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Halal Literacy: A Concept Exploration and Measurement Validation

Imam Salehudin*

Muslim consumers have strict commandments which guides their consumption behavior. However, Muslim individuals may have different compliance regarding the commandments. This difference in compliance may be explained by difference in halal literacy. Halal literacy is the ability to differentiate permissible (halal) and forbidden (haram) goods and services which came from better understanding of Islamic laws (shariah). Thus, the purpose of this paper is to explore the concept of Halal Literacy as well as to develop and validate an instrument to measure Halal Literacy for Muslim consumers.

Halal literacy was measured using two methods. One method using six items of five point Likert self evaluation scale and the other using fifteen true-false test questions with an option to choose doesn't know. Proportion of correct and incorrect was used as weights in scoring to represent the difficulty of items. Scoring results were then analyzed with Confirmatory Factor Analysis (CFA) using Weighted Least Square method to test construct validity. Scores were then used to classify cases into high, moderate and low Literacy groups. Self evaluation halal literacy and switching Intentions are compared between groups using ANOVA to determine concurrent validity.

Only ten out of fifteen items are considered valid using Confirmatory Factor Analysis. ANOVA showed that grouping of high, moderate and low literacy score can distinguish differences in perceived halal literacy and switching intentions between the groups. Post hoc tests and descriptive statistics revealed interesting non linear relationship between the halal literacy scores; self evaluated halal literacy and intentions to switch from products without halal labels.

Keywords: *Halal Literacy; Halal Labels; Muslim Consumer; Measurement and Validation; Product Switching Intention*

Introduction

Importance and Uniqueness of Muslim consumer

Islam is the religion with the second largest number of believers. Muslims (adherents of Islam) population was estimated to be 1.6 billion people concentrated in several regions such as the Middle East, Pakistan, South East Asia and parts of Africa as dominant majority; as well as growing presences as minorities in several countries such as India, Russia, USA and the EU (Pew Forum on Religion & Public Life, 2009). The estimated purchase power of the world Muslim

populations was estimated to be 2.7 Trillion USD (JWT, 2007; Halal Journal, 2008). This sizable purchase power makes Muslims a good market segment for consumer goods -such as foods, fashions, beverage and pharmaceuticals- as well as services –such as financial, education and tourism services.

However, marketers must have sufficient understanding in order to target Muslim market segments. Muslim consumers possess different characteristics compared to other market

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segment. Islam is not only a religion, but also a way of life. Muslims have strict commandment regarding what they consume. Allah *Subhanahu wa Ta'ala* commands Muslims to consume only things that are *Halal* and good, “*O Mankind! Eat of that which is Halal (lawful) and Thoyyib (good) on the earth, and follow not the footsteps of Satan. Verily, he is to you an open enemy.*” (*Al Qur'anul Karim, Al-Baqoroh, 2:168*).

Halal, which is the opposite of *haram*, is a term to say that something is **not** forbidden to be consumed by the scriptures of Qur'an, by the saying of the prophet or by the *ijma'* (consensus) of the *ulama'* (Jusmaliani and Nasution, 2009). His Prophet, Muhammad *Shollallohu alayhi wa salaam*, also forbids his *ummat* (people) to avoid consuming things that are ambiguous whether it is *Halal* or *haram*, as narrated by Bukhari & Muslim: The Prophet Muhammad (peace be upon him) once said, “*The Halal is clear and the Haram is clear; in between these two are doubtful (Syubhat) matters concerning which people do not know whether they are Halal or Haram. One, who avoids them, in order to safeguard his religion and his honor, is safe. Anyone who gets involved in any of these doubtful items, he may fall into the Haram. This case is similar to the one who wishes to raise his animals next to a restricted area, he may step into it. Indeed for every landlord there is a restricted area. Indeed the restrictions of Allah are Haram.*” (Al-Utsaimin, 2005).

Difference in behavior regarding halal label

This commandment complicates foreign based marketers from non Muslim countries to really tap into this market segment. However, even though the halal commandments do regulate the lives of all Muslims worldwide universally, the actual compliance may vary between individuals as well as between product contexts. Most researches covering this specific behavior usually focuses on attitudinal attributes based on Ajzen's theory of planned behavior, i.e: attitudes, subjective norms and perceived behavioral control (Lada, Tanakinjal, and Amin, 2009). Other researches focused on religiosity and spiritual values that explained differences in compliance between individual Muslim consumer (Karim

and Afiff, 2005; Kartajaya and Sula, 2006; Afiff and Astuti, 2009).

Their findings however, cannot fully explain differences of consumer compliance across different product contexts, in which the behavioral intentions of Muslim consumers regarding products with halal labels may not be necessarily consistent between product contexts. The same person might have different behaviors across different product categories as one Muslim consumer may exhibit high involvement and compliance toward halal commandment when choosing canned foods, while purchasing over-the-counter medicines with less consideration. Another example in the service sector is when a Muslim may choose very carefully where to eat out in order to avoid eating haram foods but is willing to put their savings in conventional banks.

This study proposes and explores an alternative concept to complement the attitudinal approach, by introducing a cognitive attribute to the behavioral model of Muslim consumers regarding halal labels. This study aims to highlights the importance of *Halal* Literacy in determining the behavioral intention of Muslim consumer in selecting products with halal labels. Halal literacy is defined as the correct awareness and understanding of individual Muslim regarding halal commandments. This proposition is in accordance to the verse “*It is only those who have knowledge among His servants that fear Allah.*” (*Al Qur'anul Karim, Fatir, 35:28*). Thus Muslims with better knowledge about the *Halal* commandments should be more involved and careful regarding the products they consume than less knowledgeable Muslims.

Literature Review

Literacy Concepts in Consumer Behaviors

The concept of literacy has been used frequently in previous researches to explain various consumer behaviors. However, since there have been no prior conceptualization of literacy in the context of Halal consumption behavior, initial review of definitions and usage of Literacy concepts in other behavioral context would be required in order to build a foundation for the concept of Halal Literacy.

One concept of literacy that received much spotlight in consumer behaviors researches is the concept of Financial Literacy. Koonce et al. (2008); Hu, Malevergne and Sornette (2009); and Glaser and Weber (2007) used the Financial Literacy to explain various behavior of investors as consumer of financial services. Koonce et al. (2008) discovered that teenagers with better access of financial knowledge and information, either from their parents or from external sources, have greater tendencies to make long term financial planning as well as saving greater portion of their earnings. Hu, Malevergne and Sornette (2009) on the other hand, finds that investors with low financial literacy have greater vulnerability to optimism bias, both from themselves as well as bias caused by marketing efforts of fund managers as financial service provider.

Apart from Financial Literacy, the concept of literacy has also been used to explain perceptions and behaviors of consumers in a wide range of context. Media Literacy is another context of literacy which receives greater attention from scientist. Livingstone and Van der Graaf (2010) defined Media Literacy as the ability to access, understand and create messages at a variety of context. Narrower definition was used by Elma et al. (2010), which focused on ability to access and understand media messages, to explore the role of media literacy on how consumers perceived the ethics of media broadcasting corporations and trusts the neutrality of messages they contained.

In an entirely different context, Yamamiya et al. (2005) conducted a study which found that giving media literacy course would reduce the influence of media effect toward thin body image for teenage girls which may lead to various eating disorders. Other use of media literacy in health related consumer behavior includes a study by Primack et al. (2008) which explored the influence of media literacy toward student's attitude toward anti-smoking advertising campaign.

In each of these studies, the concept of literacy was used instead of more generic cognitive concept such as awareness and involvement. Even though both of these concepts are related to literacy, they both represent a narrower concept of consumer cognition. Literacy is more than the

state of awareness toward certain concepts or the motivation to seek more information on certain topics. Being literate means having capabilities to modify the behavior of oneself as result of greater understanding of certain specific topics.

Ingerman and Collier-Reed (2010) describes Literacy as having two component, *Potential* and *Enactment*. Potential literacy is made up of knowledge of a particular situation, personal engagement with a situation, and social engagement in the world. While Enactment requires a particular set of competencies in action, which together helps shape the situation: recognizing needs; articulating problems; contributing towards the process; and analyzing consequences. These definitions, albeit used originally in other contexts of literacy, may also be appropriate to be used to describe literacy in the context of halal consumptions.

Role of halal literacy in Islam

As explained earlier, the Prophet (peace be upon him) once said, "*The Halal is clear and the Haram is clear; in between these two are doubtful (Syubhat) matters concerning which people do not know whether they are Halal or Haram...*". This hadith is the central foundation for the conceptualization of Halal Literacy for Muslim consumer. Based upon this hadiths, everything can be categorized as permissible (*Halal*) and forbidden (*Haram*) in Islamic laws, with what is left over became doubtful matters (*Syubhat*). *Syubhat* matters are matters concerning which people do not know whether they are Halal or Haram. Thus, in order to erase doubt, knowledge is required.

Islam commanded all of its believers to pursue religious knowledge; one of such is the knowledge of Halal and Haram. *Ibnu Majah narrated, from Anas bin Malik, as well as other Companions, such as Ali bin Abi Thalib, 'Abdullah bin 'Abbas, 'Abdullah bin 'Umar, 'Abdullah bin Mas'ud, Abu Sa'id Al-Khudriy, Al-Husain bin 'Ali, and Jabir radhiyallahu'anhum, The Prophet Muhammad (peace be upon him) once said "Seeking (religious) knowledge is obligatory upon every Muslim (male and female)"* (Ibnu Majah no. 224, in Al-Hilali, 2005a).

Islam places great importance toward the pursuit of knowledge as well as to those possess-

ing knowledge. As mentioned in several verses in the Qur'an, such as in Al-Mujadilah, *Allah subhanahu wa ta'ala* said: "Allah will raise up, to (suitable) ranks and (degrees), those of you who believe and who have been granted knowledge. And Allah is well-acquainted with all you do." (Al Qur'anul Karim, Al-Mujadilah 58:11). Also in Az-Zumar, *Allah subhanahu wa ta'ala* said: "Is he who payeth adoration in the watches of the night, prostrate and standing, bewareing of the Hereafter and hoping for the mercy of his Lord, (to be accounted equal with a disbeliever)? Say (unto them, O Muhammad): Are those who know equal with those who know not? But only men of understanding will pay heed" (Al Qur'anul Karim, Az-Zumar 39:9).

The verses above were further emphasized by hadith, as Tirmidzi narrated, *Abu Umamah radhiyallohu'anhu* relates that the Prophet (peace be upon him) once said, "A learned one is as much above an (ordinary) worshiper as I am above the least of you (Companions); and he added: Allah, His angels and all those in the heavens and in the earth, even the ants in their holes and the fish in the water, call down blessings on those who instruct people in beneficent knowledge" (Al-Hilali, 2005a)

Both verse and the hadith above shows how Islam place great importance to the pursuit of religious knowledge, by giving those who possess knowledge several degrees higher than those to do not (Ibnu Katsir, 2000). This is further emphasized by the statement of Allah that only men of understanding will pay heed and truly obey His commandments. How can men without understanding truly obey, since true obeisance only came after belief, and how can belief come without proper understanding? (Al Hilali, 2005a).

By pursuing religious knowledge, Muslims reduces *Syubhat* (doubts) by clarifying which are permissible (*halal*) and which is forbidden (*haram*). Without knowledge, everything is doubtful, and since The Prophet (peace be upon him) clearly forbid consuming doubtful matters, pursuing more religious knowledge regarding these doubtful areas would clear doubtful matter, thus making those matters initially forbidden to become permissible.

By pursuing religious knowledge regarding the legal nature of matters, Muslim can reduce

doubtful matters and differentiate permissible matters from forbidden ones. Therefore, it can be concluded that in the context of Halal consumption behavior, Halal Literacy can be defined as the ability to differentiate permissible (*halal*) and forbidden (*haram*) goods and services which came from better understanding of Islamic laws (*shariah*). This newly conceptualized construct of Halal literacy is a potential variable in explaining the variance of compliance to halal commandment of Muslim consumers.

Measuring and Validating Halal Literacy

Generally, there are two ways to measure literacy in any context of behavior. One of which is by measuring self evaluation using attitudinal items that yields perceived literacy, while the other is by giving test based items which yields actual literacy. Bandura (2003) posits that self evaluation of a competency or self efficacies might have greater influence on behavior than the actual competency of an individual, especially when the individual have lower self evaluation than the actual level of competence. However, self evaluation measurement might prove highly subjective since self assessment might involve numerous biases which may consciously or subconsciously affect measurement.

Glaser and Weber (2007) defined investor's financial literacy as "investors' ability to give an estimate of their own past realized stock portfolio performance" and discovered that investor's self-rated and actual financial literacy are often mismatched, with investors overrate themselves most of the time. This finding was supported by findings of Hu, Malevergne and Sornette (2009) explained earlier.

These mismatches between self-rated and actual literacy may be caused by the limitation of individuals with low literacy to perform objective evaluations of their own competence level. This phenomenon has several different names which explain the same thing, such as the *overconfidence bias* or the *metacognitive deficiency bias* (Kruger and Dunning, 1999). Thus, in order to test for the existence of such bias in the concept of Halal Literacy, both self-reported and actual test-based measurements were used simultaneously.

Table 1. True-False-Abstain options and Scoring Method

Actual	Self-Perceived	
	Literate	Illiterate
Literate	Correct (+1)	Abstained (0)
Illiterate	Incorrect (-1)	Abstained (0)

Note: Scoring are (+1) if Correct; (-1) if Incorrect; (0) if Abstain

Methodology

Data Set

This study employed 150 respondents obtained using purposive sampling. Criteria of sample used were Muslim with age between 19-25 years old. Selection of age group as criteria for sampling is based on differences which might occur between age groups or generations. This paper emphasizes on validating the measurement instrument with additional in-depth exploration and discussion regarding construct and concurrent validity of the items used for measuring Halal Literacy. Therefore, population representation is not the main concern thus the result of this study may not be generalized to the population. However, this study may be used as foundation for further research concerning this particular research context.

Measurement and Scoring Technique

Halal literacy is measured using two different methods. The first method is using test based true-false questions with an option to choose doesn't know. Twenty five test items for Halal Literacy were generated from the "Encyclopedia of Prohibitions" chapter on Food by Syaikh Salim bin Ied Al-Hilali (2005b), which lists all prohibitions in Islamic laws (Shariah) in details. However, only fifteen passed the pre-test and employed in the final data collection.

The results of the test were then scored using +1 for correct answer, -1 for incorrect answer, and 0 for abstained answers. This scoring method would differentiate between truly literate and erroneous understanding of Islamic laws regarding food consumptions, as shown in Table 1. This would also eliminate guessing bias; since respondents were given option to stay abstain. Scoring results were then analyzed with Confirmatory Factor Analysis (CFA) using Weighted

Least Square method to test the construct validity. Standardized Loading Factor from the solutions was used as weight for the final score. Score norms were then calculated to classify cases into High, Moderate and Low Literacy groups. Proportion of correct and incorrect was also calculated in order to measure the difficulty of items.

The second method is using 5-point Likert based scales to measure Self-Evaluated Halal Literacy. Six items was generated and all six passed the pre-test Alpha cronbach test. Result from the final data collection was analyzed with Confirmatory Factor Analysis (CFA) using Maximum Likelihood method. The validated items will then be correlated with Test-based Halal Literacy scores to check for convergent validity between the two measurements.

The validity of an instrument can be seen by more than one approach. The first approach to validity is the content validity, which sees the validity of an instrument as whether the instrument covered sufficient dimensions of the construct to be measured. Two components of content validity are the representativeness and relevance of the measurement instrument's contents.

The second approach to validity is the construct validity, in which the validity of an instrument in seen as whether the results obtained from the tested instrument corresponds with the pattern of a particular theory about the construct intended to be measured (Domino and Domino, 2006). One method commonly used in analyzing this type of validity is by using a statistical method called confirmatory factor analysis. This method tests whether the data obtained from measurements can support the model developed from the theory of the construct to be measured (Chadha, 2009).

The third approach is the convergent validity, in which the validity of an instrument is seen as the correlation between the measurement results of an instrument with other instrument

Table 2. Descriptive Statistics on Proportion of Correct and Incorrect

ITEMS	POC	POI	POA	Difficulty
HL01	64.67%	12.67%	22.66%	Moderate
HL02	85.33%	8.00%	6.67%	Low
HL03	68.00%	6.67%	25.33%	Low
HL04	10.67%	64.00%	25.33%	High
HL05	66.00%	11.33%	22.67%	Moderate
HL06	25.33%	23.33%	51.33%	High
HL07	18.67%	19.33%	62.00%	High
HL08	79.33%	0.67%	20.00%	Low
HL09	9.33%	46.67%	44.00%	Extremely High
HL10	46.00%	19.33%	34.67%	Moderate
HL11	36.00%	15.33%	48.67%	Moderate
HL12	68.67%	14.00%	17.33%	Low
HL13	40.67%	35.33%	24.00%	Moderate
HL14	28.00%	30.67%	41.33%	High
HL15	40.00%	22.00%	38.00%	Moderate

Note: N=150, Content of each item is shown in Appendix I. POC: Proportion of Correct Answers; POI: Proportion of Incorrect Answers; POD: Proportion of Abstaining

that measures the same construct and has passed the validity test (Chadha, 2009). The assumption underlying the validity of this is that if an instrument truly measures a certain construct, then the measurement results should be consistent with the results of tested instruments that measure the same construct.

While the fourth approach of validity is the criterion validity, which sees the validity of an instrument as the correlation between its result to the measurement result of other instruments which measure different constructs, but in theory corresponds to the construct intended to be measured (Anastasi and Urbina, 1997). If the result of the corresponding instruments is obtained simultaneously, then the validity is called concurrent validity.

Results from both measurements were then correlated with the intention to switch from products without halal label. The correlation analysis would show whether the two measurements have concurrent validity as well as which measurement have better concurrent validity. Scores from self-evaluated Halal Literacy and intentions to switch from products without halal label are then compared between groups based on the level of Tested Halal Literacy using ANOVA to gather more insight regarding possible relationships between the measurements. Confirmatory Factor Analysis (CFA) for the validation of the measurements were conducted using LISREL for WINDOWS

8.51 Full Version (Jöreskog dan Sörbom, 2001), while ANOVA and descriptive analysis were performed using SPSS 15.0 for WINDOWS Full Version (SPSS Inc., 2006).

Result and Discussion

Descriptive Analysis

Halal literacy was measured using 15 true-false questions. Proportion of correct and incorrect answers was calculated for each item to measure item difficulties. Low difficulty items will have high proportion of correct answers and low proportion of incorrect ones. Vice versa, high difficulty items will have low proportion of correct answers and high proportion of incorrect ones. Typically, proportion of incorrect can be calculated simply by subtracting the proportion of correct answers to 100%. However, since in this case an option to be abstaining was given to eliminate guessing error, proportions of incorrect answers must be calculated separately.

Useful items should have moderate difficulties, since extremely hard or extremely easy items would yield less information and have weaker power to differentiate individual differences. Items with good difficulty should have proportion of correct between 10% and 90%; thus effectively differentiate the main 80% of population. Therefore, item HL09 can be considered as suboptimal as it has extremely high difficulty

Table 3. Item Parameters for Tested HL

ITEMS	SS	TV	RESULT
HL01	0.24	1.97	Valid
HL02	0.22	0.76	Not Valid
HL03	0.38	3.44	Valid
HL04	0.12	1.22	Not Valid
HL05	0.30	2.64	Valid
HL06	0.54	10.11	Valid
HL07	0.52	10.45	Valid
HL08	0.01	0.05	Not Valid
HL09	0.27	3.60	Valid
HL10	0.08	0.76	Not Valid
HL11	0.18	2.53	Valid
HL12	0.52	3.53	Valid
HL13	0.02	0.15	Not Valid
HL14	0.80	23.14	Valid
HL15	0.89	28.82	Valid

Note: N=150; SS: Standardized Solution; TV: T-Value

with proportion of correct answers of less than 10%. The remaining 14 items can be classified into Low, Moderate and High difficulty items based on their POC. Items with POC of less than 33% are considered High difficulty; while items with POC of more than 66% are considered Low difficulty items. Items with POC between 33% and 66% are considered as Moderate difficulty items. Complete description of item difficulties is shown in Table 2.

Construct Validity

The next step of analysis after calculating items difficulties are testing for the construct validity of the measurement items. Construct validity is tested using Confirmatory Factor Analysis (CFA) with Weighted Least Square (WLS) method of estimation. Maximum Likelihood can not be used to estimate the validity of this instrument since it uses true-false questions which yields nominal data. Maximum Likelihood will be used in estimating the validity of the second instrument which uses 5 point Likert scale to measure Self Evaluation of Halal Literacy.

Initial test on the Test-based Halal Literacy score yields the following goodness of fit statistics: Chi-Square of 88.38; df of 90; p-value of 0.52865; and RMSEA of 0.0001. These results indicates that the model is already fit or supported by the data because there are no significant differences between covariance matrix obtained from the data and the one formulated from the

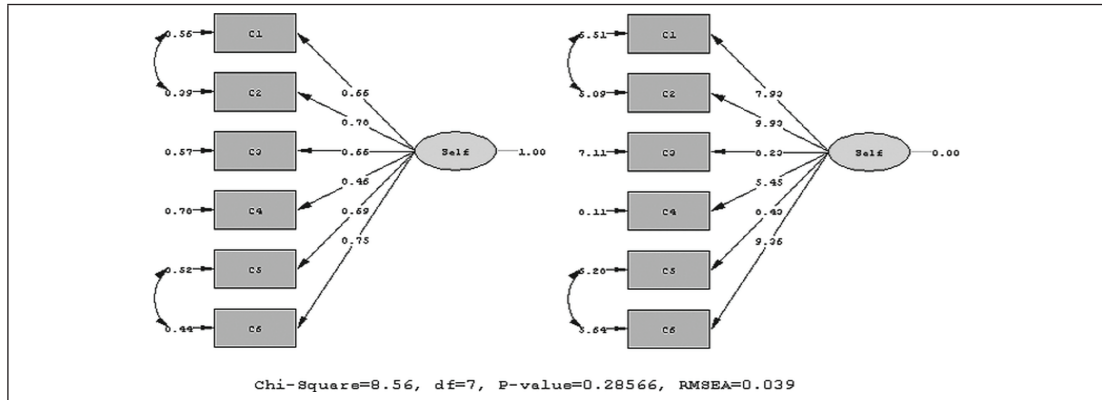
model. A model is considered valid if it yields p-value of more than 0.05 or RMSEA of less than 0.08. Thus, the model can be considered fit by both criteria.

The next step is to validate items. Items are considered valid, if they have absolute t-value of above 1.96 (using confidence level of 95%). Only ten out of fifteen items were considered valid by this criterion. Thus, invalidated items are extracted from the measurement model and the calculation of latent variable scores used in further analysis. The complete result of the item validation is shown in Table 3.

Measurement model for the Self Evaluated Halal Literacy construct was estimated using the Maximum Likelihood method. Initial test on the Self Evaluated Halal Literacy items yields the following goodness of fit statistics: Chi-Square of 8.56; df of 7; p-value of 0.28566; and RMSEA of 0.039. These results also indicates that the model is already fit or supported by the data based both criteria explained earlier.

The next step is to validate items. Items in the Self Evaluated Halal Literacy instrument were evaluated using the same validity criterion as the Test-based instrument. All seven items were considered valid, even though covariance between errors must be added for C1 and C2 as well as for C5 and C6. Errors between items were assumed to be independent and covariance between items reduces their scope of measurement, since it means two or more items might overlap each other. Nonetheless, these violations of assump-

Figure 1. Path Diagram of Measurement Model for Halal Literacy Self Evaluation



Note: Standardized Solutions (Left) and T-values (Right) of the Measurement Model

Table 4. Raw Score Norms

Distribution Region	Raw Score	Percentile Rank	Score Band	Percentile Band
Top	3.65	95	More than 3.65	>95
Upper	2.34	80	1.37 – 3.65	65-95
Middle	0.78	50	1.37 – 0.25	35-65
Lower	(-0.56)	20	(-1.99) – 0.25	5-35
Bottom	(-1.99)	5	Less than (-1.99)	<5

tion were accepted as minor shortcoming of the item in question (Hair et al., 2009). The path diagram of the item validation is shown in Figure 1.

Norms

Good test instruments must have a certain score norms in order for users to be able to interpret results as well as comparing and analyzing results from different tests (Crocker and Algina, 1986). Therefore, after validating the measurement model, Norms were calculated in form of percentile rank to be used as base to classify distribution region (i.e. Upper, Middle or Lower distribution). The scores were grouped into three major groups, which are upper, middle and lower. In addition, two outlier groups were also categorized, which are top and bottom. These two outlier groups can be safely excluded from further validation. Detailed raw score and percentile for each group is shown in Table 4.

Concurrent and Convergent Validation

The last two measurement validity examined is the convergent and concurrent validity of the instrument. Convergent validity was measured

by examining the correlation between scores from the test based Halal Literacy instrument with scores obtained from the self-evaluation Halal Literacy measurements. Concurrent validity, on the other hand, was measured by looking at the correlation between scores from both Halal Literacy measurements with measurement from theoretically-related construct, in this case the switching intention of Muslims from products without halal labels.

The correlations between the measurements scores was obtained from the standardized path coefficient between two constructs when processed in pairs while correlation significance was obtained from the t-value of the path between each pair (Hair et al., 2009). Result from correlating both Halal Literacy measurement scores indicated that both instruments have no significant positive correlation. The correlation even yields negative coefficient ($r=-0.17$, $t=-1.51$). This means that the instruments have poor convergent validity. This means that either the self evaluation or the test-based Halal Literacy instruments were inaccurate to measure Halal Literacy. This problem can be solved by examining the concurrent validity between the two instruments.

Table 5. Correlation Result between Instruments and Constructs

Correlation	T - HL	SE - HL	BI
T-HL	1		
SE - HL	-0.17 (-1.51)	1	
BI	0.25 (2.38)*	-0.19 (-2.16)*	1

Note: *) Significant at $\alpha = 5\%$; $t(0.05) = 1.96$

T-HL: Tested Halal Literacy; SE-HL: Self Evaluated Halal Literacy; BI: Behavioral Intention to Switch from Products without Halal Label

Table 6. ANOVA Post-Hoc Analysis of Switching Intention and Self Evaluation Based on Halal Literacy Score Groups

Dependent Variable	Halal Literacy			Sig.	
	I	J	I-J		
Switching Intentions	Lower	Middle	-0.13	0.00	**
		Upper	-0.13	0.01	*
	Middle	Upper	0.00	1.00	
Self Evaluation	Lower	Middle	0.03	0.77	
		Upper	-0.01	0.98	
	Middle	Upper	-0.04	0.65	

Note: *) Significant at 0.05; **) Significant at 0.01

As explained earlier, concurrent validity can be measured by correlating an instrument with other instrument measuring theoretically related construct, in this case the switching intention of Muslims from products without halal labels. Results from correlating the scores from both Halal Literacy measurements with the switching intention, showed that test-based Halal Literacy instrument has significant positive correlation to Switching Intention ($r=0.25$, $t=2.38$). In contrast, self-evaluation Halal Literacy instrument produce significant negative correlation to Switching Intention ($r=-0.19$, $t=-2.16$).

Combining the result from the poor convergent validity with the mixed result from the concurrent validity, showed that test-based Halal Literacy instrument is the better instrument in explaining Switching Intentions. On the other hand, using self evaluation Halal Literacy may produce confusing result. This finding supports previous studies which found that consumers have difficulties in measuring their own level of competence, with self-rated and actual literacy often mismatched and a tendency for consumers to overrate themselves (Kruger and Dunning, 1999; Glaser and Weber, 2007; Hu, Malevergne and Sornette, 2009). The complete score correlations results for both purchase contexts are shown in Table 5.

ANOVA Post-Hoc Analysis

Since the result from the convergent and concurrent validation analysis have yielded interesting results, this study follows up the results by performing ANOVA Post-Hoc Analysis in order to explore more about possible relationship between Actual Halal Literacy obtained from the test instrument, Self-Evaluated Halal Literacy and Switching Intention. Respondents were divided into three groups based on the score norms developed earlier (i.e. Lower, Middle and Upper). Mean score of Self Evaluation and Switching Intention were then analyzed and compared between the three groups.

Initial ANOVA test yields significant result for Switching Intention ($F=6.77$; Sig. 0.001) and non significant result for Self-Evaluation ($F=0.43$; Sig. 0.654). Thus, Actual Halal Literacy can predict Switching Intention but incapable to predict Self Evaluation. Deeper analysis may be obtained by examining the post-hoc analysis to see differences between each level of Halal Literacy. Result from post-hoc analysis is shown in Table 6.

Result from post-hoc analysis reveals interesting relationship between Actual Halal Literacy and Switching Intention. Differences in Switching Intention was significant between Lower and

Figure 2. Means Plot of Switching Intention and Self Evaluation by Halal Literacy

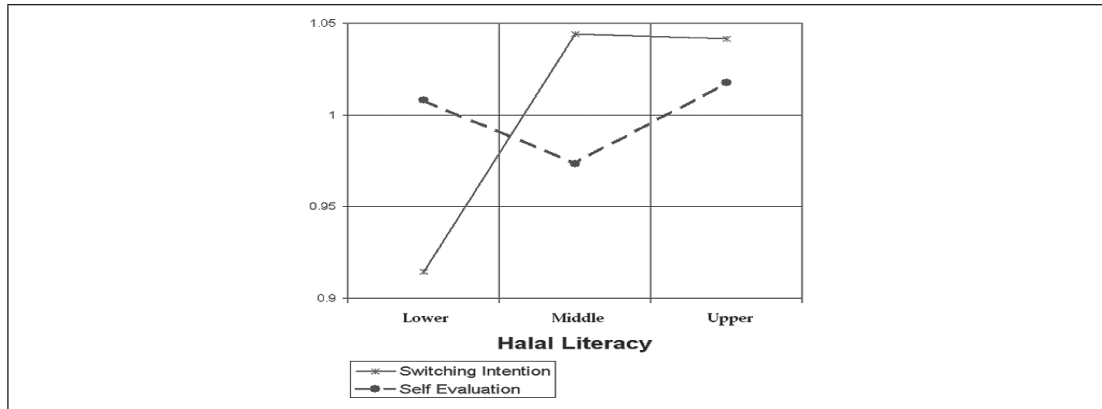


Table 7. Standardized Means of Switching Intention and Self Evaluation Based on Halal Literacy Score Groups

Halal Literacy	Switching Intentions	Self Evaluation
Lower	0.91	1.01
Middle	1.04	0.97
Upper	1.04	1.02

Middle as well as between Lower and Upper Halal Literacy groups. On the contrary, difference between Switching Intention among Middle and Upper groups were not significant. In confirmation to the initial ANOVA, there were no significant differences of Self Evaluation between all three groups of Halal Literacy.

Clearer understanding of these relationships may be better presented using a graphical representative. In order to obtain graphical representative of the data, standardized means of Switching Intention and Self Evaluation was calculated for each Halal Literacy group. The standardized means were then plotted on a chart to see differences between groups of Halal Literacy. Standardized means for each group is shown in Table 7 while the means plot is shown in Figure 2.

The means plot revealed clearer understanding of relationships between Halal Literacy, Self Evaluation and Switching Intention. It is shown that Halal Literacy differentiate consumer Switching Intention best at the lower group, in which consumers with low Halal Literacy score having less intention to switch from product without Halal Label than consumer with moderate to high literacy. This result may highlight the potential of using consumer education in increas-

ing market share of halal industries in Muslim countries. Presumably, based on the result shown above, you don't even have to increase the halal literacy of your consumer all the way to a high level, since increasing it to a medium level already suffice in significantly improving behavioral intention regarding halal label.

The next finding is that consumer with low literacy may develop overrated evaluation of themselves, which may impede intention to switch from products with halal label. This phenomenon is called overconfidence bias, which has been supported by findings in other context (Kruger and Dunning, 1999; Glaser and Weber, 2007; Hu, Malevergne and Sornette, 2009). Once again, focus is on consumer with lesser halal literacy since the effect of this bias is greater at the lower group than in the moderate and upper group. Thus, consumer education should be designed and targeted to focus on this group consumer.

Conclusion

There are several conclusions to be made in this study. The first conclusion is that both test-based and self-evaluation halal literacy have

good construct validity. The second conclusion is that even though both instrument have good construct validity, only test based instrument have good concurrent validity with intention to switch from products without halal labels. The third is those consumers, especially the ones with low literacy, are prone to overrate their level of literacy thus may often have lesser involvement toward halal product. This may impede their intention to switch from products without halal labels.

It is important to note that the content of Halal Literacy instrument validated in this research is limited to foods and medicine related topics, while many other potential topics of halal literacy remains to be measured, such as halal literacy of financial transactions and clothing. Behavioral intentions of individual Muslim may vary between contexts and halal literacy may have different influence in other product contexts. Thus, further research validating halal literacy in

product contexts other than foods and medicine is important.

This study delineates the importance of consumer education, through advertising or other marketing communication methods, to increase awareness and understanding of Muslim consumer about halal commandments and its implication to their daily live. Halal literacy may prove to have considerable role in influencing compliance behavior toward Islamic laws, especially the halal commandments. As Alloh *subhanahu wa ta'ala* said in the Qur'an Surah Al-Balad 90:4-10, "Verily We have created man into toil and struggle. Have We not made for him a pair of eyes; and a tongue, and a pair of lips; and shown him the two ways (obedience and disobedience)?" Thus He commanded Muslims to use their eyes, their ears, their lips, and most importantly their minds to struggle continuously to follow the path of obedience which define an individual as a true Muslim.

References

- Affif, A.Z. & Astuti, R.D., (2009), The Addition of Spiritual Dimension on Customer Value to Investigate The Relationship of Customer Satisfaction and Behavior Intention on Islamic Banks Saving Products in Indonesia. *ASEAN Marketing Journal*, 1(1), pp.13-23, ISSN 2085-5044.
- Al-Hilali, Salim ibn 'Ied, (2005a), *Syarah Riyadush-Shalihin*, Pustaka Imam Syafi'i: Bogor. ISBN: 979-3536-01-2
- Al-Hilali, Salim ibn 'Ied, (2005b), *Encyclopedia of Prohibitions According to Al-Qur'an and As-Sunnah*, Vol. 2, Abu Ihsan A-Atsari (translator), Pustaka Imam Syafi'i: Bogor. ISBN 9-79-353625-X
- Al-Utsaimin, Muhammad ibn Shalih, (2005), *Sharah Sahih Al-Bukhari*. Darus Sunnah Press. ISBN: 978-602-8406-60-4
- Anastasi, A. and Urbina, S. (1997) *Psychological Testing 7th Edition*. Upper Saddle River, N.J: Pearson Prentice Hall.
- Bandura, A. and Locke, E. (2003) Negative Self-Efficacy and Goal Effects Revisited. *Journal of Applied Psychology*, 88(1), pp 87-99. American Psychological Association, Inc. DOI: 10.1037/0021-9010.88.1.87
- Chadha, N.K (2009) *Applied Psychometrics*. New Delhi, India: SAGE Publications India Pvt Ltd
- Crocker, L., & Algina, J., (1986), *Introduction to Classical and Modern Test Theory*. Harcourt Brace Jovanovich College Publishers. ISBN 0-03-061634-4
- Domino, G. and Domino, M.L. (2006) *Psychological Testing: an Introduction 2nd Edition*, Cambridge, U.K: Cambridge University Press.
- Elma, C., Kesten, A., Dicle, A.N., And Mercan-Uzun, E. (2010) Media Literacy Education in Turkey: An Evaluation of Media Processes and Ethical Codes. *Educational Sciences: Theory & Practice*, 10(3). ISSN: 1439-1458
- Halal Journal (2008) *Eyes on trillion dollars Halal market*.

- Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2009). *Multivariate Data Analysis (7th Edition)*. New Jersey: Prentice Hall.
- Ibnu Katsir, (2000), *Tafsir Ibnu Katsir* 1st ed, Abdullah bin Muhammad bin Abdurrahman bin Ishaq (translator), Pustaka Imam Syafi'i: Bogor. ISBN: 978-602-8062-282
- Jöreskog, K.G. and Sörbom, D. (2001) *LISREL 8.51*. Scientific Software International (SSI) Inc.
- Jusmaliani and Nasution, H. (2009) Religiosity Aspect in Consumer Behaviour: Determinants of Halal Meat Consumption. *ASEAN Marketing Journal*, 1(1), pp.1-11, ISSN 2085-5044.
- JWT (2007) *The Life and Times of the Modern Muslims: Understanding the Islamic Consumer*.
- Karim, A.A. dan Affif, A.Z. (2005) Islamic Banking Consumer Behavior in Indonesia: a Qualitative Approach. *Proceedings of the 6th International Conference on Islamic Economics and Finance*. Jakarta, Indonesia. Presented 21-24 November 2005.
- Kartajaya, H. and Sula, M.S. (2006), *Sharia Marketing*, Mizan and MarkPlus Co.
- Kruger, J. and Dunning, D. (1999) Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments. *Journal of Personality and Social Psychology*. 77(6) pp. 121-1134. American Psychological Association. <http://www.apa.org/journals/features/psp7761121.pdf>
- Lada, S., Tanakinjal, G.H., and Amin, H. (2009) Predicting intention to choose halal products using theory of reasoned action. *International Journal of Islamic and Middle Eastern Finance and Management*. 2(1) pp. 66-76. www.emeraldinsight.com/1753-8394.htm
- Livingstone, S. and Van der Graaf, S. (2010) Media Literacy. *INTERNATIONAL ENCYCLOPEDIA OF COMMUNICATION*, Wolfgang Donsbach, ed., Wiley-Blackwell.
- Primack, B.A., Fine, D., Yang, C.K., Wickett, D., and Zickmund, S. (2009) Adolescents' impressions of antismoking media literacy education: qualitative results from a randomized controlled trial. *Health Education Research*, 24(4), pp 608–621.
- Yamamiya, Y., Cash, T.F., Melnyk, S.E., Posavac, H.D., and Posavac, S.S. (2005) Women's exposure to thin-and-beautiful media images: body image effects of media-ideal internalization and impact-reduction interventions. *Body Image*, 2(1), pp 74–80