

Alom, Fardous; Abdullah, Moha Asri; Moten, Abdul Rashid; Azam, S. M. Ferdous

Article

Success factors of overall improvement of microenterprises in Malaysia: an empirical study

Journal of Global Entrepreneurship Research

Provided in Cooperation with:

Springer Nature

Suggested Citation: Alom, Fardous; Abdullah, Moha Asri; Moten, Abdul Rashid; Azam, S. M. Ferdous (2016) : Success factors of overall improvement of microenterprises in Malaysia: an empirical study, Journal of Global Entrepreneurship Research, ISSN 2251-7316, Springer, Heidelberg, Vol. 6, Iss. 7, pp. 1-13,
<https://doi.org/10.1186/s40497-016-0050-2>

This Version is available at:

<https://hdl.handle.net/10419/161791>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<http://creativecommons.org/licenses/by/4.0/>

RESEARCH

Open Access



Success factors of overall improvement of microenterprises in Malaysia: an empirical study

Fardous Alom^{1*}, Moha Asri Abdullah¹, Abdul Rashid Moten² and S. M. Ferdous Azam³

* Correspondence:

fardousalom@gmail.com

¹Department of Economics,
Kulliyah of Economics and
Management Science, International
Islamic University Malaysia (IIUM),
Jalan Gombak, Selangor Darul
Ehsan, PO Box 10, 50728 Kuala
Lumpur, Malaysia

Full list of author information is
available at the end of the article

Abstract

Most of the enterprises of the World belong to the class of microenterprises and thus, the contributions of microenterprises to the national economic growth and development of the countries are not ignorable. Establishing a microenterprise does not involve the huge formalities and substantial funds that small, medium and large enterprises require. However, for a healthy growth of microenterprises, the determining factors must be identified and policies should be undertaken and implemented in an appropriate manner. The objective of the current study is to identify different potential factors that contribute to the overall growth of the Malaysian microenterprises. Computing descriptive statistics and applying multiple regression analysis to data for 253 microenterprises of Malaysia, the study finds that a certain number of entrepreneurial and enterprise characteristics along with several economic factors affect the overall performance of microenterprises. Specifically, it is found that competition and the age of the enterprises negatively affect overall performance of the microenterprises whereas age of the entrepreneurs, education, business training, demand for the product/service, availability of physical space for business expansion in the city area, availability of financing and sufficiency of secured amount of finance pose positive impacts on the growth. The results of this study provide some insights to policymakers and business practitioners to address the determinants pertaining to microenterprise growth.

Keywords: Growth, Determinants, Microenterprise, Performance, Regression, Malaysia, Success factors

Background

Microenterprises are the lowest form of enterprises in terms of size, measured by either investment or employment or total assets of the firm, having the flexibility of easy start and exit (Kushnir 2010). The majority of the enterprises of the World belong to this group. According to micro, small and medium enterprises (MSME) country indicators 2010, there are 125 million of formal MSME in 132 economies of the World (Kushnir et al. 2015) of which 89 million are in emerging countries; if informal enterprises are added to the formal the total number of MSME will be much higher as it is argued that the majority of the microenterprises in most of the countries remain informal (Bruhn and McKenzie 2014). In the Euro area, 92.4 % of the total enterprises belong to microenterprise group that creates 29.1 % jobs and adds 28.0 % value to the

European GDP. In 2013, microenterprises create job scopes for 88.8 million people (Muller et al. 2013/2014) in Euro zone. The share of microenterprises in Canadian business is three-quarters that make a significant contribution to job creation (Papadaki et al. 2002) while in the United States there are 25.5 million microenterprises with employment of 31 million people (Gomez et al. 2015). In OECD countries, 95 % of the businesses belong to micro and small categories creating 60 to 70 % job opportunities (OECD 1997).

Apart from above mentioned developed part of the World, the number of microenterprises in the developing countries must be higher that contribute to job creation and output generation. The importance of understanding the growth dynamics of microenterprises is increasing over time in academic, policy and business practice areas because microenterprises play a vital role in economic development and poverty reduction. According to Liedholm and Mead (2013) micro and small enterprises contribute to the development process through enhancing household income thereby increasing welfare, building self-confidence and empowerment, bringing social and political stability, and conveying changes in the distribution of income and demographic scenario. Therefore, a congenial and healthy atmosphere for microenterprises is required for surviving and contributing to the economic development, however, if the factors affecting the success of microenterprises can be identified, appropriate measures can be undertaken. Keeping this fact in mind, the current study attempts to identify the contributing factors of microenterprise success in Malaysia.

Review of literature

The growth of microenterprises can be measured from three perspectives based on employment growth (Bigsten and Gebreyesus 2007; Mead and Liedholm 1998; Storey et al. 1987), revenue growth and profit growth (McPherson 1996; Robb and Fairlie 2009). Apart from these three subjective or numerical measures, the overall perception of the entrepreneurs about the enterprise improvement is also important (Lumpkin and Dess 1996). Even if the income or employment growth is not substantial the entrepreneurs can consider them as successful based on the overall improvement of their business with future prospects and potential. Surviving in the business for a considerable period may be viewed as a success.

The thought of small firm growth dates back to early economic literature. Small firm growth is viewed from two schools of thoughts: organizational life cycle perspectives where growth is a natural phenomenon in the evolution of the firm and second, growth is a consequence of strategic choices (Papadaki et al. 2002). In both thoughts, the characteristics of entrepreneurs, firm resources, and environmental opportunities are important criteria for successful expansion of the business. Business owner and entrepreneurs are considered to be two different individuals. All entrepreneurs may turn out to be business owners while all business owners may not be entrepreneurs; business owners who strive to the growth of the business are entrepreneurs (Carland et al. 2002; Carland et al. 1984; Sexton and Robinson 1989). In the classical theories, firms' willingness and ability are considered to be as important criteria for business success (Knight 1921; Schumpeter 1934). A more elaborated explanation for entrepreneurial ability was brought out later by Lucas (1978). According to Lucas, entrepreneurs with higher abilities will have lower marginal costs and thus will produce higher outputs. Not only the

abilities of the firms but also willingness of risk taking is equally important for the firms to grow as propounded by Kihlstrom and Laffont (1979).

Taking notes of the issues of individual ability differences, Jovanovic (1982) develops the model of firm growth based on the dynamic life cycle theories of firms' learning. His model emphasized that firms know their abilities over time. Individuals experiencing underestimated abilities in one period will expand in the next period utilizing the unused abilities. That is how he argued that younger firm's grow faster than the existing older firms. The willingness of growth cannot be assumed as guaranteed because some of the small firms might keep themselves reluctant not to grow. It is argued that growth is the choice of entrepreneurs and profit maximization is only one of the possible motivations of firm growth, however, the individuals differ in their motivational response (Davidsson 1989, 1991; Shane et al. 2003).

In addition to the above static and dynamic discussions, small firm's growth is considered as part of the evolution of firms where Lewis and Churchill (1987) mention five stages of growth such as existence, survival, success, take off, and resource maturity. In each stage, different factors contribute to the success and survival of the firms.

Theoretical discussions of the firm growth make it clear that firm owner's attribute along with business characteristics and business environmental factors are critical determinants of business success. Based on the theories Papadaki et al. (2002) categorized the determinants of micro-business growth into three groups: (a) Owner-manager characteristics including general background such as gender, age, education; growth motivation such as active risk taking, desire for independence, pushed by unemployment, currently employed in another business; management know-how such as entrepreneur is from family of business, industry specific skills, general business management, use of advisors, partnerships, (b) Business practice characteristics that include delegation of day to day operations, innovation, technology adoption, market orientation and sources of finance, and (c) Firm characteristics that consist firm's age, size, industry/sector and location. Nichter and Goldmark (2005) introduced that opportunities and capabilities and the proper combination of these two properties indicate different stages of growth. According to them, firms with low opportunities and low capabilities turn out to be "Tortoises" meaning no or low growth, firms with higher opportunities and low capabilities become "Ponies" meaning slow growth as they are incapable of harnessing existing opportunities, firms with low opportunities and high capabilities become "Caterpillars" resulting slow growth as lacking opportunities to utilize existing capabilities and finally, firms with high opportunities and high capabilities turn out to be "Gazelles" demonstrating fast growth enabled by high opportunities and high capabilities. Nichter and Goldmark (2005) classified the potential determinants into four: contextual factors to the business environment including macroeconomic context, regulatory and institutional context, location and sector, infrastructure, value chain; social factors including inter-firm cooperation, social networks; firm characteristics comprising firm's age, formality, technology and finance; and individual characteristics consisting education, work experience, gender and the household.

Personality traits of entrepreneurs, as discussed in other theories, are focused in the analysis of Johnson (1990). According to Johnson, extraversion, emotional stability, agreeableness, conscientiousness and openness to experience are the factors contribute to the success of businesses. However, the measurement of these factors is not easy that

points towards measurable characteristics, i.e., the personal backgrounds such as age, gender, education and experience of the entrepreneurs are important for small business success. Age of the entrepreneurs is considered as one of the important indicators of enterprise success. It is argued that at the young age the entrepreneurs are not sure about their abilities and thus they take more risks for further expansions which basically leads to the hypothesis of negative relationships between entrepreneur's age and firm's growth (Cortes et al. 1987; Jovanovic 1982; Munoz et al. 2014; Papadaki et al. 2002; Welter 2001). Gender may have some influences in the success of micro firm growth. It is argued that naturally male-run businesses have the higher growth than female-run businesses as females are considered to be risk averse (McPherson 1995; Mead and Liedholm 1998; Welter 2001), however, there is no consensus about the role of gender in firm growth (Du Rietz and Henrekson 2000). Education and training of entrepreneurs are two components of personal backgrounds that significantly positively affect the success of firms (Bates 1990; Campbell 1992; De Faoite et al. 2003; Goedhuys and Sleuwaegen 2000; Millán et al. 2014; Monahan et al. 2011; Simpson et al. 2004). Industry experiences are found to positively affect the successes of a firm as the entrepreneurs apply their previous knowledge or experience to the current businesses (Baum 1994; Dahl and Reichstein 2007).

With regards to the enterprise characteristics, age and size of the firms are widely tested and it is established that younger and smaller firms grow faster than older and large firms (Bigsten and Gebreyesus 2007; Calvo 2006; Jovanovic 1982) although there is different opinion that the growth of firm is independent of firm characteristics (Gibrat 1931).

External factors that include economic environment and social networking are widely explored in different studies (Nichter and Goldmark 2005; Papadaki et al. 2002), however, the demand for the products/service of the firms, competition, facilities for training, financial availability are not widely discussed.

To sum up, the above theoretical and empirical discussions reveal that the success of microenterprises depends on three dimensions- owner characteristics, firm characteristics, and external conditions of the overall economic environment. It may be noted that most of the studies discussed above are within the context of developed countries or developing countries outside East Asian countries in general and, in particular, outside of Malaysia whereas Malaysia being one of the emerging economies warrants attention as, like many other countries, majority of the Malaysian enterprises are micro in nature and government of Malaysia has undertaken over 650 microenterprise development programs (Munoz et al. 2014). Hence, the objective of the current study is to examine the success factors of Malaysian microenterprises based on entrepreneur characteristics along with firm characteristics and external factors. This study will be distinct from existing studies at least in three aspects: First, this study includes external factors such as demand for the products/service of microenterprises, competition, limited space of expansion, facilities for training, and ease and secured amount of financial resources that are rarely examined in the previous studies and not examined in the case of Malaysia; Second, the current study is based on the recent survey that is just conducted in 2015 will reflect the current patter of perceptions of entrepreneurs; and Third, this study will be a comprehensive one on the factors determining the success of Malaysian microenterprises as the previous

studies focused on small and medium enterprises (SMEs) not exclusively microenterprises (Aziz and Mahmood 2011; Mahmood and Hanafi 2013; Man 2011). A few studies are found in the Malaysian case that examined the relationship between firm performance and entrepreneurial orientation but not including all the variables as this study focuses on (Awang et al. 2011; Munoz et al. 2014).

Data and methods

This study sets the aim to examine the success factors of microenterprise growth in Malaysia. In order for revealing the factors contributing to the microenterprise successes the study collects data through a survey on the microenterprises from Klang valley area of Malaysia; particularly the survey is conducted on 260 microenterprises in Selangor area, Malaysia. The questionnaire used in this study is composed of three main parts. The first part contains personal/demographic information of entrepreneurs including age, gender, education, ethnicity, monthly income, business training, and business experience; the second part asks questions regarding the background information of enterprises including business sector, product types, location, duration of business, employment, investment and financing; and the third part consists of questions regarding the business issues, challenges, performance, and prospects. The sampling frame for conducting the analysis comprises 260 respondents taken from different places of Kuala Lumpur. The number of respondents is limited by the budget constraint. Simple random sampling technique is adopted to distribute the questionnaire to the respondents provided that the respondents are willing to share the information. The questionnaires are followed by enumerators to help understand questions well.

A survey instrument in the form of a structured questionnaire has been designed using scales established in the academic and managerial literature regarding the aspects. The items in the survey questionnaire are selected from the variables deemed to be pertinent as collected from the literature and from interviews of academic and other professionals. The questionnaire consists of a few general questions as regards the competitive business environment, geographical differences and complying with demographic information. A 5-point Likert scale is used ranging from 'strongly disagree' represented by 1 to 'strongly agree' represented by 5 used in the study (Likert 1967).

Survey questions are selected as the major method for data collection as it appears to be a strong preference to collect data for microenterprises concerns. For collecting data, survey papers were distributed to the selected 260 entrepreneurs with the consent letter on an official letterhead from the principal researcher to explain the purpose of the gathering information. Out of 260 survey questionnaires, 253 responses were found to be complete and usable.

With a view to ensuring reliability and dimensionality of information, scales are checked with Cronbach's alpha and exploratory factor analysis respectively. In order to analyze data methods of descriptive statistics such as frequency, arithmetic means, standard deviations (SD), ratios, crosstabs; and a multiple regression is used.

As mentioned earlier that the performance of microenterprises are measured with either sales turnover or profits earned or total revenue turnover or overall improvement or employment growth. Whatever measure is taken the empirical models remain

almost the same in nature. The specific multiple regression model that is estimated can be specified as follows:

$$Perform. = \alpha + \beta_i Entrepreneur\ cht. + \gamma_i Enterprise\ cht. + \delta_i External\ fact. + \varepsilon_i$$

Where *perform.* refers to the performance of the enterprises measured as sales turnover, or total revenue turnover, or profit margins, or employment growth or overall improvement over the past three years from the survey period, *entrepreneur cht.* indicates entrepreneurial characteristics including age, gender, education, training, experience, income and marital status, *enterprise cht.*; measures the characteristics of enterprises such as age, size, business sector, product types, location, duration of business, employment, investment, and financing; *external fact.* includes economic factors such as demand for the product/service, competition, physical space for expansion in city area, financing planning services, training providers and availability of sources for finance; ε_i represents the stochastic error term.

Some of the variables are non-parametric in nature such as gender, marital status, business sector, and product types. Instead of putting dummy variables for them we rather run chi-square tests to check the differential impacts. In order to be parsimonious in modeling the number of variables are kept limited to age, education, training of the entrepreneurs; age and size of enterprises; and external factors such as demand for products/service, competition, space for expansion, accessible source of finance and sufficiency of secured funds.

Sample information

Entrepreneur and enterprise characteristics

Table 1 demonstrates that the majority of the respondents consisting 78.3 % are below 50 years of age of which 34.4 % are less than 30 years old. Regarding the gender of entrepreneurs, 41.1 % are male while 58.5 % are female and 0.4 % belongs to the third gender. In terms of ethnicity, Malay race leads with 73.5 % followed by Chinese 7.1 %, Indians 2.8 % and others that include immigrants 16.6 %. The majority of the entrepreneurs earn less than or equal to RM2000 a month while only 4.7 % of the entrepreneurs earn in the highest income bracket set in the survey more than RM10,000. Fifty one and four tenths percent of the respondents have secondary school or lower educational qualification and the rest have a diploma or higher degree, however, only 5.1 % of the entrepreneurs are holding post graduate degrees indicating that the microenterprises are mostly run by low or moderately educated entrepreneurs. Training is regarded as one of the important parameters of business success though our survey reveals that most of the microenterprises composing 68.4 % did not have the chance to take any formal training while the rest 31.4 % undertook formal training. It is also found that 61.3 % of the entrepreneurs are in their businesses for more than 3 years and the rest 38.7 % are relatively new in the businesses.

Major sectors highlighted in the survey were agriculture, services and manufacturing; the highest number of enterprises belongs to other categories (47.4 %) followed by services sector (42.7 %), manufacturing (7.1 %) and agriculture (2.8 %). As a response to the reason of starting the business, 41.9 % mentions personal interest as the main reason followed by earning additional income (22.9 %), economic hardship (14.6 %), no alternative (9.1 %), by inheritance (7.9 %) and by profession (3.6 %). Most of the

Table 1 Summary of demographic and business information

Variable		Frequency	Percent
Age	20-29 years	87	34.4
	30-39 years	60	23.7
	40-49 years	51	20.2
	>50 years	55	21.7
Gender	Male	104	41.1
	Female	148	58.5
	Others	3	0.4
Race	Malay	186	73.5
	Indian	18	7.1
	Chinese	7	2.8
	Others	42	16.6
Level of income (RM per month)	<2000	132	52.2
	2000-3999	67	26.5
	4000-5999	31	12.3
	6000-7999	9	3.6
	8000-9999	2	0.8
	>10000	12	4.7
Education	No formal education	30	11.9
	Primary completed	17	6.7
	Secondary completed	83	32.8
	Diploma	39	15.4
	First degree	71	28.1
	Postgraduate degree	13	5.1
Business training	No formal training	173	68.4
	Vocational	9	3.6
	On the job training	26	10.3
	Training college	12	4.7
	Others	33	13
Business experience	<3 years	98	38.7
	3-6 years	88	34.8
	7-10 years	35	13.8
	>10 years	32	12.6
Business sectors	Agriculture	7	2.8
	Services	108	42.7
	Manufacturing	18	7.1
	Others	120	47.4
Reasons for business	Personal interest	106	41.9
	No others jobs	23	9.1
	Inheritance	20	7.9
	Economic hardship	37	14.6
	For extra income	58	22.9
	By profession	9	3.6
Location of business	Urban	231	91.3
	Rural	22	8.7

Table 1 Summary of demographic and business information (Continued)

Sources of finance	Initial	Current	Initial	Current
Personal savings	181	173	71.5	68.4
Loan form relatives	30	17	11.9	6.4
Money lenders	6	3	2.4	1.2
Loan form cooperatives	5	21	2.0	8.3
Bank loans	12	17	4.7	6.7
Loan from microfinance	10	16	4.0	6.3
Islamic microfinance	2	1	0.8	0.4
Others	7	5	2.8	2.0

enterprises included in the survey are urban based (91.3 %) and 8.7 % are rural based. In terms of initial and current sources finance, personal savings (68.4 %) is found to be on the top of the list followed by rotating credit scheme, funds from relatives/bank loans, micro finance institutions, others and cooperative societies.

Results and discussion

At the outset of the analysis, we carry out reliability and dimensionality check with Cronbach’s alpha and exploratory factor analysis. The overall Cronbach’s alpha for data is 0.7578. For the set of each group the alpha exceeds the value of 0.70 suggesting the reliability of the survey data. Exploratory factor analysis reveals that for the related questions the Eigenvalue for the first component is 2.239 followed by next highest value 2.160. In other words, 18.66 % variance is explained by the first component followed by 18 % by the second component and the coefficients decrease thereof. The first component’s high Eigenvalue and the higher percentage of total variance explained by it indicate uni-dimensionality of the scales.

Chi-square statistics of crosstabs, as shown in Table 2, indicate that all the null hypotheses of ‘there is no relationship between dependent and independent variables’ are rejected at 1 % level of significance excepting age of entrepreneurs and education, however, the null for these two variables are rejected at 7 % level of significance. The crosstabs results, in other words, show that the dependent and independent variables are significantly related creating the premises to proceed with the regression analysis.

Table 2 Crosstabs output for variables

Dependent variable	Independent variable	Chi-square	p-value
Performance	Age of entrepreneur	19.985	0.067
	Education	14.245	0.076
	Training	42.721	0.002
	Age of enterprise	33.525	0.006
	Size of enterprise	559.750	0.000
	Demand	57.935	0.000
	Competition	46.865	0.000
	Space to grow	43.735	0.000
	Accessible source of finance	64.104	0.000
	Sufficient secured funds	72.637	0.000

With regards to regression analysis, we tried four dependent variables keeping the independent variables same. Four dependent variables include revenue growth, profit growth, employment growth and overall improvement over last three years. The four models provide consistent results for the sign and size of parameters, however, we report the result of the model with the dependent variable of overall improvement as it appears to exhibit the lowest information criteria values and highest R-squared.

Table 3 reports the estimated output of the regression model. It can be noted that the age of entrepreneurs is positively related to the performance of the enterprises; however, this coefficient is not statistically significant. Education and training are found to have positive impacts on the performance of the microenterprises indicating the higher the education and training facilities for the entrepreneurs the higher the performances of the enterprises. This result is consistent with Xavier et al. (2010), Simpson et al. (2004), Monahan et al. (2011) and Millán et al. (2014) who emphasized the role of education and training for entrepreneurship development. The age of the enterprises is negatively related to the performance. As the firms grow older their growth motivation declines. These findings is consistent with the pioneering theory of Jovanovic (Jovanovic 1982) among others (Belay File 2012; Cortes et al. 1987; Papadaki et al. 2002; Welter 2001). Size measured by employment poses positive impacts on the performance of the enterprises. This result is, however, contradictory to the convention. It is argued that if the size of the enterprises increases the growth of the enterprise declines according to diminishing growth law (Evans 1987; Hall 1986) or the growth of the firm follows Gibrat's law that the growth is independent of the size of the firm (Lucas 1967, 1978; Simon and Bonini 1958). If the size of the enterprise increases but still the firm is young the general rule might not be applied (Almus 2000). As in the Malaysian case, the survey results show that most of the included enterprises are relatively young.

Table 3 Regression results for determinants of microenterprise improvement

Coefficients	Value (S. error)	VIF
Constant	0.666 (0.459)	
Age	0.112 (0.051)	1.946
Education	0.134 ^b (0.037)	1.552
Training	0.300 ^a (0.032)	1.269
Age of enterprise	-0.204 ^b (0.012)	1.667
Size of enterprise	0.106 ^b (0.002)	1.212
Demand for products/service	0.283 ^a (0.055)	1.402
Competition	-0.187 ^b (2.375)	1.429
Space to expand in city area	0.175 ^b (0.53)	1.495
Accessible source of finance	0.222 ^a (0.053)	1.326
Amount of finance secured is sufficient	0.260 ^a (0.060)	1.544
R squared	0.380	
Adjusted R squared	0.351	
Multiple R	0.616	
F-statistic	13.354 (p-value < 0.001)	
Durbin Watson Statistics	1.797	
No. of observations	251	

^a and ^b indicate significance at the 0.01 and 0.05 level of significance. Values in parentheses refer to standard error. VIF refers to variance inflation factors as a measure of multi-collinearity

External factors, beyond the control of the entrepreneurs and enterprises, have vital impacts on the performance of the enterprises. Demand for the product/service is found to be positively influencing the performance of the firms (Wiklund 1998). Growing demand for the products/services of the firms acts as an impetus to grow. As it has been found that the young firms grow faster than older firms, the younger firms might be intolerable to intense competition. Therefore, it makes sense that competition negatively affects the performance of the firms. Theoretically, it may be true that if there is intense competition the firms will have more motivation to grow (Nickell et al. 1997) but this might be different for the young firms or emerging firms as not supported by Malaysian data. The coefficient for space to expand in the city area is positive suggesting that if the physical spaces are made available to the firms in the city area firms' growth will be higher. Financing is another important aspect of the firms to perform better. Accessibility to the sources of fund and the adequacy of the secured funds affect the performance of the firms positively. If the sources of funds are easily available and the amount is sufficient the firms will have the higher stimulus to grow (Xavier et al. 2010).

The overall fit of the model is about 38 % which can be treated as a moderate good fit. The R-squared reported is relatively higher than other similar studies (Munoz et al. 2014; Papadaki et al. 2002). The estimated model does not show any issue of collinearity as variance inflation factors (VIF) are less than 10.00. Heteroskedasticity and Jarque-Bera (JB) tests also do not bring any suspicious results, and Durbin-Watson statistics is around 2 meaning no possibilities of autocorrelation although it is argued that cross-sectional data is less prone to serial correlation problem.

Implications of the study

Empirical results of this study provide insights to the policymakers for considering the issues related to the development of microenterprise sector. In the category of entrepreneurial characteristics education and training are found to be statistically significant. The survey reveals that 12 % of the respondents have no formal education and 68.4 % of the respondents could not have any chance to undertake any business related training whereas these two factors are found to be positively related to the performance of the microenterprises. In order to ensure smooth growth and run of the microenterprises, education and training should be made available to all potential entrepreneurs. The general education system does not necessarily meet the specific needs of the entrepreneurs. Thus, to obtain effective results of training and education on microenterprises tailored education and training programs can be offered with no or low costs as also suggested by Munoz et al. (2014).

In the set of enterprise characteristics, only age and size of the enterprises are established to be statistically significant. In the policies of small businesses young and emerging microenterprises should be given priorities. Although not statistically significant the location of the business, sectors, and the motivation of business should be worth considering while preparing policies. It is found that agro and manufacturing sectors constitute only 9.9 % of the surveyed enterprises while the rest belongs to service sectors. According to the location, 91.2 % businesses are urban based. It is also found that majority, consisting 41.9 %, entrepreneurs started their business motivated by the self-interests. There are significant differences in different sectors, location and in reasons for doing business as found in Chi-square analysis.¹ Thus, emphasis should be provided

for urban-based service sectors to be developed as well as more motivational campaigns may be enhanced for young people to start their own business instead of searching for jobs as recommended by Henderson and Robertson (2000).

It is revealed, in the variables of external factors, that market demand for the products/service, competition, physical spaces for expansion, accessible sources of finance and adequate amount of secured funds are significant determinants of micro business successes. The overall economic and social rest along with the rule of law is crucially important to generate demand and fair competition. Diversity and quality should be brought in the production and service delivery to attract customers to the micro businesses. Initially this might not be possible for the entrepreneurs alone when they start businesses and thus, policies should be formulated and implemented to help out the businesses to the diversity and competency. If the horizontal expansion is not possible in the city area vertical expansion might be helpful for the businesses to grow as the potential for growth in the city area is higher than rural areas. There is no other alternative than making sources and sufficient amount of funds available for the healthy start and growth of all types of enterprises; especially for microenterprises this is, even more, important. In this case, a clear enterprise friendly finance policies should be adopted and implemented.

Conclusions

National development ignoring the contribution of microenterprises may not be possible as the majority of the enterprises of any country belong to this group. Therefore, identifying the factors that contribute to the performance of the microenterprises is an essential call in the academic arena of micro, small and medium enterprises. This study, thus, seeks the answer for the potential factors that contribute to the successes of the microenterprises in Malaysia. It is exposed that the age of the entrepreneurs, education, business training, demand for the product/service, availability of physical space for business expansion in the city area, availability of financing and sufficiency of secured amount of finance pose positive impacts on the growth whereas competition and the age of the enterprises negatively affect overall performance of the microenterprises. As the enterprises grow older their performance or the growth decreases; meaning that young firms perform better than older firms. Usually, competition is assumed to have positive impacts on the growth of the firms; however, in this study the sign for the coefficient of the competition is negative implying that the competition reduces the growth of microenterprises in Malaysia. This might be because of the reason that the most of the microenterprises are in their young stage to bear the competition. Education and training are found to be very important factors for the success of microenterprises in Malaysia. If the entrepreneurs are properly educated and are well trained off the performance of their enterprises must be higher. Market demands for the products/services are crucially important for the enterprises to grow. If the demand increases the growth of the enterprises will be higher. Access to sources of funds and sufficiency of the secured funds has positive impacts on the performances of the microenterprises. The results of this study provide insights to the policymakers and practitioners to create a congenial atmosphere for the microenterprises to grow. Factors such as education, training, fair competition, easy financing and sufficient supply of funds will boost the progress of microenterprises. More focuses should be placed for the young firms as

they have the higher potential to grow and contribute to the national economic development.

Endnotes

¹Outputs of Chi-square tests are not reported for brevity purpose

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

FA carried out literature survey, statistical analysis and drafted the manuscript. MAA designed questionnaire, guided data collection and coordinated the research. ARM helped with discussion of results and proofread of the paper and SMFA carried out data collection and entered data into the system. All correspondences should be directed to FA.

Acknowledgement

This work was supported by the ISTAC (International Institute of Islamic Thought and Civilization) Research Fund of International Islamic University Malaysia. The authors are grateful to ISTAC of International Islamic University for financial support.

Author details

¹Department of Economics, Kulliyah of Economics and Management Science, International Islamic University Malaysia (IIUM), Jalan Gombak, Selangor Darul Ehsan, PO Box 10, 50728 Kuala Lumpur, Malaysia. ²Department of Political Science, Kulliyah of Islamic Revealed Knowledge and Human Sciences, International Islamic University Malaysia (IIUM), Jalan Gombak, Selangor Darul Ehsan, PO Box 10, 50728 Kuala Lumpur, Malaysia. ³Graduate School of Management, Faculty of Business Management and Professional Studies, University Drive, Off Persiaran Olahraga, Section 13, 40100 Shah Alam, Selangor, Malaysia.

Received: 12 November 2015 Accepted: 8 February 2016

Published online: 13 February 2016

References

- Almus, M. (2000). Testing "Gibrat's Law" for Young Firms—Empirical Results for West Germany. *Small Business Economics*, 15(1), 1–12.
- Awang, A., Ahmad, Z. A., Asghar, A. R. S., Subari, K. A., & Kassim, S. A. (2011). Firm entrepreneurial orientation and knowledge/networking of agro-based enterprises in Malaysia: The role of technology and strategy. *African Journal of Business Management*, 5(22), 9684–9704.
- Aziz, S. A., & Mahmood, R. (2011). The relationship between business model and performance of manufacturing small and medium enterprises in Malaysia. *African Journal of Business Management*, 5(22), 8918–8932.
- Bates, T. (1990). Entrepreneur human capital inputs and small business longevity. *The review of Economics and Statistics*, 72(4), 551–559.
- Baum, J. R. (1994). The relation of traits, competencies, vision, motivation, and strategy to venture growth. University Microfilms Belay File.
- G. (2012). *Determinants of Microenterprise Success in the Urban Informal Sector of Addis Ababa, a Multi-dimensional Analysis*. Ph.D defended ISS of EUR.
- Bigsten, A., & Gebreeyesus, M. (2007). The small, the young, and the productive: Determinants of manufacturing firm growth in Ethiopia. *Economic Development and Cultural Change*, 55(4), 813–840.
- Bruhn, M., & McKenzie, D. (2014). Entry regulation and the formalization of microenterprises in developing countries. *The World Bank Research Observer*, 29(2), 186–201.
- Calvo, J. L. (2006). Testing Gibrat's law for small, young and innovating firms. *Small Business Economics*, 26(2), 117–123.
- Campbell, C. A. (1992). A decision theory model for entrepreneurial acts. *Entrepreneurship Theory and practice*, 17, 21–21.
- Carland, H., Carland, J. W., & Hoy, F. (2002). Who is an entrepreneur? Is a question worth asking. *Entrepreneurship: Critical Perspectives on Business and Management*, 2, 178.
- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. A. C. (1984). Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of management review*, 9(2), 354–359.
- Cortes, M., Berry, A., & Ishaq, A. (1987). *Success in small and medium scale enterprises: The evidence from Colombia*. The World Bank.
- Dahl, M. S., & Reichstein, T. (2007). Are you experienced? Prior experience and the survival of new organizations. *Industry and Innovation*, 14(5), 497–511.
- Davidsson, P. (1989). Entrepreneurship—and after? A study of growth willingness in small firms. *Journal of business venturing*, 4(3), 211–226.
- Davidsson, P. (1991). Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of business venturing*, 6(6), 405–429.
- De Faioite, D., Henry, C., Johnston, K., & Van Der Sijde, P. (2003). Education and training for entrepreneurs: a consideration of initiatives in Ireland and The Netherlands. *Education + Training*, 45(8/9), 430–438.
- Du Rietz, A., & Henrekson, M. (2000). Testing the female underperformance hypothesis. *Small Business Economics*, 14(1), 1–10.
- Evans, D. S. (1987). The relationship between firm growth, size, and age: Estimates for 100 manufacturing industries. *The journal of industrial economics*, 35(4), 567–581.
- Gibrat, R. (1931). *Les inégalités économiques: applications: aux inégalités des richesses, à la concentration des entreprises, aux populations des villes, aux statistiques des familles, etc. d'une loi nouvelle: la loi de l'effet proportionnel*. Librairie du Recueil Sirey.

- Goedhuys, M., & Sleuwaegen, L. (2000). Entrepreneurship and growth of entrepreneurial firms in Cote d'Ivoire. *The journal of development studies*, 36(3), 123–145.
- Gomez, L. I., Theftford, T., & Klein, J. (2015). *Microbusinesses, Gainful jobs*, the United States of America: The Aspen Institute.
- Hall, B. H. (1986). *The relationship between firm size and firm growth in the US manufacturing sector: National Bureau of Economic Research*.
- Henderson, R., & Robertson, M. (2000). Who wants to be an entrepreneur? Young adult attitudes to entrepreneurship as a career. *Career Development International*, 5(6), 279–287.
- Johnson, B. R. (1990). Toward a multidimensional model of entrepreneurship: The case of achievement motivation and the entrepreneur. *Entrepreneurship Theory and practice*, 14(3), 39–54.
- Jovanovic, B. (1982). Selection and the Evolution of Industry. *Econometrica. Journal of the Econometric Society*, 50(3), 649–670.
- Kihlstrom, R. E., & Laffont, J.-J. (1979). A general equilibrium entrepreneurial theory of firm formation based on risk aversion. *The Journal of Political Economy*, 87(4), 719–748.
- Knight, F. H. (1921). *Risk, uncertainty and profit*. New York: Hart, Schaffner and Marx.
- Kushnir, K. (2010). How Do Economies Define Micro, Small and Medium Enterprises (MSMEs)?. Companion Note for the MSME Country Indicators Retrieved 25 August, 2015, 2015, from <http://www.ifc.org/wps/wcm/connect/624b8f804a17abc5b4acfd9d29332b51/MSME-CI-Note.pdf?MOD=AJPERES&CACHEID=624b8f804a17abc5b4acfd9d29332b51>
- Kushnir, K., Mirmulstein, M. L., & Ramalho, R. (2015). *Micro, Small, and Medium Enterprises Around the World: How Many Are There, and What Affects the Count? MSME country indicators 2010 Retrieved 25 August, 2015, from* <http://www.ifc.org/wps/wcm/connect/9ae1dd80495860d6a482b519583b6d16/MSME-CI-AnalysisNote.pdf?MOD=AJPERES&CACHEID=9ae1dd80495860d6a482b519583b6d16>.
- Lewis, V. L., & Churchill, N. C. (1987). *The five stages of small business growth*.
- Liedholm, C. E., & Mead, D. C. (2013). *Small enterprises and economic development: the dynamics of micro and small enterprises*. Routledge.
- Likert, R. (1967). *The human organization: its management and values*. New York: McGraw-Hill.
- Lucas, R. E. (1967). Adjustment costs and the theory of supply. *The Journal of Political Economy*, 75(4), 321–334.
- Lucas, R. E. (1978). On the size distribution of business firms. *The Bell Journal of Economics*, 9(2), 508–523.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management review*, 21(1), 135–172.
- Mahmood, R., & Hanafi, N. (2013). Entrepreneurial orientation and business performance of women-owned small and medium enterprises in Malaysia: competitive advantage as a mediator. *International Journal of Business and Social Science (IJBS)*, 4(1), 82–90.
- Man, M. M. K. (2011). The relationship between distinctive capabilities, innovativeness, strategy types and the performance of small and medium-size enterprises (SMEs) of Malaysian manufacturing sector. *International Business & Economics Research Journal (IBER)*, 8(11), 21–33
- McPherson, M. A. (1995). The hazards of small firms in Southern Africa. *The journal of development studies*, 32(1), 31–54.
- McPherson, M. A. (1996). Growth of micro and small enterprises in southern Africa. *Journal of development economics*, 48(2), 253–277.
- Mead, D. C., & Liedholm, C. (1998). The dynamics of micro and small enterprises in developing countries. *World development*, 26(1), 61–74.
- Millán, J. M., Congregado, E., Román, C., van Praag, M., & van Stel, A. (2014). The value of an educated population for an individual's entrepreneurship success. *Journal of business venturing*, 29(5), 612–632. doi:10.1016/j.jbusvent.2013.09.003.
- Monahan, M., Shah, A., & Mattare, M. (2011). The road ahead: Micro enterprise perspectives on success and challenge factors. *Journal of Management Policy and Practice*, 12(4), 113–125.
- Muller, P., OP, D. G., Gloss, E., Caliendo, C., Bohn, N. U., & Klitou, D. (2013/2014). A partial and fragile recovery (pp. 1–99). European Commission
- Munoz, J. M., Welsh, D. H., Chan, S. H., & Raven, P. V. (2014). Microenterprises in Malaysia: a preliminary study of the factors for management success. *International Entrepreneurship and Management Journal*, 11, 673–694.
- Nichter, S., & Goldmark, L. (2005). Understanding micro and small enterprise growth. Micro Report, 36.
- Nickell, S., Nicolitsas, D., & Dryden, N. (1997). What makes firms perform well? *European economic review*, 41(3), 783–796.
- OECD. (1997). *Small business, job creation and growth: Facts, obstacles and best practices Retrieved 3 September, 2015, from* <http://www.oecd.org/industry/smes/2090740.pdf>
- Papadaki, E., Chami, B., & Branch, S. B. P. (2002). *Growth determinants of micro-businesses in Canada*. Ottawa: Small Business Policy Branch, Industry Canada.
- Robb, A. M., & Fairlie, R. W. (2009). Determinants of business success: an examination of Asian-owned businesses in the USA. *Journal of Population Economics*, 22(4), 827–858.
- Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle* (Vol. 55). Transaction publishers
- Sexton, E. A., & Robinson, P. B. (1989). The economic and demographic determinants of self-employment. *Frontiers of entrepreneurship research*, 28–42.
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human resource management review*, 13(2), 257–279.
- Simon, H. A., & Bonini, C. P. (1958). The size distribution of business firms. *The American Economic Review*, 48(4), 607–617.
- Simpson, M., Tuck, N., & Bellamy, S. (2004). Small business success factors: the role of education and training. *Education + Training*, 46(8/9), 481–491.
- Storey, D. J., Keasey, K., Wynarczyk, P., & Watson, R. (1987). *The performance of small firms: profits, jobs and failures* (University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship).
- Welter, F. (2001). *Who wants to grow? Growth intentions and growth profiles of (NASCENT) enterprises in Germany* (Paper presented at the 2001 Babson College-Kauffman Foundation Entrepreneurship Research Conference, Jönköping, Germany).
- Wiklund, J. (1998). *Small firm growth and performance: Entrepreneurship and beyond*. Internationella Handelshögskolan.
- Xavier, R., Ayob, N., Nor, L. M., & Yusof, M. (2010). *Entrepreneurship in Malaysia The Global Entrepreneurship Monitor (GEM) Malaysian Report* (pp. 1–75).