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# ANALYSIS OF SELF-*HISBAH* FACTORS ON MORAL APPRECIATION AMONG MUSLIM SECONDARY SCHOOL STUDENTS IN MALAYSIA: FUZZY DELPHI METHOD APPLICATION

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## ABSTRACT

The issue of moral deterioration among secondary school students still transpires due to the lack of moral appreciation among them. It is caused by the practice of self-hisbah, which is not attended in an *istiqamah* (steadfast) manner. The factor of self-*hisbah* potentially impacts the appreciation of the morals of Muslim students. This research aimed to analyse the self-hisbah factor by examining the expert consensus on the elements found in the self-hisbah factor. The researchers chose elements of the hisbah of heart and soul, hisbah of lust, and hisbah of behaviour. This study employed a quantitative approach that surveyed the views and evaluations of 14 experts selected by purposive sampling. These experts evaluated three (3) elements and twenty (20) items included in the Model of Moral Appreciation of Muslim secondary students. The researchers analysed the obtained data using the Fuzzy Delphi method. The analysis considered the triangular Fuzzy Numbers and the ranking of elements obtained through Defuzzification. The study data confirmed that the response and expert consensus on all elements were good. In essence, expert consensus exceeded 75%, and almost all threshold values 'd' met consensus conditions. This analysis contributes to the theory of hisbah. Internal hisbah signifies the power to act emerges from oneself due to a process of self-evaluation known as hisbah. The practice of self-hisbah delivers a person who is always disciplined and strives to do good and refrain from doing evil in his daily life as a student. This theory is pertinent to be included in the Model of Moral Appreciation of Muslim Students' secondary schools in Malaysia. A quantitative study is germane to be conducted on secondary school students throughout Malaysia to examine the usability of the model.

Keywords: Fuzzy Delphi; expert consensus; self-hisbah; moral appreciation

## **INTRODUCTION**

As abstracted in the Malaysian Education Development Plan 2013-2025 (PPPM 2013), a student must compete globally, be acquainted, have thinking skills, leadership skills, and bilingual skills, and maintain ethical, spirituality, and national identity. Ethical and spiritual characteristics signify noble and admirable morality and strength in spirituality. This feature is essential for every student facing the challenges of globalisation today. It is also in line with the National Philosophy of Education (FPK) KPM n.d.). It underlines noble morality as an aspiration in growing human beings who can master knowledge linked to good and bad values, comprehend and realise the effects of good and bad practices, believe in pure values, conduct good behaviour and avoid bad behaviour, embrace the values of spirituality, humanity and



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citizenship (Mardzelah et al. 2014). It also agrees with the Philosophy of Islamic Education (FPI) by focusing on the mastery of knowledge in shaping the morals of an individual as expressed in the following phrases:

"Islamic education is a constant effort to impart knowledge, skills and appreciation of Islam based on the Quran and Sunnah to shape attitudes, skills, personality and outlook on life as a servant of Allah who has the responsibility to develop themselves, society, environment and country, towards achieving good in this world and prosperity in the hereafter".

The direction of the goal and FPI is clear in developing a pious Muslim individual who can bear the two significant responsibilities entrusted by Allah SWT, namely as a servant and caliph (Kamarul Azmi & Ab. Halim 2007). As explained in Surah Adh-Dhariyat verse 56:

"I created the jinn and humans for nothing else but that they may serve Me." (Al-Hilali & Muhammad Muhsin 1997)

And in Surah Al-Baqarah verse 30:

"And [mention, O Muhammad], when your Lord said to the angels, "Indeed, I will make upon the earth a successive authority."

(Al-Hilali & Muhammad Muhsin 1997)

These two verses concentrate on the goal of Islamic education, which is to produce human beings who can play a role as pious servants of Allah and caliphs (leaders) who can utilise all the potential of self and natural treasures to better the earth (Noor Hisham 2011). Abdul Halim El-Muhammady, in Mardzelah et al. (2014), explained that the scope stressed in Islamic Education is a comprehensive and integrated development of human potential. It covers cognitive, affective and social aspects; lifelong education; the capacity to perform responsibilities as a servant and bear the trust as a caliph (leader) on earth; and nurture pious deeds through the integration of knowledge and complete faith to achieve happiness in this world and the hereafter.

The noble notion in Islamic Education delivers pious individuals, devoted, dignified citizens, and balance themselves in terms of material and spiritual beings (Hasnan 2008; Kamarul Azmi & Ab. Halim 2007). This aligns with Al-Attas (1980) view, who remarked that human beings are noble beings and have a position that needs to be recognised by other beings. This recognition is based on the privilege of the intellect bestowed on human beings. All knowledge acquired through the role of the intellect must be harmonised with spiritual and physical needs so that there is a balance in human behaviour as a servant and a caliph supported by faith, sharia and perfect morals (Hasnan 2008). Therefore, individuals educated with the Philosophy of Islamic Education exhibit knowledge and appreciation of morals like pious, sincere, trustworthy, loving and noble personalities (Hamka 2003; Hasnan 2008; Mardzelah et al. 2014). Appreciation of morality is a vital aspect in forming all-rounder human beings according to the Quran and Sunnah (Zaharah 2008). Hence, moral knowledge and moral awareness are mandatory in forming an all-rounder human being, particularly in the early stages of adolescence, which is full of obstacles and often face self-identity crisis and is prone to the problem of social symptoms.



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The duty of educators today is not straightforward. The challenge is immense for Islamic Education teachers who are specifically given the responsibility to form these all-rounder human beings when faced with a group of adolescent students who often cause disciplinary problems and social predicaments. In an attempt to unravel this problem, this young generation needs to be directed and given awareness to know their true selves and build their personalities to face the identity crisis and the challenges of globalisation (Mardezlah et al., 2014). Hence, applying the practice of self-*hisbah* as a mechanism of control and supervision of oneself is one of the best conventions to guide adolescents to build all-rounder morals in line with the nature and requirements of Islamic Education. The practice of self-*hisbah* also operates as an influential factor in enhancing the moral appreciation of adolescents or Muslim students. The practice of self-*hisbah* needs to be stressed again in Islamic Education as a process to appreciate Islamic Education itself. Thus, this research intended to analyse the expert consensus on the elements and items of the self-*hisbah*. It could be included in the model of appreciation of Muslim students. These elements were the elements that form the Model of Moral Appreciation of Muslim Secondary School Students in Malaysia.

## LITERATURE REVIEW

Self-hisbah refers to a person's internal self-assessment in Islam, which results from evaluating an individual's self. In Mu'jam Al-Arabi Al-Asasi (1999), literally, hisbah is derived from an Arabic word (حَسِبَ), means counting, thinking, and delivering opinions. While conceptually, Al-Mawardi (1993) defined *hisbah* as an instruction to conduct enjoin good and forbid wrong in Islam when it is clearly done. Al-Ghazali (1998) mentioned that hisbah designates a comprehensive image in the concept of enjoining good and forbidding wrong in Islam. In addition, Al-Ghazali (1998) illustrated that *hisbah*, also referred to as *muhasabah*, is a way to assess all practices in motion or silence. Muhasabah occurs at the end of the day, which desires to assess the level of one's practice, whether the external or internal deeds done, not to stray from the sincere intention only to obtain the mercy and pleasure of Allah Taala. Mardzelah et al. (2014) maintained that this practice could also scaffold one's discipline and control oneself from committing misdeeds while performing a given task and trust. In addition, the practice of hisbah works like a mirror, reflecting the good and bad of one's morals. If one always practices evil, then the *muhasabah* will awaken oneself to return to the true path (Mardzelah 2008). In this study, the researchers chose three aspects of self-monitoring: heart and soul monitoring, behaviour monitoring, and lust monitoring. The concept of hisbah or muhasabah is communicated in the Quran, Sural al-Maidah verse 39:

"But whoever repents after their wrongdoing and mends their ways, Allah will surely turn to them in forgiveness. Indeed, Allah is All-Forgiving, Most Merciful."

(Al-Hilali & Muhammad Muhsin 1997)

Monitoring of the heart and soul encompasses the bonding of the covenant of the heart, spiritual reinforcement, and purification of the soul in setting an ideal or determination that guides man to act based on truth. According to Al-Razi (2000), the locus of self-monitoring is the heart because it is the epicentre of memory and understanding. Intelligence and prosperity materialise through intellectual, emotional, moral, spiritual, and religious intelligence,



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classified as the heart's intelligence when interacting with the intellect (Rauf 2011). On the other hand, behavioural monitoring describes observing behaviour and evaluating practices or self-analysis of practices performed in daily life. Behavioural monitoring relates to the heart's priority on Allah by evaluating oneself, understanding one's shortcomings, and striving to do good deeds and abandon evil deeds. It divides into three: obeying Allah with deeds, abandoning vices, and being prudent and fearful (Mardzelah et al., 2014). Additionally, lust monitoring represents the practice of fighting earnestly to repel all the negative traits, attitudes, and practices driven by lust and the negativities in life. Negative attitudes, traits, and practices include laziness, giving up, complaining, arrogance, envy, haughtiness, sinister suspicion, pomposity, and haste. One can fix it with patience, acceptance, fear towards Allah, gratitude, sincerity, submitting, repentance, modesty, affection, and remembering death (Al-Ghazali 1998).

The analysis of Mardzelah et al. (2014), which evaluated the practice of self-hisbah among secondary school students in Kedah involving 1785 students, discovered that the reliability value of the instrument used was high, which exceeded the Cronbach Alpha value of 0.90. The results of the EFA analysis explained six components of self-hisbah that resulted, namely *musyaratah* (covenant of the heart), *muraqabah* (behavioural monitoring), *muhasabah* (evaluation of practice), mu'aqabah (spiritual reinforcement), mujahadah (overcoming lust) and *mu'atabah* (purification of the soul). This substantiated that self-*hisbah* is an internal factor that is quintessential in producing a generation of pious, scholarly, competent and able to contribute to the *ummah*. While in Fairuzzah's study (2018), he categorised the six components of self-hisbah above into three, namely hisbah of heart and soul (musyaratah, mu'agabah & *mu'atabah*), hisbah of behaviour (*muhasabah & muraqabah*) and *hisbah* of lust (*mujahadah*). He performed an FDM (Fuzzy Delphi Method) study on 13 experts to evaluate the appropriate elements to be included in the Model of Moral Practice of Muslim Trainee Teachers at the Malaysian Institute of Teacher Education. The study outcomes demonstrated that all elements received more than 90% of the expert consensus. Afifi Farhana and Muslihah (2019) analysis explained three essential elements closely related to self-hisbah and human management: tawhidi, itgan and ihsan. In addition, six methods can be practised to strengthen the practice of hisbah and human management, namely advice, tazkirah, islah, giyadah and gudwah. This further substantiated that the practice of self-hisbah could strengthen human management and achieve the pleasure of Allah.

## **RESEARCH METHODOLOGY**

This research is part of the DDR (Design and Development Research) study (Richey & Klein 2007), which employed various methods in designing and developing models. DDR involved the study in three phases: the first phase; the needs analysis phase, the second phase; the design and development phase; the third phase; and the model usability evaluation phase. Hence, this study included a second phase that contained several stages. The approach used in the second phase was a quantitative approach that required researchers to survey experts related to the elements included in the Model of Moral Appreciation of Muslim Secondary School Students in Malaysia. This study concerned two stages of the formation of questionnaire elements, namely, (i) literature review and; (ii) semi-structured interviews with six experts. In the first stage, the researchers conducted a literature review in identifying the factors that influence the moral appreciation of Muslim students among secondary school students. While in the second



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stage, the researchers attended a semi-structured interview in obtaining views from experts on the factors that influence the moral appreciation of Muslim students. Having acquired all the factors, the researchers formed an expert questionnaire (7-point scale) and then distributed it to fifteen experts in Islamic Education and Islamic Studies. Two rounds of questionnaires were conducted to the experts. The first-round analysis discovered that some aspect items needed to be added, and some items needed to be enhanced and refined. Next, the second round was conducted, and then the data obtained were examined using the Fuzzy Delphi Method (FDM) (Ramlan & Ghazali 2018). Nevertheless, only fourteen questionnaires were returned to the researchers in the second round for analysis.

## Sampling

The sampling method used in this study was purposive sampling. This type of sampling was most appropriate because the researchers desired to get the views and consensus of experts on a matter. According to Hasson et al. (2000), the most appropriate method in FDM is purposive sampling. Thus, six experts were involved in the interviews, and 14 experts were involved in the FDM questionnaire, as shown in Tables 1 and 2:

Position	Expertise	Experience	Number	Institutions
Associate Professor	Islamic Studies	>15	1	UKM
Senior Lecturer	Islamic Studies	>15	2	IPGK of Islamic studies
				IPGK of Darul Aman
Outstanding	Islamic Studies	>15	3	Kelantan Matriculation
Teacher				SMK Seri Pengkalan
				SMK Sultanah Hajah
				Kalthom

#### Table 1: List of experts interviewed

Position	Position	Experience	Number	Institutions
Profesor	Islamic Studies	>15	3	KUIS
				UPSI
				UTM
	Islamic Studies		1	USIM
Associate Professor	Islamic Studies	>15	1	UUM
Senior Lecturer	Islamic Studies	>15	2	IPGK of Islamic studies
				IPGK of Dato' Razali
Senior Lecturer	Islamic Studies	>10	2	UiTM of Raub
				IPGK of Raja Melewar
Chief Assistant	Islamic Studies	>15	1	KPM
Director				(Islamic Education Policy
				and Planning)
Outstanding	Islamic Studies	>15	4	SM Sains Machang
Teacher				SM Sains Muzaffar Syah
				SMK Telok Gadong
				SMK Dato' Mustaffa



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The selection of experts in the study was based on specific criteria that the expert had high academic qualifications and rational thinking in a study conducted, had an excellent track record in a pertinent field of study, had the reasonable time to give views and was willing to provide insightful wisdom based on research. According to Berliner (2004a, 2004b), an individual is considered adept and acquainted in a field if one holds experience in that field for more than five years. The total number of experts in this investigation was 14 people by adopting the view of Alder & Ziglo (1996), who noted that the relevant number in the Delphi method is between 10 to 15 people if there is uniformity (homogenous).

## Instrument

The researchers designed this FDM research instrument based on the literature review and semi-structured interviews described above. According to Skulmoski et al. (2007), the formation of a questionnaire is based on literature review, pilot studies and experiences. While Mohd Ridhuan et al. (2014) noted that the formation of questions for FDM is based on literature review, expert interviews, and focus group discussions (FGD). In addition, Okoli and Pawlowski (2004) maintained that the formation of the FDM questionnaire should be made through a literature review pertinent to the scope of the study. Therefore, a 7-point scale questionnaire was used after the researchers identified the elements and factors through literature review and expert interviews. A 7-point scale was used because, according to Mohd Ridhwan et al. (2014), the higher the number of scales, the more accurate and precise the data obtained. Several steps were used in data collection and FDM data analysis. The steps are as follows:

- Step 1: Selection of experts: 14 experts assessed the elements measured using linguistic variables in this study. Researchers distributed the questionnaire online by e-mail to the experts who were appointed. This method was most appropriate because Malaysia was still amid the COVID-19 hit when data collection was made.
- Step 2: Determine linguistic variables based on the Triangular Fuzzy Number (determining linguistic scale). This step involved the conversion of all linguistic variables to triangular fuzzy numbers and the conversion of linguistic variables with the addition of fuzzy numbers (Hsieh et al., 2004). The linguistic variable scale was similar to the commonly used Likert scale but was augmented with triangular fuzzy numbers based on fuzzy triangle numbering representing the values of m1 (minimum value), m2 (reasonable value) and m3 (maximum value). Triangular fuzzy numbers were used to form fuzzy scales intended to describe linguistic variables. The numbers found in the fuzzy scale were in odd numbers. It can be explained in Figure 1.



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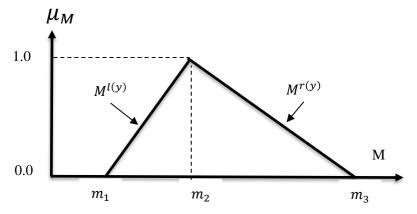


Figure 1: Triangular Fuzzy Numbers

The process of data collection and analysis in this study using the Fuzzy Delphi technique was carried out after the experts answered a questionnaire in which each item was represented by a Likert scale along with comment space and expert suggestions. The data obtained were analysed using Fudelo 1.0 software (Ramlan 2021). All data were converted into a Triangular Fuzzy Number form. A 7-point fuzzy scale was used in this study, as shown in the following table 3:

Expert consensus level		Fuzzy Numbers	
	$m_1$	$m_2$	$m_3$
Extremely agree	0.90	1.00	1.00
Strongly agree	0.70	0.90	1.00
Agree	0.50	0.70	0.90
Unsure	0.30	0.50	0.70
Disagree	0.10	0.30	0.50
Strongly disagree	0.00	0.10	0.30
Extremely disagree	0.00	0.00	0.10

Table 3: Levels of consensus with a 7-point scale

Step 3: The process of determining the distance to identify the threshold value "d". Threshold values are vital in the process of identifying the level of agreement between experts (Thomaidis et al., 2006). According to Chang et al. (2011), the distances of each Fuzzy number m = (m1, m2, m3) and n (n1, n2, n3) are calculated by the following formula:

$$d(\bar{m},\bar{n}) = \sqrt{\frac{1}{3}[(m_1 - n_1)^2 + (m_2 - n_2)^2 + (m_3 - n_3)^2]}$$

According to Cheng & Lin (2002), expert consensus can be reached if the threshold value of "d" is less than or equal to  $0.2 \leq 0.2$ ).



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- Step 4: Determine the percentage of expert consensus. The overall percentage of consensus (group consensus) should exceed 75% (≥75%) for each item. If it does not reach 75% or less, the second round should be conducted (Chang et al., 2011; Cheng & Lin 2002). Thus, if the percentage reaches a predetermined value, it is assumed to have reached the consensus of the expert group (Chu & Hwang 2008).
- Step 5: Identify the aggregate alpha levels of fuzzy assessments. After the expert consensus is obtained by adding fuzzy numbers for each item, the researcher needs to identify the aggregate alpha level of the fuzzy evaluation (Mohd Ridhuan et al., 2014). Calculation and determination of fuzzy value is by using the formula: Amax =  $\frac{1}{4}$  (m1+m2+m3)

$$\tilde{A} = \begin{bmatrix} \tilde{A}_1 \\ \tilde{A}_2 \\ \vdots \\ \vdots \\ \tilde{A}_m \end{bmatrix} where \ \tilde{A} = r_{i1} \times w_1 + r_{i2} \times w_2 \dots \dots \dots r_{in} \times w_n$$
$$i = 1, 2 \dots \dots m$$

- Step 6: The process of Defuzzification. This process needs to use the formula Amax =  $\frac{1}{4}$  (m1+m2+m3). If the researcher uses an average fuzzy response, the resulting score number is a number in the range of 0 to 1 (Mohd Ridhuan et al., 2014; Ramlan & Ghazali 2018). There are three formulas in this process, namely:
  - i) Amax =1/2 \* (m1 + m2 + m3), or;
  - ii) Amax =1/4 \* (m1 + 2m2 + m3), or;
  - iii) Amax =1/6 \* (m1 + 4m2 + m3)

Value  $\alpha - cut =$  median values for '0' and '1', where  $\alpha - cut = \left(0 + \frac{1}{2}\right) = 0.5$ . If the resulting A value is less than  $\alpha$ -cut = 0.5, the item will be rejected for not showing expert consensus. The alpha cut value should exceed 0.5 ( $\geq 0.5$ ) (Tang & Wu 2010; Bodjanova 2006).

Step 7: Ranking. This ranking process occurs by selecting the defuzzification value based on the expert consensus that the highest value is determined by the most prominent ranking (Fortemps & Roubens 1996). The process of determining the ranking needs to follow the following Ai formula (Chang et al. 2011):

Defuzzication value formula:

Ai = (ai1, ai2, ai3) defuzzified by ai =  $\frac{1}{4}$  (ai1 + ai2 + ai3)



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## RESULT

One can read the analysis results based on data collected from study experts in the tables below. The findings of the self-*hisbah* construct were completed using the Fuzzy Delphi Method (FDM) method. The following table displays the primary elements that make up the self-*hisbah* construct, including the *hisbah* of the heart and soul, the *hisbah* of behaviour, and the *hisbah* of lust.

Result	Monitoring of heart and soul (HH)	Monitoring of behaviour (HT)	Monitoring of lust (HN)
Expert 1	0.00412	0.00825	0.00412
Expert 2	0.00412	0.00825	0.00412
Expert 3	0.00412	0.00825	0.00412
Expert 4	0.00412	0.00825	0.00412
Expert 5	0.00412	0.00825	0.00412
Expert 6	0.00412	0.00825	0.00412
Expert 7	0.00412	0.04949	0.00412
Expert 8	0.00412	0.00825	0.00412
Expert 9	0.00412	0.00825	0.00412
Expert 10	0.00412	0.00825	0.00412
Expert 11	0.05361	0.04949	0.05361
Expert 12	0.00412	0.00825	0.00412
Expert 13	0.00412	0.00825	0.00412
Expert 14	0.00412	0.00825	0.00412
Mean	0.00766	0.01414	0.00766

Table 1: Threshold values of each element ('d' elements) for the Self -Hisbah Constructs

 Table 2: Threshold values of each element ('d' elements), construct threshold values ('d' constructs) and element ranking in the Self -Hisbah constructs

Statistic	HH	HT	HN
The value of element 'd'	0.00766	0.01414	0.00766
The value of 'd' constructs		0.00982	
Element <0.2	14	14	14
% per element <0.2	100%	100%	100%
Consensus Percentage %		100	
Defuzzification $(\alpha - cut)$	0.99286	0.98571	0.99286
Ranking	1	2	1
Status	Accepted	Accepted	Accepted

The three criteria determining element acceptance are threshold value 'd', expert consensus percentage and defuzzification value ( $\alpha$ -cut values). Table 1 confirmed that all elements having the value of 'd' was below 0.2 (<0.2), namely 0.00766, 0.01414 and 0.00766. Similarly, the value of 'd' for the construct was 0.00982. According to Cheng and Lin (2002) and Chang et



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al. (2011), if the average value of 'd' is less than 0.2, it has reached a good consensus among the expert panels. The percentage of consensus was 100% and exceeded 75% of the conditions set. The alpha cut values of 0.99286, 0.98571 and 0.99286 also met the condition of exceeding 0.5 (> 0.5). If the alpha cut value is > 0.5, it has qualified (Tang & Wu, 2010; Bodjanova, 2006). Overall, the elements in the self-*hisbah* construct also reached expert consensus and were ranked according to Table 2.

## Hisbah Elements of Heart and Soul

This element was formed from two aspects, namely, the aspect of spiritual reinforcement and the aspect of purification of the soul.

## **Aspects of Spiritual Reinforcement**

Table 3: Threshold value of each item ('d' item), aspect threshold value ('d' aspect), defuzzification value (αcut) and item ranking in spiritual reinforcement aspect

	HHTR1	HHTR2	HHTR3	HHTR4
Result	Strengthenin g the heart with <i>dhikr</i> .	Reflecting oneself for the wrongdoing by <i>istighfar</i> .	Seeking forgiveness from Allah by performing the prayer of repentance.	Reading the Quran more frequently
Expert 1	0.00412	0.00412	0.00412	0.00412
Expert 2	0.00412	0.00412	0.00412	0.00412
Expert 3	0.00412	0.00412	0.00412	0.00412
Expert 4	0.00412	0.00412	0.00412	0.00412
Expert 5	0.00412	0.00412	0.00412	0.00412
Expert 6	0.00412	0.00412	0.00412	0.00412
Expert 7	0.00412	0.00412	0.00412	0.00412
Expert 8	0.00412	0.00412	0.00412	0.00412
Expert 9	0.00412	0.00412	0.00412	0.00412
Expert 10	0.00412	0.00412	0.00412	0.00412
Expert 11	0.00412	0.00412	0.00412	0.00412
Expert 12	0.00412	0.00412	0.00412	0.00412
Expert 13	0.05361	0.05361	0.05361	0.05361
Expert 14	0.00412	0.00412	0.00412	0.00412
Item 'd' value	0.00412	0.00412	0.00412	0.00412
The value of the 'd' aspect		0.0	0766	
item <0.2	14	14	14	14
% per item <0.2 Consensus Percentage	100%	100%	100%	100%
%		10	00%	
Defuzzification (α-cut)	0.99286	0.99286	0.99286	0.99286
Ranking	1	1	1	1



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Status	Accepted	Accepted	Accepted	Accepted
Conditions:				

Conditions:

(1) Threshold value 'd' ≤ 0.2,
(2) Expert Panel Consensus Percentage ≥ 75%,

(3) All Defuzzification ( $\alpha$ -cut) values for each item exceeded the value of 0.5 ( $\alpha$ > 0.5).

Based on Table 3, all threshold values (d) did not exceed > 0.2 on all items (0.00412, 0.00412, 0.00412, 0.00412). Similarly, the value of 'd' for the aspect was 0.00766. It indicated that the expert consensus was uniform and reached consensus on all items in the aspect of the moral practice of Muslim students. According to Cheng and Lin (2002), Chang et al. (2011), if the mean value of threshold (d) obtained is equal to or less than 0.2 ( $\leq 0.2$ ), then the elements have reached consensus. Meanwhile, the overall percentage of expert consensus reached on the items and aspects was 100% exceeded 75%. It then met the qualification parameter because the expert consensus condition is greater or equal to  $\geq 75\%$  (Chang 2011). At the same time, all the defuzzification  $\alpha$ -cut (average fuzzy response) values were above the value of 0.5, which was 0.99286 on all items. Tang and Wu (2010) and Bodjanova (2006) mentioned that the  $\alpha$ cut value should exceed 0.5 (> 0.5) to allow the item and aspect to be accepted. This process established that the items in the aspect of spiritual reinforcement achieved the consensus of the experts involved. The items that were agreed upon were arranged in order of priority (ranking), as shown in Table 3. Overall, the items in the aspect of spiritual reinforcement under the subconcept/element of heart and soul hisbah reached expert consensus and were accepted with a good consensus and met prescribed conditions.

#### Aspects of Purification of the Soul

Table 4: Threshold values of each item ('d' items), aspect threshold values ('d' aspects), defuzzification values (α-cut) and item ranking in the purification of the soul aspect

Result	Oneself promises to improve the practice so that the soul remains peaceful.	Repent of the sin committed.	Strive to multiply good deeds to cleanse oneself from sin.	Ensure that the food eaten is halal.	Stay away from <i>syubhah</i> food.
	peacerur.				
Expert 1	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 2	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 3	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 4	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 5	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 6	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 7	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 8	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 9	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 10	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 11	0.00412	0.00412	0.00412	0.00412	0.00412



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Expert 12	0.00412	0.00412	0.00412	0.00412	0.00412
Expert 13	0.05361	0.05361	0.05361	0.05361	0.05361
Expert 14	0.00412	0.00412	0.00412	0.00412	0.00412
Item 'd' value	0.00766	0.00766	0.00766	0.00766	0.00766
Item 'd' value					0.00766
item <0.2	14	14	14	14	14
% per item < 0.2	100%	100%	100%	100%	100%
Consensus					
Percentage %			100%		
Defuzzification					
(a-cut)	0.99286	0.99286	0.99286	0.99286	0.99286
Ranking	1	1	1	1	1
Status	Accepted	Accepted	Accepted	Accepted	Accepted

Conditions:

(1) Threshold value 'd'  $\leq 0.2$ ,

(2) Expert Panel Consensus Percentage  $\geq$  75%,

(3) All Defuzzification ( $\alpha$ -cut) values for each item exceeded the value of 0.5 ( $\alpha$ > 0.5).

Based on Table 4, all item 'd' threshold values (0.00766, 0.00766, 0.00766, 0.00766 and 0.00766) and aspect 'd' threshold values (0.00766) were less than 0.2 (<0.2). It symbolised that expert consensus was uniform. According to Cheng and Lin (2002) and Chang et al. (2011), if the average value of threshold 'd' obtained is less than or equal to the value of 0.2 ( $\leq$ 0.2), then the item/aspect has reached consensus, and the first condition has been met. When viewed on the consensus percentage, the percentage value was 100%, exceeding 75% of the set percentage requirement. Chang (2011), Chu and Hwang (2008) and Murray and Hammons (1995) suggested that if the percentage of consensus exceeds or equals  $\geq$ 75%, then it qualifies for the second condition for the item. In addition, the value of Defuzzification ( $\alpha$ -cut) had the same high value of 0.99286 where all values exceeded 0.5 (> 0.5). If the value of Defuzzification ( $\alpha$ -cut) exceeds 0.5, then the item is accepted. If it is less than 0.5, the item should be eliminated (Tang & Wu (2010; Bodjanova, 2006). Hence, the items of the aspect of purification of the soul met all three conditions of expert consensus. The items are arranged in order as in Table 4.

#### Hisbah Elements of Behaviour

The element of *hisbah* of behaviour was formed from the aspects of behavioural observation and the evaluation of practices.

#### Aspects of Behavioral Observation

Table 5: Threshold values of each item ('d' items), aspect threshold values ('d' aspects), defuzzification values  $(\alpha$ -cut) and item ranking in the behavioural observation aspect

	HTPT1	HTPT2	НТРТ3	HTPT4
Result	Reflecting on one's daily behaviour.	Beware of evil people.	Reminding oneself to do good.	Reflecting the deeds done either pleasing Allah or mispleasing



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				Him.	
Expert 1	0.02474	0.03712	0.00825	0.00825	
Expert 2			0.04949	0.00825	
Expert 3	0.02474	0.03712	0.00825	0.00825	
Expert 4	0.02474	0.03712	0.00825	0.00825	
Expert 5	0.02474	0.03712	0.00825	0.00825	
Expert 6	0.02474	0.03712	0.00825	0.00825	
Expert 7	0.02474	0.03712	0.00825	0.00825	
Expert 8	0.02474	0.03712	0.00825	0.00825	
Expert 9	0.02474	0.03712	0.00825	0.00825	
Expert 10	0.02474	0.03712	0.00825	0.00825	
Expert 11	0.02474	0.02062	0.00825	0.04949	
Expert 12	0.02474	0.03712	0.00825	0.00825	
Expert 13	0.03299	0.02062	0.04949	0.04949	
Expert 14	0.02474	0.03712	0.00825	0.00825	
Item 'd' value	0.04241	0.05833	0.01414	0.01414	
The value of the 'd' aspect	0.03226				
item < 0.2	13	13	14	14	
% per item <0.2	92%	92%	100%	100%	
Consensus Percentage %	96%				
Defuzzification (a-cut)	0.95714	0.93571	0.98571	0.98571	
Ranking	2	3	1	1	
Status	Accepted	Accepted	Accepted	Accepted	

Conditions:

(1) Threshold value 'd'  $\leq 0.2$ ,

(2) Expert Panel Consensus Percentage  $\geq 75\%$ ,

(3) All Defuzzification ( $\alpha$ -cut) values for each item exceeded the value of 0.5 ( $\alpha$ > 0.5).

Based on Table 5, a value of 'd' is highlighted black because it exceeded the threshold of 0.2 (> 0.2). It confirmed that there were different expert opinions on HTPT1 and HTPT2 items. Nonetheless, the average item 'd' threshold value on those items (0.04241 and 0.05833) was less than 0.2 (<0.2), which exceeded the required condition. Similarly, the mean threshold value 'd' of the items of behavioural observation practice aspects was less than the value of 0.2. If the threshold value 'd' is less than 0.2, the item has reached good expert consensus (Cheng & Lin, 2002; Chang et al., 2011). Meanwhile, the consensus percentage was 98% successfully exceeded the 75% consensus requirement. According to Chu and Hwang (2008) and Murray and Hammons (1995), if the percentage of expert consensus exceeds or equals 75% ( $\geq$  75%), then the items have met the agreement conditions. In short, all items in the aspect of behavioural observation were accepted and reached expert consensus.



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## **Aspects of Evaluation of Practices**

Table 6: Threshold value of each item ('d' item), aspect threshold value ('d' aspect), defuzzification value (αcut) and item ranking in the evaluation of practices aspect

	HTHA1	HTHA2	HTHA3
Result	Asking parents/friends/others to criticise the unsatisfactory behaviour I do.	Asking parents/friends/others to criticise the unsatisfactory behaviour I do.	Following evaluation of practices by oneself and decide whether it implies reward or sin
Expert 1	0.0165	0.02062	0.00825
Expert 2	0.0165	0.02062	0.00825
Expert 3	0.0165	0.02062	0.00825
Expert 4	0.0165	0.02062	0.00825
Expert 5	0.04124	0.02062	0.00825
Expert 6	0.0165	0.02062	0.00825
Expert 7	0.0165	0.02062	0.00825
Expert 8	0.04124	0.02062	0.00825
Expert 9	0.0165	0.02062	0.00825
Expert 10	0.0165	0.02062	0.00825
Expert 11	0.04124	0.02062	0.04949
Expert 12	0.0165	0.02062	0.00825
Expert 13	0.04124	0.02062	0.04949
Expert 14	0.0165	0.02062	0.00825
Item 'd' value	0.02357	0.03829	0.01414
The value of the 'd' aspect		0.02533	
item < 0.2	14	13	14
% per item <0.2	100%	92%	100%
Consensus Percentage %		97%	
Defuzzification (α-cut)	0.97143	0.96429	0.98571
Ranking	2	3	1
Status	Accepted	Accepted	Accepted

Conditions:

(1) Threshold value 'd'  $\leq 0.2$ ,

(2) Expert Panel Consensus Percentage  $\geq 75\%$ ,

(3) All Defuzzification ( $\alpha$ -cut) values for each item exceeded the value of 0.5 ( $\alpha$ > 0.5).

In Table 6, a value of 'd' is highlighted black because it exceeded the threshold of 0.2 (> 0.2). It symbolised that there were different expert opinions on HTHA2 items. Nevertheless, the average item 'd' threshold value on that item (0.03829) was less than 0.2 (<0.2), which exceeded the required condition. Similarly, the mean threshold value 'd' of the evaluation items on the aspect of the practices was less than the value of 0.2 (0.02533). If the threshold value 'd' is less than 0.2, the item has reached an excellent expert consensus (Cheng & Lin, 2002; Chang et al., 2011). Besides, the consensus percentage was 97%, successfully surpassing the 75% consensus requirement. Chu and Hwang (2008) and Murray and Hammons (1995)



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maintained that if the percentage of expert consensus exceeds or equals 75% ( $\geq$  75%), then the items have met the agreement conditions. Therefore, all items in evaluation on practices aspect were accepted and reached expert consensus and arranged in order of priority.

## Hisbah Elements of Lust

This element was formed from one aspect: the aspect of overcoming lust.

## Aspects of The Overcoming the Lust

Table 7: Threshold values of each item ('d' items), aspect threshold values ('d' aspects), defuzzification values  $(\alpha$ -cut) and item ranking in the fighting the lust aspect

	HNTN1	HNTN2	HNTN3	HNTN4	
	Striving to stay	Reprimanding oneself	Fighting the	Avoiding	
Result	away from	when easily deceived	laziness in	showing off	
	immoral things such as	by the urge to do immoral things.	oneself.	newly acquired gifts.	
	backbiting.	minorai unings.		gints.	
Expert 1	0.00	0.00412	0.00	0.00	
Expert 2	0.00	0.00412	0.00	0.00	
Expert 3	0.00	0.00412	0.00	0.00	
Expert 4	0.00	0.00412	0.00	0.00	
Expert 5	0.00	0.00412	0.00	0.00	
Expert 6	0.00	0.00412	0.00	0.00	
Expert 7	0.00	0.00412	0.00	0.00	
Expert 8	0.00	0.00412	0.00	0.00	
Expert 9	0.00	0.00412	0.00	0.00	
Expert 10	0.00	0.00412	0.00	0.00	
Expert 11	0.00	0.00412	0.00	0.00	
Expert 12	0.00	0.00412	0.00	0.00	
Expert 13	0.00	0.05361	0.00	0.00	
Expert 14	0.00	0.00412	0.00	0.00	
Item 'd' value	0.00	0.00766	0.00	0.00	
The value of the 'd'					
aspect	0.00191				
item < 0.2	14	14	14	14	
% per item <0.2	100%	100%	100%	100%	
Consensus Percentage %	100%				
Defuzzification (a-cut)	1	0.99286	1	1	
Ranking	1	2	1	1	
Status	Accepted	Accepted	Accepted	Accepted	

Conditions:

(1) Threshold value 'd'  $\leq 0.2$ ,

(2) Expert Panel Consensus Percentage  $\geq$  75%,

(3) All Defuzzification ( $\alpha$ -cut) values for each item exceeded the value of 0.5 ( $\alpha$ > 0.5).



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The principal conditions of FDM analysis are the threshold value 'd', the percentage of expert consensus, and the defuzzification value ( $\alpha$ -cut). Based on table 7, all the average values of the threshold 'd' obtained either on the item (0.00, 0.00766, 0.00, 0.00) and on the aspect/element (0.00191) were less than 0.2, confirming that the main condition was met. If the threshold value of 'd' is less than or equal to  $\leq 0.2$ , then one aspect of consensus has been reached (Cheng & Lin, 2002; Chang et al., 2011). The percentage of consensus obtained was 100% which exceeded the percentage set  $\geq$  75%. If the percentage of consensus exceeds  $\geq$  75%, then agreement has been reached (Chang 2011; Chu & Hwang 2008; Murray & Hammons 1995). The third condition that needs to be met is that the defuzzification value ( $\alpha$ -cut) should exceed 0.5 (> 0.5) (Tang & Wu 2010; Bodjanova 2006). In Table 7, this condition was also satisfied where all defuzzification ( $\alpha$ -cut) values exceeded > 0.5 (1, 0.99286, 1,1). In conclusion, the items in the aspect of overcoming lust reached a consensus and were accepted because they passed all the conditions. Then, the items are arranged according to the ranking according to the highest  $\alpha$ -cut value as in Table 7.

## CONCLUSION

Ergo, based on the surveys and analysis conducted on the expert consensus, it confirmed that the agreement's value was at an excellent level. The elements and items of *hisbah* of heart and soul, *hisbah* of lust, and *hisbah* of behaviour reached a percentage of expert consensus exceeding 75%. The value of 'd' of the element and item also satisfied the condition that its value was less than 0.2 (< 0.2). While the value of defuzzification ( $\alpha$ -cut) also met the condition that exceeded the value of 0.5 (> 0.5). Therefore, all three (3) elements and twenty (20) items of the self-*hisbah* constructs reached expert consensus. This study has successfully answered the research question where the data of the research established that there was expert consensus on the factor of self-*hisbah*, which is one of the essential facets in influencing the moral appreciation of Muslim students and a principal component that needs to be included in the Model of Moral Appreciation of Muslim Students' secondary schools in Malaysia.

This investigation contributes to the theory of *hisbah*. Internal *hisbah* implies the power to act emerges from oneself due to a process of self-evaluation known as *hisbah*. The practice of self-*hisbah* produces a consistently disciplined person who strives to do good and refrain from doing evil in his daily life as a student. This theory is germane to be included in the Model of Moral Appreciation of Muslim Students' secondary schools in Malaysia. A quantitative study is appropriate to be performed on secondary school students throughout Malaysia to analyse the usability of the model. This study advocates the research of Mardzelah (2013) and Fairuzzah (2018), which demonstrated that applying the notion of *hisbah* discovered in Islam could augment the appreciation of morality among students.

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