

Establishing a Valid Instrument to Measure Entrepreneurial Knowledge and Skill

Business Perspectives
and Research
6(1) 13–26

© 2017 K.J. Somaiya Institute of
Management Studies and Research
SAGE Publications
sagepub.in/home.nav
DOI: 10.1177/2278533717730449
<http://bpr.sagepub.com>



Abdullah Al Mamun¹
Naresh Kumar²
Mohamed Dahlan Ibrahim³
Hakimin Yusoff⁴

Abstract

The purpose of this study is to establish a valid measure for entrepreneurial knowledge and skill from the perspectives of low-income households in Malaysia by means of reviewing the depths and progress of relevant entrepreneurial literature. In such effort, the subsequent research examines entrepreneurial skills, market orientation, sales orientation, and networking as components that will act as a set of instruments to measure “entrepreneurial knowledge and skill.” Quantitative data were collected from a total of 800 randomly selected household heads across four districts in Kelantan, Malaysia through structured interviews. On the basis of the reliability and validity testing, this study finalized the instruments to 26 items yielding four factors, namely, entrepreneurial skills (six items), market orientation (eight items), sales orientation (nine items), and networking (three items). Findings of the reflective hierarchical model revealed that networking is the highest contributor toward entrepreneurial knowledge and skill among the low-income households in Kelantan, followed by market orientation, entrepreneurial skills, and sales orientation. It is recommended that future researchers apply and thereby extend the developed measure by cross-examining the instruments presented in this study across different income-level groups underdeveloped and developed nations.

Keywords

Entrepreneurial skills, market orientation, sales orientation, networking

¹ Research Fellow, Global Entrepreneurship Research and Innovation Centre (GERIC), Universiti Malaysia Kelantan, Kampus Kota, Kota Bharu, Malaysia.

² Professor, Global Entrepreneurship Research and Innovation Centre (GERIC), Universiti Malaysia Kelantan, Kampus Kota, Kota Bharu, Malaysia.

³ Professor & Director of Centre For External Education, Universiti Malaysia Kelantan, Kampus Kota, Kota Bharu, Malaysia.

⁴ Associate Professor, Institute of Small Medium and Enterprise, Universiti Malaysia Kelantan, Kampus Kota, Kota Bharu, Malaysia.

Corresponding author:

Abdullah Al Mamun, Global Entrepreneurship Research and Innovation Centre (GERIC), Universiti Malaysia Kelantan, Kampus Kota, Locked Bag 36, Pengkalan Chepa, Kota Bharu 16100, Malaysia.

E-mail: abdullah.a@umk.edu.my

Introduction

Entrepreneurship is at the heart of national advantage (Porter, 1990). When increased rivalry led to severe economic problems among large and cost-ineffective companies that were not adaptive to the market economy during the 1990s in Slovenia, it was then that the role of entrepreneurship was amplified as an economic savior (Omerzel & Antončič, 2008). Entrepreneurship could be manifested as the aptitude and the readiness of an individual either on their own or in groups internally and externally in existing firms, to recognize and generate new economic opportunities as well as establish thoughts or ideas in potential markets through uncertainties and other barriers, by making decisions on location and forming and using resources and institutions (Wennekers & Thurik, 1999). Entrepreneurial activities were found to have significantly influenced the economy of certain areas particularly by strengthening the economic foundation and ensuring new jobs (Omerzel & Antončič, 2008). Perhaps this is why several researchers have highlighted the relevance of entrepreneurship toward economic development in their works (Davidsson, Delmar, & Wiklund, 2006). Entrepreneurship not only benefits social and economic growth but also provides individual fulfillment that is indiscriminative toward age, class, gender, race, and sexual orientation (Cooney, 2012).

Entrepreneurship, in general, refers to self-employed people who carry out self-employing entrepreneurial activities as a matter of choice or necessity (Naude, 2008). The latter, which refers to entrepreneurs by necessity, usually constitute a great proportion of low-income or underprivileged communities who are more often associated with informal or micro-entrepreneurship. Such form of entrepreneurship among the underprivileged functions as a powerful tool for combating poverty and empowering the poor economically (Basargekar, 2011). In a developing country such as Malaysia, it acts as an engine to drive the nation toward achieving economic dynamism especially considering that most underprivileged micro-entrepreneurs in such condition operate within the informal economy of the country (Al-Mamun, Subramaniam, Nawi, & Zainol, 2016). According to Saleh and Ndubisi (2006), small to medium-sized enterprises are among the most significant contributors toward economic development in Malaysia, and perhaps it is, therefore, that the policies and programs of the Malaysian government along with other development organizations in the country have been nurturing an entrepreneurship-supportive environment in order to promote entrepreneurial activities among low-income and underprivileged entrepreneurs (Al-Mamun & Ekpe, 2016).

Entrepreneurship is further perceived as a behavioral characteristic of individuals including an input and an output whereby entrepreneurial behavior requires entrepreneurial skills and qualities (Wennekers & Thurik, 1999). A recent study argued that the traditional approach to entrepreneurship needs to change and the relevance of entrepreneurship training and education must be expanded (Cooney, 2012). Previous relevant literature also voiced that entrepreneurship is a socially embedded activity whereby social embeddedness underlines the significance of skills that are related with dealing with other parties (Pyysiäinen, Anderson, McElwee, & Vesala, 2006). It is clearly apparent from the reviews of current entrepreneurship literature that entrepreneurship involves more than just business start-ups but rather, encompasses the development of skills to grow a business along with the personal competencies of the entrepreneur to transform it into a successful venture (Cooney, 2012). On the other hand, knowledge is considered to be the distinguishing factor among entrepreneurs and their competitors and thereby is able to transform poorly organized businesses into well-organized ventures (Omerzel & Antončič, 2008). Past research has shown that knowledge has emerged as an important tool for strengthening a firm's competitive advantage (Hsu, Lawson, & Liang, 2006). It is empirically established that entrepreneurs' knowledge and skills are the most crucial assets to induce firm performance, particularly in the context of small to medium-sized organizations, as uncertainty levels regarding their effectiveness will be lessened; therefore, they will be able to learn and notice market changes faster (Omerzel & Antončič, 2008).

The notion of stimulating greater entrepreneurial activities has emerged as a prominent goal for several national governments across the globe as a response to the current economic challenges (Cooney, 2012). However, according to Wennekers and Thurik (1999), without the involved concepts being operationalized clearly, it is difficult to measure entrepreneurship at both the aggregate and individual levels, particularly when entrepreneurs tend to reside at the tails of the distribution of the dimensions of personal characteristics, entrepreneurship would remain a complex phenomenon to capture. Moreover, related literature revealed that there exist no prevalent measures in the context of entrepreneurial knowledge among companies (Lynskey, 2004; Omerzel & Antončič, 2008). In such a backdrop, it is apparent that the lack of conceptual development along with inadequate tools to measure entrepreneurial knowledge and skills hinder the progress of related quantitative research efforts. Therefore, in a novel and significant attempt, this present study surveys the depths and progress of entrepreneurial literature with the purpose of distilling their outlines. Consequently, this will lead to the discovery of more prevalent measures of entrepreneurial knowledge and skills particularly in the context of low-income or underprivileged households in a developing nation.

Literature Review

Entrepreneurial Knowledge and Skills

Entrepreneurial knowledge and skills refer to the major manifestation of human capital, concepts, skills, and mentality which entrepreneurs use or should use, as necessary for entrepreneurial success and sustainability (Jack & Anderson 1999; Wu, Chang, & Chen, 2008). Entrepreneurship is perceived as a socially embedded activity wherein the idea of social embeddedness underlines the significance of skills and knowledge that are related to dealing with other parties (Pyysiäinen et al., 2006). Omerzel and Antončič (2008) upheld that enterprises with entrepreneurs nurturing their own skills and knowledge are more likely to have superior profitability and growth than firms that are run by entrepreneurs lacking such attributes. It is evident from a review of recent entrepreneurial literature that the concept of entrepreneurship involves more than just business start-ups but rather incorporates the development of skills required to grow a business equipped with the necessary personal competencies to make it a successful venture (Cooney, 2012). According to Gibb (1987), training and education consistently influence entrepreneurial role that is acquired both experimentally and culturally. Therefore, it is necessary to revise not only the existing approach to entrepreneurship but also the related training and education.

Recent relevant studies recognize the requirement of utilizing an action-oriented, group-work, and mentoring approach toward entrepreneurship to ensure greater learning effectiveness, with the emphasis on problem-solving, critical thinking, innovation, risk-taking, creativity and collaborative skills (Cooney, 2012). Kutzhanova, Lyons, and Lichtenstein (2009) argued that it is important to be aware of the difference in each entrepreneur's start-up skills as they will require different strategies to develop those skills. According to Cooney (2012), such skill development is a not quantitative but rather qualitative approach to entrepreneurship and, therefore, demands certain level of entrepreneur transformation.

Components of Entrepreneurial Knowledge and Skill

Previous literature reported that there exists no prevalent measure of entrepreneurial knowledge (Omerzel & Antončič, 2008). Nevertheless, the existing literature is found to be fragmented regarding the indicators

of entrepreneurial knowledge wherein the majority of authors who concentrated on the concept of knowledge in the context of entrepreneurs' characteristics (Lynskey, 2004). Regarding the paradigm of entrepreneurial practice, Omerzel and Antončič (2008) found that the dimensions of entrepreneurial knowledge and skills include self-confidence skills, education, and functional knowledge; specifically in the context of small to medium-sized firms, the most significant components of entrepreneur skills and knowledge are: analytical/critical thinking (representing the capability to analyze situations and problems in a critical and logical manner and to apply logical and workable solutions to such problems); leadership abilities (reflecting the ability to lead a team while taking responsibility for a task, providing structure, giving direction, and delegating responsibility to others); and finally knowledge of company management and organization.

The present study attempts to develop the constructs upon which questions can be developed with the purpose of discovering the respondents' measure of entrepreneurial knowledge and skills. The data obtained from the constructs of immediate interests will then be able to provide some insights into entrepreneurial skills, market orientation, sales orientation, and networking as vital components in entrepreneurial knowledge and skills.

Entrepreneurial Skills

Entrepreneurial skills refer to those activities, or practical know-how, mastering which are required to establish and successfully run a business enterprise (Kilby, 1971; Smilor, 1997). Entrepreneurship has long been associated with the creation of artificial entities; hence, it is strongly argued that the skills required to achieve entrepreneurial outcome could be developed through training (Kutzhanova et al., 2009). Several formulations of entrepreneurial skills and tasks entail the presence of situational factors such as markets, investors, customers, human assets, social networks, and ties, whereby an individual's background, cultural traditions along with their institutional and social settings significantly influences his or her willingness to learn and deploy entrepreneurial skills (Pyysiäinen et al., 2006). According to another research, entrepreneurship itself is a learned skill and the process requires entrepreneurs' involvement over a significant period of time (Kutzhanova et al., 2009).

Market Orientation

Market orientation can be defined as an organization's orientation toward promoting and supporting the activities of collection, dissemination, and responsiveness toward market intelligence in order to fulfill the needs of both existing and potential customers. This hiked attention given to individuals and departments will thereby lead the firm toward achieving a high-quality performance (Kohli & Jaworski, 1990). In support of the same ideas, Narver and Slater (1990) described market orientation as an organizational culture that is able to generate a much-needed behavior to create superior value for buyers, thereby leading the organization toward continuous superior performance. In order to meet the current needs, market orientation motivates and supports the refinement and adaptation of existing innovations (Atuahene-Gima & Ko, 2001). It also reflects adaptive learning wherein firms identify their respective environmental changes and respond to them by means of previously held assumptions toward consumers and competitions (Atuahene-Gima & Ko, 2001). Previous relevant literature further upheld that market orientation is an adaptive ability through which enterprises react or respond to changing conditions within the market environment (Kohli & Jaworski, 1990; Narver & Slater, 1995).

Sales Orientation

Sales orientation, in the present context, refers to the primary engagement of entrepreneurs in “getting the sale” (Jaramillo, Ladik, Marshall, & Mulki, 2007). The selling-oriented approach to sales focuses on selling as much as possible with the emphasis on customers’ needs along the way (Boles, Babin, Brashear, & Brooks, 2001). On the other hand, an unsupportive work environment could be related to an abusive implementation of selling-orientation whereby employees attempt to increase sales in order to enhance their performance and thereby avoiding negative sanctions from the management (Boles et al., 2001). Given the significance of consumer satisfaction in the present competitive business environment coupled with the increasing expectations of consumers require result to entrepreneurs’ needs to build rapport, present their services/products, and close the sale in a single meeting (Boles et al., 2001). Centralized decision-making has been found to be strongly related to selling orientation. This reflects the lack of authority to make individual decisions based on customers’ complaints and needs. This means that decision-making influences selling-oriented approach in the efforts to generate sales and the construct is able to be measured by employing the SOCO scale developed by Saxe and Weitz (1982) (Boles et al., 2001; O’Hara, Boles, & Johnston, 1991).

Networking

Existing literature addressing the concept of entrepreneurial networking has been found to be soaring in terms of both scope and sophistication (Dodd, Jack, & Anderson, 2006). The term network can be regarded as a linkage between social and economic dimensions of human behavior, between different types of discipline and methodology, or even between the scholarly community and the world of practice. Entrepreneurial network provides the framework for different processes which aims at organizing resources according to opportunities (Johannisson & Mønsted, 1997). Larson (1992) argued that entrepreneurial dyadic ties are the building blocks of networks that are built upon a history of preconditions for exchange, including both organizational and personal reputations along with prior relations. In a context where entrepreneurship represents change, entrepreneurs need to create change and respond toward change and, therefore, networking in such scenarios emerges as the mechanism for not only dealing with the environment and the conditions of entrepreneurship but also coping with such change (Dodd et al., 2006). It is also the affecting factors between network and the nature of networking contacts toward start-ups, growth and developmental stages of an enterprise.

Research Methodology

This study adopted a cross-sectional approach to develop and validate an instrument to measure entrepreneurial motivation among low-income households in Kelantan, Malaysia. The target population for this study was residents of Kelantan, which is the poorest state in Peninsular Malaysia. They were also chosen from those that were registered under Majlis Agama Islam Dan Adat Istiadat Melayu Kelantan (ASNAF). This study then selected four locations in Kelantan including Bachok, Tumpat, Jeli, and Gua Musang. A total of 3090 low-income households formed the population across the four districts, namely, Bachok (1394), Tumpat (1257), Jeli (233), and Gua Musang (206). Since this study intends to compare across locations and other antecedents, it randomly selected 800 low-income respondents with a total of 200 respondents from each location. Data were collected through face-to-face structured interviews.

Research Instrument

The questionnaires were translated from English into Malay and checked for inter-translator consistency. They were developed based on the review of the existing entrepreneurship indices and tested through a pilot survey. The instrument was then enhanced based on the comment and feedback from the pilot survey. This study used a five-point Likert scale ranging from one denoted as strongly disagree to five denoted as strongly agree to avoid confusion and biases of fatigue longer scales. The research instrument (see Table 1) was adapted and modified from past studies and existing entrepreneurship index (i.e., Noraishah, 2003; Norasmah, 2006).

Table 1. Research Instrument—Entrepreneurial Knowledge and Skill

Code	Questions
C1	Ability for economic negotiation
C2	Ability to communicate about financial concepts
C3	Ability to access advice and support services
C4	Ability to get along well with others
C5	Ability to communicate effectively with others
C6	Ability earn the respect of people
C35	I can type using a computer
C36	I can access the necessary information about the business through Internet
C37	I think that the use of computer to manage business information systematically
C38	I am using computer to manage business information with systematic
C39	I am prepare keeping business record with systematic
C7	I have a loyal customer base
C8	I think that the business is sensitive to the needs of a business
C9	I use promotional campaign as an advantage to attract the customer
C11	I learned from my competitors' mistakes
C12	I have the capabilities and resources to compete in the market
C13	I learned from my competitors' strength
C14	My opinion the businesses that I run has advantages compared with other competitors
C17	People can receive new product that I created
C18	In my opinions, unfulfilled needs for any type of products and services among society will be fight for developing new opportunity
C19	In my opinions, many local businesses in progress developing new products and services are market at outside areas
C20	In my opinions, current networking marketing is not efficient
C21	In my opinion, businesses should identify clearly the company and the target market
C22	In my opinion, this product is a profitable market that many
C23	In my opinion, the business is able to reach the area around a tidy profit
C24	I try to meet people who may be important for me

(Table 1 Continued)

(Table 1 Continued)

Code	Questions
C25	I was an active liaison network
C26	I maintain contacts outside my inner circle
C27	I like to talk to people who I do not yet know
C28	Businessman creates rapport to share opinion through existed networking with encouraging new members
C29	Businessman create relationship with various business community
C30	Relationships build to solve the problems
C31	Existing relationships encourage new members
C33	Reform banking regulations to support entrepreneurs
C34	The right of state government influence my business

Source: Authors' own.

Summary of Findings

Demographic Characteristics

Among the selected 800 respondents from Kelantan, Malaysia, 30.1 percent of them were reported to possess 5 years of entrepreneurial experience, 10.4 percent respondents with 6–10 years of business experience, 4.4 percent with 11–15 years of experience, 2.8 percent with 16–20 years of experience, and lastly 5.3 percent with 21 years of previous business experience. However, a large portion of about 47.1 percent of the respondents was reported not to have any previous business experiences at all. In regard to their willingness to venture into business, 71.3 percent of the respondents gave positive responses with a mere 25.3 percent gave negative responses while the remaining 3.5 percent stated that they were not sure whether they would venture into business or not.

In terms of age, 81 respondents (10.1 percent) were less than 31 years old, 250 respondents (31.3 percent) were between 31 and 45 years of age, 22.1 percent were between 46 and 55 years of age, and 292 respondents (36.5 percent) which representing the largest age group among the respondents were reported to be over 55 years of age. Out of the 800 respondents, 32.0 percent (256 respondents) were reported to be males and 68.0 percent (544 respondents) were females. As for their marital status, 515 respondents were reported to be married, 47 were single, 41 were widow/widower and the rest were single parents. Lastly, in terms of education, the respondents were grouped into five categories, in which most were reported to have achieved SPM/Form Five as their highest education level with a percentage of 35.5. 19.8 percent or 158 respondents were reported to achieve PMR/ SRP, 18.9 percent or 151 were reported to have completed their Primary Six while a large portion of 22.4 percent or 179 respondents were reported to have never attended school at all.

Measuring Validity

The Fornell–Larcker criterion postulates that latent variable is expected to share more variance with its assigned indicators compared to any other latent variables; therefore, it can be stated here that the AVE

of each latent variable should be greater than the latent variable's highest squared correlation with any other latent variables (Henseler, Ringle, & Sinkovics, 2009). As shown in Table 2, the constructs did not meet the set criteria. Furthermore, the loading of each indicator should be greater than 0.7 (or 0.5 if AVE is more than 0.5), which is also expected to be greater than all of its cross-loadings (Henseler et al., 2009). Due to the higher level of correlations among the items used and the AVE value for two constructs were less than 0.5, this study removed 7 items with loading values that were less than 0.6 (see Table 3) and the tests were repeated.

Table 2. Validity—Model A

	ES	MO	SO	NE	KS
<i>Fornell–Larcker Criterion</i>					
Entrepreneurial skills	0.691				
Market orientation	0.748	0.767			
Sales orientation	0.622	0.766	0.872		
Networking	0.785	0.779	0.687	0.786	
Knowledge and skills	0.906	0.916	0.797	0.931	0.683

Source: Author's data analysis.

Note: Entrepreneurial skills (ES), market orientation (MO), sales orientation (SO), networking (NE), and entrepreneurial knowledge and skills (KS).

Table 3. Cross Loading—Model A

	ES	MO	SO	NE	KS
C1	0.742	0.500	0.395	0.567	0.642
C2	0.784	0.521	0.380	0.603	0.674
C3	0.767	0.549	0.392	0.565	0.664
C4	0.635	0.627	0.562	0.519	0.649
C5	0.590	0.641	0.600	0.550	0.653
C6	0.576	0.580	0.492	0.532	0.612
C35	0.621	0.507	0.428	0.476	0.576
C36	0.655	0.377	0.350	0.472	0.537
C37	0.735	0.406	0.335	0.431	0.555
C38	0.670	0.364	0.306	0.458	0.528
C39	0.770	0.463	0.332	0.570	0.634
C7	0.666	0.792	0.585	0.608	0.743
C8	0.459	0.725	0.641	0.538	0.637
C9	0.593	0.791	0.619	0.588	0.716
C11	0.474	0.652	0.439	0.496	0.581
C12	0.544	0.679	0.501	0.587	0.652

(Table 3 Continued)

(Table 3 Continued)

	ES	MO	SO	NE	KS
C13	0.610	0.812	0.612	0.575	0.723
C14	0.558	0.809	0.629	0.590	0.712
C17	0.645	0.789	0.558	0.748	0.783
C18	0.585	0.837	0.688	0.623	0.748
C19	0.617	0.727	0.915	0.641	0.757
C20	0.487	0.544	0.828	0.508	0.601
C21	0.513	0.714	0.870	0.636	0.713
C22	0.513	0.701	0.735	0.666	0.704
C23	0.497	0.621	0.615	0.679	0.666
C24	0.681	0.622	0.504	0.809	0.760
C25	0.653	0.607	0.513	0.802	0.745
C26	0.659	0.571	0.484	0.832	0.744
C27	0.526	0.521	0.443	0.659	0.618
C28	0.674	0.625	0.560	0.866	0.786
C29	0.673	0.636	0.503	0.846	0.775
C30	0.668	0.607	0.517	0.857	0.770
C31	0.596	0.608	0.538	0.809	0.732

Source: Authors' own.

Note: Entrepreneurial skills (ES), market orientation (MO), sales orientation (SO), networking (NE), entrepreneurial knowledge and skills (KS).

As noted earlier, the AVE of each latent variable should be greater than the latent variable's highest squared correlation with any other latent variables. As shown in Table 4, the constructs successfully met the set criteria. Meanwhile, in Table 5, the loading values are all more than the cross-loading values.

Table 4. Validity—Model B

	ES	MO	SO	NE	KS
<i>Fornell–Larcker Criterion</i>					
Entrepreneurial skills	0.777				
Market orientation	0.696	0.784			
Sales orientation	0.557	0.770	0.872		
Networking	0.760	0.777	0.687	0.786	
Knowledge and skills	0.850	0.918	0.804	0.942	0.712

Source: Authors' own.

Note: Entrepreneurial skills (ES), market orientation (MO), sales orientation (SO), networking (NE), and entrepreneurial knowledge and skills (KS).

Table 5. Cross Loading—Model B

	ES	MO	SO	NE	KS
C1	0.825	0.506	0.394	0.567	0.644
C2	0.880	0.521	0.379	0.603	0.675
C3	0.831	0.541	0.392	0.565	0.656
C4	0.609	0.609	0.562	0.519	0.632
C39	0.743	0.470	0.332	0.570	0.607
C7	0.662	0.801	0.585	0.608	0.748
C8	0.425	0.719	0.642	0.537	0.646
C9	0.554	0.796	0.619	0.588	0.718
C12	0.486	0.690	0.501	0.587	0.652
C13	0.572	0.796	0.612	0.575	0.716
C14	0.495	0.817	0.629	0.590	0.715
C17	0.612	0.798	0.559	0.748	0.792
C18	0.539	0.845	0.688	0.623	0.755
C19	0.558	0.730	0.914	0.641	0.760
C20	0.435	0.552	0.828	0.507	0.605
C21	0.457	0.715	0.871	0.636	0.724
C22	0.441	0.700	0.735	0.666	0.710
C23	0.439	0.621	0.615	0.679	0.674
C24	0.690	0.616	0.504	0.809	0.768
C25	0.632	0.609	0.513	0.802	0.751
C26	0.643	0.570	0.484	0.832	0.750
C27	0.529	0.515	0.443	0.659	0.627
C28	0.685	0.634	0.503	0.847	0.789
C29	0.656	0.604	0.517	0.858	0.779
C30	0.561	0.609	0.538	0.809	0.741
C31	0.742	0.574	0.515	0.686	0.715

Source: Authors' own.

Note: Entrepreneurial skills (ES), market orientation (MO), sales orientation (SO), networking (NE), and entrepreneurial knowledge and skills (KS).

Demographic, Reliability, and Validity

In Table 6, the numbers that listed the mean and relatively small standard deviation values designate that the values in the statistical data set of this recent study are close to the mean of the complete data set that were used for the study. Even so, acquiring a substantial research would desire a set of reliable and valid items. In order to conduct such assessment, the main criterion is typically the internal consistency reliability where Cronbach's alpha presumes that all the used indicators are uniformly reliable (Hair, Hult, Ringle, &

Sarstedt, 2013). Based on Cronbach's alpha, composite reliability and the Average Variance Extracted (AVE) of the data for this research are shown in Table 6. The Cronbach's alpha for "Entrepreneurial Skills," "Market Orientation," "Sales Orientation," "Networking," "Entrepreneurial Skills," and "Knowledge Skills" has been found to be more than 0.7, and thus, all of the items used for the present study could be considered reliable.

Table 6. Demographic, Reliability, and Validity

	Items	Mean	SD	Cronbach's Alpha	Composite Reliability	AVE
Entrepreneurial skills	6	3.3725	0.92072	0.864	0.900	0.603
Market orientation	8	3.7616	0.70168	0.910	0.927	0.615
Sales orientation	9	3.5825	0.74554	0.842	0.905	0.760
Networking	3	3.5221	0.76222	0.930	0.941	0.618
Knowledge and skills	26	3.5597	0.68317	0.962	0.965	0.506

Source: Authors' own.

This analysis is further supported by Hair et al.'s (2013) deduction which highlighted that the reliability value of an item, particularly for composite reliability with 0.7 or more, is deemed as acceptable, as in the case for present study (Table 6). Table 6 also demonstrates that the AVE values for all of the variables are found to be higher than 0.50. According to Hair, Ringle, and Sarstedt (2011), the AVE values should be higher than 0.50 as anything lesser than that would cause error to remain in the items than the variance that is explained by the construct (Hair et al., 2013); therefore, the values could be considered to be acceptable convergent validity.

Corresponding to Hair et al. (2013), the examining of cross loadings of the indicators enables assessment of discriminant validity. When the value of the discriminant validity is higher than 0.7 and the construct loading is higher than its cross loading, then a component is considered reliable. All the indicators as represented in Model B (in Table 5) demonstrate components that can be assumed to be reliable since their loadings are higher than 0.7 (Hair et al., 2013). Table 5 further reveals the cross-loadings of all the indicators' loadings which are higher than the entire cross-loadings, affirming the discriminant validity. Appertaining to the Fornell–Larcker criterion for discriminant validity, the AVE for each indicator needed to be higher than the constructs highest squared correlation with another construct, and since all the constructs met the criteria as observed in Table 4, there is no evidence of a lack of discriminant validity. As the AVE values for all constructs are more than 0.5, they indicate sufficient convergence validity.

Path Coefficients

Path coefficients are estimated path relationships in the structural model (i.e., between the constructs in the model) (Hair et al., 2013). Table 7 illustrates the effects of path coefficients on "entrepreneurial skills," "market orientation," "sales orientation," and "networking" are positive and statistically significant at the chosen 5 percent level of significance. The "entrepreneurial" path demonstrates that the constructs used are significantly able to predict "knowledge and skills." In addition to that, Table 7 also predicts the Beta and *t*-values which reveal that "networking" is a single construct which makes the strongest unique contribution in resolving "entrepreneurial knowledge and skills" through its highest beta value followed by "market

orientation,” “entrepreneurial skills,” and “sales orientation.” In terms of variance, “market orientation” leads the team followed by “networking,” “sales orientation,” and “entrepreneurial skills.”

Table 7. Path Coefficients of Reflective Hierarchical Model

	Beta	t-value	p-value
Entrepreneurial skills → Ent. knowledge and skills	0.222	35.853	0.000
Market orientation → Ent. knowledge and skills	0.330	60.135	0.000
Sales orientation → Ent. knowledge and skills	0.134	37.856	0.000
Networking → Ent. knowledge and skills	0.425	56.029	0.000

Source: Authors' own.

Conclusion

Entrepreneurship is perceived as behavioral characteristic of individuals who undertake multiple roles to create business ventures (Wennekers & Thurik, 1999). Therefore, it could be presumed that for undertaking such roles, a set of entrepreneurial knowledge and skills are prerequisites. According to Cooney (2012), the notion of stimulating greater entrepreneurial activities has emerged as a prominent goal for many national governments across the globe as a response to the current economic challenges confronted by them. But existing literature convey that without the involved concepts being operationalized clearly, it is difficult to measure entrepreneurship, both at the aggregate and individual level; particularly where entrepreneurs tend to reside at the tails of the distribution of the dimensions of personal characteristics, entrepreneurship would remain a complex phenomenon to capture (Wennekers & Thurik, 1999). In such a backdrop, it is apparent that lack of conceptual development along with inadequate tools to measure entrepreneurial knowledge and skills has been hindering the progress of related quantitative research; therefore, in a novel and significant attempt, present study surveys the depths and progress of entrepreneurial literature with the purpose of distilling its outlines for a prevalent measure of entrepreneurial knowledge and skills particularly in the context of low-income or underprivileged households in Malaysia.

The purpose of this study was to address the literary gap in terms of inadequacy of a valid and prevalent instrument to measure entrepreneurial knowledge and skills that is presumed to be hindering the progress of related quantitative research. By surveying the depths and progress of entrepreneurial literature, a valid and prevalent instrument to measure entrepreneurial knowledge and skills particularly in the context of low-income or underprivileged households in Malaysia is forwarded by this study, which could be applied by future quantitative researchers to measure entrepreneurial knowledge and skills prevalently.

It is acknowledged that the findings of the present study are mere incremental contributions to the overall understanding and knowledge of entrepreneurial knowledge and skills. In that effort, it has forwarded and confirmed the reliability and validity of a new instrument to measure “entrepreneurial knowledge and skills.” The present study also found significant relationships between “entrepreneurial knowledge and skills” and the four posited components (i.e., entrepreneurial skills, market orientation, sales orientation, and networking) by means of relevant statistical analyses. The instrument’s development and validation process for all constructs employed in this study has confirmed that the

new instrument is not only internally consistent but also multi-dimensional and stable across samples. It is, therefore, recommended that future researchers use it to carry out quantitative studies focusing on entrepreneurial knowledge and skills across different income groups. By doing so, they could perhaps shed light on the extent of the instrument's replicability across a wider set of countries and, in turn, may contribute to more advanced entrepreneurial research in the future.

Funding

This research was funded by the Ministry of Higher Education, Malaysia under the grant entitled "Developing a Comprehensive Rural Entrepreneurship Model for Poverty Eradication (REMODE)" (R/NRGS/A01.00/00047A/006/2014/000149).

Acknowledgment

Apart from the Ministry of Higher Education and Universiti Malaysia Kelantan, the authors would like to acknowledge and thank the editor of the journal, the editorial assistant, and the two anonymous reviewers for their valuable comments, which helped to improve the manuscript significantly.

References

- Al-Mamun, A., & Ekpe, I. (2016). Entrepreneurial traits and micro-enterprise performance: A study among women micro-entrepreneurs in Malaysia. *Development in Practice*, 26(2), 193–202.
- Al-Mamun, A., Subramaniam, P.A., Nawi, N.B.C., & Zainol, N.R.B. (2016). Entrepreneurial competencies and performance of informal micro-enterprises in Malaysia. *Mediterranean Journal of Social Sciences*, 7(3), 273–281.
- Atuahene-Gima, K., & Ko, A. (2001). An empirical investigation of the effect of market orientation and entrepreneurship orientation alignment on product innovation. *Organization Science*, 12(1), 54–74.
- Basargekar, P. (2011). *Using social capital for the development of micro entrepreneurship*. 10th International Entrepreneurship Forum (pp. 1–15). Bahrain: Tamkeen.
- Boles, J.S., Babin, B.J., Brashear, T.G., & Brooks, C. (2001). An examination of the relationships between retail work environments, salesperson selling orientation-customer orientation and job performance. *Journal of Marketing Theory and Practice*, 9(3), 1–13.
- Cooney, T.M. (2012). *Entrepreneurship skills for growth-orientated businesses*. Copenhagen: Danish Business Authority.
- Davidsson, P., Delmar, F., & Wiklund, J. (2006). Entrepreneurship as growth: Growth as entrepreneurship. In P. Davidsson, F. Delmar & J. Wiklund (Eds), *Entrepreneurship and the growth of firms* (pp. 21–38). Cheltenham, England: Edward Elgar Publishing.
- Dodd, S.D., Jack, S., & Anderson, A. (2006). The mechanisms and processes of entrepreneurial networks: Continuity and change. In Johan Wiklund, Dimo Dimov, Jerome A. Katz & Dean A. Shepherd (Eds), *Entrepreneurship: Frameworks and empirical investigations from forthcoming leaders of European research* (Advances in entrepreneurship, firm emergence and growth) (Vol. 9, pp. 107–145). Bingley: Emerald Group Publishing Limited.
- Gibb, A.A. (1987). Enterprise culture—Its meaning and implications for education and training. *Journal of European Industrial Training*, 11(2), 2–38.
- Hair, J.F.J., Ringle, C.M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, J.F.J., Hult, G.T.M., Ringle, C., & Sarstedt, M. (2013). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: SAGE Publications.

- Henseler, J., Ringle, C.M., & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. In Rudolf R. Sinkovics & Pervez N. Ghauri (Eds), *New Challenges to International Marketing* (Advances in International Marketing) (Vol. 20, pp. 277–319). Bingley: Emerald Group Publishing Limited.
- Hsu, R.C., Lawson, D., & Liang, T.P. (2006). Factors affecting knowledge management adoption of Taiwan small and medium-sized enterprises. *International Journal of Management and Enterprise Development*, 4(1), 30–51.
- Jack, S.L., & Anderson, A.R. (1999). Entrepreneurship education within the enterprise culture: Producing reflective practitioners. *International Journal of Entrepreneurial Behavior & Research*, 5(3), 110–125.
- Jaramillo, F., Ladik, D.M., Marshall, G.W., & Mulki, J.P. (2007). A meta-analysis of the relationship between sales orientation-customer orientation (SOCO) and salesperson job performance. *Journal of Business & Industrial Marketing*, 22(5), 302–310.
- Johannisson, B., & Mønsted, M. (1997). Contextualizing entrepreneurial networking: The case of Scandinavia. *International Studies of Management & Organization*, 27(3), 109–136.
- Kilby, P. (1971). Hunting the Heffalump. In P. Kilby (Ed.), *Entrepreneurship and economic development* (pp. 1–40). New York and London: Free Press.
- Kohli, A.K., & Jaworski, B.J. (1990). Market orientation: The construct, research propositions, and managerial implications. *The Journal of Marketing*, 54(2), 1–18.
- Kutzhanova, N., Lyons, T.S., & Lichtenstein, G.A. (2009). Skill-based development of entrepreneurs and the role of personal and peer group coaching in enterprise development. *Economic Development Quarterly*, 23(3), 193–210.
- Larson, A. (1992). Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly*, 37(1), 76–104.
- Lynskey, M.J. (2004). Determinants of innovative activity in Japanese technology-based start-up firms. *International Small Business Journal*, 22(2), 159–196.
- Narver, J.C., & Slater, S.F. (1990). The effect of a market orientation on business profitability. *The Journal of Marketing*, 54(4), 20–35.
- Naude, W. (2008). *Entrepreneurship and economic development: Theory, evidence and policy* (Research Paper, 2008/20). United Nations University (UNU). Retrieved 24 March 2017, from <http://hdl.handle.net/10419/63572>
- Noraishah, B. (2003). *Entrepreneurs psychometric index*. Retrieved May 22, 2016, from <http://www.piken.com.my>
- Norasmah, O. (2006). Indeks keusahawanan remaja malaysia, Manual & Instrumen.
- O'Hara, B. S., Boles, J.S., & Johnston, M.W. (1991). The influence of personal variables on salesperson selling orientation. *Journal of Personal Selling & Sales Management*, 11(1), 61–67.
- Omerzel, D.G., & Antončič, B. (2008). Critical entrepreneur knowledge dimensions for the SME performance. *Industrial Management & Data Systems*, 108(9), 1182–1199.
- Porter, M. (1990). *The competitive advantage of nations*. New York, NY: Deutsche Ausgabe.
- Pyysiäinen, J., Anderson, A., McElwee, G., & Vesala, K. (2006). Developing the entrepreneurial skills of farmers: Some myths explored. *International Journal of Entrepreneurial Behavior & Research*, 12(1), 21–39.
- Saleh, A.S., & Ndubisi, N.O. (2006). An evaluation of SME development in Malaysia. *International Review of Business Research Papers*, 2(1), 1–14.
- Saxe, R. and Weitz, B.A. (1982) The SOCO scale: A measure of the customer orientation of salespeople. *Journal of Marketing Research*, 19(3), 343–351.
- Smilor, R.W. (1997). Entrepreneurship: Reflections on a subversive activity. *Journal of Business Venturing*, 12(5), 341–346.
- Wennekers, S., & Thurik, R. (1999). Linking entrepreneurship and economic growth. *Small Business Economics*, 13(1), 27–56.
- Wu, W.Y., Chang, M.L., & Chen, C.W. (2008). Promoting innovation through the accumulation of intellectual capital, social capital, and entrepreneurial orientation. *R&D Management*, 38(3), 265–277.