

## **APPLICATION OF FUZZY DELPHI METHOD IN DEVELOPING A CONSTRUCT OF THE MALAYSIAN ARMED FORCES SPIRITUAL ASSESSMENT**

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### **Abstract**

In line with the Strategic Management System Plan of the Malaysian Armed Forces 2021 – 2025, the spiritual aspect in the core values to develop defence human resources are emphasized. Therefore, this research was implemented to develop the construct of the dimension of appreciation of faith in assessing the spirituality of human defence by the panel of experts' agreement in developing the construct of the dimension of the evaluation. The researcher used the Design and Development Research (DDR) approach in producing this study. In the context of this article, the researcher discusses the consensus phase process of a panel of 15 experts on the construct of faith appreciation. The process aims to obtain consensus agreement on the construct of assessment of faith appreciation and determine the position of the items. This process applies the Fuzzy Delphi Method (FDM) based on a 7-point linguistic scale questionnaire. The collected data were subsequently analyzed using fuzzy triangle numbering. The position of each construct was determined using a defuzzification process. The research findings concluded that the expert panel agreed to all items for constructs under the faith appreciation dimension of spiritual evaluation with defuzzification value exceeding a – cut value = 0.5 (threshold value was  $\leq 0.2$  and expert agreement exceeded 75%). Next, the application process of the Fuzzy Delphi method shows that the constructs of belief in Allah, belief in angels, belief in the Quran, belief in the messenger, belief in the hereafter and belief in qada and qadar (fate and destiny) have reached a good agreement. The application process of the FDM has resulted in a consensus construct of the dimension of appreciation of the creed of spiritual evaluation. Therefore, it can contribute to developing the dimension of spiritual evaluation of the Malaysian military.

**Keywords:** Islamic Spirituality, Fuzzy Delphi Method, Expert Consensus, Malaysian Armed Forces

### **Introduction**

The Malaysian Armed Forces (MAF), as the country's defence leader, has gone through various eras of development and transformation in line with technological advancements and strategic environmental conditions. Consistent efforts are required to form a credible, balanced and highly capable force in carrying out the role of defending the territorial sovereignty of this country. It is argued by Daud (2017) that building military strength is not only specific to equipment and physicality alone, but it encompasses the spiritual questions that shape the soul characters of a Muslim soldier. It is contained in the advice of Allah SWT through surah 8 verse 60, which means:

*And prepare against them (the invading enemies) from all kinds of strength that you can provide and from the complete cavalry ready to frighten with that preparation the enemies of Allah and your enemies and other enemies of those whom you do not know, while Allah knows. Whatever you spend in the way of Allah will be repaid to you in full, and you will not be wronged.*

Islamic Spirituality is something that is intangible, and it needs to be focused on to make the Malaysian Armed Forces a respected force (Aziz et al., 2021; ATM, 2020). The internal aspects of a soldier are also intangible and abstract, which need to be translated and then validated empirically through systematic and objective observation to obtain a benchmark. To determine whether military personnel have high intangible

aspects, each weakness and strength needs to be evaluated to be used as a benchmark towards achieving the desired mission and objectives (Aziz, 2021; Hashim, 1999).

**Literature Review**

From the literature, it is found that according to Teoh (2006), among the indicators of internal problems of defence men is the occurrence of negative external disorders related to defence man such as misconduct, disciplinary cases and negative case symptoms. This can also be evidenced through foreign studies such as in the Netherlands, by Gelooven (2007), in Belgium, by Francois (2006), and in Australia. by Goyne (2004). The imbalance in assessing and measuring internal and external aspects in MAF causes the internal aspects of defence resources unable to be assessed and viewed systematically. It can be shown in the assessment of external aspects (tangible) in the form of MAF materials that assess and measure combat power, mobility, communication and firepower. The integration between these internal and external aspects as a systematic measurement is crucial to make ATM an excellent organization (Affendi, 2021; Kwong, 2015). A systematic indicator of the internal (intangible) aspects of spirituality to the core values of MAF was also provided (Aziz et al., 2021; MK ATM, 2020). According to Bujai & Hashim (2015), the existence of an instrument in assessing and measuring the internal (intangible) aspects of human defence includes the spiritual. It is a determining factor resembling a force driving a member, making him brave and full of enthusiasm to fight without fear, weakness or desperation (Jab Arah KAGAT, 2020).

Therefore, this research aims to obtain an agreement among the experts' panel on the validation of the construct for the dimension of faith appreciation in assessing the spirituality of the Malaysian military. The study's objective is to obtain experts' agreement on the construct items for the dimension of appreciation of faith and determine the position of the arrangement of items in the construct.

**Methodology**

In this research, the researcher uses the Design and Development Research (DDR) approach based on Richey & Klein (2007), involving three main phases: the needs analysis phase, design phase and evaluation phase.

**a) Research Design**

In the context of this article, the researcher only discusses the process in the second phase, which is the design and development phase. This process involves the application of the Fuzzy Delphi Method (FDM) based on a questionnaire using a 7-point linguistic scale. According to Antony et al. (2020), relying on literature highlights that FDM is a combination between traditional (classical) Delphi methods and Fuzzy (fuzzy) set theory. Thus, according to Ragin (2009), a mathematical expert Lotfi Zadeh in 1965 introduced the Fuzzy set theory. It serves as an extension of the classical set theory, where each element in each set is evaluated based on a binary set (Yes or No). Here, values for Fuzzy numbering range from 0 to 1 or in the interval for (0, 1).

**b) Research Sample**

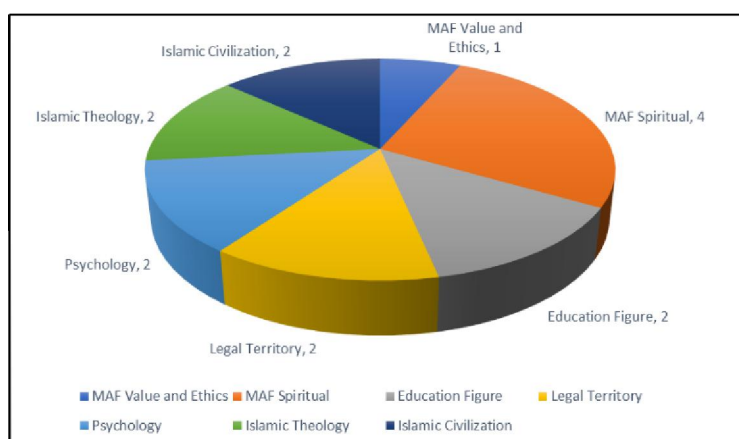
The researcher involves a panel of 15 field experts in shaping the dimensions and constructs of MAF spiritual evaluation. This is consistent with the number of field experts suggested by Adler & Ziglio (1996) and Delbecq et al. (1975), which is 10 to 15 experts. Meanwhile according to Fairuzzah et al. (2016), panel selection can also be made based on the status of experts in their professional field experience. Therefore, the selection of expert panels should meet the criteria as prescribed (Marzuki & Ghani, 2007). The number of experts and positions are shown in Table 1 and are explained in Figure 1.

Table 1: Experts Involved In The Application Process Of The Fuzzy Delphi Method

Cluster of Expertise	Total	Academic Qualifications
MAF Value and Ethics	1	Master
MAF Spiritual	4	Bachelor & Master
Education Figure	2	Doctor of Philosophy
Legal Territory	2	Doctor of Philosophy
Islamic Theology	2	Doctor of Philosophy
Psychology	2	Doctor of Philosophy

Islamic Civilization	2	Doctor of Philosophy
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Figure 1: Experts Involved In The Fuzzy Delphi Process



**c) Data Collection Procedures**

The researcher implemented data collection steps and processes in this study based on the Fuzzy Delphi method (Saedah et al., 2020; Mohd Ridhuan et al., 2014; and Syamsul Nor Azlan et al., 2015). In step 1, questions for a fuzzy Delphi questionnaire based on field expert interviews in the first round are formulated. A 7-point linguistic Likert scale was used for this questionnaire to measure the level of consensus agreement of field experts. In step 2, online meetings with 15 experts were executed in related fields of study to determine the importance of evaluation criteria on the variables to be measured using linguistic variables. Finally, in step 3, all linguistic variables were converted into fuzzy triangular numbers. This is done by assuming that the fuzzy number  $r_{ij}$  is a variable for each criterion for expert K for  $i = 1, \dots, m, j = 1, \dots, n, k = 1, \dots$ , and  $r_{ij} = 1/K (r_{2ij} + r_{1ij} - r_{2ij} - r_{1ij})$ . Table 2 shows the levels of agreement for the linguistic eye scale.

Table 2: Level of Consent and Fuzzy Scale for 7 Points

Linguistic variables	Likert scale	Fuzzy scale
Totally disagree	1	(0.0, 0.0, 0.1)
Strongly disagree	2	(0.0, 0.1, 0.3)
Disagree	3	(0.1, 0.3, 0.5)
Moderate agree	4	(0.3, 0.5, 0.7)
Agree	5	(0.5, 0.7, 0.9)
Strongly agree	6	(0.7, 0.9, 1.0)
Totally agree	7	(0.9, 1.0, 1.0)

**d) Value Threshold ( $d \leq 0.2$ )**

Condition 1 involves the value of threshold (d). To measure expert group agreement, the resulting threshold value (d) must be smaller or equal to the value of 0.2. In the context of this study, three decimal points were used. Then, each item containing a threshold value (d) that does not reach a value of 0.3 and above will be translated as "accepted based on experts agreement" (Mohd Ridhuan & Nurulrabihah, 2020; Mohd Ridhuan, Saedah, Zaharah, Nurulrabihah & Ahmad Arifin, 2019; 2017; 2014; Cheng & Lin, 2002; Chen, 2000). The determination of the value of this threshold (d) is based on the following formula:

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

**e) Percentage of Expert Consensus  $\geq 75\%$**

Condition 2 involves the percentage of expert group agreement. This condition is based on the traditional Delphi method approach, where the value of this percentage is determined based on the number of items containing threshold value (d) that does not reach a value of 0.3 and above. This means that each item with a threshold value (d) equal to or less than 0.2 will be accepted and converted to a percentage value based on the traditional Delphi method. For example, the use of 75% selected based on the number of experts agreed is 3/4 of the total number of experts (Mohd Ridhuan & Nurulrabihah, 2020; Mohd Ridhuan, Saedah, Zaharah, Nurulrabihah & Ahmad Arifin, 2019; 2017; 2014; Ramlan & Ghazali, 2018; Shubashini, G., Izran Sarrazin, M., Jawahar, NL, Abdul Hakim, M., Gunavathy, K, 2015; Chu & Hwang, 2008; Murry & Hammons, 1995).

**f) Fuzzy Evaluation Skor Fuzzy(A)  $\geq$  value  $\alpha$  – cut = 0.5**

In Condition 3, the determination of the value of fuzzy score (A) is based on the value of a - cut, which is 0.5. If the fuzzy score value (A) is less than 0.5, then the measured item is rejected based on the agreement of the expert group. On the other hand, if the value is equal to 0.5 and above, then it is accepted based on the agreement of the expert group (Mohd Ridhuan & Nurulrabihah, 2020; Mohd Ridhuan, Saedah, Zaharah, Nurulrabihah & Ahmad Arifin, 2019; 2017; 2014; Tang & Wu, 2010; Bodjanova, 2006). Furthermore, the process of determining the position and priority of items can be performed where the highest fuzzy score value (A) is considered to be in the first position. The determination of the value of the Fuzzy (A) score is based on the following formula:  $A = (1/3) * (m_1 + m_2 + m_3)$ .

**Findings and Discussion**

**a) Construct of Faith in Allah**

The findings show that all item statements for Construct of Faith in Allah were accepted by the expert panel with more than the percentage of experts  $\geq 75\%$  and threshold value  $\leq 0.2$  and Fuzzy Score (A)  $\geq$  value  $\alpha$  – cut = 0.5. The results are portrayed through Table 3.1 (5 items aspects of feelings) and Table 3.2 (5 items aspects of actions).

Table 3.1: Table of Constructs of Belief in Allah (feeling)

Subconstruct Feeling	Condition Triangular Fuzzy Numbers		Condition Fuzzy Evaluation Process			Expert Consensus	Ranking
	Value Threshold, d, d	Expert Consensus, %	m1	m2	m3		
Success depends on the pleasure of Allah.	0.248	86.7%	0.740	0.873	0.927	0.847	Accept 5
The purpose of being in this world is to dedicate oneself to Allah.	0.135	86.7%	0.807	0.933	0.973	0.904	Accept 3
Calm when trusting in Allah.	0.049	100.0%	0.860	0.980	1.000	0.947	Accept 1
Be careful in belief, speech and deeds so as not to be included in polytheism to Allah.	0.138	93.3%	0.793	0.927	0.973	0.898	Accept 4
Feel the presence of Allah with us.	0.096	93.3%	0.847	0.960	0.980	0.929	Accept 2

Table 3.2: Table of Constructs of Belief in Allah (deed)

Subconstruct Deed	Condition Triangular Fuzzy Numbers		Condition Fuzzy Evaluation Process			Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3		
Think about the creation of Allah that is	0.246	86.7%	0.747	0.873	0.927	0.849	Accept 5

around us.									
Invite my friend to always believe in Allah.	0.166	86.7%	0.780	0.913	0.960	0.884	Accept	4	
Be careful with the actions taken because you believe that Allah is all Seeing.	0.105	93.3%	0.833	0.953	0.980	0.922	Accept	1	
Ensuring that daily actions do not associate partners with Allah.	0.135	86.7%	0.807	0.933	0.973	0.904	Accept	2	
Doing all good deeds because of Allah.	0.159	93.3%	0.793	0.920	0.967	0.893	Accept	3	

Table 3.1 and Table 3.2 show each item's position (ranking) in the construct to be arranged according to priority in the dimension of faith in Allah that will be conducted in the third phase of the study, namely the phase of pilot evaluation and survey.

### b)The Construct of Belief in Angels

Meanwhile, for the item of the construct of belief in angels, it shows that three items have been rejected by the experts' panel, namely item "*I feel angels will help my affairs*", "*I am sure when I do good deeds, then angels will be by my side*", and "*I enjoy reading the story of the existence of angels*". All three items were rejected based on the findings showing that the percentage of experts was less than 75%, while the threshold value exceeded 0.2. Meanwhile, two items were retained based on the percentage of experts  $\geq 75\%$  and a threshold value of  $\leq 0.2$ . This is explained in Table 3.3 (aspects of feelings of belief in angels).

Table 3.3: Constructs of Belief in Angels (feeling)

Subconstruct Feeling	Condition Fuzzy Numbers	Triangular Expert Consensus,	Condition Fuzzy Evaluation			Expert Consensus	Ranking	
	Value Threshold, d	Expert Consensus, %	m1	m2	m3			Score Fuzzy (A)
Believing in the existence of angels caused me to be vigilant in life.	0.186	86.7%	0.793	0.913	0.953	0.887	Accept	1
I'm sure the angels will assure my prayers to Allah.	0.249	80.0%	0.753	0.880	0.927	0.853	Accept	2
Feel the angels will help my affairs.	0.422	13.3%	0.593	0.727	0.813	0.711	Reject	-
Convinced that when I do good deeds, then the angels will be by my side.	0.429	13.3%	0.633	0.753	0.820	0.736	Reject	-
Enjoy reading the story of the existence of angels.	0.396	46.7%	0.553	0.693	0.800	0.682	Reject	-

Table 3.4: The Construct of Belief in Angels (deed)

Subconstruct Deed	Condition Fuzzy Numbers	Triangular Expert Consensus,	Condition Fuzzy Evaluation			Expert Consensus	Ranking
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	Value Threshold, d	Expert Consensus, %	m1	m2	m3	Score Fuzzy (A)		
Be careful when doing deeds because the angels Raqib and Atid record all deeds.	0.049	93.3%	0.873	0.980	0.993	0.949	Accept	1
Beware of sinful deeds because the angels of Munkar and Nakir will ask me in the grave.	0.100	86.7%	0.833	0.953	0.987	0.924	Accept	2
Give alms at dawn to get the prayers of the angels.	0.331	73.3%	0.653	0.793	0.873	0.773	Reject	-
Trying to pray for a friend without her knowing so that even the angels would pray for me.	0.319	66.7%	0.660	0.807	0.887	0.784	Reject	-

Similarly, for the item of the construct involving faith in angels in the aspect of deeds, it shows that two items have been rejected by the experts' panel, namely, items "*I give alms at dawn to get the prayers of the angels*" and "*I tried to pray for a friend without his knowledge so that even the angels would pray for me*". These items were rejected based on the findings of threshold values exceeding 0.2, even though the percentage of experts exceeded 75%. Meanwhile, two items were retained based on the percentage of experts  $\geq 75\%$  and a threshold value of  $\leq 0.2$ , as explained in Table 3.4 (aspects of the act of faith in angels). Tables 3.3 and 3.4 also show each item's position (ranking) in the construct, sorted in order of priority.

### c)The Construct of Faith to the Messenger

Meanwhile, the item of the construct of faith to the messenger (feeling) shows that there is one item that has been rejected by the experts' panel, namely the item "*I enjoyed hearing the stories of the prophets and apostles*". This item was rejected based on the finding of a threshold value exceeding 0.2, even though the expert percentage value exceeded 75%. Meanwhile, other items were retained based on the percentage of experts 75% and a threshold value of  $\leq 0.2$ , as explained in Table 5.3.1.

Table 3.5: Constructs of Faith in the Prophet (feeling)

Subconstruct Feeling	Condition Triangular Fuzzy Numbers		Condition Fuzzy Evaluation			Expert Consensus	Ranking	
	Value Threshold, d	Expert Consensus, %	m1	m2	m3			Score Fuzzy (A)
Convinced that the morals of the Prophet Muhammad SAW are in line with the Qur'an.	0.137	93.3%	0.820	0.940	0.967	0.909	Accept	2
It was fun to hear the stories of the prophets and messengers.	0.324	80.0%	0.653	0.793	0.880	0.776	Reject	-
Glad to belong to the ummah of Prophet Muhammad S.A.W.	0.262	86.7%	0.713	0.853	0.920	0.829	Accept	6
Convinced that all prophets are bearers of good news and warnings in giving motivation in	0.205	86.7%	0.740	0.880	0.947	0.856	Accept	5

life.									
Happy to be able to love the Prophet Muhammad SAW more than parents, children and others.	0.138	93.3%	0.780	0.920	0.973	0.891	Accept	3	
Aware of all the prophets, invite people to practice teachings in accordance with human nature.	0.049	100.0%	0.860	0.980	1.000	0.947	Accept	1	
Angry when hearing insults against the Prophet and messengers.	0.214	93.3%	0.800	0.907	0.933	0.880	Accept	4	

Table 3.6: Construct of Faith in the Prophet (deed)

Subconstruct Deed	Condition Triangular Fuzzy Numbers		Condition Fuzzy Process			Evaluation Score Fuzzy (A)	Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3			
Trying to salute the Prophet Muhammad SAW every time his name is mentioned.	0.083	93.3%	0.833	0.960	0.993	0.929	Accept	1
Trying to understand the hadiths of the Prophet SAW.	0.224	80.0%	0.700	0.853	0.933	0.829	Accept	3
Strive to practise the sunnah of the Prophet SAW.	0.138	93.3%	0.793	0.927	0.973	0.898	Accept	2
Strive to increase the number of Salawat to the Prophet Muhammad SAW in one day.	0.257	80.0%	0.660	0.820	0.913	0.798	Accept	4

Nevertheless, the construct item of faith to the apostle for the acting aspect showed that all items were accepted in consensus by the experts' panel and maintained based on the percentage of experts  $\geq 75\%$  and threshold value  $\leq 0.2$ . It is explained through Table 3.6 (aspects of the act of faith to the apostle). Tables 3.5 and 3.6 also shows the position (ranking) of each item received in the construct to be sorted in the order of priority.

**d)The Construct of Belief in the Quran**

On the findings for the construct of belief in the Quran (feelings), it was found that 1 item was rejected by the expert panel, namely the item "I was sad to see people chatting while the recitation of the Quran was being recited". This item was rejected based on the finding of a threshold value exceeding 0.2, even though the expert percentage value exceeded 75%. Meanwhile, other items were retained based on the percentage of experts 75% and a threshold value of  $\leq 0.2$ , as explained in Table 3.7.

Table 3.7: The Construct of Belief in the Quran (feeling)

Subconstruct Feeling	Condition Triangular Fuzzy Numbers		Condition Fuzzy Process			Evaluation Score Fuzzy (A)	Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3			

Angry when there is an insult to the verses of the Quran.	0.111	86.7%	0.807	0.94 0	0.987	0.91 1	Accept	2
Convinced that the teachings of the Quran can shape a good human personality.	0.049	100.0%	0.860	0.98 0	1.000	0.94 7	Accept	1
It is sad to see people chatting while the recitation of the Quran is being recited.	0.330	33.3%	0.600	0.75 3	0.860	0.73 8	Reject	-
Convinced that the Quran should be practised in life.	0.137	93.3%	0.820	0.94 0	0.967	0.90 9	Accept	3
Calm down when reading the Quran.	0.137	93.3%	0.820	0.94 0	0.967	0.90 9	Accept	3
Calm down when listening to the recitation of the Quran.	0.137	93.3%	0.820	0.94 0	0.967	0.90 9	Accept	3
Happy to be able to read the Quran every day.	0.142	93.3%	0.807	0.93 3	0.967	0.90 2	Accept	4

Table 3.8: The Construct of Belief in the Quran (deed)

Subconstruct Deed	Condition	Triangular	Condition Fuzzy			Evaluation	Expert Consensus	Ranking
	Fuzzy Numbers	Expert	Process		Score			
	Value	Consensus,	m1	m2	m3	Fuzzy (A)		
Be silent when listening to the recitation of the Qur'an.	0.273	80.0%	0.700	0.840	0.913	0.818	Accept	2
Come early to the tafsir lecture to deepen the knowledge of the Qur'an.	0.231	86.7%	0.673	0.833	0.927	0.811	Accept	4
Trying to learn the science of tajwid to improve the recitation of the Qur'an.	0.166	93.3%	0.767	0.907	0.960	0.878	Accept	1
Help a friend read the Quran.	0.290	80.0%	0.700	0.840	0.907	0.816	Accept	3
Ask in Quran class.	0.239	86.7%	0.660	0.820	0.920	0.800	Accept	5

Nevertheless, the items of the construct involving faith to the scriptures for the subconstruct of deeds showed that all items were accepted with consensus by the panel of experts and maintained based on the percentage of experts  $\geq 75\%$  and threshold value  $\leq 0.2$ . It is explained through Table 3.8 (aspects of the act of belief in the Quran). Furthermore, Tables 3.7 and 3.8 show that the position (ranking) of each item received in the construct is arranged in the order of priority.

#### e)The Construct of Belief in the Hereafter

Based on the findings, all of the construct's items about belief in the hereafter were accepted by the experts' panel, exceeding the percentage of experts  $\geq 75\%$ , threshold value  $\leq 0.2$ , and Fuzzy Score (A)  $\geq a - cut = 0.5$ . It is explained through Table 3.9 (5 items aspects of feelings) and Table 3.10 (4 items aspects of actions).

Table 3.9: The Construct of Belief in the Hereafter (feeling)



Subconstruct Feeling	Condition Fuzzy Numbers	Triangular	Condition Fuzzy Process			Evaluation	Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3	Skor Fuzzy (A)		
Be careful in life because everything will be repaid in the hereafter.	0.152	100.0%	0.767	0.907	0.973	0.882	Accept	3
Convinced that every good and bad deed of human beings will be rewarded in the hereafter.	0.063	93.3%	0.860	0.973	0.993	0.942	Accept	1
Horrible when informed of the punishment in the grave before the hereafter.	0.159	93.3%	0.780	0.913	0.967	0.887	Accept	2
Calm down when every good deed I do will be rewarded in the hereafter.	0.236	86.7%	0.740	0.873	0.933	0.849	Accept	5
Be aware of the existence of the hereafter when remembering death.	0.180	93.3%	0.767	0.900	0.960	0.876	Accept	4

Table 3.10: The Construct of Belief in the Hereafter (deed)

Subconstruct Deed	Condition Fuzzy Numbers	Triangular	Condition Fuzzy Process			Evaluation	Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3	Score Fuzzy (A)		
Be careful in my actions when thinking about death because it will be repaid in the hereafter.	0.278	80.0%	0.713	0.847	0.913	0.824	Accept	4
Doing pious deeds for the life of the hereafter.	0.111	100.0%	0.780	0.927	0.987	0.898	Accept	1
Advise a friend to remember that all deeds in the world will be rewarded in the hereafter.	0.217	93.3%	0.713	0.860	0.940	0.838	Accept	3
Advise my family to always be careful in life because good and bad deeds will be rewarded in the	0.188	93.3%	0.767	0.900	0.953	0.873	Accept	2

hereafter.

Tables 3.9 and 3.10 show the position (ranking) of each item in the construct arranged according to priority in the dimension of faith to the hereafter. This will be conducted in the third phase of the study, which is the survey and actual evaluation phase.

**f)The Construct of Belief in Qada and Qadar (Fate and Destiny)**

On the findings for the construct of belief in qada and qadar (feeling), it was found that all items were accepted and maintained by the expert panel based on the percentage of experts  $\geq 75\%$  and threshold value  $\leq 0.2$ , as explained in Table 3.11.

Table 3.11: The Construct of Belief in Qada and Qadar (feeling)

Subcontract Feeling	Condition Fuzzy Numbers	Triangular	Condition Fuzzy Process			Evaluation	Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3	Score Fuzzy (A)		
Accept with the sustenance that Allah gave us.	0.163	93.3%	0.807	0.927	0.960	0.898	Accept	1
Determined to increase my faith in all the provisions of Allah for us.	0.208	86.7%	0.753	0.887	0.947	0.862	Accept	3
Calm down with the test of Allah determined against us.	0.209	86.7%	0.767	0.893	0.947	0.869	Accept	2
Happy when a friend receives sustenance and blessings from Allah.	0.236	86.7%	0.740	0.873	0.933	0.849	Accept	5
Will not regret all the provisions of Allah towards us.	0.247	86.7%	0.760	0.880	0.927	0.856	Accept	4

Table 3.12: The Construct of Belief in Qada and Qadar (deed)

Subconstruct Deed	Condition Fuzzy Numbers	Triangular	Condition Fuzzy Process			Evaluation	Expert Consensus	Ranking
	Value Threshold, d	Expert Consensus, %	m1	m2	m3	Score Fuzzy (A)		
Strive to succeed in a career.	0.209	93.3%	0.753	0.887	0.947	0.862	Accept	2
Strive in life because Allah will change our destiny	0.219	86.7%	0.767	0.893	0.940	0.867	Accept	1

by striving.									
Pray to change the destiny that Allah has determined for us.	0.261	80.0%	0.713	0.853	0.920	0.829	Accept	3	
Strive to connect ukhuwah (bond) because such a practice will change the bad destiny of ourselves.	0.386	20.0%	0.607	0.747	0.840	0.731	Reject	-	

Meanwhile, there is one item in the subconstruct of faith to qada and qadar (deeds) that is rejected, namely, "*strive to connect ukhuwah (bond) because the practice will change the bad destiny of myself*". This item was rejected based on the finding of a threshold value exceeding 0.2 and an expert percentage value of less than 75%. Meanwhile, other items were retained based on the percentage of experts 75% and a threshold value of  $\leq 0.2$ , as explained in Table 3.12. Moreover, Tables 3.11 and 3.12 also show the position (ranking) of each item in the construct arranged according to priority in the construct of faith to qada and qadar.

### Conclusion

This research has successfully identified elements in the appropriate dimension of faith appreciation in the design and development of criteria in the spiritual assessment of Malaysian Muslim military personnel. The findings of this study explain that every Muslim member of the MAF needs to master the appreciation dimension of faith from the aspect of feelings that involve confidence in the heart and then applied in life as a daily act or practice. This is also argued by Ismail & Jasmi (2016) and Noordin & Nor'Aini (2002). Furthermore, the inner strength of the aspect of faith will shape and give birth to human character, including human defence in the aspect of morality and noble values embodied in the form of practice in daily life (Azlisham et al., 2021; Jalal, 2017). Therefore, this research aligns with focusing on developing the dimension of faith appreciation, which is the basis for the design and development of MAF spiritual assessment instruments. This research aimed to develop the dimension of faith appreciation of spiritual assessment in MAF using development research design (DDR) involving 15 experts. The FDM was applied to obtain expert agreement on construct instruments under the dimension of faith appreciation. Through the FDM, the ranking of items according to priority in the dimension of faith appreciation is also done. Overall, the panel of experts in the field has reached an agreement on the elements and instruments of the construction of the appreciation of the faith and put it in its proper position. Future studies can also focus on aspects of the dimensions of moral appreciation related to human relationships and nature.

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