

Human Capital and Firm Performance: The Mediating Role of Self-Efficacy

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Abstract: Previous studies have frequently emphasized on the development of internal factor of the organization to improve firm performance. It is often said that an organization need to employ the best used of its human capital to improve their performance. However, it is argued that the organization that incorporates human capital and self-efficacy may have better firm performance. The dearth study on these three variables as a cohesive framework has created a literature gap. The purpose of this paper is to identify the influences on the firm performance by the interaction of human capital and self-efficacy. The result implies that human capital has a significant positive relationship with self-efficacy which in turn had a direct positive influence on firm performance. A mediation test also affirmed that self-efficacy mediates the relationship between human capital and firm performance.

Key words: *Human Capital, Self-Efficacy, Malaysia SME, Firm Performance*

INTRODUCTION

Small and Medium Enterprise (SMEs) plays a huge role in ensuring the positive economic growth in Malaysia. According to [1] human capital is the main focus of the government as the highest programs to be implement are related to the human capital development. As results, SMEs are expected to become more sustainable and competitive. Malaysia can afford to attain high income nation if SMEs persistently upgrading themselves with the adequate ability and capability hence, becoming more sustainable and competitive [2]. This paper attempts to examine the intrinsic values of SME that may contribute to its sustainability and competitiveness. Internal sources of competitive advantages of a firm have been considered as an important factor to attaining superior firm performance. A significant number of studies agree that human capital is a critical factor to the firm performance. Human capital has becomes indispensable in current trend of modern and high technology enterprises [3]. In fact, government has focus towards the development of human capital and innovation as outlined in the 11th Malaysia Plan (11MP) [1]. Preponderance of the evidenced has demonstrated that human capital has the ability to influence firm survival and success.

The increment interest on the study of human capital has indicates not only its importance but also the conflict that continues to besiege firm performance. Some studies argue that firms could

not achieve sustainable competitive advantage from human asset if they unable to cope with the associated management dilemmas such as motivation and morale-hazard which can exert low entrepreneur effort [4]. Besides, some other study posits that a person still could not perform well if they have all those capabilities, but unable to self-motivate in achieving their goals [5]. Whereas, [6] argue that human capital does not have a direct relationship with firm performance [6]. This study claims that without the self-efficacy value, a motivation can wane, the interest gradually fades and they are not committed in pursuing their goals [7]. This is because every phase of entrepreneurial process needs different motivation [5]. As previous studies emphasis on single effect either by human capital or self-efficacy on the firm performance, hence, this situation leads to the literature gap. This paper aims to provide a cohesive framework of human capital and self-efficacy to increase firm performance in SMEs in Malaysia.

LITERATURE REVIEW

Internal factor of the organization

Human capital

Human capital has been widely recognized as the most important factor that can contribute to the firm resilience. [8] believes that the investment in human capital improves the physical and mental abilities of people and hence increases the real income prospect. Human capital is known as the most valuable asset that is heterogeneous in nature

that cannot be easily imitated as has been highlighted in [9]. This fact was accordingly conveyed by [4] where, they identified the human capital as a strategic asset that is beyond organizational control which in turn help in generating profit. An entrepreneur with unique entrepreneurial skills allows the firms to be more viable. The study done by [10] stated that people with a high human capital lead to high self-confidence which in turn they tend to pursue more opportunity. [11] added that knowledge that are possessed by the owner or manager can increase their alertness and preparing them to identify specific opportunities that are invisible to other people. A number of study demonstrated that there is a significant positive relationship between human capital and firm performance [12], [13], [14]. Furthermore, study done by [15] shows that the entire component of human capital has a significant positive impact on firm performance.

Self-efficacy

There are a growing numbers of studies which pertaining to self-efficacy and its significant contribution the firm performance. [16] define self-efficacy as a positive psychological capital (confidence, hope and optimism). Self-efficacy helps to increase a person effort even in a difficult task because of the belief in their self that tailored with their capabilities. [17] supported this view, as high self-efficacy people are possible to pursue and persist on a task as compare to a person with low self-efficacy. A person with self-efficacy is believed to be able to manage their risk. [18] have affirmed that self-efficacy make a person stronger in facing obstacle even under a high uncertainty. This is because every phase of entrepreneurial process needs different motivation. This means that the more difficult the task is, the higher motivation is needed. According to the study, a person with high self-efficacy will yield higher cognitive effort, which in turn increases their interest and willingness to make an effort and to pursue more opportunity.

Besides that, [19] stated that person with a confidence are able to accept the negative feedback in a positive manner. Previous study shows that there is a significant positive relationship between self-efficacy and firm performance [20], [21]. However, many of the previous study only examine a single relationship between self-efficacy and firm performance. However, there are past researchers argue that it is impossible to analyze the single relationship between self-efficacy and firm

performance because the relationship is consider weak [5].

Firm performance

The performance is normally measures in terms of economic perspectives and organizational performance [15]. The performance is refer to the level of achievement of a firm. It can be measures by using both financial and non-financial performance. Many of previous study consider using financial indicator in determining firm performance. Meanwhile, [22] and [23] argue that financial and non-financial measures are complementary and it is insufficient if the researcher only focus solely either in financial or non-financial performance. This study were using both financial and non-financial indicator to determine firm performance. This study focused on determining firm performance in terms of productivity, profitability and revenue growth.

RESEARCH METHODS

This study focused on SMEs in Malaysia, a sample of 2000 questionnaires were distributed through mail using convenience sampling method. The reason in choosing convenience sampling is because the data will be gather in a short time as the data are collected from a participant that are conveniently available or willingness to participate in the study [24]. In total, 244 samples were deemed valid to be analyzed. A sample size of 244 are considered adequate in achieving satisfactory analysis as demonstrated by several other studies [25]. The questionnaire consist of 2 parts. The first part covered the human capital (HC), self-efficacy (SE) and SMEs' firm performance (FP) which consist of 24 items and the second part covered the information of owner and SMEs background respectively. The dimensions of (HC) are measured by adopting and adapting instrument developed by [12] while, SE dimensions were from [26], and SMEs performance were based on [27] and [28]. A 5-point Likert type questionnaire was used to measure all the items in this variable. Structural Equation Modelling (SEM), Amos 23 was employed to test the mediation effect and also the relationship between human capital and firm performance.

RESULT

The respondents of this research are SMEs from all over Malaysia in which the majority of them are from service sector (n=144, 59%) and followed by the manufacturing sector (n=100, 41%). Most of them are sole proprietors (n=143, 58.6%) followed by private limited companies (n=60, 24.6%) and partnership (n=41, 16.8%). In terms of geographical location, majority of the respondents come from the central region (n=171, 70.1%).

Table i: Descriptive statistic

Profile	N	(%)
Business category		
Manufacturing	100	41
Service	144	59
Ownership status		
Sole proprietor	143	58.6
Partnership	41	16.8
Private limited	60	24.6
Geographical Location		
Northern Peninsular Malaysia (Perak, Penang, Perlis, Kedah)	32	13.1
Central Peninsular Malaysia (Selangor, Wilayah Persekutuan (KL))	171	70.1
East Coast Peninsular Malaysia (Pahang, Terengganu, Kelantan)	18	7.4
Southern Peninsular Malaysia (Negeri Sembilan, Melaka, Johor)	12	4.9
East Malaysia (Sabah, Sarawak)	11	4.5

A factor analysis was first conducted on the corresponding item of the respective construct in the form of Confirmatory Factor Analysis (CFA). This study used factor loadings, composite reliability (CR), and Average Variance Extracted (AVE) for having convergent validity as suggest by [29]. Table ii illustrates the loadings, CR and AVE of the items for each variable in the model. All factor loading, CR, and AVE has exceed the recommended loading value which are set at >0.5, >0.7, and >0.5 respectively.

The Cronbach’s alpha was used to measure the internal consistency reliability of all the variables in this study. The results in table ii shows that the reliability coefficient of all variables are above 0.7 indicating that the overall instrument used in this study are acceptable and reasonable value as suggest by [30].

Table ii: Measurement model

Construct	Items	Loadings	CR	AVE	Cronbach Alpha
Human capital	SA6	0.84	0.85	0.65	0.85
	SA4	0.80			
	SA2	0.78			
Self-efficacy	SB2	0.81	0.89	0.66	0.89
	SB3	0.84			
	SB5	0.82			
	SB6	0.79			
Firm performance	SC2	0.97	0.89	0.68	0.83
	SC3	0.57			
	SC4	0.87			
	SC5	0.84			

After confirming that all values in convergent validity achieved the recommended value, this study then proceed to the discriminant validity method to ensure that the item are unique among the construct. The results of convergent validity are shown in table iii.

Table iii: Convergent validity

Construct	Firm performance	Human capital	Self-efficacy
Firm performance	0.82		
Human capital	0.74	0.81	
Self-efficacy	0.75	0.78	0.81

To evaluate the research framework as shown in Figure 1, this study used the bootstrapping technique with 2000 resamples to generate the t-values.

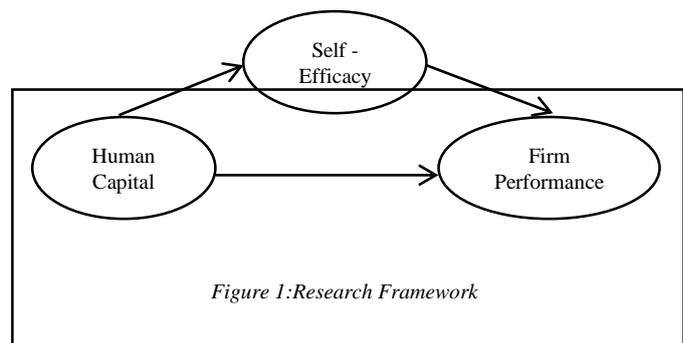


Figure 1: Research Framework

As shown in table iv, it was found that HC are positively related to SE ($\beta= 0.78, p<0.001$) and SE are positively related to FP ($\beta=0.61, p<0.001$).

Table iv: Hypothesis testing

Hypothesis	Relationship	Path coefficient	t-value	p-value	Decision
H ₁	FP ← HC	0.30	3.25	***	Supported
H ₂	SE ← HC	0.78	11.03	***	Supported
H ₃	FP ← SE	0.61	6.31	***	Supported

Bootstrapping technique was then performed to identify mediation for hypothesis number four.

Table vi: Standardized Indirect Effects - Two Tailed Significance (BC) (Group number 1 - Default model)

HC	SE	FP
SE
FP	0.00038	...

The mediating effect of SE is tested. The bootstrapping technique was used to test the indirect effect. The result shows that the indirect effect are significant. Therefore, it could be conclude that self-efficacy provides a mediation effect between human capital and firm performance.

DISCUSSION

The results from Amos analysis divulge that all hypothesized relationship has been supported. The results confirmed that human capital have a significant positive impact on firm performance. The significant relationship between human capital and firm performance stipulate that SMEs in

Malaysia are practicing the human capital characteristic in pursuing a good firm performance. The results is in tandem with the past researcher study where human capital has a significant positive effect on firm performance [11], [12], [15].

This study hypothesized that human capital can significantly increase self-efficacy. Indeed, developing firm's human capital would directly enhanced self-efficacy value. The results suggest that SMEs in Malaysia need to intensify self-efficacy in such a way that human capital needs to be developed. According to the research finding, human capital is considered as a crucial source of a firm which can be developed and cultivated through related training. Investing in training provides firm with useful idea, knowledge and skills demanded in the market. Meanwhile, self-efficacy can also be enhanced through specific

training to increase their confidence on their ability and capability to succeed. Participating in such

related training to enhanced self-efficacy could help increases firm ability to react on the challenges ahead in order to meet firms objective [16], [31].

Next, the results shows the significant relationship between self-efficacy and performance indicating that self-efficacy are able to increase firm performance. This seems to be related with the recent study that has proven self-efficacy to have significant impact on firm performance [20], [32], [33] [34]. With the self-efficacy value, firms would be able to neutralized those negative feedback and identify the level of effort they must put in order to achieved what has been designated.

Lastly, the results of mediation analysis affirms that self-efficacy mediates the relationship between human capital and firm performance. This seems to be congruent because human capital cannot directly contributes to firm performance [6]. Human capital and self-efficacy should be developed together to improves firm performance. Supported by [16], knowledge and skills is not the element in self-efficacy but the seeds that could help enhanced self-efficacy. Hence, this study suggest that firm need to intensify their internal sources such as human capital and self-efficacy in order to sustain. Human capital is important to generate a lot of useful ideas, but to ensure the realization of these ideas is far more important to achieve firm goal [7]. This is because self-efficacy help to ensure the continuous effort of the firm even they face with the difficult situation [16]. Therefore, it can be conclude that best path to achieve goof firm performance is by having both human capital and self-efficacy.

CONCLUSION

The findings of this study could be value to both academic research and practitioners. This study contributes to the existing literature on human capital and self-efficacy. Self-efficacy literature is considered lacking in the field especially in the context of Malaysian SMEs. This paper provides a cohesive framework by integrating both human capital and self-efficacy as a basic to strengthen firm performance. Overall, this study affirms that human capital can strengthen SMEs performance through the mediating role of self-efficacy.

REFERENCES

- [1] SME Annual Report, S. A. (2017). *SME and Entrepreneurship Development Programmes in 2017*.
- [2] SME Corp Malaysia. (2015). PKS Perlu Beralih Daripada Pertumbuhan Dipacu Input kepada Pertumbuhan Dipacu Produktiviti dalam Rancangan Malaysia ke-11.
- [3] Khalique, M., Abu Hassan M.S., Shaari, J.A.N. & Ageel, A., Challenges Faced by the Small and Medium Enterprises (SMEs) in Malaysia: An Intellectual Capital Perspective (2011). *International Journal of Current Research*, Vol. 3, No. 6, p. 398.
- [4] Coff, R. W. (1997). Human Assets and Management Dilemmas: Coping with Hazard on the Roads to Resources Based Theory. *Academic of Management Review*, 374-402.
- [5] Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial Motivation. *Human Resource Management Review*, 13(2), 257-279.
- [6] Hooi, L. W., & Ngui, K. S. (2014). Enhancing Organizational Performance of Malaysian SMEs. *International Journal of Manpower*, 35(7), 973-995.
- [7] Zuhir, N. N., Surin, E. F., & Rahim, H. L. (2019). Human Capital, Self-Efficacy and Firm Performance: A Study of Bumiputera SMEs in Malaysia. *International Journal of Financial Research*, 10(6), 218-231.
- [8] Becker, G. (1975). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. *National Bureau of Economic Research* (Vol. 2).
- [9] Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human resources and sustained competitive advantage: a resource-based perspective. *International Journal of Human Resource Management*, 5(2), 301-326.
- [10] Urban, B., & Kongo, M. (2015). The Relevance of Human Capital to Firm Performance: A focus on the Retail Industry in Kinshasa, Democratic Republic of Congo.
- [11] Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human Capital and Entrepreneurial Success: A Meta-analytical review. *Journal of Business Venturing*, 26(3), 341-358.
- [12] Sharabati, A.-A. A., Jawad, S. N., Bontis, N., Naji Jawad, S., & Bontis, N. (2010). Intellectual Capital and Business Performance in the Pharmaceutical Sector of Jordan. *Management Decision*, 48(1), 105-131.
- [13] Liu, N., & Wang, C. (2013). Achieving organizational effectiveness through human capital acquisition practices. The moderating effects of environment turbulence and knowledge sharing climate. *Journal of Human Resource Management*, 13(3), 1-25.
- [14] Che, Y., & Zhang, L. (2014). Human Capital, Technology Adoption and Firm Performance: Impacts of China's Higher Education Expansion in the Late 1990s. *The Economic Journal*.
- [15] Samad, S. (2013). Assessing the Contribution of Human Capital on Business Performance. *International Journal of Trade, Economics and Finance*, 4(6), 393-397.
- [16] Raza, S. A., Zia, S., Naqvi, S. A. H., & Shaikh, F. M. (2011). Human and social capital Development for Self-efficacy of University Graduates: Bases for development of society. *Asian Social Science*, 7(9), 244.
- [17] McGee, J. E., & Rubach, M. J. (1996). Responding to Increased Environmental Hostility: A Study of the Competitive Behavior of Small Retailers. *Journal of Applied Business Research*.

- [18] Oyugi, J. L. (2016). The Mediating Effect of Self-Efficacy on the Relationship Between Entrepreneurship Education and Entrepreneurial Intentions of University students. *Journal of Entrepreneurship, Management and Innovation*, 11(2), , 31-56.
- [19] Alam, S. S., Mohd, R., Hisham, B., & Nor, N. G. (2015). Personal Values and Entrepreneurial Orientation in Malay Entrepreneurs in Malaysia. *International Journal of Commerce and Management*, pp. 385- 401.
- [20] Cherian, J., & Jacob, J. (2013). Impact of self-efficacy on motivation and performance of employees. *International Journal of Business and Management*, 8(14), 80.
- [21] Mohd, R., Kamaruddin, B. H., Hassan, S., Muda, M., & Yahya, K. K. (2014). The important role of self-efficacy in determining entrepreneurial orientations of Malay small scale entrepreneurs in Malaysia. *International Journal of Management Studies*, 20(1), 61-82.
- [22] Ahmad, N. H. (2007). A Cross Cultural Study of Entrepreneurial Competencies and Entrepreneurial Success in SMEs in Australia and Malaysia. *University of Adelaide, Australia*, (May), 1-323.
- [23] Abu-Jarad, I. Y., Yusof, N. A., & Nikbin, D. (2010). A Review Paper on Organizational Culture and Organizational Performance. *International Journal of Business and Social Science*, Vol. 1 No.3.
- [24] Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 1-4.
- [25] Idowu, S. O., Vertigans, S., & Burlea, A. S. (2017). *Corporate Social Responsibility in Times of Crisis: Practices and Cases from Europe, Africa and the World*. Springer.
- [26] Kadir, S. A. (2012). Amalan Nilai Islam dan Kejayaan PKS di Kelantan dan Selangor. Phd Thesis, UM.
- [27] Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information System*, 18(1), 185-214.
- [28] Ngah, R. (2011). The Relationship of Intellectual Capital, Knowledge Sharing, Innovation and Organizational Performance of Malaysian SMEs. Unpublished doctoral dissertation, Universiti Malaya, Malaysia.
- [29] Hair, J., Black, W.C., Babin, B.J. and Anderson, R.E. (2010), *Multivariate Data Analysis: A Global Perspective*, Upper Saddle River, NJ.
- [30] Nunnally, J. C., and I. H. Bernstein. 1994. *Psychometric theory*. 3rd ed. New York: McGraw-Hill.
- [31] Luszczynska, A., Gutiérrez-Doña, B., & Schwarzer, R. (2005). General Self-efficacy in Various Domains of Human Functioning: Evidence from Five Countries. *International Journal of Psychology*, 40(2), 80-89.
- [32] Hmieleski, K. M., & Carr, J. C. (2008). The Relationship between Entrepreneurs Psychological Capital and New Venture Performance. *Frontiers of Entrepreneurship Research*, 28(4), 1-15.
- [33] Khedhaouria, A., Gurău, C., & Torrès, O. (2015). Creativity, Self-efficacy, and Small-Firm Performance: The Mediating Role of Entrepreneurial Orientation. *Small Business Economics*, 44(3), 485-504.
- [34] Barbaranelli, C., Paciello, M., Biagioli, V., Fida, R., & Tramontano, C. (2018). Positivity and Behaviour: The Mediating Role of Self-Efficacy in Organisational and Educational Settings. *Journal of Happiness Studies*, 1-21.