

RELATIONSHIP BETWEEN LOVE FOR KNOWLEDGE, EXCELLENT MUSLIM PERSONALITY AND HUMAN TRANSFORMATION CAPITAL: A MODEL BUILT WITH STRUCTURAL EQUATION MEASUREMENT (SEM)

(Hubungan antara Cinta Ilmu, Muslim Cemerlang dan Modal Transformasi Insan:
Pembinaan Model Menggunakan Analisis Persamaan Struktural)

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ABSTRACT

The concept of love for knowledge is very relevant in building a great civilization. It is not only relevant, but should be given a serious emphasis because *ilmu* (knowledge) and *amal* (practice) are the core of human excellence. The purpose of the study was to model out the relationship between love for knowledge, excellent Muslim personality and Human transformation capital. The study was conducted on 767 students of the Institute of Higher Education around the Klang Valley, Malaysia. Structural Equation Modeling Analysis has been used for the purpose of identifying the role of human transformation capital as a mediator in determining the relationship between love for knowledge and excellent Muslim personality. The results of the analysis show that there was a significant positive relationship between love for knowledge and the excellent Muslims. While the transformation of human capital was found to function significantly as a partial mediator between love for knowledge and excellent Muslims. In other words, love for knowledge will

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affect the excellent Muslims and transform the human capital. It is recommended that these three important aspects become the fundamental values of success to develop a greater Islamic civilization.

Keywords: Love for knowledge; Islamic civilization; excellent Muslims; human capital.

ABSTRAK

Konsep cinta ilmu sangat relevan dalam membina sebuah tamadun yang hebat. Ia bukan sahaja relevan, tetapi cinta ilmu perlu diberikan penekanan yang serius kerana ilmu dan amal adalah teras kecemerlangan manusia. Tujuan kajian ini dilakukan adalah bagi menguji hubungan antara cinta ilmu, Muslim cemerlang dan Transformasi Modal Insan. Kajian dilakukan ke atas 767 orang mahasiswa Institusi Pengajian Tinggi sekitar Lembah Kelang. Analisis Persamaan Struktural (Structural Equation Modeling) digunakan bagi tujuan mengenal pasti peranan Transformasi Modal Insan sebagai mediator dalam menentukan hubungan antara cinta ilmu dan Muslim cemerlang. Hasil analisis menunjukkan terdapat hubungan signifikan positif antara cinta ilmu dengan Muslim cemerlang. Manakala transformasi modal insan didapati berfungsi secara signifikan sebagai partial mediator antara cinta ilmu dengan Muslim cemerlang. Dengan erti kata lain, cinta ilmu akan memberi kesan kepada Muslim cemerlang dengan kewujudan transformasi modal insan.

Kata kunci: *cinta ilmu; peradaban Islam; Muslim cemerlang; modal insan.*

INTRODUCTION

Human capital is a major asset in the development of a civilization. In accordance with his duties as khalifah, human beings need to be formed comprehensively and consistently through the development of knowledge, personality, religious and moral values (Utusan Borneo 2012). Human capital that complements these features enables the transformation of individuals, families, communities and countries gradually. Hence, to transform human capital is not limited to academic excellence but also includes soft skills (Zaini Ujang 2008). This is supported by Mohd Fauzi and Mohd Khairul Naim (2012) which characterizes the human capital among others is invisible and limited to the ability of the self. This is evidenced by the study of Norasmah Othman and Hariyaty Ab Wahid (2014) that found that there was a close relationship between the specific personal characteristics of social entrepreneurs with the resilience and competitiveness of IPT students. This relationship clearly demonstrates the influence of soft skills in the formation of IPT students' identity.

The most important way to transform human capital is to improve the education system, enhance innovation and ensure that transformation takes place. In the higher education sector, the human capital is intended to refer to academic staff and students. In addition, the management must also play a role in determining policies, directions that lead to human transformation capital. In fact, in this institution the intellectual mind is characterized as the highest human capital in its hierarchy (Zulkefli 2007). In contrast to physical capital, human capital relies heavily on education and training. Its value increases as it leverages technology development and adds new knowledge (Mohd Fauzi & Mohd Khairul Naim 2012).

For that reason, Zulkefli (2007) has proposed strategies in the transformation of human capital among them to establish research universities in several public universities and to develop soft skills as well as to improve the structure and function of all parties involved in the IPT itself. To further accelerate efforts towards transformation of human capital, Baharom Mohamad and Mohamad Johdi Salleh (2009) believes that leadership education is one of the necessary components.

For the purpose of empowering education, the balance between spiritual and physical needs also needs to be emphasized (al-Qasas 28: 77, al-Jumu'ah 62: 11). This is because the main basis of the height of a community is the visibility of faith and intellectual strength. The combination of these two elements is translated through the character of *Ulu al-Albab* as stated in the Quran (Hassan, M. 2010). The strength of faith is translated as remembrance of god (*zikir*) while intellectual strength is through thinking activities. This integration of integrity will transform the person towards a better and avoidance of evil (Siddiq Fadzil 2014).

Generation of the companions of Prophet Muhammad pbuh was the best model for the society of all time. This uniqueness was the result of their intense interaction with the revelation. Al-Quran plays a role in explaining to real people the real purpose of life so they realize the value of a life and choose to live life meaningfully by Allah SWT (Siddiq Fadzil 2014). Transformation will only apply to readers who understand and reflect on the meanings of the revelations. By placing the Quran as a reference for self-esteem, one will be able to realize his true position and encourage him to live according to the teachings of Islam. As a result, one will be granted with calmness and act rationally in his life (Aisha Utz 2011).

Therefore, in the pursuit of excellent, emphasis should be given to the aspect of empowerment, character development, practice of worship and the mastery of knowledge (Malik et al. 2018). In Islam, all these aspects are interconnected with knowledge as the fundamental. Knowledge also need to be given a clear definition and far from misunderstanding bound by secularism (Wan Mohd Nor

1988). Through knowledge, creed, personality and worship can be perfected so that personal formation of excellent can contribute as human capital in a country and civilization. Therefore, this research study is carried out to examine the level of love of knowledge amongst students and their implications and relationship with excellent Muslim personality and human transformation capital.

PROBLEM STATEMENT

Nowadays, our youth generation in high institution often been labeled as lack of idealism, immature leadership, and the spirit of seeking of knowledge is fading away. The competency and dynamic skills of graduates mainly still at the poor level and therefore potential employers prioritize graduates with better soft skills and diligence. Some of the graduates were discovered to be lazy and having no passion, which is opposite to an excellent Muslim personality. Lack of fluency in communication, poor critical thinking skills and creativity, weak in language proficiency, unable to work in a team, low entrepreneurial spirit are among the factors that are becoming stigma to the fresh graduates. Higher institutions are likely producing a low quality and low-class mindset graduates that are not parallel with their qualifications as the degree holders from universities. Thus concrete action in human capital transformation must be constructed in order to produce excellent Muslim personality with high first-class mindset among students as they are generation that will lead our country in future.

RESEARCH QUESTIONS

For the purpose of this study, the following research question of hypothesis is formulated:

1. What is the level of Love for Knowledge, Human Transformation Capital and the Excellent Muslim Personality among students?
2. What is the level of relationship between Love for Knowledge, Human Transformation Capital and the Excellent Muslim Personality among students?
3. Is there a significant correlation between the demographic factors of the student (gender and university category) with Love for Knowledge, Human Transformation Capital and the Excellent Muslim Personality among students?

DEFINITIONS

Love for Knowledge

Love is described as a mental attraction towards something interesting and in-depth. When the feels get stronger, then there is deep love developed (Syaidatun 2013).

According to al-Attas (2007), knowledge is a system that produces the truth and one of human efforts to prolong itself by advancing the level of human life rather than physical and spiritual. In this context of study, love of knowledge can be define as students have deep spirit and passion to learn, explore new knowledge and think in the right way based on the knowledge that was revealed by Allah, the al-Qur'an as the primary source of knowledge. Hence, it means if someone wants to be in love, he should firstly love Allah. The concept is same as if someone loves for knowledge is more than others, then his love of knowledge should be based on love for Allah SWT (Syaidatun et al. 2011).

Excellent Muslim Personality

Personality from Islamic perspective refers to the Arabic word means moral attribute of an individual (Fariza et al. 2013). Personality is defined as characteristic, and behaviour that commonly shown by a person. An excellent Muslim personality is the best type of personality and the individual has taqwa (piety to Allah SWT) as the key in his character and behavior (Khairul Hamimah Mohammad 2014). In the context of this study, The personality in this study is character, behavior of a student that meets the characteristics of an excellent Muslim personality.

Human Transformation Capital

The term human transformation capital is derived from three words itself namely development, capital, and also human beings. Term development contains an idea of potential capability and potential as its refer to move forward from lower position to a better position in terms of achievement, opportunity and benefits. The combination of these three words is define as improvement process of situation to better conditions that covers all aspects of humanity, materiality, science and technology (Mohd Yusof 2013). In this study, human transformation capital can be describe as the process of establishing a proactive student to improve the quality of human life among student at higher institution.

METHODOLOGY

PARTICIPANTS

The study was conducted quantitatively by distributing questionnaires to 767 students aged 18 years and over from six public and private universities. Table 1 illustrated based on category of universities shows 300 students with the percentage of 39.1 were from research universities (150 students (19.6%) from UKM and 150 students (19.6%) from UPM). While 314 students, 40.9 percents were from Public Universities

(151 students (19.7%) from UIAM and 163 students (21.3%) from UPNM) and 19.9 percents, 153 students were from Private Universities (UniKL).

TABLE 1 Demographic profile of category of universities

Category of Universities	Frequency	Percent
Research Universities		
UKM	150	19.6
UPM	150	19.6
Total	300	39.1
Public Universities		
UIAM	151	19.7
UPNM	163	21.3
Total	314	40.9
Private Universities		
UniKL	153	19.9

PROCEDURES

The sample was selected using a purposive sampling technique of undergraduate students from three type of universities categorized as public universities, private universities and research universities. This study involved students from different gender and field of study. Samples taken are based on the student population in the Klang Valley. Prior to the survey date; the researcher administered the questionnaire personally to all the respondents. According to Dyer and Reeves (1995) the direct administration method can ensure a high rate of response and the researcher has the opportunity to personally attend to any inquiries that the respondents may have while answering the questionnaires. The researcher is also able to standardize the instructions given thus reduce interviewer bias.

In addition, each part of the questionnaire was accompanied by a detailed explanation regarding the nature and purpose of the survey. Specific instructions were given by the researcher requiring the respondents to answer all the questions as honest as possible. The respondents were required to fill in some demographic information. However, respondents were not required to write their names on any paper. This is to ensure the anonymity of respondents. The researcher specially emphasized that respondents will not be identified in any presentation, discussion, or publication of the survey findings. Most of the questionnaires were collected on the same day as it only took about 15-20 minutes to answer. Scores for each scale

were summed (negatively worded items were reverse scored). Missing data were addressed by replacing missing values with series means, where needed.

INSTRUMENTATIONS AND MEASUREMENTS

The questionnaire comprises four sections namely the item on the characteristics of knowledge lovers, characteristics of excellent muslim personality, human transformation capital through love of knowledge and questions on respondents demographic. These instruments consist of 73 items. The number of items for each sub-constructs is love of reading (4 items), love of writing (3 items), love of discussion and thinking (8 items), love for truth and justice (5 items), love of motivation (Intrinsic) (4 items), love of motivation (extrinsic) (4 items), worship (6 items), personality/morals (8 items), aspects of leadership (6 items), time management (5 items), culturing knowledge (3 items), aspects of spirituality (6 items), identity (4 items) and soft skills/generic (7 items). This constructs used 5-point likert scale ranging from (1) “strongly disagree” to (5) “strongly agree”. This study analysis is a random purposive sampling.

The analysis methodology used is Structural Equation Modeling (SEM) using AMOS software covering several levels of testing. The tests were confirmatory factor analysis, measurement model and structural model test.

RESULT & DISCUSSION

As a result of the factor validity test (CFA), it is found that only three items out of 26 items in love of knowledge are valid based on factor loading factor >0.70 , three items from 19 items in excellent Muslim instrument and 17 items from 19 items in human transformation capital instrument achieve the factor loading factor >0.70 . The result of this analysis shows the reliability of variable-indicator variables representing the concept of latent variable in the measurement model (Hair et al. 2014).

Furthermore, the model measurement (MM) test is carried out to evaluate the model's goodness of fit indices, construct validity, convergence validity and discrimination validity. Figure 1 shows the results of the model measurement test for the love of knowledge, the excellent Muslim and the transformation of human capital.

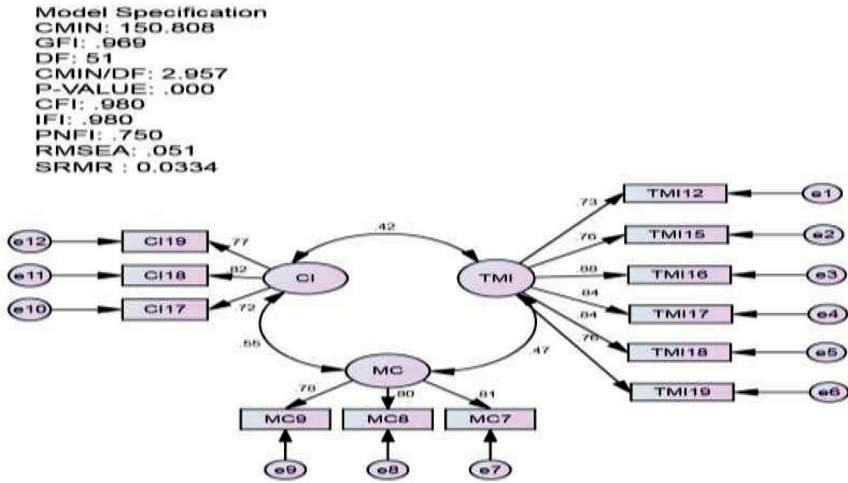


FIGURE 1 The measurement model of love for knowledge, excellent muslim and human transformation capital

Table 2 shows the results of a model compatibility test for this culture model with a rating of at least four of the minimum criteria of compatibility index achieved.

TABLE 2 Comparison index of culture model

Correspondence Index	Minimum Value	Value
Chi-square (x2)		
Chi-square (p-Value)		150.808
Degrees of Freedom		51
Absolute Fit Indices		
Relative Chi-square, x2/df (CMIN/DF)	(2-5)	2.957
Root Mean Square Error of Approximation (RMSEA)	(< 0.08)	0.051
Standardized Root Mean Square Residual (SRMSR)	(< 0.08)	0.051
Incremental Fit Indices		
Comparative Fit Indices (CFI)	(> 0.90)	0.980
Parsimony Fit Indices		
Parsimony Normed Fit Index (PNFI)	(> 0.60)	.750
Convergent Validity		> 0.70
Construct Reliability		
Discriminant Validity		
Nomological Validity		

Construct validity test is done for the purpose of seeing the extent to which each item represents constructed constructs. For that purpose, convergent validity tests and discriminant validity are performed. Convergent validation refers to a set of indicators considered to be a measuring rod in assessing a construct (Kline 2005). Brown (2006) defines convergence validity as an internal consistency for a set of several items or indicators. It shows the strength of the relationship between the items estimated to represent a latent construct. The result of the test, found that the three constructs have internal consistency. The findings are presented in Table 3 below.

TABLE 3 Convergence validity for the love of knowledge model

No.	Construct	Factor	Average	Reliability
		Loadings	Variance Extracted	
		> 0.5	> 0.5	> 0.7
1.	Love for Knowledge (LK)			
	LK 17	0.720		0.518
	LK 18	0.820	0.595	0.672
	LK 19	0.770		0.593
2.	Excellent Muslim (EM)			
	EM 7	0.810		0.656
	EM 8	0.800	0.635	0.640
	EM 9	0.780		0.608
3.	Transformation of Human Capital (THC)			
	THC 12	0.730		0.533
	THC 15	0.760		0.578
	THC 16	0.880	0.646	0.774
	THC 17	0.840		0.706
	THC 18	0.840		0.706
	THC 19	0.760		0.578

The discrimination validation is performed to determine the extent to which a construct is completely different from the other constructs (Hair et al. 2014). It involves the relationship between the specific latent constructs and the other constructs that are almost identical (Brown 2006). Determination is done by comparing Average Variance Extracted (AVE) values with r^2 . The Comparisons the values of AVE and r^2 is to see whether the AVE for both comparing comparisons is greater than r^2 for each construct (Bryne 2010). It is because AVE larger than r^2 indicates that the item

can stand alone rather than otherwise. Based on Table 4, the value of AVE is greater than r2. This indicates that the three constructs have discriminant legitimacy.

TABLE 4 The discrimination validity for the model love for knowledge

Construct		Construct	R	R ²	AVE
Love for Knowledge	→	Transformation of HC	0.419	0.176	0.364
Transformation of HC	→	Excellent Muslim	0.465	0.216	0.646
Excellent Muslim	→	Love for Knowledge	0.554	0.307	0.365

Based on the Measurement Model, Structural Equation Model was developed as shown in Figure 2. The findings show that there is a moderate positive significant relationship between Love of Knowledge and Excellent Muslims ($r = 0.44, p = 0.000$) but higher than the relationship between Love for Knowledge and Human transformation capital ($r = 0.42, p = 0.000$). However, the relationship between Human transformation capital and Excellent Muslim has a weak positive significant relationship ($r = 0.28, p = 0.000$).

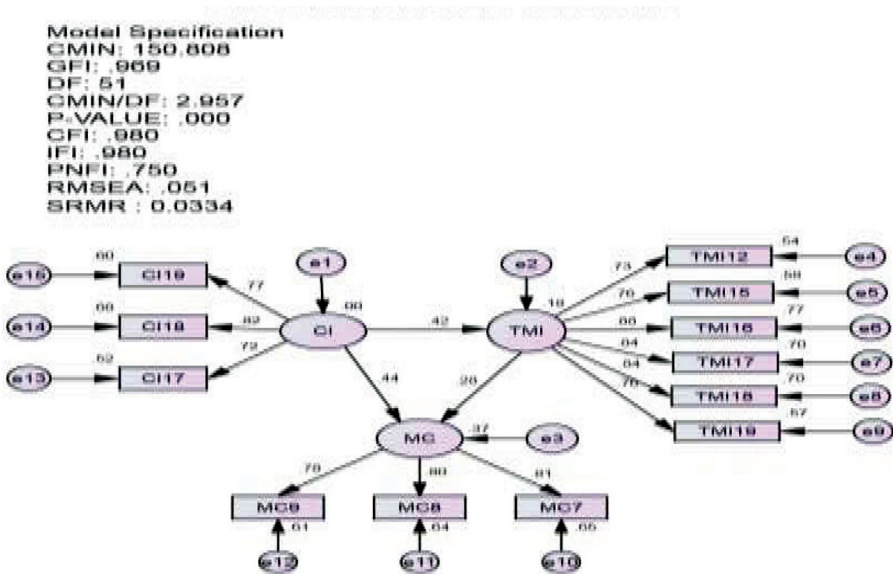


FIGURE 2 Structural Equation Model of Love for Knowledge

TABLE 5 Equality model of structural equation model

Correspondence Index	Minimum Value	Value	
		Measurement Model	Structural Model
Chi-square (x2)			
Chi-square (p-Value)		150.808	150.808
Degrees of Freedom		51	51
Absolute Fit Indices			
Relative Chi-square, x2/df (CMIN/DF)	(2-5)	2.957	2.957
Root Mean Square Error of Approximation (RMSEA)	(< 0.08)	0.051	0.051
Standardized Root Mean Square Residual (SRMSR)	(< 0.08)	0.0334	0.0334
Incremental Fit Indices			
Comparative Fit Indices (CFI)	(> 0.90)	0.980	0.980
Parsimony Fit Indices			
Parsimony Normed Fit Index (PNFI)	(> 0.60)	0.750	0.750

In addition to the relationship between each construct measured, the mediation effect of the three constructs was also performed (Refer Figure 3). Table 6 shows the Human transformation capital has a significant partial mediator in determining the relationship between Love for Knowledge and Excellent Muslims ($\beta = 0.435$, $p = .002$, BC 95% [.336, .539]). This shows the strength of the relationship between Love for Knowledge with Excellent Muslim is partially dimmed by Human transformation capital.

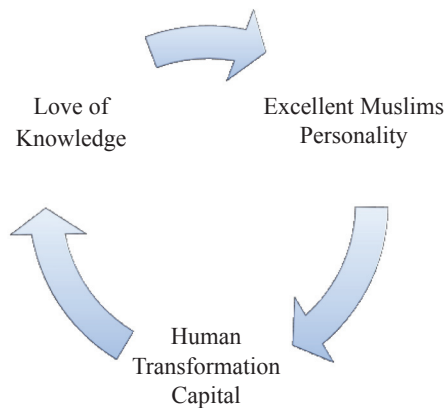


FIGURE 3 Mediation Impact Analysis. Connections between (Love of Knowledge), (Human Transformation Capital) and (Excellent Muslims Personality)

TABLE 6 Results analysis of the effects of mediation of human transformation capital on the relationship between the love of excellent knowledge and muslims

Path	Standardized Indirect Estimates	Standard Error (S.E.)	Bias Corrected 95% Confidence Level		
			Lower Bound	Upper Bound	p-Value
CI → MC	0.118	0.022	0.082	0.169	0.01

The inference statistics used in this study were t-test, one-way analysis of ANOVA and Pearson's correlation. It is to study the analysis the differences in the characteristics Love for Knowledge and Excellent Muslim Personality based on demographic background. The findings of this study are based on the null hypothesis which are:

- Ho1: There is no significant difference in the scores of love for knowledge at the reseach universities, public universities and private universities.
- Ho2: There is no significant difference in the score excellent muslim personality at the research universities, public universities and private universities.

The results of the show that there is a significant difference in the score of the characteristics of the Love of Knowledge $p < 0.05$ and Excellent Muslim Personality $p < 0.05$, based on different university categories which this analysis data study is normal.

This research can be implemented in daily life as a guideline in becoming an excellent muslim among students. Based on analysis it shows a significant positive relationship between love of knowledge and excellent muslims. In order to nurture the positive elements of becoming an excellent muslim, strong spirit of love for knowledge is required to obtain the ability to transform human capital. The first-class mindset and love for knowledge should be cultivate among students and academic community through open debate, intellectual-minded discourse, discussion and the cultivation of convenient intellectualism environment. Knowledge is diverse but it encompasses all elements that brings beneficial to human and the most noble knowledge is the knowledge of Allah SWT (Fariza et al. 2013).

The importance of knowledge and development of an excellent Muslim has been mentioned in Quran few times, which signify that knowledge is a fundamental component for human life. It is because only a knowledgeable person who has the personality that is obedience servant of Allah can become an excellent muslim individual (Syaidatun 2013). It is proven in this study that the love for Knowledge

is the determinant factor in the development of human capital and excellent muslim as referred in Figure 3.

A strong positive significant relationship between love for knowledge and human transformation capital among students is establish as they have a charismatic leadership, a mature-minded with strong idealism and passionate to seek knowledge. Personality can be regarded as existing traits possessed by a person such as the way student thinks, perceptions, and cognitive development of an individual. Human Capital Development is the extraction of personality component in this study that determine character, behavior and morals held by students on seeking of knowledge that fit the personality to become excellent muslim. A good personality is vital as it carries the positive attitude and distinctive attractive characteristic of a person (Fariza et al. 2013).

CONCLUSION

Based on the analysis done, there is a significant positive relationship between love for knowledge and excellent muslims. This mean that the higher the level love for knowledge within the students, the higher the level of characteristic of excellent Muslims in them. While, the lower the level of love for knowledge in oneself, the characteristics of the excellent muslims in them were also lower. In addition, there is also a significant positive relationship between love for knowledge and the transformation of human capital. This means the higher the level of love for knowledge, the higher the Human transformation capital characteristic. While, the lower the level of love for knowledge among the students, the level of human transformation capital is also lower, and vice versa.

The findings also show that there is a weak positive significance relationship between transformation of human capital and excellent muslims. This shows that the transformation of human capital affects only a little over excellent muslims. In contrast, Human transformation capital is a partial mediator in determining the relationship between love for knowledge and excellent muslims. In other words, the love for knowledge together with the transformation of human capital will reinforce the impression of excellent muslims.

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REFERENCES

al-Quran.

- Aisha Utz. 2011. *Psychology from the Islamic Perspective*. Kerals India: International Islamic Publishing House.
- Al-Attas, Syed Muhammad Naquib. 2007. *Tinjauan Ringkas Peri Ilmu dan Pandangan Alam*. Pulau Pinang: Penerbit Universiti Sains Malaysia.
- Baharom Mohamad dan Mohamad Johdi Salleh. 2009. Kepimpinan pendidikan dalam pembangunan modal insan. Seminar Kebangsaan Pembangunan Modal Insan 2009. Pengkalan Chepa, Kota Bharu, Kelantan. 23-24 Mac.
- Brown, T. A. 2006. *Confirmatory Factor Analysis for Applied Research*. New York: Guilford.
- Byrne B. M. 2010. *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. 2nd ed. New York: Taylor & Francis.
- Dyer, L., & Reeves, T. 1995. Human resource strategies and firm performance: what do we know and where do we need to go. *International Journal of Human Resource Management* 6 (3): 656-670.
- Fariza Md Sham, Salasiah Hanin Hamjah & Mohd. Jurairi Sharifudin. 2013. *Personaliti dari Perspektif al-Ghazali*. Bangi: Penerbit Universiti Kebangsaan Malaysia.
- Hair, J.F, Black, W.C, Babin, B.J & Anderson, R.E. 2014. *Multivariate Data Analysis*. 7th Ed. England: Pearson New International Edition.
- Hassan, M. 2010. A return to the Qur'anic paradigm of development and integrated knowledge: The Ulu al-Albab model. *Intellectual Discourse* 18(2), 183-210.
- Khairul Hamimah Mohammad Jodi. 2014. Sejauhmana Bahan Bacaan Mempengaruhi Pemahaman Akidah Remaja: Satu Kajian Di Institut Pengajian Tinggi Swasta (IPTS). *Prosiding Seminar Antarabangsa Pengajian Arab dan Peradaban Islam 2014*, hlm. 550-558.
- Kline, R.B. 2005. *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: Guilford.
- Malik, N. H. M. A., Zahrin, S. N. A., Sawai, R. P., & Sham, F. M. 2018. Konsep cinta kepada ilmu pengetahuan dan transformasi kecemerlangan modal insan muslim: Analisis dari aspek perbezaan gender. *Jurnal Pendidikan Malaysia Malaysian Journal of Education* 43 (1): 51-57.

- Mohd Fauzi Hamat & Mohd Khairul Naim Che Nordin. 2012. Tinjauan kepentingan pembangunan modal insan di Malaysia. *Jurnal al-Tamaddun* 7 (1): 75-89.
- Mohd. Yusof Hj. Othman. 2013. Cabaran Pembangunan Modal Insan dalam Pendidikan Sains dan Teknologi. *Simposium Pengajaran dan Pembelajaran FST 2013*, Hotel Equatorial, Bangi. 12 Disember.
- Norasmah Othman & Hariyaty Ab Wahid. 2014. Social entrepreneurship among participants in the students in free enterprise program. *Education + Training* 56 (8/9): 852-869.
- Syaidatun Nazirah Abu Zahrin. 2013. Kefahaman remaja melayu terhadap konsep cinta dalam Islam dan hubungannya dengan pemikiran rasional dan akhlak percintaan. Tesis Dr. Fal, Fakulti Sains Sosial dan Kemanusiaan, Universiti Kebangsaan Malaysia.
- Syaidatun Nazirah Abu Zahrin, Abidah Abd Rahim & Nurul Aida Abd Ghani. 2011. *Cinta Motivasi Berfikir*. Kuala Lumpur: Utusan Publications & Distributors Sdn Bhd.
- Siddiq Fadzil. 2014. *Pendidikan al-Hikmah dan Misi Pencerahan*. Kajang: Akademi Kajian Ketamadunan Kolej Dar al-Hikmah.
- Utusan Borneo*. 2012. Pembangunan modal insan perlu dirancang dengan teliti. 9 November.
- Wan Mohd. Nor Wan Daud. 1988. *Budaya Ilmu: Konsep, Prasyarat dan perlaksanaan di Malaysia*. Kuala Lumpur: Nurin Enterprise.
- Zaini Ujang. 2008. Budaya keintelektualan makin subur. *Berita Harian*, 11 Februari.
- Zulkefli A. Hassan. 2007. Isu dan strategi ke arah pembangunan modal insan sektor pengajian tinggi bertaraf dunia. *Jurnal Pengurusan Awam*: 23-44.

