

Using the Exploration Factor Analysis (EFA) to Measure the Validity and Reliability for Da'wah Approach of Jemaah Tabligh

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Abstract

The Jemaah Tabligh dakwah approach study uses quantitative studies based on the Structural Equation Model (SEM) to analyze the various relationships between variables in the model. This study aims to develop and verify the validity and reliability of the instrument using the Exploration Factor Analysis (EFA) to measure the construction of religious charities, religious knowledge, method of delivery and emotional intelligence in the field of dakwah. This study has adapted the instruments developed by some earlier researchers, and also modified some statements in accordance with current studies. Therefore, it is necessary to re-run the Analysis of Factor Analysis of the Exploration (EFA), as the current study area may differ from previous studies, or the current study population is far different from previous studies in terms of socio-economic status, ethnicity and culture (Awang, 2010). Overall, the findings revealed that 15 items were abolished after the EFA was implemented. Only the reduction of items for the construction of the Ibadah Amal only, is 15 items. This reduction is due to a number of things that have been built before, no longer suitable for current studies or there are different item structures in current studies compared to previous study structures. The researchers need to recalculate the value of Internal Indicators of the current instrument for the new Alpha Cronbach value. Based on Awang's suggestion (2010; 2012), researchers decided to carry out the EFA re-item to measure the construction and in this study will be described in detail the procedure for conducting an EFA analysis for each construction.

Keywords: Exploratory factor analysis (EFA); Structural equation modeling (SEM); Jemaah Tabligh, Increased charity; Religious knowledge; Method of delivery and emotional intelligence.



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1. Introduction

The claim of Islamic preaching is not a new thing but it is a continuation of the preaching of previous AS prophets like the Prophet Nuh, the Prophet Hud, the Prophet Abraham, the Prophet Lut, the Prophet Moses, the Prophet Sulaiman AS, the prophet Daud, the prophet Jesus AS and Nabi Muhammad S.A.W. This is explained in the words of Allah SWT in surah al-Saff verse 6. The meaning:

"And remember Jesus, the son of Mary, said: O Children of Israel, I am the messenger of Allah unto you, confirming the Truth which was revealed before me, the Book, and giving glad tidings of a messenger to come later from me: Ahmad, when he came to them with Clear Signs, they said: This is a clear magic!"

The term dakwah is a term that refers to a form of mechanism that is used in the effort to spread and convey the teachings of Islam. Islamic da'wah should be seen and understood in a broader context covering all aspects of dissemination involving the methods and methods underlying the whole space and aspect of human life (Badlihiham, 2000). Da'wah is not limited solely to the narrow traditional understanding that only refers to religious talks and study activities in mosques or surau only. Da'wah is also not limited to the efforts of the religious groups, and even da'wah is a duty that every Muslim needs to do. The success of Islamic da'wah can be achieved through the involvement of all parties and all Muslims in an integrated manner, covering the whole of life including economics, politics, and muamalat and so on, in the interest of Islamic preaching (Abdullah, 2000).

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After the Independence of Malay land in 1957, the missionary movement in Malaysia has grown so broadly. The existence of active movements in spreading Islamic propaganda through government agencies or non-governmental organizations (NGOs) has sparked da'wah efforts in Malaysia. The da'wah movement continues to evolve and looks more clearly and structured (Ab Aziz *et al.*, 2006). Among the government agencies active in the missionary movement were the Islamic Dakwah Foundation Malaysia (1974), the Malaysian Islamic Welfare Organization (1960) and the Islamic Development Department of Malaysia (1968). In addition, the missionary movement is also active through NGOs such as the Malaysian Islamic Youth Movement (1971), Jemaah Tabligh (1950), the National Islamic Students' Federation (1961), Jemaah Islah Malaysia (1990), etc. (Syarul, 2006).

The missionary movement of Jemaah Tabligh is an example of a da'wah movement that sees politics from a different perspective. However, Jemaah Tabligh is also one of the missionary organizations that contributed much to the early efforts of the dakwah movement in Malaya (Ab Aziz *et al.*, 2006). Even today, this movement is a da'wah movement that has tens of thousands of followers, thus proving its influence is widespread in both local and international communities. The presence of the Jemaah Tabligh movement to Malaysia took place around the 1950s and initially grew among the Indian Muslims only. The figure that brought and introduced this movement in Malaysia was Maulana Abdul Malik Madani. Jemaah Tabligh Movement has centered on the Indian Mosque, Kuala Lumpur (Syarul, 2006). In the 1970s, the Jemaah Tabligh movement had begun to be heard among the Malays. This movement has also been widespread in Kelantan, Penang and Terengganu. In 1977, a total of 20 mosques in Kuala Lumpur were set up as the center of Jemaah Tabligh movement. In 1993, the Tabligh Malaysia Jemaah center had moved to Masjid Jamek, Bandar Baru Seri Petaling. Even today, it serves as the main center of the Tabligh Pilgrimage movement in Malaysia to manage members of Tabligh Jemaah and its missionary movement (Syarul, 2006).

However, Jemaah Tabligh has never been officially declared as an association or association. They are more of a free movement and move in their own way. Previous studies have shown that Jemaah Tabligh seems to have exempt their movements rather than engaging with current political issues (Samsiah, 1992; Zaitun, 2003; Zarifah, 1999). This is because, the main aspect of the missionary movement of Tabligh Pilgrimage is the focus on tarbiah, the formation of morality and education and the fertility of faith to Allah S.W.T. Therefore, their sensitivity towards issues and issues arising from politics, economics, social, education and so on, is under consideration (Syarul, 2006).

The approach of the da'wah approach used by Jemaah Tabligh is different from the da'wah which is often conveyed by other missionaries, especially to the community community to follow in their activities. People often look negative and confused by the method used by Jemaah Tabligh, especially inviting them to preach with them either for three days, 40 days, 4 months and so on. This method led them to leave their jobs, friends and family, and this made them less interested in following Jamaah Tabligh's activities. However, many community members still accept the approach of the Tabligh Pilgrimage especially to hear lectures (bayan) delivered every time after the fardu prayer. Hence, this study looks at whether the approach of da'wah conducted by Jemaah Tabligh, is able to affect the community of community towards the increase of charity in the aspect of akidah, syariat and morality. In addition, the study also looks at the community's views on the knowledge of Islamic religion owned by Jemaah Tabligh, the lecture methods practiced and the emotional intelligence available at Jemaah Tabligh while delivering lectures.

2. Exploratory Factor Analysis (EFA)

Research on Jamaah Tabligh's missionary movement, rarely uses the SEM-based (Structural Equation Modeling) study method to analyze the various relationships among the variables in the model formed based on the theory studied. The validity and reliability of questionnaire items may be disputed, as they do not do the right techniques to evaluate them. Hence, in order to generate the validity and reliability of questionnaire items, the investigator should use the Exploratory Factor Analysis (EFA). This study will explain in detail the methods for obtaining the validity and reliability of questionnaire items by using EFA for measurement of religious charity, religious knowledge, method of delivery and emotional intelligence.

EFA is to identify the components that exist in the set of questionnaires that have been established. EFA is a statistical technique that transforms a set of data constructs originally linearly into a set of smaller constructs that can provide a complete overview of all the information contained in the original constructs (Duntemen, 1989). The purpose of the EFA is to reduce the dimensions of the original data to some smaller components and can be interpreted more easily and meaningfully (Duntemen, 1989; Field, 2006; Lewis-Beck, 1994). According to Tabachnick and Fidell (2007), EFA needs to go through several levels. The first rank calculates the correlation matrix between all factors analyzed by factor. The next stage deprives extracting several factors from the matrix correlation and determining the number of factors formed. Reversal of these factors is done to improve the interpretation so that factors are more meaningful and interpretable. The final and most important stage in factor analysis is to interpret the results of the acquired factors and give the appropriate names to each factor.

The instruments used in this study have adapted the instruments that have been developed by some earlier researchers, as well as modifying some of the statements to suit the current study. According to Awang (2010); Awang (2012a), Hoque and Awang (2016); Hoque *et al.* (2017) and Noor *et al.* (2015), if a researcher adapts instruments previously established by researchers and modifies the statement to suit current studies, then they have to re-run the EFA procedure. This is because the current study area may differ from previous studies, or the current study population is far from previous studies in terms of socio-economic status, race and culture.

There are some items built earlier, no longer suitable for current studies or there may be different structural items in the current study compared to the structure in the previous study. Therefore, researchers need to recalculate the Internal Reliability value for the current instrument, the new Alpha Cronbach value (Awang, 2010;2012b; Hoque and Awang, 2016; Hoque *et al.*, 2017). In this study, researchers conducted pilot studies on 100 people who listened to Jemaah Tabligh lecture and re-launched the EFA on items measuring construct taking into account the recommendations by Awang (2010); Awang (2012a) and Hoque and Awang (2016); Hoque *et al.* (2017).

3. EFA for Constructions for Increasing Charity of Worship

Constructs of Charity Improvement are measured using 39 items labeled AK1 to AKH17. Each item statement is measured using the Interval Scale between 1 to 10. The EFA Procedure using the Principal Component Analysis (PCA) with Varimax Rotation has been carried out on 39 items to measure the construction of the Worship of Charities. Table 1 shows the Bartlett Test value is significant (P-Value <0.05). Measure of Sampling Adequacy by Kaiser-Meyer-Olkin (KMO) is 0.905 which is above the minimum value 0.6 (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Both achievements (Significant Bartlett Test and KMO value > 0.6) reflects the observed data as appropriate for the next procedure for Factor Exploration Analysis (EFA) (Awang, 2010;2012a; Hoque and Awang, 2016).

Table-1. Value of KMO and Bartlett Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.905
Bartlett's Test of Sphericity	Approx. Chi-Square	3539.860
	df	741
	Sig.	0.000

The total value of the Total Variance Explained is important for the researcher to know how many percent of the items used measure a study can construct. Table 2 shows the total value of the variance estimated by the items used to measure the construct of Ibadah Amal. The reading from Table 2 found that the construction of the Charity of Worship Improvement which is measured using 39 items in 3 components can measure the constructs of the Charitable Charter of 68.685%. This value is sufficient because it exceeds the minimum requirement of 60% (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017).

Table-2. Estimated Amount of Variance

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18.475	47.371	47.371	18.475	47.371	47.371
2	2.383	6.111	53.482	2.383	6.111	53.482
3	2.029	6.204	68.685	2.029	6.204	68.685
Extraction Method: Principal Component Analysis.						

The findings from Table 3 show the constructs of Ibadah Amal Worship measured by only 3 components. Thus, researchers want to know the items selected to measure the components. Table 3 shows the distribution of received items to measure the construct of Ibadah Amal. All items have factor loading exceeds the minimum limit of 0.6 as suggested by Awang (2010); Awang (2012a) and Hoque and Awang (2016); Hoque *et al.* (2017). Items with a weight of less than 0.6 should be excluded as they do not contribute to the construction of the constructs (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Items with a weighting factor of less than 0.6 and excluded from the questionnaire for further study.

Table-3. Number of Extracted Components

Rotated Component Matrix ^a			
Items	Component		
	1	2	3
AK1	This item is disengaged		
AK2	This item is disengaged		
AK3			0.614
AK4	This item is disengaged		
AK5	This item is disengaged		
AK6		0.624	
AK7		0.633	
AK8		0.750	
AK9		0.756	
SYH1		0.763	

SYH2		0.735	
SYH3		0.713	
SYH4		0.783	
SYH5		0.703	
SYH6	This item is disengaged		
SYH7	0.729		
SYH8	This item is disengaged		
SYH9	0.789		
SYH10	0.797		
SYH11	0.779		
SYH12	0.764		
SYH13	0.734		
AKH1	This item is disengaged		
AKH2	This item is disengaged		
AKH3	This item is disengaged		
AKH4	This item is disengaged		
AKH5	This item is disengaged		
AKH6	This item is disengaged		
AKH7	This item is disengaged		
AKH8	This item is disengaged		
AKH9			0.778
AKH10			0.761
AKH11			0.738
AKH12	0.724		
AKH13	0.681		
AKH14	This item is disengaged		
AKH15	0.782		
AKH16	0.744		
AKH17	0.710		

Figure-1. Component Position and Item for the Welfare Improvement of Ibadah (Before EFA)

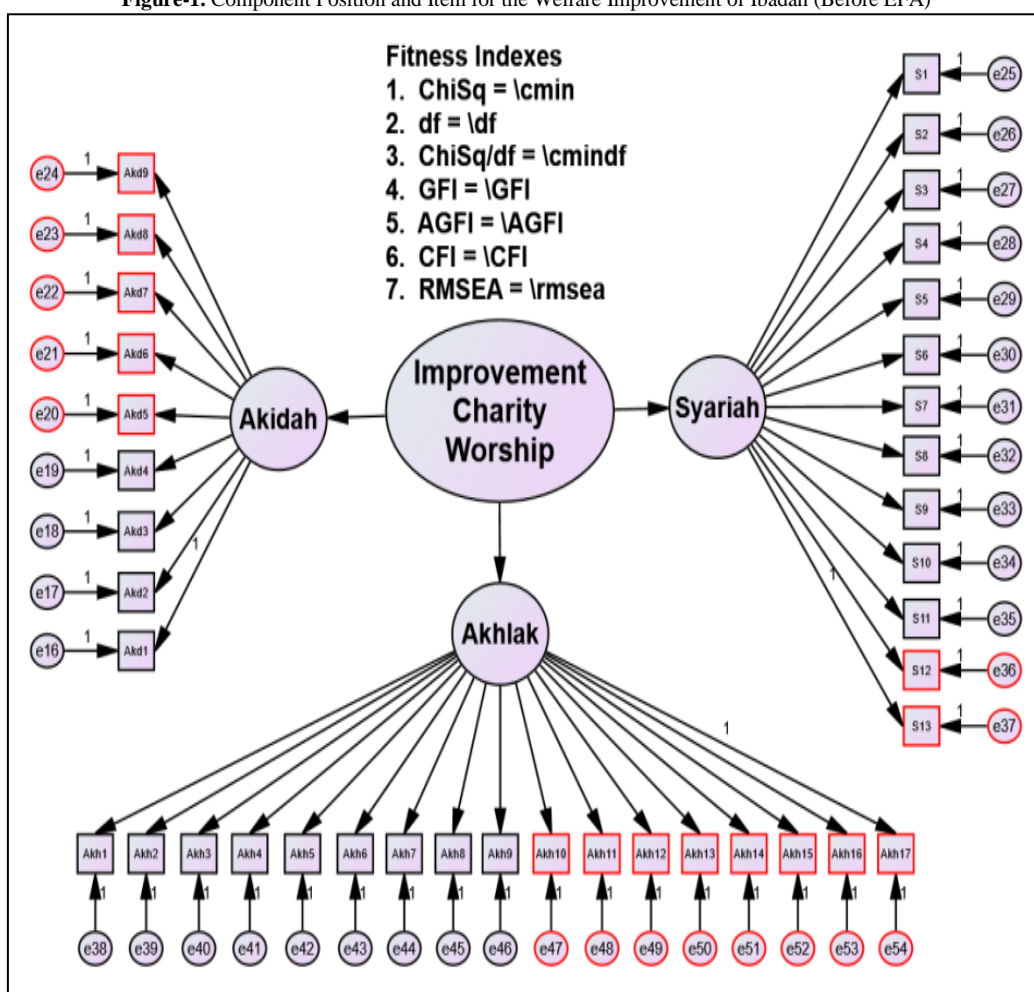
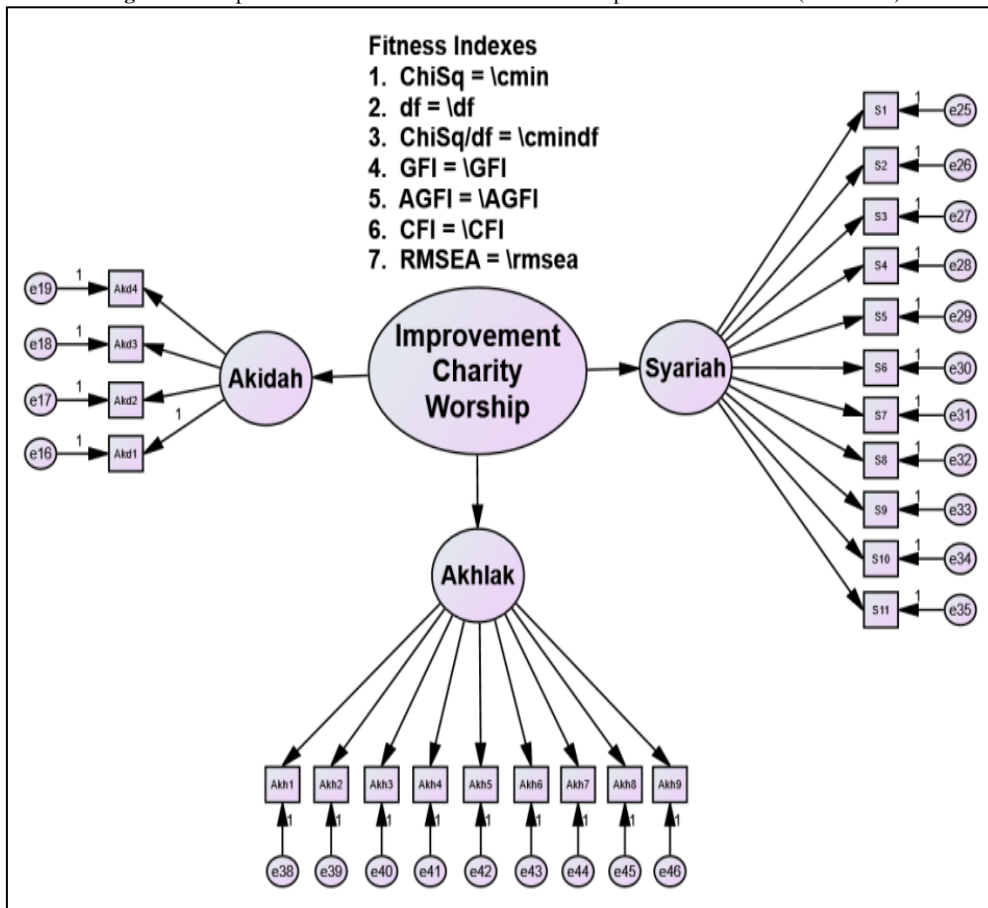


Figure-2. Component Position and Item for the Welfare Improvement of Ibadah (After EFA)



Another information to be reported by the researcher is the reliability of the items that have been built to measure the construct. The instrument reliability measure is estimated through Alpha Cronbach value. Alpha Cronbach value of an instrument must exceed the minimum of 0.7 for adoption in the study. Table 4 shows the Alpha Cronbach value for each component of the Worship Amalgamation Improvement component. This construct has Alpha Cronbach value exceeding the value of 0.6 and can be applied in this study (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque et al., 2017).

Table-4. Instrument Reliability Value

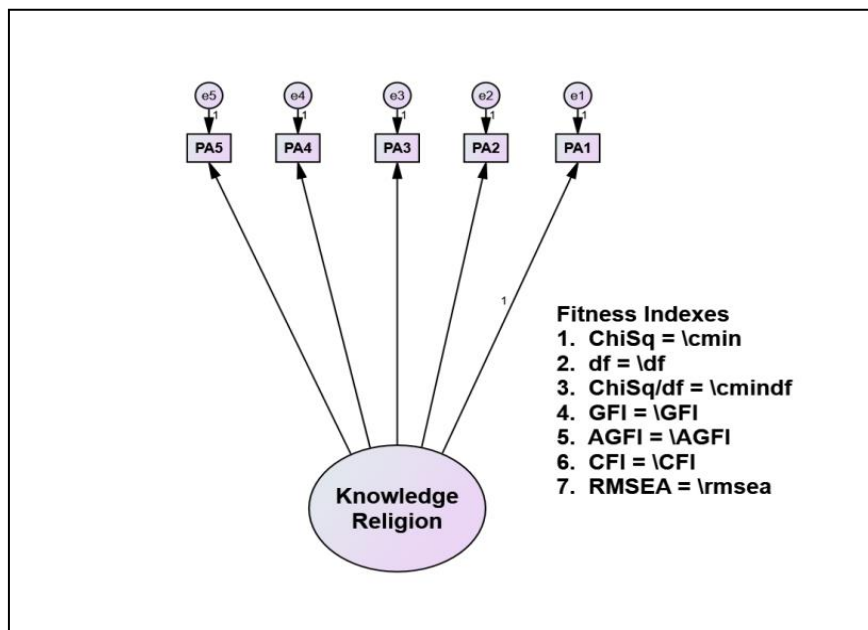
Component	Number of Items	Cronbach's Alpha
1	11	0.963
2	9	0.935
3	4	0.789
Total	24	

4. EFA for Religious Knowledge Construct

Construct of Religious Knowledge are measured using 5 items abbreviated as PA1 to PA5. Each item statement was measured using the Interval Scale between 1 to 10. The findings show that Bartlet Test values are significant (P-Value <0.05), Measure of Sampling Adequacy by Kaiser-Meyer-Olkin (KMO) is 0.871 which is above the minimum value 0.6 (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque et al., 2017). Both of these achievements (Significant Bartlet Test, and KMO value > 0.6) reflect the data are feasible for the next procedure in the EFA (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque et al., 2017). The Construct of Religious Knowledge measured by one component can measure the construct of Religious Knowledge as much as 81.133%. This value is sufficient because it exceeds the minimum requirement of 60% (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque et al., 2017).

Items received for measuring Religious Knowledge construct were 5 with factor loading exceeding the minimum limit of 0.6 as proposed by (Awang, 2010); Awang (2012a) and Hoque and Awang (2016); Hoque et al. (2017). Items with a factor loading of less than 0.6 need to be excluded as they do not contribute to the measurement of the construct (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque et al., 2017). Measurement of internal reliability values of the instruments estimated through Alpha Cronbach values must exceed the minimum of 0.7 for adoption in the study. The Alpha Cronbach value for each component of the Religious Knowledge component is 0.940 exceeding the value of minimum 0.7 and can be applied in this study (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque et al., 2017).

Figure-3. Component Position & Item for Religious Knowledge Construct (Before & After EFA)

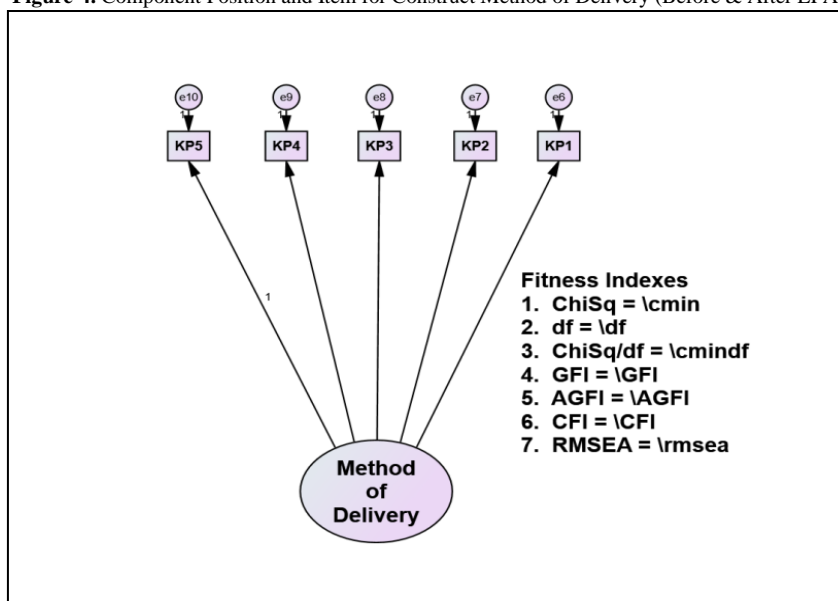


5. EFA for Constructing Method of Delivery

Construct Delivery Method is measured using 5 items abbreviated as KP1 to KP5. Each item statement was measured using the Interval Scale between 1 to 10. The findings show that Bartlet Test values are significant ($P\text{-Value} < 0.05$), Measure of Sampling Adequacy by Kaiser-Meyer-Olkin (KMO) is 0.829 which is above the minimum value 0.6 (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Both of these achievements (Significant Bartlet Test, and KMO value > 0.6) reflect the data are feasible for the next procedure in the EFA (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Construct Delivery Methods measured using one component can measure the Method of Delivery Method of 76.266%. This value is sufficient because it exceeds the minimum requirement of 60% (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017).

Items received for measuring the method of Delivery Methods were 5 with factor loading exceeding the minimum limit of 0.6 as suggested by (Awang, 2010); Awang (2012a) and Hoque and Awang (2016); Hoque *et al.* (2017). Items with a factor loading of less than 0.6 need to be excluded as they do not contribute to the measurement of the construct (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Measurement of internal reliability values of the instruments estimated through Alpha Cronbach values must exceed the minimum of 0.7 for adoption in the study. The Alpha Cronbach value for each component of the Delivery Method is 0.922 exceeding the value of 0.6 and can be applied in this study (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017).

Figure-4. Component Position and Item for Construct Method of Delivery (Before & After EFA)



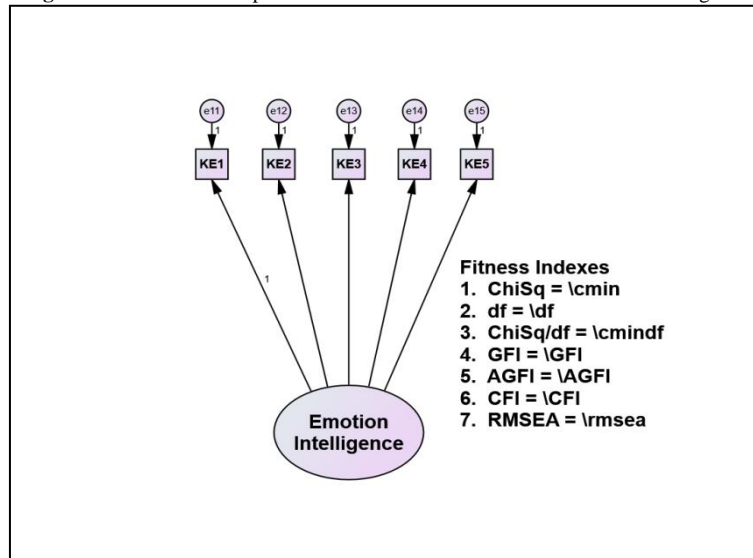
6. EFA for Emotional Intelligence Construct

Construct Emotional Intelligence is measured using 5 items abbreviated as KE1 to KE5. Each item statement was measured using the Interval Scale between 1 to 10. The findings show that Bartlet Test values are significant ($P\text{-Value} < 0.05$), Measure of Sampling Adequacy by Kaiser-Meyer-Olkin (KMO) is 0.824 which is above the minimum

value 0.6 (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Both of these achievements (Significant Bartlet Test, and KMO value > 0.6) reflect the data are feasible for the next procedure in the EFA (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Emotional Intelligence constructs measured using one component can measure 62.305%. This value is sufficient because it exceeds the minimum requirement of 60% (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017).

Items received for measuring the method of Delivery Methods were 5 with factor loading exceeding the minimum limit of 0.6 as suggested by Awang (2010); Awang (2012a) and Hoque and Awang (2016); Hoque *et al.* (2017). Items with a factor loading of less than 0.6 need to be excluded as they do not contribute to the measurement of the construct (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). Measurement of internal reliability values of the instruments estimated through Alpha Cronbach values must exceed the minimum of 0.7 for adoption in the study. The Alpha Cronbach value for each construct component of Emotional Intelligence is 0.845 exceeding the value of 0.7 and can be applied in this study (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017).

Figure-5. Position of Components and Items for Construct of Emotional Intelligence



7. Conclusion

Overall, the needs of the items in each construct fulfilled the Bartlet Test (significant), the KMO value (>0.6), the factor loading exceeds the minimum limit of 0.6 and Alpha Cronbach exceeded the minimum limit of 0.7 for adoption in the study. This reflects that items that are not set aside are feasible to apply in this study (Awang, 2010;2012a; Hoque and Awang, 2016; Hoque *et al.*, 2017). After implementing the EFA, items to build Islamic Knowledge have decreased from 39 to 24 and the items of Religious Knowledge, Method of Delivery and Emotional Intelligence are unchanged. The number of instrument items in this study has decreased from 54 to 39.

Figure-6. Overall Constructs of Religious Amalgamation, Religious Knowledge, Presentation Methods and Emotional Intelligence Before EFA (54 items)

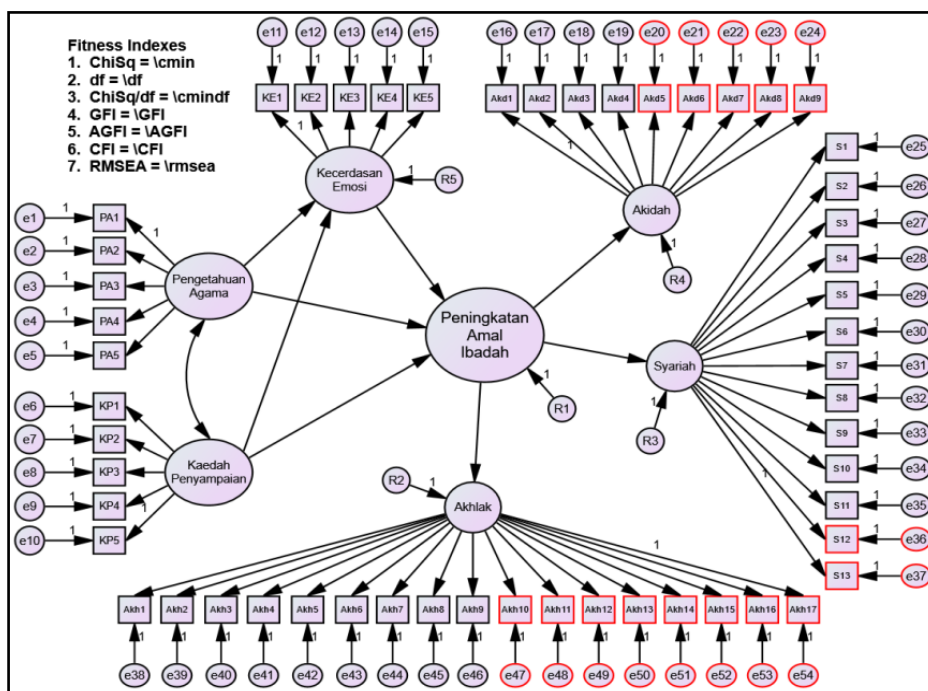
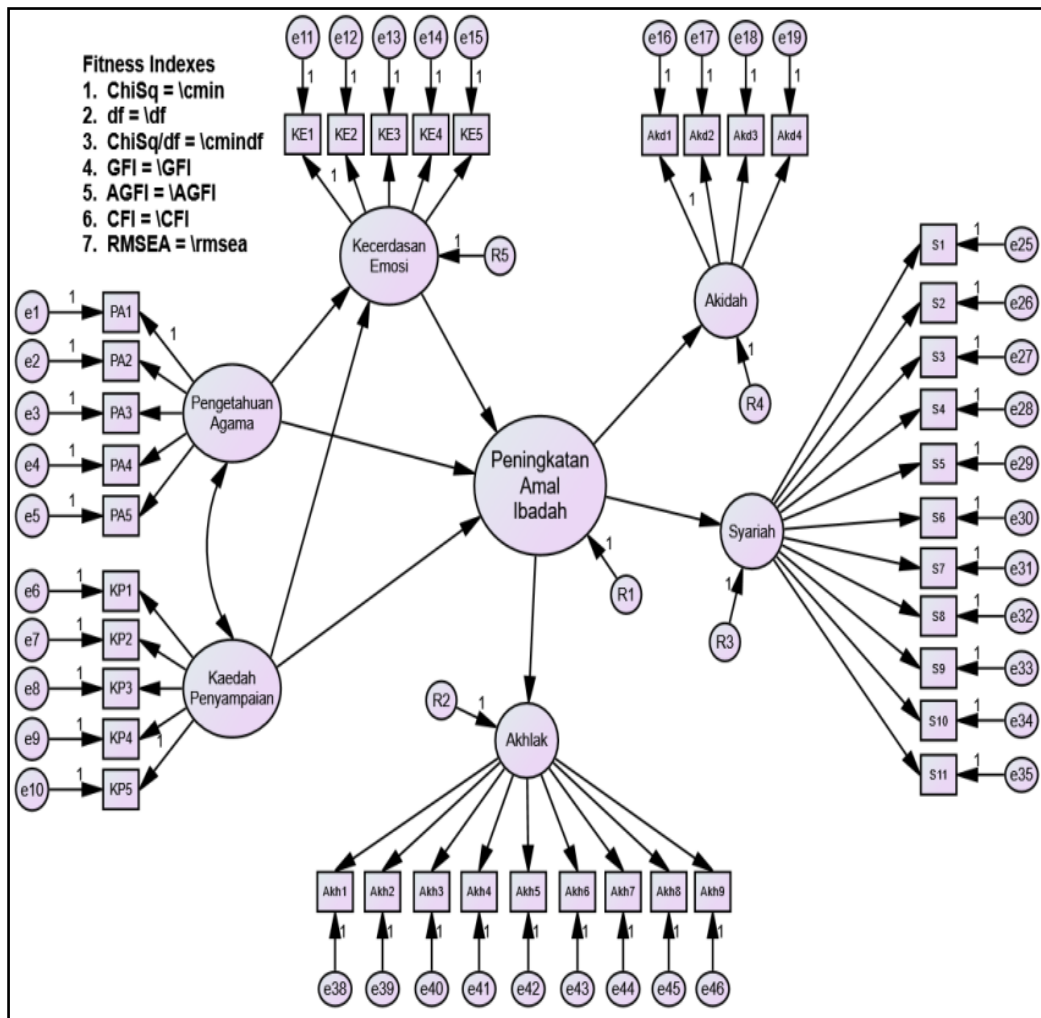


Figure-7. Overall Constructs of Religious Amalgamation, Religious Knowledge, Presentation Methods and Emotional Intelligence After EFA (39 Items)



References

- Ab Aziz, M. Z., Nor Raudah, H. S., Yusmini, M. Y. and Faridah, M. S. d. M. A. S. (2006). *Dakwah islam di Malaysia*. Penerbit Universiti Malaya: Kuala Lumpur.
- Abdullah, M. Z. (2000). *Dakwah dan perubahan sosial menuju alaf baru, dalam dakwah dan perubahan sosial*, ed. Fariza md. Sham, Sulaiman Ibrahim Dan Ideris Endot. Utusan Publications and Distributors Sdn Bhd: Kuala Lumpur. 3-11.
- Awang, Z. (2010). *Research methodology for business and social sciences*. Universiti Teknologi MARA: Kelantan.
- Awang, Z. (2012a). *Research methodology and data analysis*. Penerbit Universiti Teknologi MARA Press (UiTM Press).
- Awang, Z. (2012b). *Structural equation modeling using AMOS graphic*. Penerbit Universiti Teknologi MARA.
- Badlihisam, M. N. (2000). *Falsafah dakwah parti islam semalaysia (pas) : Satu tinjauan*. Kertas kerja: Seminar falsafah dan peradaban pembangunan di alaf baru. Bangi, Selangor. 11-12.
- Duntemen, G. H. (1989). *Principles components analysis: Quantitative applications in the social sciences*. Sage Publications, Inc.: California.
- Field, A. (2006). *Discovering statistics using SPSS*. Sage Publications Ltd: London.
- Hoque, A. S. M. M. and Awang, Z., 2016. "The exploratory factor analysis (efa) of entrepreneurial marketing scale - development and validation." In *Tourism Conference 20-22 APRIL 2016* p. 22.
- Hoque, A. S. M. M., Awang, Z., Jusoff, K., Salleh, F. and Muda, H. (2017). Social business efficiency: Instrument development and validation procedure using structural equation modelling. *International Business Management*, 11(1): 222-31.
- Lewis-Beck, M. S. (1994). *Factor analysis and related techniques*. Sage Publication, Ltd: London.
- Noor, N. M., Aziz, A. A., Mostapa, M. R. and Awang, Z. (2015). Validation of the Malay version of the Inventory of Functional Status after Childbirth questionnaire. *Biomed Research International*: 1-10. Available: <https://www.hindawi.com/journals/bmri/2015/972728/ref/>
- Samsiah, A. B. (1992). *Jemaah tabligh, Peranannya dalam perkembangan islam masa kini dan pandangan masyarakat terhadapnya. Satu tinjauan di Negeri terengganu Darul Iman*. Latihan Ilmiah, Fakulti Usuluddin Akademi Islam Universiti Malaya: Kuala Lumpur.

- Syarul, A. b. S. (2006). *keberkesanan metode dakwah jemaah tabligh masjid jamek bandar baru seri petaling Kuala Lumpur*. Disertasi, Jabatan Dakwah Dan Pembangunan Insan Akademi Pengajian Islam Universiti Malaya, Kuala Lumpur:
- Tabachnick, B. G. and Fidell, L. S. (2007). *Using multivariate statistics*. 5th edn: Pearson Education Inc: Boston.
- Zaitun, b. M. (2003). *Dakwah jemaah tabligh di markaz fathul ulum. Latihan ilmiah, jabatan dakwah dan pembangunan insan akademi pengajian islam universiti Malaya*. Kuala Lumpur.
- Zarifah, b. Y. (1999). *Jemaah tabligh di dungun: Suatu kajian tentang penerimaannya di Kalangan Masyarakat Dungun*. Latihan Ilmiah, Jabatan Dakwah dan Pembangunan Insan Bahagian Pengajian Usuluddin Akademi Pengajian Islam Universiti Malaya, Kuala Lumpur.