

WHAT MAKES INVESTORS INVEST IN ISLAMIC MUTUAL FUNDS?

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Abstract

The study develops a model to explicate investor decision making process towards selection of Islamic mutual fund. Based on theory of reasoned action (TRA), we specifically investigate the effects of attitude, social influence and amount of information on the decision to invest in Islamic mutual fund. The model is evaluated using survey data from 126 potential investors for Islamic mutual funds. This study finds attitude, social influence and amount of information are significant predictors. This study supports the applicability of the TRA. This study also offers fresh new insights for the Islamic financial institutions. More specifically, the results suggest that managers should consider the factors tested in the present study for their future Islamic mutual fund products. Managerial implications and limitations are also noted.

JEL Classification: E21, D11

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1. Introduction

Many efforts have been invested by Islamic banks to promote Islamic mutual fund products to their end-users; such as television advertisement, over the counter promotion and weekend exhibition. However, the penetration of Islamic mutual funds offered by Islamic financial institutions in Malaysia is relatively low when compared with conventional funds. Security Commission (2015) reports that the net asset value (NAV) to market capitalization for Islamic mutual funds in 2015 was 2.88 percent, whilst its conventional counterpart was 18.34 percent. For instance, the Permodalan Nasional Berhad (PNB) offers various public mutual funds ranging from mutual funds for education purposes to mutual funds for investment purposes. Similarly, Yahaya et al. (2009) reports that the Amanah Saham Nasional Berhad (ASNB) products such as Amanah Saham Bumiputera (ASB), Amanah Saham Nasional (ASN),

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Amanah Saham Wawasan 2020 and Amanah Saham Didik (ASD) are widely accepted by retail investors in the nation. In contrast, Islamic mutual funds, in particular are offered by state governments and Islamic financial institutions such as Amanah Saham Kedah Amanah Saham Kedah and Amanah Saham Angkasa, respectively. In addition, Arab-Malaysian Unit Trust Berhad managed Arab-Malaysian Tabung Ittikal since 1983 (Laldin, 2008).

For the present study, the term mutual fund and unit trust is interchangeably used to denote Islamic mutual fund. In Malaysia, Islamic unit trust is popularly used owing to the fact that the ownership of the fund is divided into units of entitlement (Md-Taib and Isa, 2007). By definition, Islamic unit trust is an open-end collective investment that invests its pooled fund in Shariah approved securities, bonds and money market including direct business ventures, etc. For instance, Bank Islam Malaysia Berhad (BIMB) offers a number of Islamic mutual funds such as Dana Al-Fakhim, Dana Al-Munsif, Dana Al-Falah and i-Growth. Therefore, it is essential for stock selection criteria and principles of investment in other instruments to be Shariah-compliance. Financial benchmarks of 5 percent, 10 percent, 20 percent and 25 percent are typically used to govern the permissibility of instruments according to the rulings of Shariah Islamiyyah. Firstly, the funds provide opportunities for small investors to invest in a diversified portfolio of securities, which are particularly difficult to access individually, but collectively is easy. Second, the funds are accumulated and to be invested in a portfolio of Shariah compliant stocks where the incidence of interest is avoided through purification processes. Thirdly, the funds are protected by the Security Commission (SC) in terms of their halalness, growth and consumer protection.

Studies on Islamic mutual fund in Malaysia are relatively sparse. Some of the authors in Malaysia examine the performance of Islamic mutual fund (Md-Taib and Isa, 2007; Md- Saad et al., 2010). Several researches examine public unit trust products such as ASB in terms of the consumers' perceptions (Yahaya et al., 2009). The focus of the previous studies for mutual fund is merely on the performance and the public perception on the unit trust. None of these studies examine the impact of the "amount of information on Islamic mutual funds", "attitude" and "subjective norm" on the decision to invest in Islamic mutual funds. These studies have also overlooked the significance of psychology effects on investors' investment decision (Md-Taib and Isa, 2007; Yahaya et al., 2009; Md-Saad et al., 2010). The current study intends to fill the research gap. For that purpose, the current research examines the effects of attitude and subjective norm on the investment decision. Secondly, it examines the impact of amount of information on Islamic mutual funds on the investment decision.

2. Literature Review

2.1 Studies on Mutual Funds in Malaysia

It is worth noting that majority of studies in Islamic mutual fund focuses on customer motivation and the performance of mutual fund (Ramasamy and Yeung, 2003; Md-Taib and Isa, 2007; Abdullah et al., 2007; Yahaya et al., 2009; Md-Saad et al., 2010). None of the studies evaluates the importance of amount

of information, attitude and subjective norm on the decision to invest in Islamic mutual fund.

Ramasamy and Yeung (2003) supplies necessary evidence concerning to mutual funds among financial advisors in Malaysia. This study employed a survey method and distributed questionnaires to financial advisors who had been active in the field of insurance and mutual funds. The advisors are adult students at the Malaysian Insurance Institute pursuing the Chartered Financial Consultants programme. The present study discovered that previous performance of funds was rated as the most important factor for selection. Likewise, the size of funds and cost of transaction are also influential. In contrast, factors that are related to fund managers and investment styles were identified as unimportant. The study uses conjoint analysis to study the importance of attributes for mutual fund selection.

Md-Taib and Isa (2007) assess Malaysian unit trust on its aggregate performance. Specifically, he authors employed seven different performance measures of: raw return, market adjusted return, Jensen's alpha, adjusted Jensen's alpha, Sharpe index, adjusted Sharpe index and Treynor index. The finding indicates that on average the performance of Malaysian unit trust is below market portfolio and risk free returns. The variance of unit trust monthly returns is less than the market. Performance by type of funds indicates that bond funds show relatively superior performance, over and above the market and equity unit trusts. Although the study lacks modified model of acceptance for Islamic unit trust; nonetheless, the investigation provides strong justification on the usage of secondary data for estimating the performance of unit trust funds.

Abdullah et al. (2007) examines the performance of Malaysian Islamic unit trust funds and conventional funds. The study is different to that of Md-Taib and Isa (2007) in which Abdullah et al. (2007) particularly concentrated on Islamic unit trust funds. The purpose of the study is to examine the discrepancy of performance between Islamic and conventional mutual funds in the context of Malaysian capital market. The study uses Sharpe index and adjusted Sharpe index, Jensen Alpha, Timing and selectively ability. The study reported that Islamic funds performed better than the conventional funds during bearish economic trends whilst conventional funds show a better performance than Islamic funds during bullish economic conditions.

A study by Yahaya et al. (2009) provides evidence pertinent to *Amanah Saham Nasional Berhad* (ASNB)'s strategies in attracting public to choose the products of ASNB. The results reveal that most of the respondents are familiar with *Amanah Saham Bumiputera* (ASB), and it was ranked first amongst the family of the ASNB's products. The study also reports that ASNB should increase sales promotion mainly by offering *bantuan khairat kematian* (i.e. for the heirs of the death person) to investors. The study also suggests that ASNB should advertise aggressively on television pertinent to the availability and advantages of the ASNB's products.

Another interesting work by Md-Saad et al. (2010) examines the performance of Islamic and convention funds similar to that of Abdullah et al. (2007). The study uses Data Envelopment Analysis (DEA) which is not

available in a study conducted by Abdullah et al. (2007). The purpose of the study is to investigate the efficiency of selected conventional and Islamic unit trust companies in Malaysia during the period of 2002 to 2005. The study finds that technical efficiency (TE) is the reason for the efficiency of the Malaysian unit trust industry. It reports that the larger the size of the unit trust companies the more inefficient the performance. Furthermore, the study finds that some of the Islamic unit trust companies perform better than their conventional counterparts. However, previous studies have not offered sufficient discussion on the Islamic mutual fund adoption. Based on this discrepancy, the study of Islamic mutual fund in a Malaysia context remains inconclusive. Therefore, further work is required to enrich our understanding pertaining to Islamic mutual funds.

2.2 Theory of Reasoned Action (TRA)

The model introduced in this study is framed within the theory of reasoned action (TRA). The theory has received enormous empirical supports in the various contexts of research including online trading, knowledge sharing and acceptance of banking products. The initial attempt to study the theory from an Islamic banking viewpoint is pioneered by Zainuddin et al. (2003), in which the authors extend the theory to study Islamic banking usage intentions. Since then, there have been a growing number of studies that applied TRA in the area of Islamic banking and Islamic marketing. For instance, Lada et al. (2009) investigate a Malaysian intention to choose halal products in East-Malaysia. Md-Taib et al (2008) investigate the diminishing *musharakah* acceptance of Islamic home financing products in West-Malaysia. Furthermore, Amin et al. (2009) investigate the students' enrolment of Islamic accounting course at a public university in East-Malaysia. Evidently, the theory's constructs, namely, subjective norm and attitude are instrumental in determining behavioral intentions and thus expand its application to include new disciplines of Islamic banking and Islamic marketing. These studies also suggested that the TRA is a flexible and parsimonious.

3. Methodology

3.1 Sample

The respondents of this study are those bank customers in Malaysia. Judgment sampling is used in order to select respondents of interest. Certain criteria are established in selecting respondents. Firstly, respondents are the existing customers of the mutual fund investments and by the time of the study conducted, none of them are of the opinion as the users for Islamic mutual trust products. Choosing those investors is also aimed at motivating them to invest in Islamic mutual funds in the future. On the same note, it is also aimed at promoting the accessibility of Islamic mutual funds amongst them. A total of 200 questionnaires are prepared and distributed, but only 150 are able to be distributed because of time constraint. The procedure produces 126 usable samples. The descriptive statistics of the respondents are summarized in the following Table 1.

Table 1
Profile of respondents

	Frequency	Percentile
<i>Gender</i>		
Male	54	42.9
Female	72	57.1
<i>Marital status</i>		
Single	63	50.0
Married	63	50.0
<i>Ethnicity</i>		
Moslem	90	71.4
Christian	31	24.6
Buddhist	3	2.4
Others	2	1.6
<i>Age</i>		
21-30	62	49.2
31-40	47	37.3
41-50	13	10.3
More than 50	4	3.2

3.2 Measurement

The final questionnaire consists of two sections. The first section comprises of both independent variables (IV) and dependent variable (DV). The IV section contains 15 items in which five statements developed for “amount of information on Islamic mutual funds”, five statements developed for “attitude” and finally the same figure also goes to “subjective norm”. Measurement for “amount of information on Islamic mutual funds” are adapted from Pikarainen et al. (2004), measurement items for attitude are adapted from Gopi and Ramayah (2009) and lastly measurement items for “subjective norm” are adapted from Md-Taib et al. (2008). The 5-point Likert scale is used to measure the items for amount of information on Islamic mutual funds, attitude, subjective norm and also the decision to invest in Islamic mutual funds. Prior to the actual survey conducted, the questionnaire is sent for pilot test involving 10 customers of Islamic bank. This study is conducted on an interview basis. The aim of the test is to identify any ambiguities found in the questionnaire developed. The questionnaire is improved after the test for actual survey.

3.3 Procedures

The questionnaire is distributed and collected over 1-week period in September 2014. Prior to the actual survey, the written permission from the banks has been procured to ensure the survey would be conducted smoothly without problems. The banks grant the permission, provided the survey is conducted outside the banks’ halls. Two enumerators are appointed for the purpose in order to distribute the questionnaire. After the survey, appreciation letter is sent to the managers of Islamic banks, to acknowledge their cooperation that ensures the research has been successfully done.

3.4 Specification of Model

In order to meet the study objective, three equations are established:

$$ID^* = \phi_0 + \psi_1 X_1 + \delta_2 X_2 + \varphi_3 X_3 + \zeta \dots \dots \dots (1)$$

Where ID* is the dependent variable of the respondents' perception of the "investment decision"; X1, X2, and X3 represent the independent variables (X1=Attitude, X2=Subjective norm, X3= Amount of information on Islamic mutual funds), and ζ denotes the error terms.

$$A = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e \dots \dots \dots (2)$$

Where A is the dependent variable of the respondents' perception of the "attitude"; X1, and X2, represent the independent variables (X1= Subjective norm, X2= Amount of information on Islamic mutual funds), and e denotes the error terms.

$$S = \beta_0 + \phi_1 X_1 + e \dots \dots \dots (3)$$

Where S is the dependent variable of the respondents' perception of the "subjective norm"; X1 represents the independent variable (X1=Amount of information on Islamic mutual funds), and e denotes the error terms.

4. Results

Factor analysis (FA) is conducted to identify the items for each construct employed in the research. The purpose of using factor analysis is to summarize patterns of correlations among observed variables, to reduce a large number of observed variables to a smaller numbers of factors, and to provide an operational definition (a regression equation) for an underlying process by using observed variables, or to test a theory about the nature of underlying processes (Tabachnick and Fidell, 2007). According to Pallant (2005), factor analysis can also be used to reduce a large number of related variables to a more manageable number, prior to using them in other analyses such as multiple regression or multivariate analysis of variance.

4.1 Exploratory Factor Analysis (EFA)

There are two major types of FA: exploratory and confirmatory. In exploratory FA, one seeks to describe and summarize data by grouping together variables that are correlated (Tabachnick and Fidell, 2007). The variables themselves may or may not have been chosen with potential underlying processes in mind (Tabachnick and Fidell, 2007). Exploratory FA is usually performed in the early stages of research, when it provides a tool for consolidating variables and for generating hypotheses about underlying processes. Confirmatory FA is a much more sophisticated technique used in the advanced stages of the research process to test a theory about latent processes. Variables are carefully and specifically chosen to reveal underlying processes. Confirmatory FA is often performed through structural equation modelling (Tabachnick and Fidell,

2007). In this study, exploratory factor analysis is found to be useful since most of the measurement items are adapted and modified from various sources, both independent and dependent variables.

Table 2
Exploratory factor analysis (first run)

Items	Factor loadings		
	F1	F2	F3
Attitude			
ATT1	.863		
ATT4	.861		
ATT3	.856		
ATT2	.833		
ATT5	.694		
SN4 (Deleted)	-.606		-.585
Amount of information on Islamic mutual funds			
AIIMF2		.908	
AIIMF5		.874	
AIIMF3		.874	
AIIMF1		.842	
AIIMF4		.781	
Subjective norm			
SN5			.801
SN2			.738
SN3			.698
SN1			.583
Variance explained	49.795	18.530	6.932
Eigenvalue	7.469	2.779	1.040
KMO	.836		
Bartlett's Test	$X^2=1.6313$ $df=105$, Sig.=.000		

All independent variables loaded, resulting in the cross loading for item SN4 which is both placed under attitude and subjective norm. The cross loading requires further action. Based on Hair et al.'s (2010, p.137) recommendation, item SN4 is deleted – and re-run the process all over again until there is no cross loading predicament.

Table 3
Exploratory factor analysis (second run)

Items	Factor loadings		
	F1	F2	F3
Attitude			
ATT4	.865		
ATT1	.864		
ATT3	.858		
ATT2	.837		
ATT5	.699		
Amount of information on Islamic mutual funds			
AIIMF2		.907	
AIIMF3		.877	
AIIMF5		.875	
AIIMF1		.836	
AIIMF4		.781	
Subjective norm			
SN5			.806
SN2			.722
SN3			.696
SN1			.612
Variance explained	49.256	19.213	7.274
Eigenvalue	6.896	2.690	1.018
KMO	.827		
Bartlett's Test	$X^2=1.4873$ $df=91$, Sig.=.000		

With these results, it is reasonably to assure that the results are stable in the study's sample. The next analysis to be conducted is confirmatory factor analysis (CFA).

4.2 Measurement Model

On the basis of the three proposed constructs, SEM analysis is conducted to determine if the proposed model fits with the data.

4.2.1 Attitude

CFA methods epitomize measurement models in which observed variables define constructs or latent variables. All measurement models are tested separately prior to the structural equation modelling and hypothesis testing. Any lacks of fit in each measurement model are resolved before continuing to a

structural model test (Anderson and Gerbing, 1988). Measurement models for each construct are presented in Table 4:

Table 4
Attitude

	Parameter		Est.	S.E.	C.R.	p-value	Std.	R²
ATT1	<--- Attitude		1.000				.857	.474
ATT2	<--- Attitude		1.113	.103	10.804	***	.912	.696
ATT3	<--- Attitude		.922	.085	10.801	***	.850	.722
ATT4	<--- Attitude		.834	.078	10.639	***	.835	.832
ATT5	<--- Attitude		.635	.084	7.589	***	.688	.734

Note: ATT denotes attitude

Table 4 reveals the measurement model for “attitude” in which all five items have critical ratios above $>\pm 1.96$ supporting factorial validity. No items are deleted because the “Standardized Regression Weights” for the items are larger than 0.5 which is in consonance with Joreskog and Sorborn’s (1989) recommendation. On the same note, GFI, NFI, CFI and RMSEA values are within the recommended value for good fit. It is also reported that the BETA ranged from .688 to .912.

4.2.2 Amount of Information on Islamic Mutual Funds

Table 5 reveals the measurement model for amount of information on the Islamic mutual fund in which all five items have critical ratios above $>\pm 1.96$ supporting factorial validity. No items are rule-out. This is due to the fact that the “Standardized Regression Weights” for the items are larger than 0.5 which is in consonance with Joreskog and Sorborn’s (1989) recommendation. On the same note, GFI, NFI, CFI and RMSEA values are within the recommended value for good fit. It is also reported that the BETA ranged from .774 to .960. All variables have Square Multiple Correlation (R²) $>.50$.

Table 5
Amount of information on Islamic mutual funds

	Parameter		Est.	S.E.	C.R.	p-value	Std.	R²
AIIMF1	<--- AIIMF		1.000				.837	.700
AIIMF 2	<--- AIIMF		1.141	.079	14.514	***	.960	.921
AIIMF 3	<--- AIIMF		.993	.080	12.458	***	.868	.754
AIIMF 4	<--- AIIMF		.934	.096	9.688	***	.774	.600
AIIMF 5	<--- AIIMF		1.046	.091	11.560	***	.826	.683

Note: AIIMF denotes amount of information on Islamic mutual funds

4.2.3 Subjective Norms

Consistent with “attitude” and “amount of information on Islamic mutual funds”, subjective norm is also explained in the same pattern. Table 6 reveals the measurement model for subjective norms in which all four items have critical ratios above $>\pm 1.96$ supporting factorial validity. Item SN4 is excluded at the earliest stage of EFA due to cross loading. Item SN1, SN2, SN3 and SN5 are retained because the “Standardized Regression Weights” for these items are larger than 0.5 which is in consonance with Joreskog and Sorbom’s (1989) recommendation. Likewise, GFI, NFI, CFI and RMSEA values are within the recommended value for good fit. It is also reported that the BETA ranged from .616 to .918. All variables have Square Multiple Correlation (R²) $>.50$ except item SN5 which requires further action. As such, item SN5 is omitted from the analysis.

Table 6
Subjective norm

Parameter			Est.	S.E.	C.R.	p-value	Std.	R ²
SN2	<---	SN	1.000				.837	.842
SN3	<---	SN	.928	.082	11.360	***	.853	.728
SN5	<---	SN	.750	.100	7.491	***	.616	.380
SN1	<---	SN	.881	.109	8.059	***	.652	.842

Note: SN denotes subjective norms

The study also examines composite reliability (CR) and average variance extracted (AVE). According to Hair et al. (2010), CR is a measure of reliability and internal consistency of the measured variables representing a latent construct. AVE defines as a summary measure of convergence among a set of items representing a latent construct. It is the average percentage of variation explained among the items of a construct (Hair et al., 2010).

Table 7
Composite reliability (CR) and average variance extracted (AVE)

Latent variables	CR	AVE
Attitude	0.928	0.838
Subjective norm	0.930	0.849
Amount of information on Islamic mutual funds	0.937	0.954
Investment decision	0.916	0.710

Table 7 presents CR and AVE. All constructs produce values of more than 0.7 for CR, which confirm that the constructs have adequate convergence or internal consistency. In terms of AVE, all constructs have values of greater than 0.5 which of value to imply that the said constructs have adequate convergent validity.

4.3 Structural Equation Modelling (SEM)

We employ SEM to examine the relationship between the three proposed constructs (i.e. attitude, subjective norm and amount of information on Islamic mutual funds). Byrne (2001) asserts that SEM helps to determine the extent to which a hypothesized model “fits” or in other words adequately describes the sample data. SEM focuses on the adequacy of the parameter estimates and the model as a whole. In the fit of individual parameters in the model, three aspects are important:

1. The feasibility of the parameter estimates
2. The appropriateness of the standard of errors
3. The statistical significance of the parameter estimates

The statistical test for significance of parameter entails the critical ratio, which represented the parameter estimate divided by its standard error. Based on a level of 0.5, the test statistic needs to be $>+-1.96$ before the hypothesis can be rejected (Byrne, 2001).

To address the issue of the measurement and structural model, the proposed hypothesized model for present study used full latent variable (LV) model. The full LV model allows for the specification of regression structure among the latent variables and a researcher can hypothesize about the impact of one latent construct on another in the modelling of causal direction (Byrne, 2001). Byrne (2001) argued that “the model is termed ‘full’ or ‘complete’ because it comprises both a measurement model and a structural model: the measurement model depicting the links between the latent variables and their observed measure (e.g., the CFA model), and the structural model depicting the links among the latent variables themselves”. A full LV model that specifies direction of cause from one direction only is termed recursive model. The current study model is a recursive model.

Using SEM technique, the initial test of the structural model demonstrates reasonable fit between the data and the proposed structural model. The Chi-square is calculated to be 75.9 ($P=0.0$) with 50 degrees of freedom. Selected goodness-of-fit statistics are presented in Table 9. The CFI provides evidence of a good fitting model ($CFI = 0.982$), which is greater than the conventional benchmark of 0.90. The RMSEA of 0.064 is well within the recommended range of acceptability (< 0.05 to 0.08) suggested by MacCallum et al. (1996), and RMR of 0.033 is within the recommended range of acceptability (< 0.05) (Byrne, 1998).

Table 8
Initial model 1

RMSEA	RMR	NFI	GFI	CFI
.064	.033	.950	.923	.982

The modification indices for Beta (BE) and Gamma (GA) do not provide any indication of misfit of the structural model. When the results suggest that there

is no need for including any new path between constructs in the model, issue may also arise to suggest that some of the initially hypothesized paths may be irrelevant to the model. In order to detect such irrelevancy, we examined the statistical significance of the structural parameter estimates. In reviewing the structural parameter estimates, the study found that one parameter is not statistically significant. Since the parameter is not belonging to the TRA and by the same token it is found to be insignificant. The statistical result indicates that ID→AIIMF may be irrelevant to the model. Non-significant parameters can be considered as unimportant to the model, in the interest of scientific parsimony, they should be deleted from the model (Byrne, 2001). The need to revise the model is of interest to ensure the model developed is of advantage to estimate the decision to invest. For the rationale, the exclusion of the parameter is indispensable.

**Table 9
Regression**

Parameter			Est.	SE	C.R	p-value
SN	<---	AIIMF	.416	.084	4.950	***
ATT	<---	SN	1.149	.226	5.087	***
ATT	<---	AIIMF	.221	.109	2.029	.042
ID	<---	ATT	.634	.143	4.425	***
ID	<---	AIIMF	.093	.082	1.134	.257 (n.s.)
ID	<---	SN	.496	.243	2.045	.041

Note: SN=Subjective norm, ATT=Attitude, AIIMF=Amount of information on Islamic mutual funds, ID=Investment decision

The parameter (AIIMF→IID) is insignificant, and therefore it should be deleted (Byrne, 2001). The parameter therefore will not be included in the revised model.

**Table 10
Model 2-revised**

RMSEA	RMR	NFI	GFI	CFI
.064	.033	.950	.933	.982

**Table 11
Model 2-revised**

Parameter			Est.	SE	C.R	p-value
SN	<---	AIIMF	.426	.085	5.034	***
ATT	<---	SN	1.291	.210	6.138	***
ATT	<---	AIIMF	.291	.105	2.762	***
ID	<---	ATT	.507	.117	4.332	***
ID	<---	SN	.763	.165	4.617	***

Note: SN=Subjective norm, ATT=Attitude, AIIMF=Amount of information on Islamic mutual funds, ID=Investment decision

Compared with the initial model, the revised model has the same goodness-of-fit indices as the initial model. Conversely, with one irrelevant structural path is deleted. The deletion is able to increase the level of significance for each path, in which SN→ATT found to be elevated, and stronger correlation compared with the other paths.

4.4 Goodness of Fit Statistics

4.4.1 Goodness of Fit Index (GFI) and Adjusted GFI (AGFI)

Hu and Bentler (1999) argued that GFI and AGFI are classified as absolute indexes of fit as far as they are comparing the hypothesized model with no model at all. In the CFA model for the study, although the GFI value is .933, the AGFI value is .875, which is lower than the recommended value of >0.90 for both indexes and is marginally adequate at best. Therefore, further analysis on the proposed model needs to be done based on the modification indices (MI).

4.4.2 Normed Fit Index (NFI) and Comparative Fit Index (CFI)

Bentler (1990) revised the NFI to consider sample size and proposed the comparative fit index CFI. Although Bentler (1992) states that “higher values indicate greater covariation accounted for with excellent models having NFI values above 0.9 representative of a well-fitting model” a revised cut-off value close to 0.95 has recently been advised (Hu and Bentler, 1995) for CFI. However Bentler (1990) suggests that CFI should be the index of choice because the measurement avoids the underestimation of fit often noted in small samples. In the CFA model, the NFI value is .90 above the recommended value of 0.90 and CFI value is .90+ above the cut-off value of +.95 suggesting a good fit between the hypothesized model and the sample data.

4.4.3 Root Mean Square Error of Approximation (RMSEA)

According to Browne and Cudeck (1993), RMSEA value of 0.5 indicates good fit while RMSEA value of 0.8 represents reasonable errors of approximation in the population. MacCallum (1996) considers values in the range of 0.08 to 0.10 to indicate mediocre fit. Hu (1999) suggested a value of 0.06 to be indicative of good fit between the hypothesized model and the observed data. The debate about the RMSEA cut off point for an acceptable level only reflects that this index has been recognized as one of the most informative criteria in covariance structure modelling (Byrne, 2001). The index value for RMSEA of 0.064 is within the recommended value, which indicates a good fit between the hypothesized model and the observed data (See Model 2 revised).

4.4.4 Parsimony Goodness of Fit Index (PGFI)

James et al. (1982) introduced the PGFI to highlight the issue of parsimony in SEM, which takes into consideration the complexity (e.g. number of estimated parameters) of the hypothesized model in the assessment of the overall model fit. Byrne (2001) argues that parsimony fit indices in the .05c are not expected

for acceptable models with non-significant chi square and Good of fit in the high .90s. The CFA model indicates a PGFI value of .741 would seem consistent with the previous fit statistics.

4.4.5 Tucker Lewis Index (TLI)

Byrne's (2001) recommendation suggests that TLI values ranging from zero to 1.00 with values close to 0.95 (for large sample) being indicative of good fit. A TLI value of .983 recorded for the CFA model reflects a marginally fitting model. Although most of the indexes fit the guidelines, the AGFI and the TLI values are below the suggested cut off point. Therefore, an alternative model needs to propose a better fit with the data collected.

4.5 Alternative Model

The alternative model is based on the modification indexes given by SEM. Based on the modification index (MI) only error correlations between 6 and 13 can be substantiated with an MI value of 10.703. Joreskog (1993) cautioned that every correlation between error terms must be justified and interpreted substantively. Byrne (2001) further supported that the decision to re-parameterize a model based on MI information must make sound substantive sense; error covariances are no exception to this edict.

This would mean that it is not recommended to change a model only based on a high correlation value proposed by the MI, leading to over fitting a model. A justification of that relationship needs to be upheld. Therefore the correlation between 6 and 13 is taken into consideration, based on two justifications:

1. Correlation between error terms can be justified based on the original definitions of the construct proposed by Ajzen and Fishbein (1980) and Amin et al. (2009). Both concepts attitude and information focused on the perceived beliefs gained from Islamic mutual funds which mean the higher information the greater is the extent of attitude on the investors' decision to invest. Simply put, information can help to adjust one's attitude towards behavior.
2. Pikkarainen et al. (2003) find that information and attitude have the same relationship from one to another.

On the basis of these substantiated rationales, the researcher considers it appropriate to modify the model with the error covariance between 6 and 13. The re-specified model is consisted of the modified CFA model with 6 and 13 correlated as can be shown below:

Table 12
Model 3-(6 and 13 correlated)

RMSEA	RMR	NFI	GFI	CFI
.047	.034	.959	.941	.991

Table 12 presents the alternative model, which is aimed at improving AGFI and also TLI. The estimate of model resulted in an overall fit of 54.09, with the GFI increasing slightly to .941 and the CFI to .994. The AGFI value also increases slightly to .884 and NFI to .964. The RMSEA has dropped to 0.047 from 0.064 and the AGFI has increased .884 (from .860). The removal of one non-significant parameter from the model also influences the indexes for the modified CFA model

5. Discussion, Practical Implication and Conclusion

The current study explores the possibilities of bank customers' decision to invest in Islamic mutual funds. Previous works have examined mutual fund performance using secondary data that reveal various findings and implications (e.g. Md-Taib and Isa, 2007; Md-Saad et al., 2010). In the current context, empirical investigation using a survey approach is carried out to understand what makes investors to invest in Islamic mutual funds. The TRA model was extended for this purpose. Evidently, it has been proven to be valid and suitable within the context of Islamic mutual funds. Besides the TRA's constructs, namely attitude and subjective norm, the added construct, amount of information on Islamic mutual funds is found to be an important predictor for understanding investors' decision to invest in Islamic mutual funds.

This also indicates that the TRA is expanded to include the context of Islamic mutual funds. Earlier studies using the TRA in the case of Islamic banking and Islamic marketing have proven the TRA is a powerful model that is easily extended to newly context of research with only slight modifications needed to reflect their research context. The current study brings forward the importance of information to understand the investors' decision to invest in Islamic mutual funds, and such an effort is fruitful. The TRA is still valid even with the inclusion of the "amount of information on Islamic mutual funds". The results of this current study allows for some practical implications:

1. Attitude – The findings of the current study demonstrated that attitude is a mechanism that can influence the formation of the investors' decision to invest in Islamic mutual funds. As such, it is suggested that managers of Islamic mutual funds from state government, Islamic bank and etc. need to improve their services continuously given the development of the investors' expectation on Islamic mutual funds and such a strategy will help to promote the investors' attitude to invest in Islamic mutual funds.
2. Subjective norm – The findings reveal that subjective norm is relevant in the context of Islamic mutual funds. As such, managers of Islamic mutual funds are expected to develop a membership database for the existing investors of Islamic mutual funds. Instead of using sales agents, managers can take benefit from this database by appointing those investors as their agent to influence people including their family members, friends and etc. By doing so, the formation of the investors' decision to invest can be easily developed.

3. Amount of information on Islamic mutual funds - The findings suggests the significance of information in driving better decision among investors for Islamic mutual fund investments. Given this finding, it is expected that managers may need to develop perceptions that their information that are available in the market for Islamic mutual funds is sufficient. Given the growing use of Facebook as an online media social, managers of Islamic mutual funds can tap this opportunity to publish information and disseminating their offerings through Facebook for better market and customer base. Moreover, mobile marketing is also a potential platform that can be used to disseminate Islamic mutual funds' information and promotion.

In the nutshell, an analysis of the factors determining the motivation to invest in Islamic mutual fund has been confirmed using a survey data of bank customers. The factors influencing the decision are (i) attitude and (ii) subjective norm whilst the amount of information on Islamic mutual funds has affected the decision to invest through attitude and subjective norm.

Further, the study identifies three main contributions. Firstly, the TRA model is rarely applied in the literature to discuss Islamic mutual funds investment decision by prospective investors. Clearly, the present study findings report that the TRA model is appropriate and relevant. The major constructs of the model are adequately explained the reason why prospective investors choosing Islamic mutual fund investments. Therefore, it is worth noting that the current study enhances our understanding pertaining to patronage factors for Islamic mutual funds using the TRA model. The study proves that TRA model is relevant. Secondly, the study also provides methodological contributions with regard to the addition of “amount of information on Islamic mutual funds” into the existing TRA model. The “amount of information on Islamic mutual funds” is developed based on cognitive perspectives (e.g. knowledge-based). Importantly, the study proves the link between the amount of information and the attitude – which, in turn, impacting the decision to invest in Islamic mutual funds. Thirdly, the study provides some guidelines for service providers to better planning of their mutual fund products. The service providers are of the opinion to stress on the importance of the attitude, subjective norm and the information pertinent to Islamic mutual funds, in order to create a competitive advantage in their mutual fund offerings.

There are two limitations to this study that remain to be determined. First, the study is only conducted in the state of Labuan, Malaysia. The output of the study is particularly confined to this geography and could not be generalized to other states in Malaysia. Second, the study is only employed the TRA model in which the findings could have limited benefits in terms of generalization. To address these limitations, the present study suggests two approaches. First, future studies should extend the same research to other settings, which could offer new perspectives of Islamic mutual funds and to extend the findings. Second, the inclusion of other explanatory variables like perceived financial cost and perceived Islamic mutual fund literacy to the research model will

provide a robust test to the TRA model and thus extending the TRA to include those new proposed factors.

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