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HUMAN CAPITAL AND ENTREPRENEURIAL COMPETENCIES TOWARDS PERFORMANCE OF INFORMAL MICROENTERPRISES IN KELANTAN, MALAYSIA

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ABSTRACT. Microenterprise is essential for strengthening the economies in developing countries through job creation, skills' development, self-esteem, and knowledge. This study intended to measure the effect of human capital on entrepreneurial competencies and the effect of entrepreneurial competencies on the performance of informal microenterprises owned and managed by women-microentrepreneurs in Kelantan, Malaysia. This study has employed a cross-sectional design and collected quantitative data from 384 informal women-entrepreneurs in Kelantan, Malaysia. The result indicated that human capital and entrepreneurial competencies had a significant positive effect on women microenterprises' performance. Despite the increase in the number of research in this subsector, little attention has been given to the effect of human capital and entrepreneurial competencies on business performance in Malaysia. Therefore, this study aims to examine human capital, entrepreneurial competencies, and business performance among informal microenterprises owned and managed by women in Kelantan, Malaysia. Given that investments in human capital and entrepreneurial competencies improve the performance of informal microenterprises, the government and development organizations should, therefore, focus on entrepreneurship development programs, so that to improve the entrepreneurial competencies among women microentrepreneurs in Kelantan, Malaysia.

JEL Classification: J24, O17

Keywords: informal microenterprise, human capital, entrepreneurial competencies, performance, women entrepreneurship.

Introduction

Microenterprises are considered to be the most dynamic business entities and are also often viewed as the main crucial force behind economic growth and poverty reduction through providing more job opportunities (Heinicke, 2018). According to Zafar and Mustafa (2017), microenterprises can contribute to socioeconomic development by increasing

households' income; i.e., increasing welfare, building self-confidence, bringing social and political stability, and conveying changes in the distribution of income and demographic situation. Furthermore, formal SMEs contribute up to 60% of the total employment and up to 40% of national income (GDP) in emerging economies respectively. These numbers are significantly higher when informal SMEs are taken into account (Abdul Razak, Abdullah & Ersoy, 2018). Undeniably, the informal sector has been considered by the poor in developing countries as the life-saving solution to employment and poverty problems (Kim, ElTarabishy and Bae, 2018). Moreover, informal business sector is able to intensify creativity and boost innovations (Burcharth, Paest Knudsen & Sondergaard, 2017); and finally, it increases total production (Lucas & Fuller, 2017). Hence, microenterprises are important for overcoming the challenges of high unemployment rates, high poverty rates and income inequalities. At the same time, small businesses global wide often suffer from weak performance and high failure rates (Machirori & Fatoki, 2013). In many developing countries growing unemployment rates have caused substantial increase in poverty rates. Under such circumstances, the poor people are forced to take up informal employment to survive.

There is an obvious lack of understanding of how microenterprises can survive with their capabilities and their firm performance (Parida et al., 2016). Entrepreneurial competence 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 et al., 2015).

Informal Economy and Women Micro-Enterprise

Microenterprises are small in terms of size, which are measured by investment, employment or total assets of the business. These enterprises have the flexibility to startup and close down a business easily. According to the micro, small and medium enterprises (MSMEs) country indicators of 2010, 89 million out of 125 million MSMEs are located in emerging countries. If the informal enterprises are included, the number of MSMEs is higher than the majority of the microenterprises in most of the emerging countries. As mentioned by some researchers (Tambunan, 2009), women in the Association of Southeast Asian Nations (ASEAN) region are encouraged to join the micro-enterprise sector. Abor and Quartey (2010) stated that an increase in business activities by women entrepreneurs is expected to contribute to the growth of enterprises, employment, production, Gross Domestic Profit (GDP and overall socioeconomic wellbeing. However, insufficient entrepreneurship resources in terms of capital, workers, and technology have slowed down the economic in most ASEAN countries (Tambunan, 2009).

Women entrepreneurs face barriers to entering the formal sector that may force them into the informal sector. Women informal micro-entrepreneurs rely on informal microenterprises to survive and contribute to the economic well being of their families, communities, and countries (Selamat, Abdul-Razak, Gapot, & Sanusi, 2011). In 2005, Malaysian women contributed 89.5% to the services sector, 7.5% to manufacturing, and only 3% to agriculture. A total of 82,911 business establishments were owned by women entrepreneurs (Department of Statistics, 2014). As a matter of fact, 88% of the women-owned businesses in Malaysia are microenterprises (SME Annual Report, 2011). In Indonesia, the government has implemented the National Entrepreneurship Movement, an entrepreneurship program, to increase the number of new entrepreneurs from 1.56% in 2012 to 1.65% in 2013 (Tambunan, 2009).

Undoubtedly, self-employed women have become role models for potential female entrepreneurs (Tundui & Tundui, 2013). Osman, Ho, and Galang (2011) stated that micro-entrepreneurs are users of micro-credit for survival. In Malaysia, the literature of

microenterprises has focused on challenges that have subsequent impact on business performance. In fact, the majority of microenterprises are able to sustain with low productivity. Basically, micro-enterprise provides a business opportunity for low-income individuals to develop relevant talents and skills that are beneficial for improving their financial performance. In relation to this, this study aimed to examine the effect of human capital on entrepreneurial competencies and the effect of entrepreneurial competencies the performance of informal microenterprises own and managed by women entrepreneurs in Kelantan, Malaysia.

Literature Review

Human Capital

The definition of human capital varies according to different researchers. Some researchers have paid particular attention to specific aspects of human capital and its conceptualization. This refers to the importance of this valuable resource in achieving long-term survival and sustainability (Unger, Rauch, Frese, & Rosenbusch, 2011). According to Cooper et al. (1994) and Unger et al. (2011), human capital involves all forms of economic activities and individual aspects such as education, age, gender, management, and technical know-how that strengthen entrepreneurs' networking and problem-solving skill. Furthermore, Ucbasaran, Westhead, Wright, and Flores (2010) considered the entrepreneurship-specific human capital of business opportunities as entrepreneurial capability, parental background, and attitudes. In the light of this, many researchers have confirmed that entrepreneurial experience contributes to the rise in micro-enterprise (Krasniqi et al., 2007). This allows women entrepreneurs to attempt different methods to look for opportunities and resources (Ucbasaran, Westhead & Wright, 2008).

Human capital theory posits that people evaluate the benefits and costs of different activities such as education, training, experience and the formation of habits that can transform themselves and the business completely. Cooper et al. (1994) highlighted that many studies have particularly been done to investigate the human capital of entrepreneurs and its subsequent impact upon their business and entrepreneurial performance. As mentioned by Ucbasaran et al. (2006), an entrepreneur accumulates knowledge and experience in every stage of the entrepreneurial process, which contribute to his or her initial endowment of human capital towards business performance. This situation is expected to enhance customer satisfaction and business performance (Shahabudin, Ashnefi, & Emnet, 2016). Liu, Pang and Kong (2017) provide evidence for the simultaneous effects of brand equity and human capital on firm value.

Human Capital and Entrepreneurial competencies

Entrepreneur who invests significantly in human capital often strives for growth. A group of researchers (Shane & Venkatraman, 2000; Wood & McKinley, 2010) have found that human capital can assist in increasing entrepreneurial competencies that determine business success through the ability to make use of these competencies to discover and exploit opportunities. For instance, prior knowledge, perception, identification, and recognition are found to enhance entrepreneurial alertness (Shane, 2000). Therefore, entrepreneurs are more prepared to discover underlying business opportunities (Shane, 2000, 2012; Suddaby, Bruton, & Si, 2014). Undeniably, human capital development can influence the entrepreneurs' business opportunities (Shane, 2000), which have been considered as opportunity recognition competency by Man et al. (2002). Furthermore, human capital encompasses planning and

ventures strategy (Freese, et al. 2000; Unger, Rauch, Freese, & Rosenbusch, 2011), relationship competency (Man & Lau, 2002; Bains, 2013), and strategic competency. In relationship competency, productivity increases when women entrepreneurs are able to operate the business associated with human capital in pursuing potential opportunities to growth, and establishing relationships with customers, suppliers, and investors (Dimov, 2010). These entrepreneurs can attract more customers, negotiate better contracts or agreements with suppliers, and gain more capital from investors, which are important in the market selection process (Jovanic, 1982). They can learn about market conditions effectively in order to adjust capacity and improve business. With stronger human capital, women entrepreneurs are also able to acquire better knowledge about customers, suppliers, products, and services, which help in recognizing new business opportunities (Garud, & Giuliani, 2013). Women entrepreneurs can make a strategic planning according to the business's mission and vision, which help in identifying the main resources in the microenterprises (Man et al. 2000).

Generally, human capital talks about learning associated with the accumulation of new knowledge and skills (Ackerman & Humpreys, 1990). Entrepreneur human capital such as industry experience and general education enables entrepreneurs to achieve venture success by increasing their capabilities to explore and exploit entrepreneurial opportunities. With respect to this study, women entrepreneurs with stronger human capital are able to operate their business efficiently and make better decisions instantly with their knowledge and skills. Thus, human capital can minimize the liability of newness when there is a lack of knowledge, information, and skill (Aldrich & Auster, 1986). Normally, entrepreneurs get new tasks that require their responses and immediate decisions. Women entrepreneurs pose a cognitive challenge in accomplishing their routine business responsibility, problem-solving, and decision-making. For instance, many researchers (Shepherd & DeTienne, 2005; Ucbasaran, Shepherd, Lockett, & Lyon, 2013; Haynie, Shepherd, & Patzelt, 2012) stated that cognitive abilities can develop the entrepreneurs conceptual competency in order to avoid business failure. In a nutshell, human capital helps them in learning and adapting to new tasks and roles (Weick, 1996). Undeniably, women entrepreneurs should understand specific tasks in human capital such as environmental scanning, selecting opportunities, formulating strategies, organizations, management, and leadership (Shane & Venkatraman, 2000). As mentioned by Man and Lau (2000), if women entrepreneurs understand their tasks and responsibilities well, they know how to manage an organization with their full commitment (Man et al. 2000). Clearly, commitment is a strong desire for permanence with a willingness to maintain constant effort in business associated with the microenterprises values and objectives (Mowday et al., 1982).

Micro-Enterprise and Performance

The definition of business performance varies. Based on this foundation, a human capital perspective has been used to predict a variety of entrepreneurial outcomes such as new venture formation, and new venture performance and survival (Dimov, 2017). First and foremost, financial performance can be measured by percentage of sales in terms of new product, profitability, capital, and return on assets (ROA) (Selvarajan et al., 2007). Besides, performance can also be determined by a business's growth in respect with number of employees, profit, turnover, profitability, return on capital employed (ROCE), or return on investment (ROI) (Baum, 1994; Simpson et al., 2012). Problems associated with the measurement of financial performance among microenterprises are well documented (McConaughy, Matthews, & Fialko, 2001; De Mel et al, 2009; Masakure, Henson, & Cranfield, 2009). As stated by Wright et al. (2005), business performance can be measured

based on six dimensions such as worker compensation, quality, shrinkage, productivity, and operating expenses. In addition, Rosa et al. (1996) outlined four dimensions of comparative performance within micro-enterprise. The first dimension is primary performance, which measures the number of employees, growth in employees, sales turnover, and value of capital assets. The second dimension is proxy performance, which emphasizes on geographical range of markets. The third dimension is subjective performance, which focuses on the ability to meet business and domestic needs. The last dimension is entrepreneurial performance, which measures the desire for growth and the ownership of multiple businesses. As noted by Man, Lau, and Chan (2002), four elements of micro-enterprise performance (Box et al., 1995) are previous business management experience, number of previous start-up businesses, age, and scanning intensity. Mead and Liedholm (1998) also highlighted that the three dimensions of micro-enterprise performance are changes in the number of employees, profitability, and contribution to household income.

The determinants of entrepreneurial performance are important to implement appropriate economic policies and form competitiveness in the business (Man et al., 2002). Although performance can be influenced by different factors, it should be measured in terms of the business's success or growth, profitability, and the relative performance (Baum, 1994; Man et al., 2002). In fact, Simpson, Padmore, and Newman (2012) stated that the concept of performance is strongly associated with the success of the entrepreneur. Furthermore, micro-enterprise performance can also be measured by the returns to firm-specific strategies and their implementation cost. These strategies integrate unique resource and competences of the enterprise (Lockett & Thompson, 2001; Hawawini, et al., 2003) to develop competitiveness advantage. Fundamentally, the growth of microenterprises can be measured in terms of employment growth (Mead & Liedholm, 1998; Bigsten & Gebreeyesus, 2007), revenue growth, and profit growth (Fairlie & Robb, 2009). In general, the perception of the entrepreneurs about the enterprise improvement is important. Although the income or employment growth may not be substantial, the success of the entrepreneurs can be determined based on the potential business improvement in future. Undeniably, surviving in the business during a hard time is a success.

Entrepreneurial Competencies

As suggested by Man and Lau (2000), this study focused on six entrepreneurial competencies. They are opportunity recognition, relationship, conceptual, organizing, strategic, and commitment. These competencies show different performance effects to identify the relationship between them. These competencies refer to the ability of the entrepreneurs to perform specific roles effectively (Man, Lau, & Chan, 2002; Kaur & Bains, 2013).

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). The entrepreneurial opportunity recognition process can be investigated from personal cognitive frameworks and social context (Hanohov and Baldacchino, 2018). Entrepreneurs discover new methods and solutions after a business problem is identified to avoid failure (Ulhøi, 2005), which can be addressed by adding value (Baum, 1994) and having a feasible decision-making. Therefore, these entrepreneurs are regarded as entrepreneurially strategic in exploring resources and opportunities to generate revenue, which subsequently leading to the human capital development and competitive advantage. As supported by a few groups of researchers (Carter, Brush, Greene, Gatewood & Hart, 2003; Shane, 2000, Shepherd and De Tienne, 2005; Onetti, Zucchella, Jones, & McDougall, 2012), human capital can determine the quality of an

entrepreneur. After recognizing opportunity, human capital development is expected to contribute to both entrepreneurial and business performance. In this study, the informal women microenterprises looked for the opportunity to operate in the sector for improving business performance. Based on the arguments above, human capital is suggested to have a positive relationship with opportunity recognition competency (Williams, & Youssef, 2013; Harshana & Verena, 2014). Therefore, this study proposed:

Hypothesis 1: Human capital has a positive effect on opportunity recognition competency among women micro-entrepreneurs in Malaysia.

Hypothesis 2: Opportunity recognition competency is expected to enhance the performance of informal microenterprises owned and managed by women micro-entrepreneurs in Malaysia.

Relationship competency: Relationship competency involves person-to-person-based interactions or individual-to-group-based interactions. It talks about building the co-operation and trust as well as using the connection, persuasive ability, communication, and interpersonal skill (Man & Lau, 2000). To succeed in relationship competency, Kaur and Bains (2013) stated that entrepreneurs have to rely on good interpersonal and communication skills, their ability to influence others, and gain support. Thus communication is a critical aspect of day-to-day functioning that enables a firm to build social capital, foster identification with the firm, and develop the goodwill required to create a sense of community around common values and goals (Marett, Marler and Marett, 2018). As a matter of fact, human capital is a process of developing a strategy & support the business through problem solving, value adding, heterogeneity of the product, and quality of the product (Baum, 1994; Unger et al., 2011). This can be accomplished when they have the capability of working with others, and manage relationships with employees, business partners, family members, friends, and customers. As a result, the entrepreneurs have the opportunity to strengthen their business using the necessary resources and skills (Man & Lau, 2000). Moreover, they should establish a strong rapport with their suppliers in order to get benefits in terms of credit, discount, and affordable price for raw materials. Most importantly, earning trust from customers and suppliers a significant element of the relationship competency in business (Man & Lau, 2000).

Relationship competency can be built through entrepreneur human capital development. Human capital talks about an entrepreneur's capacity to perform with relevant skills, education, experiences, values, and innovativeness. This aspect becomes the main concern for customers and suppliers. In other words, when the entrepreneurs are competent, they develop their human capital to reduce business failure. Then, the fruitful relationships they maintain in the business are likely to become more sustainable. Therefore, the following hypotheses are proposed.

Hypothesis 3: Human capital development has a positive relationship with relationship competency among women micro-entrepreneurs in Malaysia.

Hypothesis 4: Relationship competency is expected to enhance the performance of informal microenterprises owned and managed by women micro-entrepreneurs in Malaysia.

Conceptual competency: Conceptual competency are those conceptual abilities reflected in the behavior of the entrepreneurs. For instance, making decisions for market opportunities and understanding the complex information for enterprise improvement (Man & Lau, 2000). The entrepreneurs can perceive the market environment or business operation, and solve the problems using an alternative solution. This concept is associated with the risk, which can be identified from a new market through sourcing and build new capabilities (Man & Lau, 2000; Kraus, Rigtering, Hughes & Hosman, 2012). In addition, conceptual competency involves an entrepreneurial requirement for analytical competency when solving

complicated situations (Man & Lau, 2000). As noted by Unger et al. (2011), human capital can increase an entrepreneur's problem-solving ability in any complex situation towards decision-making. Past studies have indicated that high quality of human capital can improve conceptual competency with their cognitive abilities (i.e. problem solving, decision-making, thinking analytically, innovation, creativity, and the ability to reduce risks). Thus, two hypotheses are developed as follows.

Hypothesis 5: Human capital development has a positive effect on conceptual competency among women micro-entrepreneurs in Malaysia.

Hypothesis 6: Conceptual competency is expected to enhance the performance of informal microenterprises owned and managed by women micro-entrepreneurs in Malaysia.

Organizing competency: Organizing competency involves the organization of internal and external resources through team-building, managing employees, training, and controlling for better performance (Man & Lau, 2000; Bae & Rowley, 2004). The a successful entrepreneur should be responsible for making judgmental decisions that influence different aspects of the business (Hebert & Link, 1989; Zahra & Nambisan, 2012). Thus, entrepreneurs should have the ability to manage internal and external resources such as budget, materials, human resources, work schedules, and programmes (Snell & Lau, 1994; Man et al., 2002; Kaur & Bains, 2013). Managing its knowledge has become increasingly important as effective use of knowledge assets and resources enables innovation and organizational success (Scuotto et al., 2017; Shih & Tsai, 2016). According to Panda (2002), entrepreneurs have to organize a large proportion of fixed capital and arrange their working capital requirement. Specifically, informal entrepreneurs require organizing competency to manage themselves and identify their potential skills. They are individuals who are important to the performance. In a nutshell, human capital can determine the quality of an entrepreneur (Shane, 2000; Shepherd & De Tienne, 2005; Packham, Jones, Miller, Pickernel, & Thomas, 2010) in terms of organizing and attracting customers (Wirtz, Chew, & Lovelock, 2012). Undoubtedly, human capital plays a crucial role in enhancing informal micro-enterprise and achieving sustainable performance with the greatest competitiveness (Guthrie et al., 2002; Agarwala, 2003; Unger et al., 2011). Based on the theoretical arguments above, human capital is predicted to have a positive impact on organizing competency. Then, organizing competency has a positive relationship with business success and outcome (Unger et al., 2011). Therefore, the following hypotheses are proposed.

Hypothesis 7: Human capital development has a positive effect on organizing competency among women micro-entrepreneurs in Malaysia.

Hypothesis 8: Organizing competency is expected to enhance the performance of informal microenterprises owned and managed by women micro-entrepreneurs in Malaysia.

Strategic competency: Strategic competency involve an entrepreneur's ability to develop a business vision in mind, which is consistent with the literature of entrepreneurial competency (Baum, 1994; Snell & Lau, 1994; Thompson, Stuart, & Lindsay, 1996). Entrepreneurs have to develop a vision by formulating and implementing strategies, setting clear goals and standards, forecasting financial aspects to implement a business strategy, and conceptualizing ideas (Kaur & Bains, 2013; Man & Lau, 2000). Arbussa et al., 2017, contented that micro-enterprise act in networks to enhance their resources and to be able to respond to changing demand, and even though they tend to adopt a flexible and informal strategy. In addition, they have the ability to plan and implement tactics and strategies in order to influence customers or competitors (Parkman, Holloway, & Sebastiao, 2012). To develop a long-term business vision, entrepreneurs should fulfill personal expectations, take

responsibility for the business vision for the community. Entrepreneurs with the capability to process business information strategically tend to be proactive in creating their own destiny. They also consider other factors of the environment towards the business performance (Simsek & Heavey, 2011; Achtenhagen, Melin, & Naldi, 2013). As stated by a group of scholars (Becker, Huselid, and Ulrich, 2001; Brush and Ruse, 2005), strategic competency allows entrepreneurs to plan far-reaching goals that achieve the business mission and vision. Next, they provide a solid framework for identifying resources in terms of equipment, capital, and personnel. The strategic plan is a set of decisions the entrepreneurs have to make to be successful. This plan allows them to create processes that make a business more adaptable. A study conducted by Hayton (2003) proved a positive relationship between human capital and strategic competency. Therefore, the following hypotheses are developed.

Hypothesis 9: Human capital development has a positive effect on on strategic competency among women micro-entrepreneurs in Malaysia.

Hypothesis 10: Strategic competency is expected to enhance the performance of informal microenterprises owned and managed by women micro-entrepreneurs in Malaysia.

Commitment competency: Commitment competency refers to the driver of an entrepreneur to continue business. Entrepreneurs who strive to achieve a long-term goal with strong devotion (Man & Lau, 2000) are likely to take initiatives and possess entrepreneurial attitudes (Schaltegger, Ludeke-Freud, & Hansen, 2012; Achtenhagen, Melin, & Naldi, 2013). Entrepreneurial commitment represents another goal orientation, such that multiple goals of identifying opportunities, uncovering new value or developing new business (Rajabi, Brashear-Alejandro & Chelariu, 2018). These entrepreneurs are discovered to have commitment competency (Mitchelmore & Rowley, 2010). Undeniably, determined effort and hard work are required by entrepreneurs to manage their business (Sambasivan, Lim, Rose, & Abdul, 2010). Most entrepreneurs have to overcome insurmountable business barriers. They have to demonstrate a strong motivation to compete and see their business comes to fruition. At the same time, they also make effort to ensure that a person is satisfied with their products or services. Although entrepreneurs make personal sacrifices, they make sure that their work does not interfere with family life (Kozan, Oksoy, & Ozsoy, 2012). Usually, these entrepreneurs are energetic and work long hours to achieve an optimum level of performance. According to Zimmerer and Scarborough (2008), high commitment is considered the most exhibited characteristics of an entrepreneur. From a social perspective of human capital development, different features such as intrinsic abilities, knowledge, and skills are accumulated in an individual's lifetime (Boden & Nucci, 2000). Subsequently, commitment competency generate additional values to human capital and business performance. Moreover, previous findings have proven the incorporation of human capital with better business performance (Ganotakis, 2012; Martin, McNally, & Kay, 2013) and commitment competency (Rastogi, 2000; Wiklund & Shepherd, 2003). Based on the discussion above, both human capital development and commitment competency are predicted to have a significant relationship with business performance. Thus, two hypotheses are developed as follows.

Hypothesis 11: Human capital development has a positive effect on commitment competency among women micro-entrepreneurs in Malaysia.

Hypothesis 12: Commitment competency is expected to enhance the performance of informal microenterprises owned and managed by women micro-entrepreneurs in Malaysia.

Research Methodology

This study adopted a cross-sectional design, which relied on quantitative data collected from women informal micro-entrepreneurs in Kelantan, Malaysia. The population for this study was microenterprises owned and managed by women, operating in an informal sector in Kelantan. These microenterprises were not registered in the Companies Commission of Malaysia (Suruhanjaya Syarikat Malaysia) as they did not have a permanent business premise and location. Instead, the microenterprises were registered in the local municipal council of Kota Bharu, Kelantan, with registration fee between RM20 and RM36 every year, depending on the district council. This study randomly selected six districts in Kelantan; there were Kota Bharu, Tanah Merah, Pasir Puteh, Tumpat, Machang, and Ketereh. The sampling frame of informal women micro-entrepreneurs was obtained from the district municipal office. Then, the data collection team approached the informal women micro-entrepreneurs in some selected 'night markets'. Once the appointments with the respondents were made, the data were collected through structured interview.

Table 1. Survey Instrument

| Code | Questions | Source |
|----------|---|-----------------------------------|
| | <i>Commitment competency</i> | |
| COMM – 1 | I am able to refuse from letting the venture fail whenever appropriate. | Man and Lau, (2000) |
| COMM – 2 | I am able to dedicate to make the venture work whenever possible | |
| COMM – 3 | I am able to keep an extremely strong internal drive | |
| | <i>Conceptual competency</i> | |
| CONC – 1 | I am able to apply ideas to alternative contexts. | Man, Lau and Snape, (2008) |
| CONC – 2 | I am able to integrate issues into more general solution contexts | |
| CONC – 3 | I am able to take reasonable job-related risks. | |
| CONC – 4 | I am able to monitor progress toward objectives in risky actions | |
| | <i>Organizing competency</i> | |
| ORGA – 1 | I am able to plan the operations of the business | Man, Lau and Snape, (2008) |
| ORGA – 2 | I am able to plan the enterprise of different resources | |
| ORGA – 3 | I am able to keep the enterprise run smoothly. | |
| ORGA – 4 | I am able to organize resources | |
| ORGA – 5 | I am able to coordinate my work | |
| | <i>Opportunity recognition competency</i> | |
| OPPO – 1 | I am able to identify goods or services that customers want. | Man, Lau and Snape, (2008) |
| OPPO – 2 | I am able to notice unfulfilled customer needs by others. | |
| OPPO – 3 | I am able to actively look for products or services that provide real benefit to customers. | |
| OPPO – 4 | I am able to grab high-quality business opportunities. | |
| | <i>Relationship competency</i> | |
| RELA – 1 | I am able to develop long-term trusting relationships with other people | Man, Lau and Snape, (2008) |
| RELA – 2 | I am able to easily negotiate with others. | |
| RELA – 3 | I am able to interact with others. | |
| RELA – 4 | I am able to maintain a personal network of work contacts | |
| RELA – 5 | I am able to understand what others mean by their words and actions | |
| | <i>Strategic competency</i> | |
| STRA – 1 | I am able to prioritize work in alignment with business goals. | Man, Lau and Snape, (2008) |
| STRA – 2 | I am able to align current actions with strategic goals. | |
| STRA – 3 | I am able to monitor progress toward the strategic goal. | |
| STRA – 4 | I am able to evaluate results against strategic goals. | |
| STRA – 5 | I am able to determine strategic actions by weighing costs and benefits | |
| | <i>Human capital development</i> | |
| HUMA – 1 | I have the ideas to add to the current product, which is more demand from the customer. | Ayob, Daud, and Ismail, (2016) |
| HUMA – 2 | I can produce more quantity of my product with the high quality, compared with 1 year ago. | |
| HUMA – 3 | I can solve the problems related to the business based on my own experience and knowledge (informal). | |
| HUMA – 4 | I have a regular customer, who will stop and buy my product. | |
| | <i>Enterprise performance</i> | |
| ENTP – 1 | How can you describe your enterprise profitability than others in this sector? | Ellie (2010); Norshafizah, (2012) |
| ENTP – 2 | How is your enterprise's return on investment in this enterprise? | |
| ENTP – 3 | How is your enterprise's return on total sales in this enterprise? | |
| ENTP – 4 | How is the current development of the employee compared to the time when the business has just started? | |
| ENTP – 5 | How would you describe your overall business performance? | |

Research Instrument

A questionnaire was developed using simple and unbiased wording to allow the respondents to comprehend and answer the items easily. Questionnaire items were adopted from earlier studies with minor modifications where needed. The questionnaire comprised several sections. All responses were elicited on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Table 1 presents the codes, items, and sources of the instruments.

Sample Size and Multivariate Normality

The sample size for this study was calculated using G-Power version 3.1. Based on the power of 0.95 (more than 0.80 as required in social and behavioral science research) with an effect size of 0.15, a sample size of 153 was required to test the model with seven predictors. In this regard, the sample size of at least 70 was needed for this study. To employ structural equation modeling-partial least squares (PLS-SEM), a minimum of 100 samples is required (Reinartz, Haenlein, and Henseler, 2009). However, this study collected data from 384 informal women micro-entrepreneurs in Kelantan, which was higher than the minimum requirement of sample size.

This study tested the multivariate normality using an online tool, Web Power. It was used to calculate the Mardia's multivariate skewness and kurtosis coefficients and p -values. The findings showed that the Mardia's multivariate skewness coefficient indicated 9.96 with the p -value of 0.00, while the kurtosis coefficient indicated 99.2 with the p -value less than 0.01. Both were considered non-normality.

Data Analysis Methods

Given that this study is exploratory in nature and the multivariate non-normality, this study employed variance-based SEM-PLS estimation in order to maximize the explanation of variance in the structural equation model's dependent variables. SEM-PLS was chosen because its component-based least square is a robust causal modeling technique, which allows the estimation of measurements and path coefficients, simultaneously. The analysis was recommended by Hair, Ringle, and Sarstedt (2013) in PLS. The analysis involves a) the reliability of the indicators with a standardized indicator loading of 0.70, while the loading of 0.40 is acceptable in exploratory studies; b) internal consistency reliability (both Cronbach's alpha and composite reliability should exceed 0.70); c) convergent validity (average variance extracted (AVE) ≥ 0.50) d) discriminant validity (cross loading) e) r^2 (the acceptable level varies depending on the research context) f) effect size or f^2 (0.02, 0.15, 0.35 for weak, moderate, strong effects, respectively) g) path coefficient estimates; and h) predictive relevance Q^2 ($Q^2 > 0$ is indicative of predictive relevance). Specifically, when Q^2 is 0.02, 0.15, 0.35, it indicates the weak, moderate, and strong degree of predictive relevance of each effect, respectively.

Summary of Findings

Of 384 women micro-entrepreneurs in Kelantan, Malaysia, it was discovered that the respondents had different business operation history from 1 year to 26 years and above (see Table 2). The majority of the respondents (32.8%) operated their businesses for 6 to 10 years, which was slightly more than the respondents with 1 to 5 years business (32.6%). There were five categories of age. The first age category was 20-30 years old, with 25.8% of the

respondents. The second age category was 31-40 years old, with 27.9% of the respondents. The third age category was 41-50, which accounted for 28.1% is the largest group. The fourth age category was 51-60, with 16.5% of the respondents. However, only 7 respondents were more than 61 years old, which indicated the lowest percentage of the respondents. The majority (98.2%) of the women micro-entrepreneurs were Malay. The remaining were Chinese (1.6%) and Indian (0.3%). In the marital status category, 77.1% of the respondents were married whereas 11.7% were singles. The remaining 11.3% of the respondents were single mothers. As for the income, 47.7% of the respondents with an average monthly income of RM1001-RM2000, which had the highest frequency. Only 3.4% of the respondents had an average monthly income of more than RM4001.

Reliability Analysis

The Cronbach's Alpha value for human capital development, enterprise performance, and all dimensions of competency exceeded 0.7. Particularly, commitment competency achieved more than 0.6. As Cronbach's alpha value for all items was higher than 0.6, they considered were reliable (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). For composite reliability, except commitment competency, the indicators exhibited different loadings for all items with more than 0.8. According to Hair, Ringle, and Sarstedt (2013), the indicators are reliable when they are higher than 0.7. Convergent validity is a set of indicators that represent the same underlying construct, which can be demonstrated through unidimensionality. As noted by Hair, Ringle, and Sarstedt (2011), the average variance extracted (AVE) value for all items is more than 0.5, which indicates sufficient convergent validity (see Table 3). Indicators are reliable if the absolute standardized outer loadings are higher than 0.7. As presented in Table 4, all items showed more than 0.7, except the third item of commitment competency and organizing competency, the fourth item of human capital development, and the fifth item of relationship competency. When the component loading shows the value is less than 0.7 and higher than 0.5, hence it is reliable (Hair et al., 2014). When the cross loading values are lower than outer loadings, it fulfills discriminant validity. In Table 4, the Fornell-Larcker criterion cannot identify the limitations of discriminant validity. Furthermore, the Heterotrait-Monotrait Ratio (HTMT) values are below 0.9, which confirms that this study did not prove a lack of discriminant validity since all the constructs met the minimum criteria.

Table 2. Profile of the Respondent

| | n | % | | n | % |
|---------------------------|-----|-------|-----------------------|-----|-------|
| <i>Age</i> | | | <i>Ethnicity</i> | | |
| 20 years old-30 years old | 99 | 25.8 | Malay | 377 | 98.2 |
| 31 years old-40 years old | 107 | 27.9 | Chinese | 6 | 1.6 |
| 41 years old-50 years old | 108 | 28.1 | Indian | 1 | 0.3 |
| 51 years old-60 years old | 62 | 16.5 | Others | 0 | 0 |
| 61 years old and above | 7 | 1.8 | Total | 384 | 100.0 |
| Total | 384 | 100.0 | | | |
| <i>Year of Business</i> | | | <i>Marital Status</i> | | |
| 1 year-5 years | 125 | 32.6 | Single | 45 | 11.7 |
| 6 year-10 years | 126 | 32.8 | Married | 296 | 77.1 |
| 11 year-15 years | 76 | 19.8 | Single mother | 43 | 11.2 |
| 16 year-20 years | 36 | 9.4 | | | |
| 21 year-25 years | 16 | 4.2 | <i>Monthly Income</i> | | |
| 26 years and above | 5 | 1.3 | Below RM1000 | 36 | 9.4 |
| Total | 384 | 100.0 | RM1001-RM2000 | 283 | 47.7 |
| | | | RM2001-RM3000 | 127 | 33.1 |
| <i>Religion</i> | | | RM3001-RM4000 | 25 | 6.5 |
| Islam | 377 | 98.2 | RM4001 and above | 13 | 3.4 |
| Buddhist | 6 | 1.6 | Total | 384 | 100.0 |
| Hindus | 1 | 0.3 | | | |
| Total | 384 | 100.0 | | | |

Table 3. Descriptive and Reliability Measures

| Variables | No of Items | Mean | SD | Cronbach's Alpha | Composite Reliability | AVE |
|-----------|-------------|-------|-------|------------------|-----------------------|-------|
| COMM | 3 | 4.147 | 0.549 | 0.631 | 0.796 | 0.565 |
| CONC | 4 | 3.788 | 0.678 | 0.849 | 0.895 | 0.682 |
| ORGA | 5 | 4.148 | 0.512 | 0.809 | 0.866 | 0.564 |
| OPPO | 4 | 4.117 | 0.593 | 0.809 | 0.874 | 0.634 |
| RELA | 6 | 4.120 | 0.601 | 0.824 | 0.872 | 0.578 |
| STRA | 5 | 3.980 | 0.576 | 0.889 | 0.889 | 0.615 |
| HUMA | 4 | 3.913 | 0.649 | 0.851 | 0.851 | 0.590 |
| ENTE | 5 | 3.949 | 0.514 | 0.883 | 0.883 | 0.602 |

Note: COMM: Commitment Competency; CONC: Conceptual Competency; ORGA: Organising Competency; OPPO: Opportunity Recognition Competency; RELA: Relationship Competency; STRA: Strategic Competency; HUMA: Human Capital Development; ENTP: Enterprise Performance

Table 4. Outer Model Loading and Cross Loading

| | COMM | CONC | ORGA | OPPO | RELA | STRA | HUMA | ENTE |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| COMM – 1 | 0.775 | 0.164 | 0.448 | 0.301 | 0.382 | 0.353 | 0.276 | 0.338 |
| COMM – 2 | 0.697 | 0.169 | 0.228 | 0.248 | 0.289 | 0.297 | 0.219 | 0.162 |
| COMM – 3 | 0.781 | 0.168 | 0.373 | 0.235 | 0.434 | 0.248 | 0.217 | 0.234 |
| CONC – 1 | 0.150 | 0.820 | 0.275 | 0.383 | 0.330 | 0.366 | 0.316 | 0.182 |
| CONC – 2 | 0.183 | 0.888 | 0.250 | 0.383 | 0.295 | 0.366 | 0.414 | 0.218 |
| CONC – 3 | 0.146 | 0.795 | 0.224 | 0.266 | 0.252 | 0.311 | 0.211 | 0.096 |
| CONC – 4 | 0.253 | 0.797 | 0.312 | 0.294 | 0.345 | 0.418 | 0.234 | 0.213 |
| ORGA – 1 | 0.340 | 0.253 | 0.772 | 0.325 | 0.316 | 0.365 | 0.208 | 0.209 |
| ORGA – 2 | 0.348 | 0.214 | 0.706 | 0.300 | 0.311 | 0.326 | 0.177 | 0.200 |
| ORGA – 3 | 0.322 | 0.218 | 0.676 | 0.279 | 0.247 | 0.325 | 0.146 | 0.071 |
| ORGA – 4 | 0.361 | 0.253 | 0.801 | 0.299 | 0.347 | 0.309 | 0.201 | 0.178 |
| ORGA – 5 | 0.442 | 0.258 | 0.794 | 0.341 | 0.353 | 0.299 | 0.207 | 0.210 |
| OPPO – 1 | 0.263 | 0.289 | 0.344 | 0.795 | 0.425 | 0.354 | 0.216 | 0.239 |
| OPPO – 2 | 0.242 | 0.415 | 0.305 | 0.832 | 0.417 | 0.243 | 0.321 | 0.253 |
| OPPO – 3 | 0.340 | 0.252 | 0.369 | 0.816 | 0.436 | 0.284 | 0.224 | 0.293 |
| OPPO – 4 | 0.287 | 0.355 | 0.298 | 0.739 | 0.439 | 0.330 | 0.201 | 0.169 |
| RELA – 1 | 0.437 | 0.275 | 0.418 | 0.579 | 0.779 | 0.244 | 0.310 | 0.330 |
| RELA – 2 | 0.386 | 0.269 | 0.342 | 0.416 | 0.859 | 0.202 | 0.164 | 0.286 |
| RELA – 3 | 0.392 | 0.263 | 0.319 | 0.321 | 0.776 | 0.194 | 0.130 | 0.275 |
| RELA – 4 | 0.296 | 0.302 | 0.190 | 0.306 | 0.685 | 0.214 | 0.127 | 0.210 |
| RELA – 5 | 0.330 | 0.338 | 0.276 | 0.293 | 0.689 | 0.260 | 0.139 | 0.152 |
| STRA – 1 | 0.312 | 0.359 | 0.294 | 0.239 | 0.154 | 0.759 | 0.205 | 0.151 |
| STRA – 2 | 0.294 | 0.335 | 0.290 | 0.300 | 0.198 | 0.834 | 0.200 | 0.159 |
| STRA – 3 | 0.273 | 0.358 | 0.303 | 0.319 | 0.210 | 0.773 | 0.127 | 0.083 |
| STRA – 4 | 0.367 | 0.360 | 0.400 | 0.329 | 0.310 | 0.794 | 0.184 | 0.153 |
| STRA – 5 | 0.329 | 0.324 | 0.400 | 0.284 | 0.273 | 0.759 | 0.154 | 0.140 |
| HUMA – 1 | 0.271 | 0.333 | 0.280 | 0.299 | 0.223 | 0.242 | 0.803 | 0.297 |
| HUMA – 2 | 0.197 | 0.282 | 0.059 | 0.213 | 0.130 | 0.108 | 0.763 | 0.220 |
| HUMA – 3 | 0.318 | 0.287 | 0.280 | 0.236 | 0.237 | 0.215 | 0.835 | 0.255 |
| HUMA – 4 | 0.154 | 0.241 | 0.064 | 0.170 | 0.139 | 0.075 | 0.660 | 0.199 |
| ENTP – 1 | 0.307 | 0.213 | 0.278 | 0.313 | 0.336 | 0.203 | 0.268 | 0.800 |
| ENTP – 2 | 0.282 | 0.167 | 0.195 | 0.244 | 0.255 | 0.130 | 0.243 | 0.828 |
| ENTP – 3 | 0.206 | 0.156 | 0.041 | 0.162 | 0.186 | 0.112 | 0.276 | 0.746 |
| ENTP – 4 | 0.224 | 0.140 | 0.138 | 0.180 | 0.231 | 0.124 | 0.195 | 0.718 |
| ENTP – 5 | 0.284 | 0.177 | 0.227 | 0.244 | 0.299 | 0.113 | 0.267 | 0.783 |
| <i>Fornell-Larcker Criterion</i> | | | | | | | | |
| COMM | 0.752 | | | | | | | |
| CONC | 0.220 | 0.826 | | | | | | |
| ORGA | 0.485 | 0.319 | 0.751 | | | | | |
| OPPO | 0.352 | 0.412 | 0.413 | 0.796 | | | | |
| RELA | 0.494 | 0.370 | 0.425 | 0.535 | 0.761 | | | |
| STRA | 0.404 | 0.442 | 0.429 | 0.371 | 0.290 | 0.784 | | |
| HUMA | 0.321 | 0.376 | 0.254 | 0.308 | 0.249 | 0.228 | 0.768 | |
| ENTE | 0.343 | 0.224 | 0.243 | 0.305 | 0.347 | 0.181 | 0.322 | 0.776 |

Heterotrait-Monotrait Ratio (HTMT)

| <i>Heterotrait-Monotrait Ratio (HTMT)</i> | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|
| COMM | | | | | | | |
| CONC | 0.302 | | | | | | |
| ORGA | 0.642 | 0.384 | | | | | |
| OPPO | 0.488 | 0.481 | 0.508 | | | | |
| RELA | 0.656 | 0.451 | 0.485 | 0.617 | | | |
| STRA | 0.537 | 0.521 | 0.523 | 0.463 | 0.352 | | |
| HUMA | 0.426 | 0.432 | 0.278 | 0.368 | 0.270 | 0.249 | |
| ENTE | 0.434 | 0.249 | 0.266 | 0.351 | 0.383 | 0.201 | 0.391 |

Note: COMM: Commitment Competency; CONC: Conceptual Competency; ORGA: Organising Competency; OPPO: Opportunity Recognition Competency; RELA: Relationship Competency; STRA: Strategic Competency; HUMA: Human Capital Development; ENTPE: Enterprise Performance

Path Coefficients

As presented in Table 5, the path coefficients between human capital developments and entrepreneurial competencies showed a positive and statistically significant effect (at the chosen 5% level of significance). Findings illustrated that human capital development has a significant effect on entrepreneurial competencies (i.e., commitment competency, conceptual competency, organizing competency, opportunity recognition competency, relationship competency, and strategic competency) among the informal women micro-entrepreneurs in Kelantan, Malaysia. As for the effect of entrepreneurial competencies on the performance of informal microenterprises, findings revealed that the *p*-values for opportunity recognition competency, relationship competency, commitment competency, and enterprise performance were less than 0.05, indicates a statistically significant positive effect of opportunity recognition competency, relationship competency, commitment competency on the performance of microenterprises owned and managed by informal women micro-entrepreneurs in Kelantan, Malaysia. However, the *p*-values for conceptual competency, organizing competency, and strategic competency on micro-enterprise performance were more than 0.05, indicated that the effect is not statistically significant effect.

Table 5. Path Coefficient

| | Coefficient | t-value | <i>p</i> -value | <i>f</i> ² |
|--|-------------|---------|-----------------|-----------------------|
| Human Capital Dev. → Opportunity Recog. Competency | 0.308 | 5.895 | 0.000 | 0.105 |
| Human Capital Development → Relationship Competency | 0.249 | 4.641 | 0.000 | 0.066 |
| Human Capital Development → Conceptual Competency | 0.376 | 7.168 | 0.000 | 0.164 |
| Human Capital Development → Organizing Competency | 0.254 | 3.954 | 0.000 | 0.069 |
| Human Capital Development → Strategic Competency | 0.228 | 4.534 | 0.000 | 0.055 |
| Human Capital Development → Commitment Competency | 0.321 | 5.566 | 0.000 | 0.115 |
| Opportunity Recog. Competency → Enterprise Performance | 0.122 | 2.141 | 0.033 | 0.012 |
| Relationship Competency → Enterprise Performance | 0.148 | 2.065 | 0.009 | 0.016 |
| Conceptual Competency → Enterprise Performance | 0.091 | 1.259 | 0.209 | 0.007 |
| Organizing Competency → Enterprise Performance | 0.005 | 0.091 | 0.928 | 0.000 |
| Strategic Competency → Enterprise Performance | -0.035 | 0.516 | 0.606 | 0.001 |
| Commitment Competency → Enterprise Performance | 0.221 | 3.161 | 0.002 | 0.037 |

Discussion

The purpose of this study was to examine the effect of human capital on entrepreneurial competencies among informal women micro-entrepreneurs in Kelantan, Malaysia. Based on the first objective, the result was similar to earlier studies of human capital development (Shepherd and De Tienne, 2005; Packham, Jones, Miller, Pickernel, and Thomas, 2010; Ucbasaran, Westhead, Wright, and Flores, 2010). It indicated a positive and

significant relationship between commitment competency, conceptual competency and organizing competency, and human capital development. Furthermore, the finding also showed a positive relationship between human capital and strategic competency (Hayton, 2003), relationship competency (Ulhoi, 2010), and opportunity recognition (Williams, & Youssef, 2013).

In addition, this study examined the relationship between dimensions of entrepreneurial competencies and enterprise performance. The result was consistent with Unger et al. (2011) as organizing competency was found to have a positive relationship with enterprise performance. Moreover, some scholars (Ucbasaran, Shepherd, Lockett, & Lyon, 2013) found conceptual competency had a positive relationship with enterprise performance. This study also supported other studies which established a strong relationship between opportunity recognition competency (Williams, and Youssef, 2013), relationship competency, commitment competency (Ganotakis, 2012) and strategic competency (Simsek & Heavey, 2011; Achtenhagen, Melin, & Neldi, 2013), and enterprise performance.

Based on the above discussion, the p-values for the coefficients indicated that the effects were not statistically significant. The coefficient between commitment competency and enterprise performance was higher than the other five determinants. In other words, commitment competency was the most significant to micro-enterprise performance. However, the p-value for the path coefficient between commitment competency and micro-enterprise performance was less than 0.05. It indicated that commitment competency had a significant effect on the performance of informal micro-enterprise. Studies of human capital development have proven that competent entrepreneurs are able to bring positive impact on business performance (Seleim, Ashour, & Bontis, 2007; Lawrence & Maimunah, 2009; Unger et al., 2011; Wirtz & Lovelock, 2012). Furthermore, past studies (Cascio & Sibley, 1979; Cascio & Ramos, 1986; Schuler, 1992) have also proven that entrepreneurial advantages can enhance business performance.

Limitation

There are several limitations that need to be acknowledged in this study. Firstly, this study cannot be made generalizable to all individuals because only informal women micro-entrepreneurs who run “night markets” business were considered. Hence, further investigation should be carried out into human capital development and entrepreneurial competency among all Malaysian micro-entrepreneurs. In fact, other industries can be considered in future studies to support the findings. Secondly, the findings cannot be made generalizable to the nation of Malaysia as the respondents were limited to the informal women micro-entrepreneurs in Kelantan only. In response to this issue, care needs to be taken when the whole of Malaysia is considered due to limited time and resources. Finally, this study examined the effect of human capital development and entrepreneurial competency on enterprise performance, solely based on perception survey.

Conclusion

Findings of this study revealed that human capital development and entrepreneurial competencies helped informal women enhance their enterprise performance. The human capital theory has gained greater attention in training-related aspects. This theory is related to the individual perspective, which incorporates entrepreneurial competencies. Human capital investment involves any activity that improves the quality (productivity) of the workers. Particularly, knowledge and training are required by a person to increase his or her capability of performing activities of economic values. Recent literature shows that inadequate training

results in low competitiveness, which is linked to the sustainability and growth of companies. Efforts are needed to enhance the quality of the training and seminars for women. Potential women entrepreneurs should consider successful women entrepreneurs as trainers. As a matter of fact, those women entrepreneurs will promote the training programs to other members. Besides that, the government can provide subsidies or tax incentives to women who run microenterprises. For instance, SME Development Programs provide relevant business training for women. Since the Malaysian government intends to turn Malaysia into 'Information Society' as a knowledge-based economy with strong accessibility to information technology; government and non-governmental organizations should therefore conduct formal and informal enterprise development training to ensure that women are benefited from them.

Congruent with the discussion above, this study examined the influence of human capital development on entrepreneurial competency towards enterprise performance. The findings revealed a positive relationship between human capital development and entrepreneurial competency. At the same time, entrepreneurial competency was found to enhance enterprise performance. This study is expected to give additional insight into human capital, entrepreneurial competencies, and enterprise performance among informal micro-enterprise in Kelantan, Malaysia. Therefore, similar research with relevant variables can be considered in Malaysia in future.

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