitive and prosperity. Recently, many researchers had conducted studies on relationships between Entrepreneurial Competencies (EC) and Entrepreneurial Orientation (EO) towards women-owned SMEs business performance and overlooked the measurement of ranking which is the most important factor or effective criteria that contribute to their performance and this is the crucial gap to be studied. Thus, this conceptual paper aims to evaluate the effective criteria that contribute most towards women-owned SMEs by using Analytical Hierarchy Process (AHP) method. This study will contribute to the existing body of knowledge in the area of women entrepreneurs' study and entrepreneurship literature towards improving overall business performance. The theoretical contributions and practical implications will contribute to the better findings for women owners/managers of SMEs and women entrepreneurial development in this country.

**Keywords:** Entrepreneurial competencies, entrepreneurial orientation, women-owned SMEs, Analytical Hierarchy Process

## **1.0 Introduction**

Since late 1990s, Small and Medium Enterprise (SMEs) have played the vital role in increasing the economies Malaysia (Chin & Lim, 2018) and it also an agents for economic growth, creating the job opportunities and supporting an innovation (Haider, Asad, & Fatima,

**Published/ publié in *Res Militaris* (resmilitaris.net), vol.13, n°1, Winter Spring 2023**

2017). According to the Economic Census 2016 by Department of Statistics Malaysia (DOSM) (2017), SMEs constitute 98.5% or 907,065 of business establishments in Malaysia and 20.6% of them are wholly owned by women entrepreneurs with annual growth rate 8% (DOSM, 2017). Despite of this phenomena realize that entrepreneurship being explored by male, but previous studies emphasized on the emergence of women entrepreneur and their contribution who have contributed to economy and social well-being (Sucheta Agarwal, 2018; Lenka & Agarwal, 2017; Yadav & Unni, 2016). Day by day, the participation of women entrepreneurs has significantly increase over the world (Sucheta Agarwal, 2018), and have been nominated as the new engines for economic development and bring prosperity and welfare especially in developing nations.

According to Teoh & Chong, (2007), women-owned SMEs in Malaysia underperformed are most probably due to lack of intangible resources: different behaviour or characteristics of women entrepreneurs compared to their male counterparts. It is because women nowadays face many socio-cultural, legal, lack of management training, access to market and economic barriers that will slow down the business performance of women businesses (Nasip et al., 2017). Despite of the growing number of women entrepreneurs, Entrepreneurial Competencies (EC) is, of course the key contributing factor when it comes to firm performance, however other important factors related to human capabilities are worth to be investigated as well (Wang, Dou, Zhu, & Zhou, 2015). As revealed by Chimucheka (2018), EC is crucial for the success of an enterprise and various training programs have been composed with mostly focused on the improving the level of competencies among the smaller business or micro-entrepreneurs in the endeavor to elevate the level of competitive advantage and performance of enterprise (Ramadani, et al., 2013; Chimucheka, 2018).

Apart of EC, the other criteria which will be focused in this study is entrepreneurial orientation (EO). According to Ali Yassin, (2013), EO topic has fascinated increasing interest, but the most studies was conducted among men businesses and EO also one of the criteria that affected the firms growth (Eggers, Kraus, Hughes, Laraway, & Snyckerski, 2013). As stated by Arshad, Rasli, Arshad, & Zain, (2014), EO plays as instrumental to the success of entrepreneurs not only to the company's growth but it is important to the economic growth (Arshad et al., 2014). Therefore, the previous studies revealed that, the combination of EC and EO is one of the strategic towards the firm's performance (Wickramaratne et al., 2014; As Ibidunni et al., 2018).

To summarize, generally previous studies had been conducted to look at the relationships between EC and EO itself towards women-owned SMEs business performance or firm growth by using SPSS (Mitchelmore & Rowley, 2013; Ali Yassin Sheikh Ali, 2014; Almubarak, 2016; Rashid, 2017). However, the results of the studies only proved the significance of the relationships and overlooked the measurement of ranking of the most important factors or effective criteria that contribute to their performance that is crucial to be studied on. Thus, this study tends to measure the index of accessibility to women-owned SMEs performance through several criterias by using AHP.

## **2.0 Literature Review**

### **2.1 Women-owned SMEs**

In this study, women-owned SMEs is defined as a female who is an owner-manager of a business (Mckay, 2001; Subramaniam, P., & Islam, 2014), or a woman or group of women, who initiate, organize and operate a business enterprise (Suganthi, 2009; Thayammal, 2011). According to Bakar et al., (2015), owner-managers become the subject because they are key informants of business and usually they are involved in the overall running of the firms.

## ***2.2 Entrepreneurial Competencies***

Entrepreneurial competency is defined as the individual characteristics (Kaur A., 2013), that underlying possess by a person which result in new ventures creation, survival, and growth with primary characteristics such as basic and specific knowledge, motivates, traits, self-image, roles and skills (Bird, 1995). According to Man et al., (2002), entrepreneurial competency well-defined as the entire capability of the entrepreneur to execute the job role fruitfully consist in six major areas which namely as opportunity, organizing, strategic, relationship, commitment and conceptual competencies.

### ***2.2.1 Opportunity Recognition Competency***

Opportunity recognition is defined as an entrepreneur's ability to identify and select the right business opportunities (Man & Lau, 2000; Santandreu-Mascarell, Garzon, & Knorr, 2013; Mamun et al., 2019) that will capture the identification of what customers' need (Kaur A., 2013).

### ***2.2.2 Relationship Competency***

Relationship competencies have a link with person to person or individual to group based interactions, and it will build the co-operation and trust as well as using the connection, persuasive ability, communication, and interpersonal skill (Man & Lau, 2000 ; Zainol, 2018).

### ***2.2.3 Conceptual Competency***

Conceptual competency are refer to the conceptual abilities which are reflected in the behavior of the entrepreneurs in making decision for market opportunities and understanding the complex information to improve the businesses by using alternative solution (Man & Lau, 2000 ; Mamun et al., 2019)

### ***2.2.4 Organizing Competency***

Organizing competency involves the organization of internal and external resources such as budget, materials, human resources, work schedule, and programmes (Snell, Lau, Snell, & Lau, 1994; Man et al., 2002; Kaur A., 2013; Mamun et al., 2019) through team-building, managing employees, training, and controlling for better performance (Man & Lau, 2000; Bae & Rowley, 2004).

### ***2.2.5 Strategic Competency***

Strategic competency involves an entrepreneur's ability to develop a business vision in mind, which is consistent with the literature of entrepreneurial competency (Snell et al., 1994; Thompson et al., 1996; Mamun et al., 2019) by setting, evaluating and implementing the strategies of the firm (Man et al., 2002).

### ***2.2.6 Commitment Competency***

Commitment competency refers to the driver of an entrepreneur to continue business (Mamun et al., 2019), who strive to achieve a long-term goal with strong devotion (Man & Lau, 2000), and also will define as an effort or hard work that required by entrepreneurs to manage their business (Sambasivan, et al., 2010).

## ***2.3 Entrepreneurial Orientation***

Entrepreneurial orientation will define as a firm-level strategic orientation which captures an organization's strategy-making practices, managerial philosophies, and firm behaviors that are entrepreneurial in nature (Doris, 2016). As indicated by Green, Covin, & Slevin, (2008), entrepreneurial orientation is building a strategic domain concepts including the specific firm level outcomes and priorities related to management, beliefs and behaviors that expressed between senior managers of a firm (Green, Covin & Slevin, 2008) and EO

determines as a specific strategic decisions and resource allocations in organizations (Edmon & Wiklund 2010). Thus, EO were recognized by three-dimension conceptualization, namely as innovativeness, proactiveness and risk taking (Miller, 1983).

### **2.3.1 Risk Taking**

The last dimension concept under EO is risk taking which known as a tendency to take bold actions such as venturing into unknown new markets, committing a large portion of resources to ventures with uncertain outcomes, and/or borrowing heavily (Dess & Lumpkin, 2001).

### **2.3.2 Innovativeness**

The concept of innovativeness will describe a willingness to support creativity and experimentation in introducing new products/services, and novelty, technological leadership and research development (R&D) in developing new process (Dess & Lumpkin, 2001).

### **2.3.3 Proactiveness**

Proactiveness is the pursuit of opportunities and competitive rivalry in anticipation of future demand by involving introducing new products or services to create change and shape the business environment (Dess & Lumpkin, 2001).

## **2.4 Definition of Concept Multi Criteria Decision Making**

Multi-criteria decision making is to emphasis on the finding of group in decision making; determining the objectives or goals and criteria; estimating the weighted relative importance; and assessing the contributions of each option for each criteria (DCLG, 2009).

### **2.4.1 Analytic Hierarchy Process (AHP)**

AHP is one of the MCDM techniques which is simple decision making tools to deal with complex, unstructured and multi-attributed problems which are established by (Saaty, 1980; Esra Albayrak, 2004) and it widely used by decision maker and researcher (Russo & Camanho, 2015).

## **3.0 Methodology**

Research methodology including statistical procedure with a description of survey instruments, data collection method and targeted population with their brief introduction to this research. This study will be designed specifically to look at the raking of the critical criteria consists of entrepreneurial competencies (EC) and entrepreneurial orientation (EO), particularly among women-owned SMEs in Malaysia. In detail, the criteria of entrepreneurial competencies have six dimensions namely as opportunity recognition, relationship competency, conceptual competency, organizing competency, strategic competency and commitment competency. Besides, the criteria of EO consists three dimension namely as innovativeness, proactiveness and risk taking.

Moreover, data collection methods in this study using quantitative method. According to Apuke (2017), quantitative research methods area describing an issue or phenomenon through collecting and converting data into numerical. The motivate behind the selection of this methodology is the identification, evaluation and prioritization of identified criteria for successful women-owned SMEs in Johor. The decision makers include experts who act as the owner-managers of the firms in Johor. In this research, 11 criterias (quantitative and qualitative) were recognized through previous literature and expert discussions. This study utilizes Analytical Hierarchy Process to rank and evaluate the identified specific critical criteria of women-owned SMEs in Johor.

Then, the unit of analysis involved a firm or organization that will be represented by top management of the firm as owner or manager. Therefore, women owners and managers who are involved in running the organizations will be selected as respondents. According to Brush and Vanderwerf, (1992), was suggested that business owners or top executives in small entrepreneurial firms often represented by owner/general manager of small firms were intimately linked with the data achieved. According to Department of Statistics Malaysia 2016, the total women-owned SMEs in Malaysia is 186,930. Number of firm in Johor 15,943. Population consists of large number of units and it is hard to analysis for the entire population for the research, thus sampling technique will be applied. Sampling is a subset of entire population which are used to make inference about the population (Taherdoost, 2016). The sample size for this research is selected based on the table develop by (Krejcie & Morgan, 1970). The sample size is important to establish the representativeness of sample generalizability and increasing demand for research has established the need for efficient methods to determine the size of the sample needed to represent a particular population. Besides, the appropriate size is crucial to calculate (Krejcie & Morgan, 1970).

According to A.Yaya, (2014), data collection instrument refer to the instrument used to gather data from respondents in order to answer the research questions and it is important for collecting data in all types of research method. In this research study, online and face-to face survey questionnaires will be used as an instrument to collect necessary data. The questionnaires will be constructed based on the related previous studies and literature review. In this study, the questionnaire will be divided into four sections; namely section A, B, C and D. Section A shall begin with the demographic information of the respondent, whereas the section B is on the respondents' company information. The next section, section C, is on the EC followed by EO in section D.

Section	Variable and Dimension	Total Questions
A	Demographic Information	9
B	Company Information	6
	Entrepreneurial Competencies (EC)	
	● Opportunity Recognition Competency	4
	● Relationship Competency	6
C	● Conceptual Competency	7
	● Organizing Competency	10
	● Strategic Competency	9
	● Commitment Competency	4
	Entrepreneurial Orientation (EO)	
D	● Risk Taking	3
	● Innovativeness	3
	● Proactiveness	3
<b>Total</b>		<b>64</b>

**Sources:** Covin and Slevin, (1986), Man and Lau, (2000) Note : Intensity of importance on an absolute scale (1-9)

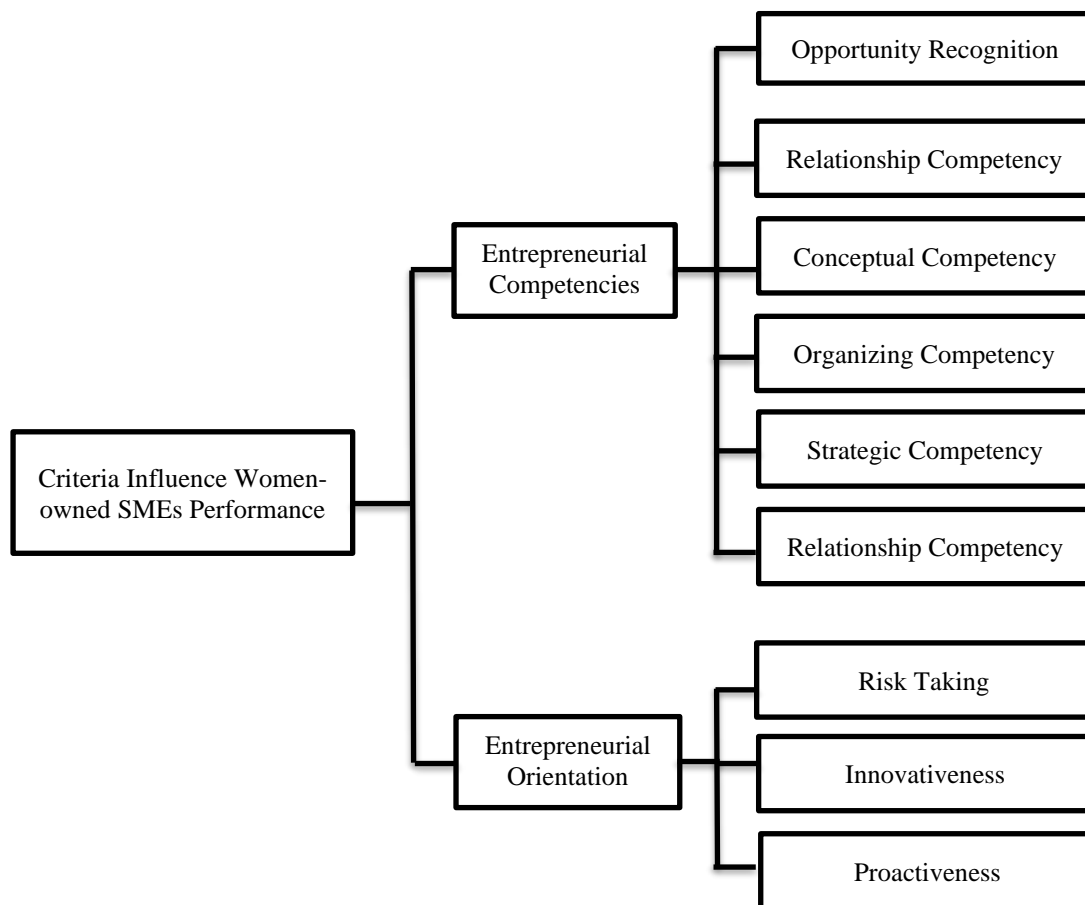
In this study, the respondents will be required to answer the questionnaire develops based on the scale range from one to nine where one represents equal importance and nine represents an extreme level of important. Besides, the questionnaires will be developed in two languages namely English and Bahasa Malaysia. The respondents will be able to choose and understand better the questionnaire which is easier to them to answers. By developing both languages will avoid misunderstanding and misinterpretation for respondents' answers.

**3.4 Data Analysis Tools**

The objective of this study is to evaluate the effective criteria that influence women-owned SMEs performance. The criteria or data obtained will be analyzed using AHP method. AHP is a simple decision making tools to deal with complex, unstructured and multi-attributed problems which are established by (Saaty, 1980; Esra Albayrak, 2004). Rather than AHP also will prescribing an accurate decision, and helps the decision makers find the one that best suits their needs and their understanding of the problem (Yang & Li, 2010).

There are several steps in developing AHP process. Firstly, construct the problem in a hierarchical model by creating numerous levels of Issues-Categories-Parameter to attain the preferred aim. Secondly, differentiate every criterion on one-to-one basis at all level on 1-9 scale as proposed by Saaty. After that, carry out the calculations to find maximum Eigen vale, Consistency Index (CI) and Consistency Ratio (CR) and finally aggregated value of weights by Geometric Mean Method or via Arithmetic Mean Method (AMM). If CR=0.10, then the results are considered as consistent, in any other case procedure is to be repeated till the desire CR value is achieved (Taherdoost, 2017).

Step 1: For the first stage, the problem is decomposed into a hierarchy of goal, criteria, sub-criteria and alternatives elements. This stage is the most important part of decision-making. Structuring the decision problem as a hierarchy is fundamental to the process of the analytic hierarchy process. The hierarchy structure of the criteria that influence women-owned SMEs in Johor is shown in Figure 3



**Figure 3: AHP-based hierarchical structures**

Step 2: In the second step, construct a set of pairwise comparison matrices. According to Taherdoost, (2017), a questionnaire should developed and distributed to appropriate respondents based on studies in order to conduct the pair comparison.

**Table 3.1:** *The fundamental scale of absolute value (Saaty 1987)*

Intensity of importance on an absolute scale	Definition	Explanation
1	Equal importance	Two activities contribute equally the objective
3	Moderate importance of one over another	Experience and judgement strongly favour one activity over another
5	Essential or strong importance	Experience and judgement strongly favour one activity over another
7	Very strong importance	An activity is strongly favoured and its dominance demonstrated in practice
9	Extreme importance	The evidence favouring one activity over another os of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgements If activity i has one of the above numbers assigned to it when compared with activity j. Then, j has the reciprocal value when compared with i.	When compromise is needed
Reciprocals		
Rationals	Ration arising from the scale	If consistency were to be forced by obtaining n numerical values to span the matrix

Let  $C = \{C_j \mid j = 1, 2, \dots, n\}$  be the set of criteria. The result of the pairwise comparison on n criteria can be summarized in an  $(n \times n)$  evaluation matrix A in which every element  $a_{ij}$  ( $i, j = 1, 2, \dots, n$ ) is the quotient of weights of the criteria (Görener, Toker, & Uluçay, 2012). The equation (3.1) can be shown by a square and reciprocal matrix.

$$A = (a_{ij})_{n \times n} = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ a_{n1} & a_{n2} & \cdot & a_{nn} \end{bmatrix} \quad (3.1)$$

Step 3: The next step, each matrix is normalized and be found the relative weights. The relative weights are given by the right eigenvector corresponding to the largest eigenvalue( $\lambda_{max}$ )(Görener et al., 2012). The equation (3.2) showed of each matrix that needs to be normalized.

$$Aw = \lambda_{max} X W \quad (3.2)$$

Step 4: Saaty, (1977) was established that is necessary and sufficient for consistency. Inconsistency may arise when  $\lambda_{max}$  deviates from n due to varying responses in the pairwise comparisons. Therefore, the matrix A should be tested for consistency by using the equation of (3.3) and (3.4) below.

$$CI = \frac{(\lambda_{\max} - n)(n-1)}{CR} \quad (3.3)$$

$$\frac{CR}{CR} = CI \quad (2.4)$$

According to Görener et al., (2012), CI is the consistency index while RI is the random index generated for a random matrix of order  $n$  and CR is the consistency ratio. The number 0.1 is the accepted upper limit for CR. Therefore, if the final consistency ratio is lower than 0.1, the verifies results of comparison are acceptable otherwise the evaluation procedure has to be repeated to improve the consistency (Taherdoost, 2017).

## 5.0 Conclusion, Limitation and Future Study

The limitation is focus of the paper on women SMEs or entrepreneurship. This research proportion stressed of the ranking of EC and EO among women-owned SMEs performance by using AHP method. This research propositions stated in this paper should be hierarchical to see which criteria will influence women-owned SMEs performance. Data analysis using AHP may help managers to do away with the issue of human subjectively in evaluating and studying the most effective criteria that influence women-owned SMEs performance. In this study, we have used AHP method for prioritizing the most effective criteria of women-owned SMEs performance in Johor states. All pair evaluations in AHP will be suggested and standardized by expert. From the knowledge sources and expert ideas in detail, various criteria will be pin-pointed and ranked accordingly. Naturally opinions of critics and decision makers may be subjective and may vary from that of ours. Last but not least, the future study should focus on survey based quantitative research for the selection and classification of criteria using factor analysis. Future studies could also consider the opinion of other stakeholders to identify more holistic criteria or factors.

Finally, the purpose of this study is to identify the criteria of women-owned SMEs performance which EC and EO by using AHP method. This study is important for women entrepreneurs as their guideline for them in order to improve their skills, knowledge and entrepreneurial elements for making their business more successful. The revelations of this research broaden and deepen in this study contribute to the existing body of knowledge in women entrepreneurs' study and entrepreneurship literature towards improving overall business performance. The theoretical contributions and practical implications will contribute to the better findings for women owners/managers of SMEs and women entrepreneurial development in this country. Finally, it is further hoped that better results will help boost the growth of women-owned SMEs, which are crucial to the development of the economy.

## Acknowledgement

With the humble thanks to the Ministry of Higher Education for the fundamental research grant scheme for giving financial support to carry out this research and also thanks to the Faculty of Technology and Business Management Universiti Tun Hussein Onn Malaysia (FPTP-UTHM) for encouraging the current research, also all the assistance and guidance provided by professors to accomplish all the requirements of Master's Degree.

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