

# Effect of economic vulnerability on entrepreneurial competencies among Malaysian micro-entrepreneurs

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## Abstract

**Purpose** – This study aims to investigate the impact of economic vulnerability upon entrepreneurial competencies (i.e. commitment competency, conceptual competency, opportunity recognition competency, organizing competency, relationship competency and strategic competency) among respondents from varied development initiatives established by the eKasih program (National Poverty Data Bank) in Peninsular Malaysia.

**Design/methodology/approach** – Upon adopting the cross-sectional design, data were randomly gathered from selected 300 micro-entrepreneurs from the list of development organizations available in the eKasih (National Poverty Data Bank), located at four states in Peninsular Malaysia. The quantitative data were gathered by performing structured interview sessions from September until November 2017.

**Findings** – The outcomes of the study displayed that economic vulnerability has a significantly negative effect upon commitment, opportunity recognition, organizing and strategic competency. On the other hand, the results showcased that economic vulnerability has a significantly positive effect on competency, but insignificantly positive impact upon conceptual competency.

**Originality/value** – These study outcomes appear to extend the scope of the resource-based view, apart from enriching the existing entrepreneurial competency literature, particularly within the Malaysian context. Hence, it is recommended that the government of Malaysia and development organizations should focus on maximizing the level of competency among micro-entrepreneurs as a viable approach to decrease the effect of economic vulnerability.

**Keywords** Entrepreneurial competencies, Micro-entrepreneurs, Economic vulnerability

**Paper type** Research paper

## Introduction

Poverty, vulnerability and inequality appear to be emerging issues found in developing countries. Aside from those mentioned, at the global scale, we are affected by crime,



corruption, economic crises, climate change, environmental pollution, diseases and natural disasters (Tran and Korflesch, 2016). Without doubt, many developing countries have been experiencing a high level of material deprivation and wide dispersion of individual well-being. Therefore, alleviation of poverty and reduction in inequalities has been at the top of the agenda amongst developing countries, as well as the Millennium Development Goals (MDGs) of the United Nations. Furthermore, the very concept of vulnerability (risk of experiencing poverty in future) has been vastly discussed, followed by international economic shock, such as global economic crises, which have, unfortunately, hiked the rates of poverty and hardcore poverty (Heltberg *et al.*, 2015). As for Malaysia, despite the noted reduction rates in poverty and hardcore poverty (Al-Mamun and Mazumder, 2015; Ahmed *et al.*, 2016), inequality in income distribution and socio-economic vulnerability to poverty has remained a threat among its low-income households, similar to other developed nations (Nair and Sagar, 2015).

Within the context of Malaysia, poverty befalls upon those who live below the poverty line income (PLI). The Malaysian government defines poverty as the lack of financial means to acquire fundamental needs, including food and non-food components [Economic Planning Unit (EPU), 2002]. In 2014, the PLI for households in Peninsular Malaysia, Sabah and Labuan and Sarawak had been reported to be RM930, RM1,170 and RM990, respectively (EPU, 2014). Moreover, Malaysia has recorded a remarkable achievement in alleviating poverty among households that lived below the PLI with a substantial reduction from 50 per cent to less than 1 per cent in 2014. In addition, Malaysia has successfully achieved one of the MDGs for its efforts in eradicating extreme poverty and hunger. Nevertheless, poverty has always remained a major concern (Nair, 2010), primarily because of stubborn pockets of poverty and issues related to income distribution, as well as new forms of poverty that demand pressing attention (Nair and Sagar, 2015).

On the other hand, economic vulnerability refers to the risk of exposure to shocks and the potential to fall into poverty. Moreover, past studies have conceptualized vulnerability into two genres: assets poverty (Fisher and Weber, 2004) and income poverty (McCulloch and Calandrino, 2003). Meanwhile, household income reflects the ability to pay for goods and services, apart from maintaining a certain standard of living, whereas assets denote the accumulated wealth of a household that serve similar purpose as income. In fact, both appear to be the indicators of the economic ability among households to meet the present and future consumption needs. However, the future is uncertain as households are exposed to shocks, such as health shocks (Jacobsen, 2009), macroeconomic shocks (Corbacho *et al.*, 2007) and multiple shocks (Yilma *et al.*, 2014). The inability to sustain such shocks may lead these households to fall into poverty. As the concept of vulnerability embeds both the poor and the non-poor, it has sparked great interest among policy makers. To measure economic vulnerability, two approaches have been commonly used: ex ante and ex post. The former approach is based on forecast, while the latter is based on actual facts of poverty and vulnerability. As such, Imai *et al.* (2011) proposed a combination of both ex ante and ex post approaches in assessing risk and resilience of households against shocks, with the possibility of designing effective measures against poverty. The measurement of vulnerability weighs in several aspects of household characteristics, such as household head gender, marital status, education, age, race, employment status (Fisher and Weber, 2004), average monthly household income, net worth of household assets, total number of income sources, number of dependent household members and the fraction of total income from economic activities (Al-Mamun and Mazumder, 2015).

Prior studies concerning economic vulnerability have mostly dealt with defining, determining why individuals or households are vulnerable, as well as measuring the level of

vulnerability among those grouped in the category of hard core poor and low-income households. Nonetheless, a large number of low-income households, through microcredit programs, have turned into owners of micro-enterprises (Mamun *et al.*, 2010), thus exposing their micro-enterprises to economic vulnerability in the events of shocks. Furthermore, based on *The OECD Policy Briefs* (2000), small and micro enterprises appear to be more prone to external shocks, in comparison to medium and large firms. As such, the OECD has suggested firms to further upgrade their management skills, as well as their capacity to gain information and to use the technology. Additionally, Man *et al.* (2008) asserted that entrepreneurial competencies are the key influences in determining the performance of a firm. In fact, entrepreneurial competency reflects the psychological and behavioral characteristics of firm owner-manager, coupled with field-specific and management skills that ultimately dictate firm competitiveness (Man *et al.*, 2002). Nevertheless, empirical evidences that integrate the elements of economic vulnerability into entrepreneurial competencies at the micro-enterprise level are scant. Hence, in the attempt to address this limitation and to shed light on the relationship and the effects of economic vulnerability and entrepreneurial competencies, this study investigated the impact of economic vulnerability upon entrepreneurial competencies among respondents of various development organizations in Peninsular Malaysia.

## Literature review

### *Theoretical foundation*

Three decades ago, studies from the light of entrepreneurship were accepted as a significant area of study (Lee *et al.*, 2015). Accordingly, this study had empirically examined the effect of economic vulnerability on entrepreneurial competencies (commitment, conceptual, organizing, opportunity recognition, relationship and strategic competencies). Entrepreneurial competencies refer to the total ability in performing a job role successfully (Man *et al.*, 2002), which include several attributes of an entrepreneur, such as social roles, traits, motives, knowledge and skills (Bird, 1995). Furthermore, Man *et al.* (2008) have considered entrepreneurial competencies as the key influencer in dictating enterprise performance. Prior studies that have looked into the effects of entrepreneurial competencies on firm performance support the notion put forward by Man *et al.* (2008). Barzandeh *et al.* (2015), as well as Al Mamun *et al.* (2016), are among others who discovered that entrepreneurial competencies display a positive effect upon firm performance. This phenomenon is further illustrated by the resource-based view (RBV), in which the RBV is depicted as the resources owned and managed to create and to implement strategies toward enhancing effectiveness and efficiency (Barney, 1991). Barney added that resources of firms can be classified into three types, which are as follows: physical capital, organizational capital and human capital resources. This study emphasizes on the human capital resources, which are inclusive of intelligence, relationships, judgment, experience, training and insights. From this light, entrepreneurial competencies refer to resources (capabilities, traits and skills) possessed by entrepreneurs channeled toward sustained firm performance, where firms implement value-creating strategy based on their competencies that are absent in existing or future contenders. Furthermore, entrepreneurial competencies should generate values for the organization, which are heterogeneous and immobile. Overall, entrepreneurial competencies need to be valuable, rare, imperfectly imitable and should not have strategically equivalent substitutes.

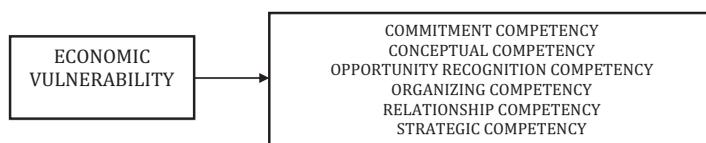
Furthermore, Barney (1991) suggested that the value creation process of a firm solely depends on the ability of the owner-manager in acquiring essential resources. Therefore, it is safe to assume that entrepreneurial competencies exerted by owner-managers of firms that

identify and acquire resources leading to a superior firm performance fits into Barney's RBV. Based on Alvarez Barney's (2000) RBV theory, entrepreneurial competencies refer to resources (capabilities, traits and skills) possessed by entrepreneurs channeled toward sustained firm performance, where firms implement value-creating strategies based on their competencies that are not implemented by the existing or future competitors. Furthermore, Barney (1991) suggested that the value creation process of a firm solely depends on the ability of the owner-manager in acquiring essential resources. Hence, it is safe to assume that entrepreneurial competencies exerted by owner-managers of firms that identify and acquire resources could lead to superior firm performance, so as to fit the notion held in Barney's RBV.

Supplemented with building capabilities resources, the owner-manager would be able to put this resource to work, hence presuming a sustainable performance. Moreover, Man and Lau (2000) advocated that entrepreneurial competencies have an indirect impact upon firm performance through formation of competitive scope and organizational capabilities. In general, higher performance should lead to higher firm income and assets accumulation, which would keep entrepreneurs prepared to face shocks in future. In addition, several studies revealed that sustainable income and assets among households absorb shocks and make them less vulnerable (Al-Mamun and Mazumder, 2015; Al-Mamun *et al.*, 2014). Nevertheless, prior studies have mostly focused on the direct effect of income and assets upon economic vulnerability, in which the role of entrepreneurial competencies and the specific competency that is responsible in minimizing economic vulnerability appear to be scant. Therefore, this study measured the impact of economic vulnerability on entrepreneurial competencies (including commitment, conceptual, organizing, opportunity recognition, relationship and strategic competencies) (as presented in Figure 1) among selected respondents of various development organizations established in Peninsular Malaysia.

#### *Economic vulnerability and commitment competency*

Commitment competency reflects the drive or motivation exhibited by entrepreneurs to move ahead with the business (Man and Lau, 2000), while economic vulnerability denotes the risk of exposure to shocks, as well as the potential to fall into poverty because of limited income and assets to absorb shocks from the uncertain future (Fisher and Weber, 2004; McCulloch and Calandrino, 2003). Hence, commitment competency aids entrepreneurs to set long-term directions for their firms so as to ensure long-term performance, whereby entrepreneurs with high level of commitment competency devote their time and work hard, aside from committing to personal beliefs, values and goals (Man and Lau, 2000). Empirical evidences suggest that competencies have an impact upon firm performance (Al Mamun *et al.*, 2016), whereby firm performance generates higher income and higher accumulation of assets, thus dismissing chances of being vulnerable (Al-Mamun and Mazumder, 2015). Therefore, commitment competency can lead to superior performance that increases



Source: Author's compilation

Figure 1.  
Study framework

accumulation of income and assets. On the other hand, as economic vulnerability is closely associated to poor households that live along the poverty line, the aspect of economic vulnerability is conceptualized to display a negative relationship with commitment competency. Thus, the following hypothesis is forwarded:

*H1.* Economic vulnerability has a significantly negative effect on commitment competency.

### **Economic vulnerability and conceptual competency**

Conceptual competency refers to competency linked to various conceptual abilities that are reflected in the behavior exerted by entrepreneurs (Man and Lau, 2000), whereas economic vulnerability denotes the risk of exposure to shocks, as well as the potential to fall into poverty because of limited income and assets to absorb shocks from uncertainties (Fisher and Weber, 2004; McCulloch and Calandrino, 2003). Conceptual competency aids in forming the competitive scope of a firm. In addition, this competency depicts the intuitive thinking, the innovativeness and the capability to assess risks and address issues that may arise from the varied spheres of an entrepreneur (Man and Lau, 2000). Therefore, conceptual competency could lead to superior performance that increases income and assets accumulation. Meanwhile, as economic vulnerability has been closely related to poor households living along the poverty line, this element of economic vulnerability is assumed to have a negative relationship with conceptual competency. Based on the aforementioned, the following hypothesis is presented:

*H2.* Economic vulnerability has a significantly negative effect on conceptual competency.

### **Economic vulnerability and opportunity recognition competency**

Opportunity recognition competency refers to a competency associated to recognizing market opportunities through various means and forms from the competitive scope of a firm (Man and Lau, 2000), whereas economic vulnerability is the risk of exposure to shocks, along with the potential to end up being poor because of financial constraint to overcome uncertain shocks (Fisher and Weber, 2004; McCulloch and Calandrino, 2003). The competency of recognizing opportunities aids entrepreneurs to identify, assess and seek business prospects. This competency is crucial in identifying and assessing market gaps and shifts in environment, apart from seeking new business opportunities via marketing and promotion, so as to ensure sustainable performance (Man and Lau, 2000). Hence, opportunity recognition competency may lead to a superior performance that adds to wealth accumulation. Meanwhile, as economic vulnerability depicts one falling into poverty, it is predicted to have a negative relationship with opportunity recognition competency. With that, the following hypothesis is developed:

*H3.* Economic vulnerability has a significantly negative effect on opportunity recognition competency.

### **Economic vulnerability and organizing competency**

Organizing competency denotes competencies associated to the organization of various internal and external human, physical, financial and technological resources that help to establish organizational capabilities (Man and Lau, 2000), whereas economic vulnerability refers to the potential of falling into poverty because of failure in absorbing uncertain shocks

(Fisher and Weber, 2004; McCulloch and Calandrino, 2003). The aspect of organizing competency reflects the ability to plan, organize, lead, motivate, delegate and control both internal and external resources. This competency seems to be essential among owner-managers in executing their daily duties that incorporate planning daily operations, acquiring and allocating resources, leading and motivating employees and delegating and establishing rules and regulations. All these ensure smooth daily operations, apart from ascertaining long-term performance (Man and Lau, 2000). Hence, organizing competency may lead to an increase in enterprise performance, whereas economic vulnerability is expected to have an inverse effect on human capital development; therefore, economic vulnerability is predicted to have a negative relationship with organizing competency. As such, the following hypothesis is given:

*H4.* Economic vulnerability has a significantly negative effect on organizing competency.

#### **Economic vulnerability and relationship competency**

Relationship competency is the competencies associated to person-to-person or individual-to-group interactions that generate organizational capabilities and competitive scope of firms (Man and Lau, 2000), while economic vulnerability refers to the probability of falling into poverty because of inability of addressing diminishing shocks (Fisher and Weber, 2004; McCulloch and Calandrino, 2003). Relationship competency denotes the ability to build and keep networks and relationships with both existing and potential stakeholders. This is done by using networks and relationships to acquire and strengthen resources and business opportunities; building and securing trust among stakeholders; and communicating, negotiating and managing conflicts (Man and Lau, 2000). This competency is essential for any owner-manager toward maintaining a good working relationship with the existing and potential stakeholders so as to ascertain sustenance of performance (Man and Lau, 2000). Therefore, relationship competency is assumed to lead to superior performance and wealth accumulation, whereas economic vulnerability is associated to the potential of falling into poverty. With that, economic vulnerability may have a negative relationship with relationship competency, as portrayed in the following developed hypothesis:

*H5.* Economic vulnerability has a significantly negative effect on relationship competency.

#### **Economic vulnerability and strategic competency**

Strategic competency refers to competencies linked to setting, evaluating and implementing strategies devised by firms (Man and Lau, 2000), while economic vulnerability is the potential of becoming poor because of failure in addressing uncertain shocks (Fisher and Weber, 2004; McCulloch and Calandrino, 2003). In fact, strategic competency denotes the ability of setting goals and taking action toward reaching the goals, which can be done by forming and creating competitive scope and organizational capabilities (Man and Lau, 2000). Such competency is viewed as the most integral competency that brings together two aspects of entrepreneurial task of forming and generating competitive scope and organizational capabilities (Man and Lau, 2000). Thus, strategic competency may lead to superior performance that adds to one's wealth, while economic vulnerability is related to living along the poverty line. Therefore, economic vulnerability is presumed to have a negative relationship with strategic competency. Hence, the following hypothesis is developed (Figure 1):

*H6.* Economic vulnerability has a significantly negative effect on strategic competency.

**Research methodology**

This study had adopted the cross-sectional design by using quantitative data gathered via structured interviews so as to examine the effect of economic vulnerability upon entrepreneurial competencies. The respondents were selected from the low-income and poor households interested in socio-economic development by getting involved in working capital and enterprise development training programs. As such, all details and lists regarding the development organizations and the respondents were retrieved from the eKasih National Poverty Data Bank. As a result, a list of 400 randomly selected low-income and poor households from Kelantan, Terengganu, Kedah and Perlis had been obtained. Prior to data collection, a team of researchers contacted the selected households to briefly explain the objectives of the survey and to set interview appointments. The process of data collection took two months: from October until November 2017. As a result, a total of 300 respondents had agreed for the research team to visit their premises and to interview them.

*Sample size*

The study sample size was determined by using the G-Power version 3.1. Based on the power of 0.95 (social and behavioral science research should exceed 0.80) with an effect size of 0.15, this study required a sample size of 89 to test the model with a predictor (economic vulnerability). Hence, to hinder any probable limitation arising from a small sample size, data were collected from 300 low-income and poor households that resided in Kelantan, Terengganu, Kedah and Perlis.

*Measuring economic vulnerability*

Economic vulnerability reflects the risk of exposure to potentially harmful events. As such, vulnerability refers to being vulnerable to income poverty, asset poverty or even a more dynamic concept that denotes the risk of exposure to political turmoil, economic instability and natural calamities. Economic vulnerability is measured by using the following index:

$$EV = CV_i AST_A DIV_{si} POV_i \frac{1}{DIV_i} DEP_h$$

*EV* is the vulnerability index that measures the level of economic vulnerability among the respondents. Meanwhile,  $CV_i$  refers to the coefficient of variation of average monthly household income (past 12 months) among the three groups of households based on length of business operation (1 to 5 years, 6 to 10 years, as well as 11 years and above). Besides  $AST_A = \sqrt{\bar{A}/A_i}$ , where  $\bar{A}$  represents the average net worth of enterprise assets among the same group of clients, while  $A_i$  denotes the net worth of enterprise assets. Next,  $DIV_{si}$  determines the fraction of total income from enterprise income, whereas the effect of poverty level on economic vulnerability can be measured as  $POV_i = \sqrt{(PLI_{PH}/I_{HH})}$ , where  $I_{HH}$  refers to the average monthly household income, and  $PLI_{PH}$  reflects the income of bottom 40 per cent of the Malaysian population, which is RM 2,000 per household per month. In addition, the effect of diversification in income sources upon economic vulnerability can be measured as  $DIV_i = \sqrt{SOI}$ , where  $SOI$  is the total number of income sources (full-time). Moreover, households with higher fraction of dependent members per gainfully employed member ratio are presumed to appear more vulnerable ( $DEP_h$ ).

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### *Research instrument*

The questionnaire for this study had been designed by using non-intricate and unbiased terms to ease comprehension of questions among the respondents to ascertain that accurate answers are provided based on their personal perceptions. The questions were adapted from prior studies with minor modifications where required. The questions that had been used to measure commitment competency, conceptual competency, organizing competency, opportunity recognition competency, relationship competency and strategic competency were adopted from [Man et al.'s \(2008\)](#) study.

### *Multivariate normality*

This research tested the aspect of multivariate normality through the use of Web Power online tool. The Web Power that calculated Mardia's multivariate skewness and kurtosis coefficients and  $p$ -values indicated that the  $p$ -value of Mardia's multivariate kurtosis exceeded 0.05, thus affirming the normality of multivariate.

### *Data analysis method*

The PLS-SEM refers to a causal modeling method that maximizes the explained variance of dependent latent constructs ([Hair et al., 2011](#)). Besides, because of the exploratory nature of this study, the variance-based structural equation modeling had been used via partial least squares (PLS-SEM) estimation to maximize the explanation of variance among the dependent constructs embedded in the structural equation model. The outcomes of this analysis are reported as recommended by [Hair et al. \(2013\)](#) for PLS modeling, which include indicator reliability, internal consistency reliability, convergent validity, discriminant validity, average variance extracted (AVE), effect size, path coefficient estimates and predictive relevance.

## **Summary of findings**

### *Demographic characteristics*

The study data were gathered from 300 low-income households residing in Kelantan, Terengganu, Kedah and Perlis, Malaysia, in which most of the respondents (53.7 per cent) were males. Besides, a total of 111 (37.0 per cent) of the respondents aged between 31 and 40 years old, followed by 85 (28.3 per cent) who were in the age range of 41 to 50 and 66 (22.0 per cent) were in the age range of 51 to 60 years old. Nevertheless, only 10 (3.3 per cent) respondents appeared to be in the age range of 20 to 30 years old. As for marital status, 243 (81.0 per cent) of the respondents were married, while the remaining were widowed (7 per cent) and separated from their partners (1.3 per cent). In terms of education background, most of the respondents (31.7 per cent) had received primary school education and 81 (27 per cent) had completed secondary school education. Interestingly, 2 (0.7 per cent) of the respondents held master's degree, while 17.0 per cent had never attended formal school. On top of that, 200 (66.7 per cent) households had two gainfully employed members, while 69 (23.0 per cent) had only one employed member, whereas one (0.3 per cent) household claimed to have four gainfully employed members, and the remaining 30 (10.0 per cent) had three employed members. Finally, most of the respondents (72.0 per cent) relied on one source of household income, whereas 76 (25.3 per cent) households relied on two sources of income and the remaining 8 households (2.7 per cent) depended on three sources of income.

*Reliability and validity*

Table II portrays the descriptive statistics, along with the criteria applied to evaluate the reliability of the items used in this study. The values of mean and standard deviation for all variables (commitment competency, conceptual competency, opportunity recognition competency, organizing competency, relationship competency, strategic competency and economic vulnerability) are presented in Table I.

Conventionally, the Cronbach's alpha is used as a conservative measure of internal consistency reliability. The Cronbach's alpha reliability analysis shows that all the variables

	<i>n</i>	(%)
<i>Gender</i>		
Male	161	53.7
Female	139	46.3
Total	300	100.0
<i>Age (years)</i>		
20 to 30	10	3.3
31 to 40	111	37.0
41 to 50	85	28.3
51 to 60	66	22.0
61 and above	28	9.3
Total	300	100.0
<i>Marital status</i>		
Married	243	81.0
Single	16	5.3
Separated	4	1.3
Divorced	16	5.3
Widowed	21	7.0
Total	300	100.0
<i>Education</i>		
Never attended school	51	17.0
Primary School	95	31.7
Secondary school	81	27.0
STPM/Diploma	43	14.3
Undergraduate	28	9.3
Master's degree	2	0.7
Total	300	100.0
<i>Number of gainfully employed members</i>		
One	69	23.0
Two	200	66.7
Three	30	10.0
Four	1	0.3
Total	300	100.0
<i>Number of sources of income</i>		
One	216	72.0
Two	76	25.3
Three	8	2.7
Total	300	100.0

**Table I.**  
Profile of the  
respondent

**Source:** Author(s) own compilation

have values greater than 0.7, thus signifying that all the items are reliable. Moreover, according to Hair *et al.* (2013), it is also appropriate to apply a different measure of internal consistency reliability, which is also known as “composite reliability”, in which its cutoff value is 0.7 (Hair *et al.*, 2011). Furthermore, as depicted in Table II, the values of composite reliability for all variables appear to exceed 0.8; indicating reliability. Additionally, the Dillon–Goldstein *rho* values for all indicators are greater than 0.7, thus confirming the reliability of the items. Finally, to achieve convergent validity, the value of AVE should be greater than 0.50. As presented in Table II, the AVE values for all constructs exceed 0.50, thus indicating acceptable convergent validity.

Next, the values of loadings and cross-loadings, as shown in Table III, display that almost all the indicator loadings are greater than 0.7, except for conceptual competency (Items 4 and 6), opportunity recognition competency (Items 2 and 5) and strategic competency (Item3), which are higher than 0.5, nonetheless. In fact, two items of Relationship Competency had loading value below 0.5; signifying reliability. All items with standardized loadings less than 0.7 were retained for further analysis based on Chin’s (1998) suggestion that indicators with a loading higher than 0.5 are not required to be discarded. Additionally, based on the cross-loadings tabulated in Table III, all the loading values for the indicators appear to exceed the total cross-loadings, hence confirming discriminant validity. As for discriminant validity based on the Fornell–Larcker criterion, the AVE for each indicator should be greater than the construct’s highest squared correlation with another construct. Table III, as such, depicts that all the constructs had managed to meet this criterion. Finally, the heterotrait–monotrait ratio (HTMT), which is an estimate of the correlation between constructs, paralleling the disattenuated construct score, had been used in this study. By applying the value of 0.9 as the threshold, this study found no evidence of lacking in discriminant validity.

#### Path analysis

The path coefficients, as presented in Table IV, exhibit that the coefficient value for economic vulnerability upon commitment competency (*H1*) is  $-0.151$  with a *p*-value of 0.000, hence signifying that economic vulnerability has a significantly negative effect on respondent’s commitment competency. Next, the coefficient value for economic vulnerability on conceptual competency (*H2*) is 0.117 with a *p*-value of 0.055, thus indicating that economic vulnerability has a significantly positive effect on respondent’s conceptual competency. Nevertheless, the coefficient for economic vulnerability displays a negative ( $\beta = -0.069$ ) and significant (*p*-value of  $0.013 < 0.05$ ) effect upon opportunity recognition

Variables	Items	Mean	SD	CA	DG <i>rho</i>	CR	AVE
Commitment competency	4	3.8192	1.66507	0.875	0.894	0.914	0.728
Conceptual competency	7	4.2100	1.53915	0.879	0.902	0.889	0.535
Opportunity recognition competency	6	3.9333	1.54745	0.847	0.884	0.885	0.564
Organizing competency	4	3.7292	1.64478	0.868	0.951	0.900	0.694
Relationship competency	4	4.0250	1.58090	0.867	0.875	0.901	0.605
Strategic competency	5	4.1420	1.43674	0.776	0.783	0.849	0.531
Economic vulnerability	1	1.3375	1.37925	–	–	–	–

**Notes:** Standard deviation (SD); Cronbach’s alpha (CA); Dillon–Goldstein’s *rho* (DG *rho*); composite reliability (CR); average variance extracted (AVE); variance inflation factors (VIF)

**Source:** Author(s) own compilation

**Table II.**  
Reliability and  
validity

Item code	ComC	ConC	OprC	OrgC	RelC	StrC
ComC – Item 1	0.809	-0.208	0.240	0.060	-0.075	0.080
ComC – Item 2	0.803	-0.190	0.331	0.048	-0.165	0.114
ComC – Item 3	0.910	-0.267	0.325	-0.006	-0.203	0.100
ComC – Item 4	0.885	-0.282	0.201	0.054	-0.100	0.065
ConC – Item 1	-0.252	0.777	0.079	-0.040	0.161	-0.003
ConC – Item 2	-0.181	0.789	0.050	-0.041	0.138	-0.020
ConC – Item 3	-0.271	0.723	0.056	-0.014	0.158	-0.036
ConC – Item 4	-0.218	0.640	0.095	-0.035	0.146	0.005
ConC – Item 5	-0.162	0.724	0.005	-0.003	0.157	-0.035
ConC – Item 6	-0.246	0.672	0.106	-0.032	0.148	-0.040
ConC – Item 7	-0.289	0.782	0.081	-0.021	0.146	-0.033
OprC – Item 1	0.219	0.048	0.863	0.286	0.095	0.453
OprC – Item 2	0.238	0.071	0.662	0.295	0.126	0.438
OprC – Item 3	0.281	0.041	0.746	0.187	0.030	0.400
OprC – Item 4	0.284	0.054	0.765	0.242	0.019	0.347
OprC – Item 5	0.211	0.057	0.658	0.149	-0.002	0.264
OprC – Item 6	0.250	0.033	0.791	0.247	0.032	0.393
OrgC – Item 1	0.083	-0.031	0.286	0.886	0.199	0.279
OrgC – Item 2	0.017	-0.027	0.280	0.889	0.263	0.233
OrgC – Item 3	0.011	-0.037	0.253	0.816	0.260	0.219
OrgC – Item 4	-0.043	0.019	0.189	0.731	0.165	0.201
RelC – Item 1	-0.161	0.189	0.025	0.188	0.865	0.088
RelC – Item 2	-0.099	0.115	0.039	0.195	0.741	0.151
RelC – Item 3	-0.105	0.147	0.077	0.203	0.841	0.116
RelC – Item 4	-0.122	0.187	0.240	0.236	<i>0.835</i>	0.478
StrC – Item 1	0.141	-0.032	0.321	0.234	0.285	<i>0.673</i>
StrC – Item 2	0.055	-0.029	0.243	0.250	0.467	<i>0.740</i>
StrC – Item 3	0.092	0.000	0.299	0.266	0.523	<i>0.788</i>
StrC – Item 4	0.041	-0.003	0.243	0.250	0.467	<i>0.740</i>
StrC – Item 5	0.059	-0.044	0.299	0.266	0.523	<i>0.788</i>
<i>Formell–Larcker criterion</i>						
Commitment competency	0.853					
Conceptual competency	-0.282	0.731				
Opportunity recognition competency	0.317	0.066	0.751			
Organizing competency	0.043	-0.032	0.314	0.833		
Relationship competency	-0.161	0.201	0.067	0.268	0.778	
Strategic competency	0.103	-0.030	0.502	0.285	0.119	0.728
<i>HTMT</i>						
Commitment competency						
Conceptual competency	0.339					
Opportunity recognition competency	0.387	0.113				
Organizing competency	0.072	0.058	0.347			
Relationship competency	0.184	0.225	0.111	0.304		
Strategic competency	0.134	0.074	0.628	0.335	0.151	

**Table III.**  
Loadings and  
cross-loadings

**Notes:** The Italic values in the matrix above are the item loadings and others are cross-loadings; commitment competency (ComC); conceptual competency (ConC); opportunity recognition competency (OprC); organizing competency (OrgC); relationship competency (RelC); strategic competency (StrC)

**Source:** Author(s) own compilation

Table IV.  
Path analysis

Hypo		Coefficient	<i>t</i> -value	Significance	Decision
<i>H1</i>	EV → ComC	-0.151	3.669	0.000	Accept
<i>H2</i>	EV → ConC	0.117	1.863	0.055	Reject
<i>H3</i>	EV → OprC	-0.069	2.533	0.012	Accept
<i>H4</i>	EV → OrgC	-0.204	3.318	0.001	Accept
<i>H5</i>	EV → RelC	0.192	3.726	0.000	Accept
<i>H6</i>	EV → StrC	-0.204	10.073	0.000	Accept

**Notes:** Commitment competency (ComC); conceptual competency (ConC); opportunity recognition competency (OprC); organizing competency (OrgC); relationship competency (RelC); strategic competency (StrC); economic vulnerability (EV)

**Source:** Author(s) own compilation

competency (*H3*). Meanwhile, the path coefficient value for economic vulnerability on organizing competency (*H4*) is  $-0.204$  with a *p*-value of 0.001, signifying that economic vulnerability exemplifies a significantly negative effect upon organizing competency. Furthermore, the coefficient for economic vulnerability exhibits a positive ( $\beta = 0.192$ ) and significant (*p*-value of  $0.000 < 0.05$ ) effect on relationship competency (*H5*). Finally, the path coefficient value for economic vulnerability on strategic competency (*H6*) is  $-0.204$  with a *p*-value of 0.000, indicating that economic vulnerability has a significantly negative effect upon strategic competency.

#### Multi-group analysis

To provide enhanced understanding from both theoretical and practical perspectives, this study probed into the model by using the multi-group analysis (PLS-MGA) approach. Among the vast antecedents, this study selected gender, age and education subgroups in particular. Nevertheless, the scarcity of cases in several subgroups led to singular matrix error. Therefore, this study selected the top two groups with the highest number of respondents based on age and education aspects. The outcomes signify that from the stance of the female respondents, the effect of economic vulnerability on opportunity recognition competency and organizing competency is significantly (at a 5 per cent level of significance) higher than that for the male respondents. In addition, the results also revealed that the effect of economic vulnerability on relational competency is significantly higher among respondents who attended secondary school, in comparison to those who attended primary school alone. Moreover, the *p*-values of all other associations (15 out of 18 associations presented in Table V) appear to exceed 0.05, thus indicating lack of heterogeneity issue.

#### Discussion and conclusion

This study had investigated the effect of economic vulnerability upon entrepreneurial competencies (commitment, conceptual, organizing, opportunity recognition, relationship and strategic competencies) among selected respondents of various development organizations established in Peninsular Malaysia from the lens of the RBV. The outcomes of this study revealed that economic vulnerability does have a negatively significant effect on commitment competency, opportunity recognition competency, organizing competency and strategic competency among respondents of various development organizations in Peninsular Malaysia (*H1*, *H3*, *H4* and *H6*). Nevertheless, economic vulnerability displayed a positively insignificant effect on conceptual competency, while positively significant on relationship competency (*H2* and *H5*). The significantly negative results seem to support

Gender	Male (Beta)	Female (Beta)	Male-Female (Beta)	Male-Female (p-value)
EV → ComC	-0.190	-0.088	0.101	0.913
EV → ConC	0.123	0.239	0.116	0.963
EV → OprC	0.050	-0.245	0.295	0.001
EV → OrgC	-0.161	-0.395	0.233	0.016
EV → RelC	0.239	0.168	0.071	0.285
EV → StrC	-0.215	-0.262	0.047	0.163
<i>Age (largest two groups)</i>	31 to 40 (Beta)	41 to 50 (Beta)	31 to 40-41 to 50 (Beta)	31 to 40-41 to 50 (p-value)
EV → ComC	0.054	-0.451	0.505	1.000
EV → ConC	0.107	0.158	0.050	0.532
EV → OprC	0.158	0.084	0.074	0.302
EV → OrgC	-0.445	0.337	0.781	1.000
EV → RelC	0.109	0.598	0.489	1.000
EV → StrC	-0.175	-0.179	0.004	0.468
<i>Education (largest two groups)</i>	Primary School (Beta)	Secondary School (Beta)	Primary-Secondary (Beta)	Primary-Secondary (p-value)
EV → ComC	-0.245	-0.314	0.069	0.470
EV → ConC	-0.233	-0.382	0.149	0.141
EV → OprC	-0.406	-0.566	0.160	0.106
EV → OrgC	-0.165	-0.253	0.088	0.222
EV → RelC	-0.208	-0.496	0.288	0.022
EV → StrC	-0.473	-0.294	0.180	0.977

**Notes:** Commitment competency (ComC); conceptual competency (ConC), opportunity recognition competency (OprC), organizing competency (OrgC), relationship competency (RelC), strategic competency (StrC), economic vulnerability (EV)

**Source:** Author(s) own compilation

**Table V.**  
Multi-group analysis

and further extend the existing literature (Barney, 1991; Man and Lau, 2000) through the evidence provided in this study that economic vulnerability negatively affects entrepreneurial competencies, specifically, commitment, opportunity recognition, organizing and strategic competency.

From the light of entrepreneurial competencies and RBV, this study emphasizes the need to address economic vulnerability and poverty from other perspectives by leaving behind the conventional micro-credit and human capital aspects. Besides, the existing efforts to eradicate poverty by development organizations and government have placed much emphasis only in providing micro-finance and enterprise development trainings. However, preventing these low-income and near poverty groups from falling into poverty is often neglected. As such, this study sheds new light on the studies of economic vulnerability by providing empirical evidence of the effect of entrepreneurs' level of economic vulnerability on their human capital development. Empirically, this study tested the individual dimensions of entrepreneurial competencies against the norm of studying entrepreneurial competencies as a whole. In elaborating the implication of this study, micro-enterprise owners and managers in this present competitive business era should seek effective channels toward improving their competencies. Apart from that, interested parties in promoting the competitiveness of micro-enterprises should organize more programs for the vast and varied audiences. Competencies, such as commitment competency, opportunity recognition, organizing and strategic competency, should be enhanced to minimize

economic vulnerability. Besides, several strategies, such as committing to long-term goals and working hard; the ability to identify, assess and actively seek business opportunities and unfulfilled market gaps; organizing existing and acquiring new resource; abiding by rules and regulations; having achievable long-term vision; and strategically aligning those resources toward future goals to ascertain superior firm performance, have been reckoned as crucial to reduce economic vulnerability. Nevertheless, the present study looked into the effects of economic vulnerability upon entrepreneurial competencies among micro-entrepreneurs, thus disabling generalization to larger firms. Moreover, the positive effects of conceptual competency and relationship competency on economic vulnerability require extended studies for they appear to contradict the theory in use. Finally, it is recommended that the government of Malaysia, as well as other related development agencies, should formulate ways to enhance the level of competency among entrepreneurs as an approach to reduce the negative and devastating impact of economic vulnerability.

## References

- Ahmed, F., Siwar, C., Bashawir, A. and Mia, M. (2016). "Urbanization and Urban poverty in Malaysia: consequences and vulnerability", *Journal of Applied Sciences*, Vol. 16 No. 4, pp. 154-160.
- Al-Mamun, A. and Mazumder, M. (2015), "Impact of microcredit on income, poverty, and economic vulnerability in Peninsular Malaysia", *Development in Practice*, Vol. 25 No. 3, pp. 333-346.
- Al-Mamun, A., Mazumder, M. and Malarvizhi, C. (2014), "Measuring the effect of Amanah Ikhtiar Malaysia's microcredit programme on economic vulnerability among hardcore poor households", *Progress in Development Studies*, Vol. 14 No. 1, pp. 49-59.
- Al Mamun, A., Subramaniam, E., Che Nawi, N. and Zainol, N. (2016), "Entrepreneurial competencies and performance of informal micro-enterprises in Malaysia", *Mediterranean Journal of Social Sciences*, Vol. 7 No. 3, pp. 273-281.
- Alvarez Barney J. (2000), "Entrepreneurial capabilities: a resource-based view", in Dale Mayer, G. and Hep- Pard, K.A. (Eds), *Entrepreneurship as Strategy: Competing on the Entrepreneurial Edge*, Sage Publications, Thousand Oaks, CA, pp. 63-81.
- Barazandeh, M., Parvizian, K., Alizadeh, M. and Khosravi, S. (2015), "Investigating the effect of entrepreneurial competencies on business performance among early stage entrepreneurs global entrepreneurship monitor", *Journal of Global Entrepreneurship Research*, Vol. 5 No. 1, pp. 1-12.
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- Bird, B. (1995), "Towards a theory of entrepreneurial competency", *Advances in Entrepreneurship, Firm Emergence and Growth*, Vol. 2, pp. 51-72.
- Chin W.W. (1998), "The partial least squares approach to structural equation modeling", in Marcoulides, G. A. (Ed.), *Modern Methods for Business Research*, Erlbaum, Mahwah, NJ, pp. 295-336.
- Corbacho, A., Garcia-Escribano, M. and Inchauste, G. (2007), "Argentina: macroeconomic crisis and household vulnerability", *Review of Development Economics*, Vol. 11 No. 1, pp. 92-106.
- EPU - Economic Planning Unit (2002), *Malaysian Quality of Life*, Prime Minister's Department, Putrajaya.
- EPU - Economic Planning Unit (2014), "Perangkaan Pendapatan Dan Kemiskinan Isi Rumah Sepintas Lalu", available at: <http://epu.gov.my/sites/default/files/Perangkaan%20Pendapatan%20%26%20Kemiskinan%20Isi%20Rumah%20Lalu%2C%202012%20%26%202014.pdf> (accessed 10 December 2017).
- Fisher, M. and Weber, B. (2004), "Does economic vulnerability depend on place of residence? Asset poverty across metropolitan and nonmetropolitan areas", *The Review of Regional Studies*, Vol. 34 No. 2, pp. 137-155.

- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011). "PLS-SEM: indeed a silver bullet", *Journal of Marketing theory and Practice*, Vol. 19 No. 2, pp. 139-152.
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2013), "Partial least squares structural equation modeling: rigorous applications, better results and higher acceptance", *Long Range Planning*, Vol. 46 Nos 1/2, pp. 1-12.
- Heltberg, R., Oviedo, A.M. and Talukdar, F. (2015), "What do household surveys really tell us about risk, shocks, and risk management in the developing world?", *Journal of Development Studies*, Vol. 51 No. 3, pp. 209-225
- Imai, K., Gaiha, R. and Kang, W. (2011), "Vulnerability and poverty dynamics in Vietnam", *Applied Economics*, Vol. 43 No. 25, pp. 3603-3618.
- Jacobsen, G. (2009), "Health and death risk and income decisions: evidence from microfinance", *The Journal of Development Studies*, Vol. 45 No. 6, pp. 934-946.
- Lee, H., Jung, H. and Park, S. (2015), "The effect of entrepreneurial environment on entrepreneurial activity: a comparative study of factor-driven, efficiency-driven, and innovation-driven economies", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 9 No. 1, pp. 57-69.
- Nair, S. (2010). "Moving forward: its poverty agenda challenges, dilemma and options for Malaysia", *Proceeding of the Chronic Poverty Research Centre 2010 Conference*, 8-10 September, UK.
- Nair, S. and Sagarán, S. (2015), "Poverty in Malaysia: need for a paradigm shift", *Institutions and Economics*, Vol. 7 No. 3, pp. 95-123.
- McCulloch, N. and Calandrino, M. (2003), "Vulnerability and chronic poverty in rural Sichuan", *World Development*, Vol. 31 No. 3, pp. 611-628.
- Mamun, A., Abdul Wahab, S. and Malarvizhi, C. (2010), "Impact of Amanah Ikhtiar Malaysia's microcredit schemes on microenterprise assets in Malaysia: impact of Amanah Ikhtiar Malaysia microcredit schemes on micro-enterprise assets in Malaysia", *International Research Journal of Finance and Economics*, Vol. 60, pp. 144-154.
- Man, T. and Lau, T. (2000), "Entrepreneurial competencies of SME owner/managers in the Hong Kong services sector: a qualitative analysis", *Journal of Enterprising Culture*, Vol. 8 No. 3, pp. 235-254.
- Man, T., Lau, T. and Chan, K. (2002), "The competitiveness of small and medium enterprises: a conceptualization with focus on entrepreneurial competencies", *Journal of Business Venturing*, Vol. 17 No. 2, pp. 123-142.
- Man, T.W.Y., Lau, T. and Snape, E. (2008), "Entrepreneurial competencies and the performance of small and medium enterprises: an investigation through a framework of competitiveness", *Journal of Small Business and Entrepreneurship*, Vol. 21 No. 3, pp. 257-276.
- The OECD Policy Briefs (2000), "Small and medium-sized enterprises: local strength, global reach", Online, available at: [www.oecd.org/cfe/leed/1918307.pdf](http://www.oecd.org/cfe/leed/1918307.pdf) (accessed 19 January, 2018).
- Tran, A. and Korfflesch, H. (2016), "A conceptual model of social entrepreneurial intention based on the social cognitive career theory", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 10 No. 1, pp. 17-38.
- Yilma, Z., Mebratie, A., Sparrow, R., Abebaw, D., Dekker, M., Alemu, G. and Bedi, A. (2014), "Coping with shocks in rural Ethiopia", *The Journal of Development Studies*, Vol. 50 No. 7, pp. 1009-1024.

### Further reading

- Feeny, S. and McDonald, L. (2015), "Vulnerability to multidimensional poverty: findings from households in Melanesia", *The Journal of Development Studies*, Vol. 52 No. 3, pp. 447-464.

## Appendix 1

Code	Questions	Source
ComC – Item 1	Dedicate time/other resources to make the venture work whenever possible	Man <i>et al.</i> (2008)
ComC – Item 2	Refuse to let the venture fail whenever appropriate	
ComC – Item 3	Possess an extremely strong internal drive	
ComC – Item 4	Commit to long-term business goals	
ConC – Item 1	Apply ideas, issues, and observations to alternative contexts	Man <i>et al.</i> (2008)
ConC – Item 2	Integrate ideas, issues, and observations into more general contexts	
ConC – Item 3	Take reasonable job-related risks	
ConC – Item 4	Monitor progress toward objectives in risky actions	
ConC – Item 5	Look at old problems in new ways	
ConC – Item 6	Explore new ideas	
ConC – Item 7	Treat new problems as opportunities	
OprC – Item 1	Identify goods or services customers want	Man <i>et al.</i> (2008)
OprC – Item 2	Understand the usefulness of new tools/technologies to improve business performance	
OprC – Item 3	Understand the usefulness of new methods/services to improve business performance	
OprC – Item 4	Perceive unmet consumer needs	
OprC – Item 5	Actively look for products or services that provide real benefit to customers	
OprC – Item 6	Seize high-quality business opportunities	
OrgC – Item 1	Plan the operations of the business	Man <i>et al.</i> (2008)
OrgC – Item 2	Organize resources	
OrgC – Item 3	Coordinate tasks	
OrgC – Item 4	Delegate effectively	
RelC – Item 1	Develop long-term trusting relationships with others	Man <i>et al.</i> (2008)
RelC – Item 2	Negotiate with others	
RelC – Item 3	Interact with others	
RelC – Item 4	Maintain a personal network of work contacts	
StrC – Item 1	Aware of the projected directions of the industry and how changes might impact the firm	Man <i>et al.</i> (2008)
StrC – Item 2	Prioritize work in alignment with business goals	
StrC – Item 3	Align current actions with strategic goals	
StrC – Item 4	Monitor progress toward strategic goals	
StrC – Item 5	Evaluate results against strategic goals	

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