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Managerial Competency: Mediator of Human Capital Development and Micro Enterprises Performance

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ABSTRACT

The aims of this research are to examine the relationship between human capital and micro enterprises performance, and to evaluate the mediating effect of managerial competency on the relationship between human capital development and small enterprises performance. Primary data were collected from 380 micro and small enterprises (MSE's) in Malaysia. Multiple regression is used to analyze the data. The results revealed a significant relationship between business performance and two elements of human capital namely owner experience and training. The empirical finding showed managerial competency has positively and significantly related to enterprise performance. Further findings indicate managerial competency can only affect the relationship between the elements of training and enterprise performance, while the relationship between the other 2 elements of human capital (experience of the business and the level of formal education) was not affected by the mediators. Empirical evidences of study do not only contribute to the literatures especially in relation to human capital and enterprise performance, but the implications of the theory particularly relevant in the context of small and micro enterprises in developing countries.

KEYWORDS: Human Capital Development, Managerial Competency, Enterprise Performance.

INTRODUCTION

The ability of a business strategy that is competitiveness in the market is depending on the efficient management of resources owned. These resources including firm's capabilities, organization processes, nature of the firm, information and knowledge. In [7] categorized all these resources into three types namely physical resources (technology, equipment, geographic location), human capital (education, experience and training) and organizational resources (internal and external relationship and firm planning). There were also among scholars who classify resources as tangible and intangible assets. Tangible assets are sourced in the form of physical such as machinery, buildings, land and current asset that is inventory. While intangible assets involving non-physical elements such as patents, trademarks, copyrights, goodwill and brand recognition. Intangible assets or intellectual capital is seen as element of valuable, rare, non-substitutable and hard to imitate. This enables the strategic assets to be fully capable in generating sustainable competitive advantage and achieving superior financial performance [7]. Recent changes in the business environment lead to the need for intellectual capital elements (capabilities, competencies and knowledge) in the business strategy [37] to create value added [3, 56], improve competitive advantage and hence performance [36] as compared to the physical production factors.

Although there is no consensus among scholars in categorizing the elements of intellectual capital [56], the majority of them consider it with 3 elements namely human capital, organizational capital and relational capital [37]. Human capital is seen as the most critical component in influencing business performance, particularly in the emerging knowledge-based phase of economy [35, 58]. It refers to inputs such as education and prior experience in business and life that might help prepare entrepreneurs facing the challenges of business ownership [18]. Human capital is also a source of innovation and strategic renewal [3], as well as a critical force that drive business growth [34].

Technological developments emphasis on a culture of innovation and approach to the practice of knowledge-based economy, which requires business management to stress on human capital as a source of competitive advantage. Human capital development is seen to have major influence in the formation of entrepreneurial competencies and business performances [67, 45]. According to [11], entrepreneurial competencies are defined as underlying characteristics such as specific knowledge, motive traits, self-images, social rules and skills that lead to effective or better entrepreneurial job performance. In [71] explained that investment in human capital is the input made by the company or individual through formal education and training on the job in talents and technology that

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benefit competitive advantages that are valuable and unique and should be kept out of other companies. The ability to form human capital with creativity and innovation can increase the efficiency and competitive advantage in the market [7].

Most studies on the relationship between human capital and business performance seen in the context of large firms [31], particularly in developed countries. The study of these areas in the context of small enterprises is still limited [17,60], especially in developing countries. Effective human resource management in large organizations is not necessarily practiced effectively in small firms [65]. This research is important not only to enrich the related literatures, but also to investigate the extent to which the theories related to the introduction in developed countries can be applied in the context of developing countries in different social structures. The objective of this study is to investigate the relationships between human capital, managerial competency and business performance of micro and small enterprises (MSE's) in Malaysia. Specifically, this study aims to (1) determine the significant relationship between human capital (education, experience and training) and MSEs performance, (2) determine the mediating effect of managerial competency on the relationship between human capital and MSE's performance.

LITERATURE REVIEW AND HYPOTHESES

Development of human capital research clearly demonstrates the importance of these elements in determining the performance of a firm. Human capital includes the intangible resources which denote anything that a single employee brings into the value adding process that encompasses professional competence, social competence, employee motivation and leadership ability [27]. All of above characteristics lead to the increase of economic added-values to all areas of business [1]. There are various definitions of human capital. Human capital is recognized as the knowledge embedded in the employees [14]. In [9] defined human capital as the knowledge and skills accumulated by people through formal instructions, training and experience that facilitate the creation of personal, social and economic well-being. According to [51], human capital includes learning experiences and skills owned by the employees. Human capital represents the knowledge, skills and abilities that make it possible for people to do their jobs. In more specific terms, in [57] explained the term of human capital as a key element in improving a firm's assets and its employees in order to increase productivity as well as to sustain the competitive advantage.

Human capital can be developed by investing on employees via accumulation of different type of human capital goods like formal education and training [49]. In [71] defined human capital investment as input produced by firms through formal education and job-related training technologies that benefit competitive advantage are valuable and unique that might not be owned by other firms. The development of human capital is about recruiting, supporting, training, coaching, mentoring, internship and human resources management. The processes of human capital development are seen to increase the level of knowledge, skills, abilities and social assets that will enhance the performance of employees and firms. Human capital theory explains that individuals who have a high quality of human capital (skill, knowledge and expertise) will achieve higher performance [7]. Based on Resources-based View, the uniqueness of human capital in a firm is an important source of competitive advantage [33] and thus can determine the survival and performance of a firm. A study conducted by [66, 39, 35, 26, 15] empirically explains a significant positive correlation between human capital and firm performance.

Experience, Managerial Competency and Performance

Business experience refers to understanding and skills related to entrepreneurship and business acquired by the entrepreneurs before conducting the business. According to [60], experience gained through observation and participation in business done in various situations encountered in the previous firm. Business experience can be viewed from various perspectives that influence parents' business, engaging in business prior to own business, experience in helping start a business, how to make their business whether it is bought or established their own, education level operators and the role of partners in the current business [20]. Based on the Theory of Human Capital, the performance of the firm will be greatly affected by the business experience [68, 15, 61]. The experience possessed seen to have a significant impact on the ability to enhance skills and knowledge among entrepreneurs. In fact, in determining the status of a firm's success, education is less important compared to the experience [43]. Entrepreneurial skills influence SME's performance by helping the manager to evaluate opportunities and utilize resources more effectively [60], improve efficiency in business management [30], make decisions and solve all the problem arises. Experiences of owning a business are also seen to be able to expand social networking among entrepreneurs. This situation allows them to identify business opportunities, suppliers and potential customers as well as sources of fund to be tapped.

According to [53], the relationship between experience and business performance is a mixed and inconsistent. This is due to the fact that the influence of business experience on the business performance not only depending on the type of experience and resources, but also the type of industry involved. In [20, 60] found experiences earned by managers who worked in the same industry before starting own business have a significant positive relationship with productivity but does not show a significant relationship with profitability. A study by [2] found that experience has a positive relationship with firm revenue and gross income. In [41] also found that experience with entrepreneurs have a relationship with business performance, as measured by the increase in the number of employees. Other studies including [28, 12] show a positive relationship between the experience of the acquired business and business performance. When the entrepreneur has more experience and knowledge, greater chances for the business to grow and prosper and thus more job opportunities can be provided by the business venture [23]. A firm achievement is influenced by the experience gained by the entrepreneur, if the experience is related to the current business [64, 41, 28, 29]. This provides entrepreneurs with knowledge of the industry, understanding of markets and customers, and of course understanding of the specific technologies [52]. In addition, there are also studies done by [46, 50] that conclude experience is not the factor that influenced the performance of the business relationship. According to [53], this condition may occur because experience earned has nothing to do with the current business run and do not help in improving the skills and expertise in the management of a business. With significant experience as explained by the literature, we present the following hypothesis:

H1: The effect of experience on firm performance is mediated by the improvement in managerial competencies.

Training, Managerial Competency and Performance

MSE's not only lack of physical resources and finance, but also the knowledge and skills in management and business operations. This vulnerability can be reduced by exposing them to training programs, particularly in relation to business and entrepreneurship. According to [40], training related to entrepreneurship refers to the transfer of information on formal business done to increase the value of human capital. Entrepreneur's participation in training programs and entrepreneurship education provides good prospect for business growth [42]. Studies conducted [44, 67, 17, 4, 73] showed the involvements of entrepreneurs in the training program have a positive impact on business performance. The training program is a way to increase the value of human capital, especially in relation to the skills and knowledge among entrepreneurs. Knowledge and skills acquired through training not only will reduce business failure but also to increase productivity among the entrepreneurs involved [67, 13], to enhance their competitiveness [69] and thus make a positive influence on business result [59].

In addition, human capital investment is also seen as an approach to enhance social capital among entrepreneurs. Social capital refers to the value of the relationships that firms maintain with other social agents and its surroundings [40]. The involvement of entrepreneurs in training courses provides a great space for them to identify and share knowledge and increase their social capital in business environment including government agencies that provide assistance and support, financial institutions, customers and suppliers. Although training is seen to have a positive impact on training program, followed by the operators clearly shows that it can be a major positive impact on managerial competency and thus can improve business performance. The performance of small enterprises, completion by [4] revealed that the relationship between training and business performance depends on the type of training received. In-house job training conducted by management is positively related to business performance, quality of work, productivity, sales volume and profit. In contrast, short-term courses held outside of business organizations have a negative impact on profits of small businesses. While training is seen to have a positive impact on business performance, most of the literature to explain the level of the tendency among small entrepreneurs of the training program is low [10]. This situation arises because their lack of confidence in the effectiveness of training courses based on their experiences in the past [5], lack of leisure time, financial constraints facing [69] and lack of information on training programs offered [70]. The managers are also reluctant to seek advice from external parties [73]. Taking into consideration the above literatures, we present the following hypothesis;

H2: The effect of training on firm performance is mediated by the improvement in managerial competencies.

Education, managerial competency and performance

One of the characteristics of human capital discussed by most researchers is the level of education possessed by entrepreneurs. According to [19, 41], the entrepreneurs' level of education is related to their level of engagement in business and their ability to generate higher business performance. Compared to developed countries, most of the MSE's operators in Least Developed Countries (LDC's) are made up of those with lower formal education.

Difficulty in obtaining employment in other sectors has left them with no choice but engaging in business as a source of income. In contrast, highly educated individual is more likely to serve in other sectors.

Studies conducted [60, 47, 21, 25] shows the level of education among the operators has a significant positive relationship with business performance. These findings are consistent with Human Capital Theory, which relates the factor that influences business performance is education as a key element [68, 32]. The entrepreneur higher formal education level will increase their capacity to serve their role as innovators. This allows them to change along with the needs of the business environment including understanding the processes of production, offers specialized technical knowledge, improve flexibility [47] and support the development of general skills such as communication, teamwork, critical analysis and problem solving [60]. Furthermore, these entrepreneurs can perform better in differentiating and applying the business opportunities [19] and also have a better skill to develop strategies, better decisions making and get better chances of loan approval [8]. This explains the high level of formal education will enhance the ability of managerial competency and eventually impact the business performance. We, thus hypothesize accordingly.

H3: The effect of education on firm performance is mediated by the improvement in managerial competencies.

RESEARCH METHODS

Data

This study employed primary data collected from micro enterprises under Amanah Ikhtiar Malaysia (AIM) microcredit program in Kelantan. Two phases of data collection were carried out. In phase 1, a pilot survey was conducted with the help of a predetermined questionnaire on 10 non-sample key informants in the micro enterprises. As the owner/managers of MSEs, the informant had sufficient knowledge and experience of the issues under investigation. Besides checking the duration taken by a respondent to complete the questionnaire, the pilot survey was carried out to validate items used for each construct. Since the questionnaire was carefully designed based on the extensive literature survey, internal consistency of the constructs used was extremely high (with the Cronbach's alpha of more than 0.80). Upon satisfactory with the responses on the field and the reliability tests for each construct under the study, an actual survey using a self-administered questionnaire was carried out with the assistance of a few trained enumerators. A total of 380 entrepreneurs under MSEs participated in the study.

Variables and Measures

Dependent variable in this study was firm performance. Subjective methods of performance measurement used in accordance with recommendations made by [63]. Items used for this indicator were profitability, sales revenue, business stability, employment growth, market share, customer satisfaction and business networks. These items were frequently used in previous studies for examples, [55, 38, 24]. The respondents were requested to indicate their agreement on the level of business performance, which ranging from "1 = strongly dissatisfaction" to "7 = strongly satisfactory"

Human capital development as an independent variable was divided into experience, training and education level. Item for business experience was regarded to the duration in year entrepreneurs have been in the business. Item for entrepreneur's training measured the number of training or course participated by respondents. Item for education level was based on the number of years the entrepreneur's had formal education.

The mediator used in this study was managerial competencies and item included was the entrepreneur's abilities in various aspects of management such as marketing, human resource, finance and operation. Based on a 7-point scale, ranging from '1 = strongly disagree' to '7 = strongly agree', the respondents were requested to indicate their agreement on the listed items.

As shown in Table 1, Cronbach's α for the construct produced Cronbach's Alpha of more than 0.80 which indicating the reliability of the instrument for further data analysis. Analysis of the data found that the correlations among independent variables were rather low (Table 2). The tolerance value for each independent variable is not less than 0.2 and the variance inflation factor (VIF) value is well below the cutoff 10 (Table 3). It suggests that the multicollinearity assumption is not violated and the regression results are not distorted by this problem [48].

Table 1: Reliability test

Construct	Items	Cronbach's, α
Management competencies	24	0.921
Firm performance	13	0.997

Empirical Results

Table 2 shows the means, standard deviations and correlation between the variables.

Table 2: Descriptive statistics and correlation matrix between variables

Variables	Mean	SD	1	2	3	4	5	6
Age of business	12.792	4.554	1.000					
Size of business	1.755	0.995	0.008	1.000				
Business experience	6.153	2.853	-0.083*	-0.053	1.000			
Training	1.163	0.562	-0.030	0.074	0.050	1.000		
Education level	9.542	2.796	-0.214***	0.114**	0.028	0.038	1.000	
Managerial competencies	4.944	0.701	-0.145***	-0.003	0.337***	0.194	0.082**	1.000
Firm performance	5.181	0.626	-0.085*	-0.044	0.547***	0.117	0.021	0.626***

Note: N = 380, significant $*P < 0.10$, $**P < 0.05$ and $***P < 0.001$; firm performance as dependent variable

Referring to the model 1 in Table 3, analysis study makes control of 2 variables namely age and size of the business. However, the analysis showed that both variables were not significantly related to business performance. In order to test the impact of human capital factor on firm performance, the study included all variables of human capital (experience, training and educational level) together with control variables in the model 2. The findings show that there is a significant change in R^2 ($\Delta R^2 = 0.304$, $p < 0.001$). The findings explained that experience ($\beta = 0.542$, $p < 0.001$) and training ($\beta = 0.077$, $p < 0.01$), had a significant positive correlation with the performance of MSEs. While, the level of formal education did not show a significant correlation with the performance of MSEs ($\beta = 0.005$, not significant).

The analysis of the model 3 took into account the managerial competencies as mediator variable in addition to all factors of human capital and control variables. Analysis showed that there were significant changes as seen in R^2 ($\Delta R^2 = 0.279$, $p < 0.001$). Managerial competencies have a significant positive relationship with firm performance ($\beta = 0.586$, $p < 0.001$). Taking into account all these variables as in model 3, the analysis showed that the only factor of business experience shows a positive relationship with firm performance ($\beta = 0.336$, $p < 0.001$), thus, the study confirmed hypothesis 1. For the level of formal education possessed ($\beta = 0.036$, not significant) and training attended ($\beta = 0.031$, not significant), the finding clearly shows that 2 factors have no relationship with the firm's performance, so the study could not confirm the hypothesis 2 and 3.

Table 3: Multiple regression analysis

	Collinearity Statistics		Model 1	Model 2	Model 3
	Tolerance	VIF			
Controls					
Age of business	0.938	1.066	0.089	0.056	0.018
Size of business	0.979	1.022	0.041	0.013	0.027
Human capital factors					
Business experience	0.860	1.163		0.542***	0.336***
Owner's formal education	0.949	1.054		0.005	0.036
Training	0.951	1.051		0.077*	0.031
Managerial competencies	0.814	1.229			0.586***
R^2			0.009	0.314	0.593
Adjusted R^2			0.005	0.306	0.588
ΔR^2			0.009	0.304	0.279
F statistics			2.229	43.251***	114.550***
Δ F			2.229	69.954***	323.564***

Note: Enterprises performance as dependent variable; $* \rho < 0.10$, $** \rho < 0.05$, $*** \rho < 0.001$

DISCUSSION AND CONCLUSION

The objective of this paper was to evaluate the relationship between human capital (business experience, training and education level), managerial competencies and firm performance. Using a regression analysis of 380 samples, this study found elements of business experience entrepreneurs have a significant positive relationship with business performance. This finding is consistent with the findings of study conducted by [60, 41, 28]. The empirical findings also demonstrated that training factors have a significant and positive relationship with business performance and this consistent with the results of study conducted by [44, 17, 67, 4, 22]. However, analysis of the findings in terms of the relationship between level of education and business performance empirically explained there was a significant relationship between the 2 variables. This finding is contrary to the Theory of Human Capital associated with a significant element of the educational level of business performance. The finding also found inconsistent with the results of study conducted by [60, 47, 21, 63, 41].

The empirical findings found that managerial competencies significantly enhanced business performance. However, the analysis in terms of the influence of mediators (managerial competency) on the relationship between business experiences and business performance is not significant. It is clear that experience acquired does not help entrepreneur improving the efficiency of business performance. These findings are contrary to Human Capital Theory that links positive relationship between experience and business performance. Accordingly, the theory should take into account several other aspects including experience, resources available and type of industry where the experience gained as asserted by the [60].

The findings indicate that the mediating effect of managerial competency on the relationship between training and business performance satisfies the condition of mediation as pointed out by [6]. These findings explain acquired knowledge and skills through training has impacted on managerial competency and firm performance. These findings further support the Theory of Human Capital that relates the influence of training on the performance of a business. From the perspective of Resources-base View, studies conclude that human capital development through training programs seen as an important resource that can generate competitive advantage and business performance.

The findings also showed that managerial competencies do not influence the relationship between level of education and business performance. This is due to the fact that the majority of respondents have formal education up to secondary level only. At low levels of formal education, the probability of either they have industry-specific or general business knowledge can be attributed to the influence of education on the performance of the business, is too small. In addition, entrepreneurs are unable to support the development of generic skills such as communication, teamwork, critical analysis and problem solving [60]. The importance of high level of education for enterprise performance is described by [72, 62, 54].

In summary, the findings of this study somewhat diversified the literatures in explaining the relationship between the factors. In addition, analysis of findings in the conclusion part of this study also pointed out that some theories related to business performance. The Theory of Human Capital in the context of large firms in the developed countries is unable to be fully applied in the context of small business and a different social environment in developing countries.

LIMITATION AND FUTURE DIRECTIONS

Few weaknesses are identified and this can be taken for the purpose of improvement in the future studies. Firstly, in terms of a homogeneous sample for level of education that involved as variable. This cannot be avoided, especially in the context of MSEs in developing countries because the majority of operators has a low level of education. This definitely will impact the findings. In the future, sampling should also involve medium and large enterprises. Such methods would allow determination of the sample at various educational levels. Diversified educational level is able to produce more accurate summary of the research findings on the relationship between level of education and firm performance. Another disadvantage of the study is related to the use of limited variables that is only the human capital. It is strongly recommended for future study to include also relational capital and organizational capital.

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