

**DETERMINATION OF THE HEALTH ECONOMIC
FACTORS DEMANDED BY THE MALAYSIAN
HAJJ PILGRIMS IN MAKKAH IN 2013**

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HAJJ PILGRIMS IN MAKKAH IN 2013**

by

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TABLE OF CONTENT

Acknowledgement	ii
Table of Content	iv
List of Tables	xii
List of Figure	xv
List of Abbreviations And Acronyms	xvi
Abstrak	xvii
Abstract	xix
CHAPTER 1 : INTRODUCTION.....	1
1.1 Background of the study.....	1
1.1.1 The path of Hajj pilgrimage.....	2
1.1.2 Crowd and issues	6
1.1.3 Incident during Hajj pilgrimage.....	7
1.2 Malaysian and Hajj pilgrims	11
1.2.1 Demographic of Malaysia	11
1.2.2 The Scenario of Malaysian Pilgrims	12
1.2.3 Diseases and health problems during Hajj	14
1.3 Tabung Haji (TH) as a Hajj institution: An overview	15
1.3.1 History of TH.....	16

1.3.2 Services provided by TH during Hajj	19
1.3.2(a) Pre-Hajj sevices	20
1.3.2(b) Services given during Hajj	24
1.3.3 The Hajj institution among Southeast Asian	26
1.4 Health economics and its definition	27
1.4.1 Concepts in Health economics	29
1.4.1(a) Health care as an Economic Good	29
1.4.1(b) Needs, wants and demands in healthcare	29
1.4.1(c) Demand in healthcare	30
1.4.1(d) Shift in demand for healthcare	32
1.4.1(e) Price elasticity of demand	33
1.4.2 Healthcare demand and supply	34
1.5 Problem statement	35
1.6 Conceptual framework	37
1.7 General objective	40
1.7.1 Specific objectives	40
1.8 Research Questions	40
1.9 Research Hypotheses	41
1.10 Significant of Research	41
1.11 Definition of terms	43
CHAPTER 2: LITERATURE REVIEW	45

2.1	History of Hajj pilgrimage.....	45
2.2	Diseases and health problems during Hajj	47
2.2.1	Communicable diseases	48
2.2.2	Non-communicable diseases	51
2.2.3	Risk factors of communicable and non-communicable diseases	54
2.3	Crowd definition	56
2.4	Crowd psychology	57
2.5	Economics and Health Economics	58
2.6	Uniqueness of healthcare.....	61
CHAPTER 3: METHODOLOGY		64
3.1	Study stages	64
3.2	Step 1- Construction of questionnaires	64
3.2.1	Study design	64
3.2.2	Study population	64
3.2.3	Inclusion and exclusion criteria	65
3.2.3(a)	Inclusion criteria	65
3.2.3(b)	Exclusion criteria.....	65
3.2.3(c)	Sample size.....	65
3.2.3(d)	Sampling method.....	66
3.2.3(e)	Research instruments	67
3.2.4	Data Collection For the FGD.....	71
3.2.5	Transcription process	72

3.2.6 Questionnaire: The measuring tool (refer to Appendix D)	75
3.2.6(a) Section A: Socio-demographic and socio-economy pilgrims	76
3.2.6(b) Section B: Pilgrimage information	76
3.2.6(c) Section C: Pilgrims' health status information	76
3.2.6(d) Section D: Healthcare services in Makkah	77
3.2.6(e) The validity of the healthcare services instruments.....	77
3.2.6(f) Reliability of the healthcare services instruments.....	78
3.2.7 Flow chart of study	79
3.3 Step 2- Data collection in Makkah.....	81
3.3.1 Study design	81
3.3.2 Study population	81
3.3.3 Inclusion and exclusion criteria	82
3.3.3(a) Inclusion criteria	82
3.3.3(b) Exclusion criteria.....	82
3.3.4 Sample size	82
3.3.5 Sampling method	83
3.3.6 Data collection	84
3.3.7 Research tools instruments	84
3.3.8 Data analysis	86
3.3.8(a) Statistical software and significant level.....	86
3.3.8(b) Data exploration and normality testing.....	86
3.3.8(c) Descriptive analysis	87
3.3.8(d) Pearson Chi-square and Fisher's Exact test	87

3.3.8(e) Exploratory Factor Analysis (EFA) and reliability	88
3.3.8(f) Multiple logistic regression (MLR) analysis	90
3.4 Study limitation.....	93
CHAPTER 4: RESULTS	94
4.1 Phase 1: Construction of questionnaire	94
4.1.1 FGD.....	94
4.1.2 Nvivo.....	94
4.1.2(a) Theme 1: Health problems during Hajj	96
4.1.2(b) Theme 2: Causes of Health problem	100
4.1.2(c) Theme 3: Location where the pilgrims perceived most of their health problems	102
4.1.2(d) Theme 4: Demand	103
4.1.2(e) Theme 5: Supply.....	112
4.1.3 Validity and Reliability of Questionnaire	117
4.1.3(a) Exploratory Factor analysis (EFA).....	117
4.1.3(b) Results of the second step of EFA.....	119
4.1.3(c) Results of the third and fourth steps of EFA.....	121
4.1.3(d) Results of the fifth and six steps of EFA	122
4.1.3(e) Results of the final round of EFA.....	124
4.1.3(f) Summary and reliability of the instrument	126
4.2 Phase 2: Data collection in Makkah.....	127
4.2.1 Introduction	127
4.2.2 Socio-demographic and socio-economic of the respondents	127

4.2.2(a) The pilgrimage information during Hajj.....	128
4.2.3 The Respondent's Health Status	130
4.2.3(a) Causes of health problems	133
4.2.3(b) Location where the pilgrims experienced the most health problems	134
4.2.4 Healthcare and services during Hajj	135
4.2.4(a) Suggestions by the pilgrim on healthcare services	136
4.2.4(b) Pilgrims' opinion on healthcare services in Makkah	139
4.2.5 The association between the types of diseases and the locations within the Hajj season.....	143
4.2.5(a) Types of diseases perceived by the pilgrims in Mina.....	146
4.2.6 Relationship between age categories and the types of diseases	147
4.2.7 Relationship between the types of diseases and gender.....	149
4.2.8 Relationship between underlying diseases with gender and problems during Hajj season.....	150
4.2.9 Relationship between underlying diseases and the age categories	153
4.2.10 The relationship between demands for healthcare services and types of diseases	154
4.2.11 The relationship between the types of healthcares services and communicable diseases	156
4.2.12 The relationship between the types of public services and communicable diseases and problems during Hajj.....	157
4.2.13 Health economic factors associated to pilgrim's health status	159
4.2.13(a) Factors associated with the problems during Hajj season.....	159

4.2.13(b) Factors associated to the communicable diseases during Hajj season	164
4.2.13(c) Factors associated to the non-communicable diseases during Hajj season.....	168
4.2.13(d) Factors associated to both communicable and non-communicable diseases during Hajj season.....	172
4.2.14 The summary of health economic factors (demand) associated to the types of diseases in Makkah	177
CHAPTER 5: DISCUSSION	178
5.1 Summary and key finding of the study	178
5.2 Socio-demographic and socio-economics characteristics	178
5.3 Respondents' Health Status Information.....	180
5.4 Healthcare and Services Demanded During Hajj	184
5.5 The relationship between types of diseases and the locations within the Hajj season	185
5.6 Health economics factors related to the health demand among Malaysian pilgrims.....	188
5.7 Recommendation	194
CHAPTER 6: CONCLUSION	196

APPENDICES

Appendix A Ethical Approval letter from Human Ethics Committee of Universiti Sains Malaysia

Appendix B Written informed consent (Focus Group Discussion)

(Borang maklumat dan keizinan peserta semasa Perbincangan Kumpulan Berfokus)

Appendix C Written informed consent (Data collection in Makkah)

(Borang maklumat dan keizinan peserta semasa pengumpulan data di Makkah)

Appendix D Questionnaire *(Borang soalselidik kajian)*

Appendix E Sony Handycam

LIST OF PUBLICATIONS

LIST OF ORAL PRESENTATIONS

LIST OF TABLES

	Page
Table 3.1: Participants' criteria during focus group discussion (FGD)	66
Table 3.2: The List of Questions During FGD	70
Table 3.3 Broad domain	73
Table 4.1: Themes and sub-themes of pilgrims' experience during Hajj	95
Table 4.2: KMO and Bartlett's Test for the correlation matrix on 13 items	118
Table 4.3: Factor Eigenvalue	118
Table 4.4: Pattern matrix with 3 factors solution of 13 items (step 2).....	120
Table 4.5: Pattern matrix with 3 factors solution of 12 items (step 3).....	121
Table 4.6: Pattern matrix with 3 factors solution of 11 items (step 4).....	122
Table 4.7: Pattern matrix with 3 factors solution of 10 items (step 5).....	123
Table 4.8: Pattern matrix with 3 factors solution of 9 items (step 6)	124
Table 4.9: Pattern matrix with 3 factors solution of 8 items (step 7)	125
Table 4.10: Extracted factors, factor loading, communalities and reliability	126
Table 4.11: Socio Demographic and Socio-Economic of Malaysian Hajj Pilgrims (N=370 respondents)	128
Table 4.12: The pilgrimages' information while in Makkah	130
Table 4.13: Health Status Information	132
Table 4.14: Healthcare and services during Hajj (n=370 respondents)	136
Table 4.15: The frequency of pilgrim's suggestions on healthcare services	138
Table 4.16 : Pilgrim's opinion about healthcare services in Makkah.....	141
Table 4.17: The association between types of diseases and the locations within	

Hajj season (Mina, Wukuf at Arafah, Tawaf and Sa'i)	144
Table 4.18: Types of diseases perceived by pilgrims in Mina	146
Table 4.19: The relationship between types of diseases received during Hajj with age categories (n=353)	148
Table 4.20: The relationship between the types of diseases and gender	149
Table 4.21: Relationships between underlying diseases with gender and problems during Hajj season	151
Table 4.21(a): Relationships between underlying diseases with problems during Hajj season	152
Table 4.22: The relationship between underlying diseases and age	153
Table 4.23: The relationship between the types of service demands and the types of diseases	155
Table 4.24: The relationships between types of healthcares services and communicable diseases	156
Table 4.25: The relationship between public services demand and communicable diseases and problems during Hajj	158
Table 4.26: Associated factors of problems during Hajj season by simple and multiple logistic regression	162
Table 4.27: Associated factors of communicable diseases during Hajj season by simple and multiple logistic regression model	166
Table 4.28: Associated factors of non-communicable diseases during Hajj season by simple and multiple logistic regression model	170
Table 4.29 : Factors associated to both (communicable & non-communicable diseases during Hajj season from simple logistic	174

Table 4.30: The summary of health economic factors (demand) associated to the
types of diseases in Makkah..... 177

LIST OF FIGURE

	Page
Figure 1.1: The pilgrimage route	5
Figure 1.2: Demand curve	31
Figure 1.3: Conceptual framework of research study	39
Figure 3.2: Theme and categories	74
Figure 3.3: Flow chart of the study	80
Figure 4.1: Scree plot of EFA with three factors on 13 items	119
Figure 4.2: The frequency of the perception of the causes of health problems.....	134
Figure 4.3: The location where the pilgrims experienced the most health problem.....	135
Figure 4.4: The pilgrims' suggestions for the improvement of healthcare services (52%) in terms of health personnel.	139

LIST OF ABBREVIATIONS AND ACRONYMS

(pbuH)	: Peace be upon him
ACWY	: Bacteria types A, C, W135 and Y
MPB	: Marginal Private Benefit
<i>MSC</i>	: Marginal Social Cost
<i>MSB</i>	: Marginal Social Benefit

**PENENTUAN FAKTOR-FAKTOR EKONOMI KESIHATAN YANG DITUNTUT
OLEH JEMAAH HAJI MALAYSIA DI MAKKAH PADA TAHUN 2013**

ABSTRAK

Keinginan umat Islam di seluruh dunia untuk menunaikan fardu Haji adalah sangat tinggi kerana Haji adalah rukun Islam yang ke lima dan diwajibkan kepada Muslim yang berkemampuan dari segi mental, kesihatan fizikal, dan kewangan. Menunaikan Haji adalah satu bentuk ritual tahunan ke Mekah yang melibatkan 2.5 juta jemaah Haji dari seluruh dunia. Ia boleh menyebabkan kesesakan yang besar yang boleh membawa kepada penyakit yang berpotensi dan pelbagai masalah semasa pelaksanaannya. Objektif kajian ini secara amnya adalah; untuk mengkaji jenis permintaan untuk perkhidmatan penjagaan kesihatan yang diperlukan oleh jemaah Haji Malaysia di Mekah pada tahun 2013 dan secara khususnya; (1) untuk menentukan jenis masalah kesihatan yang dihadapi oleh jemaah Haji Malaysia semasa Haji, (2) untuk mengenal pasti perkhidmatan jagaan kesihatan yang diperlukan oleh jemaah Haji Malaysia di Mekah semasa Haji, dan (3) untuk menentukan faktor-faktor ekonomi kesihatan yang berkaitan dengan permintaan untuk peruntukan kesihatan dalam kalangan jemaah Haji Malaysia semasa Haji. Satu kajian keratan rentas telah dijalankan yang melibatkan seramai 379 jemaah Haji Malaysia pada tahun 2013/1434H. Kajian ini dijalankan selepas jemaah Haji menyelesaikan ritual Haji mereka. Sebelum itu, satu kajian kualitatif, iaitu Perbincangan Kumpulan Berfokus, telah dilakukan untuk mendapatkan data awal bagi penyediaan borang soal selidik untuk kajian ini. Enam kumpulan peserta yang melibatkan 36 peserta telah dipilih berdasarkan kriteria inklusi dan pengecualian. Sebanyak 400 set borang soal selidik telah diedarkan di Hotel Abraj

Janadriyah, yang di duduki oleh lebih daripada 3000 jemaah Haji Malaysia. Kadar tindak balas bagi kajian ini adalah 93%. Responden lelaki adalah sebanyak 49.6% dan responden perempuan adalah sebanyak 50.4% dengan purata umur 52 tahun. Penyakit yang mendasari dalam kalangan jemaah Haji Malaysia adalah penyakit pernafasan (77.5%). Pelbagai masalah telah dihadapi oleh jemaah semasa Haji, di mana perkhidmatan kesihatan (52%) telah diketengahkan dengan ketara oleh jemaah Haji, diikuti dengan perkhidmatan awam (15%), pengurusan Haji (12%), aktiviti Haji (8%), isu-isu kebersihan (7%), dan kualiti makanan (6%). Kakitangan kesihatan (36.1%) dan ubat-ubatan yang berkualiti (34.7%) adalah antara perkhidmatan jagaan kesihatan yang penting yang dituntut oleh jemaah Haji Malaysia di Mekah. Faktor-faktor ekonomi kesihatan yang berkaitan dengan kemudahan semasa ritual seperti pengangkutan (bas, atau/dan kereta), perkhidmatan penjagaan kesihatan dan pengurusan makanan menunjukkan faktor yang signifikan ($p < 0.05$) dengan masalah semasa Haji, dan jenis penyakit (penyakit berjangkit dan penyakit tidak berjangkit). Kesimpulannya, kajian ini menyediakan input asas untuk dijadikan rujukan oleh penyedia jagaan kesihatan dan pihak berkuasa pengurusan jemaah Haji untuk meningkatkan kualiti dan meningkatkan kecekapan pengurusan Haji bagi jemaah haji Malaysia pada masa akan datang.

**DETERMINATION OF THE HEALTH ECONOMIC FACTORS DEMANDED
BY THE MALAYSIAN HAJJ PILGRIMS IN MAKKAH IN 2013**

ABSTRACT

Desire among Muslim around the world to perform Hajj is tremendously high as it is the fifth pillar in Islam and compulsory for Muslim who is mentally, physically and financially capable. Hajj is an annual Muslim pilgrimage to Makkah that involved 2.5 million pilgrims from all around the world. It caused huge congestion that could lead to potential diseases outcomes and numerous problems during its performance. The objectives of this study are generally; to study the demand for healthcare services among the Malaysian Hajj pilgrims in Makkah in 2013 and specifically; (1) to determine the type of health problems faced by the Malaysian pilgrims during Hajj, (2) to identify healthcare services demand by the Malaysian pilgrims in Makkah during Hajj, and (3) to determine the health economics factors associated to demand for health provision among Malaysian pilgrims during Hajj. A cross-sectional study was conducted that involved 379 Malaysian pilgrims in 2013/1434H. The survey was conducted after the pilgrims completed their Hajj ritual. Earlier, a qualitative study that was a Focus Group Discussion (FGD) was conducted as a baseline data collection for questionnaire construction. Six groups of participants were involved, where 36 participants were selected based on inclusion and exclusion criteria. A total of 400 sets of questionnaires were distributed at Abraj Janadriyah Hotel, which was occupied by more than 3000 Malaysian pilgrims. The response rate for this survey was 93%. Male respondents were constituted of 49.6% and female respondents were 50.4% with the mean age 52 years

old. The underlying disease among Malaysian pilgrims during Hajj was respiratory disease (77.5%). Various problems were encountered during Hajj, where healthcare services (52%) were substantially highlighted by the pilgrims, followed by the public services (15%), Hajj management (12%), Hajj activity (8%), hygiene issues (7%), and food quality (6%). The health personnel (36.1%) and quality medication (34.7%) are among the important healthcare services demanded by the Malaysian pilgrims in Makkah. The health economic factors related to facilities during the ritual, such as public services (bus, or/and car), healthcare services and the food management were found significantly ($p < 0.05$) associated with the confronted problems and type of diseases (communicable and non-communicable diseases) commonly affected population within the congestion. In conclusion, this research provides a fundamental input to be reference for the health care providers, and the Hajj management authority to improve the quality and improve efficiency of Hajj management in for Malaysian pilgrims in year ahead.

CHAPTER 1

INTRODUCTION

1.1 Background of the study

The Hajj pilgrimage is the largest event in the world and regarded as the most important religious events among the Muslims community. Hajj is the fifth pillar in Islam and every year, it attracts over 2.5 million pilgrims from more than 140 countries to perform Hajj in Makkah, Saudi Arabia in order to respond to the commands of Allah the Almighty (Al-Ghamdi *et al.*, 2003). Muslims who are capable physically and financially must perform Hajj once in their lifetime. Makkah is the birthplace of Prophet Muhammad and it is considered as one of the holiest cities in Islam. The Hajj brings millions of pilgrims from different nationalities with different colours of eyes, custom, gender, and ethnicity. According to Zafar (2011), the population density can reach eight people per square metre as pilgrims get closer to the Ka'ba, a building that was placed in the middle of Islam's most sacred mosque. The area of Ka'ba was congested when pilgrims were circumambulating the Ka'ba as part of the ritual of the Hajj. Pilgrims stayed in Makkah for almost 40 days. Approximately two-thirds of the Hajj pilgrims transited 8 days in Madinah prior journeyed to Makkah, where they stayed there for another approximately 40 days for Hajj ritual.

Hajj takes place on a fixed date of five to six days between the 8th and 13th days in the month of *Dhu al-Hijjah*, the twelfth month in Muslim calendar (Serafi and Alqasim, 2012). Muslims depend on the Islamic lunar calendar or known as the *Hijri* calendar to perform Hajj, in which the *Hijri* calendar is shorter than the Gregorian calendar by 10 or 11 days. Therefore, the period to perform Hajj falls 10 or 11 days earlier each year. This inconsistency caused climatic difference occurred from one Hajj season to another, and thus affects the types of diseases in different climatic season. The mass gathering during Hajj creates crowd congestion that can contribute to the transmission of communicable and non-communicable diseases. Apart from increases the diseases transmission, the large gathering of people has a high potential in many serious number of incidents and casualties.

1.1.1 The path of Hajj pilgrimage

During Hajj, the pilgrims perform the Hajj rituals from one location to another location in and around Makkah, which consist of Al-Haram (the sacred mosque), Mina and Arafat. The Hajj rituals are slightly intricate and complex that required one to put together their spiritual and mental strength. According to Shafi *et al.*, the rituals of Hajj were physically strenuous and it imposes a great deal of physical and mental stress on pilgrims (Yousof, 1999). The rituals are as follows which refer to Figure 1.1:

Wukuf : It is the climax of Hajj and the most important ritual, where all pilgrims gather on the plain of Arafah. Arafah provides a broad area, which encompasses 18 square

kilometres east of Makkah, which can accommodate approximately 2 million pilgrims. It provides a relatively high level of density that can cause crowd accidents. Historically it is the place where Adam and Eve met after they descended onto earth from heaven. Arafah is a plain where the Hajj pilgrimage performed wukuf on 9th *Dhu al-Hijjah* from afternoon until sunset within the defined area. Although there is no specific ritual, many pilgrims spend most of their time praying, supplicating and contemplating. The Muslims also can get to know each other on the day of Arafah. The distance is about 21.9 km southeast of Makkah. If the pilgrim's do not completed the wukuf, their Hajj pilgrimage is not acceptable.

Muzdalifah: After the sunset on the 9th *Dhu al-Hijjah*, the pilgrims move together with equanimity and peacefulness towards Muzdalifah. It is a place between Arafat and Mina where all pilgrims collected pebbles for the stone throwing ritual in Mina. They spend a night there on 10 *Dhu al-Hijjah* before proceeding to Mina. At least 70 pebbles are collected to perform the stoning rituals in the next four days.

Mina: Mina is a place between Muzdalifah and Makkah, which is located at about 7 km northeast of Makkah. It covers an area of approximately 20 km². Most of the pilgrims camp for three days at the camping site of Mina in overcrowded condition. During ritual, the pilgrims throwing the pebbles at three places known as *Jamarats*, which are *Jamaratul Oola*, *Jamaratul Wusta*, and *Jamaratul Aqaba* on the 11,12,13 *Dhu al-Hijjah* as a symbolic of stoning the devil. The distance between *Jamratul Oola* and *Jamratul Wusta* was 247 meters, while the distance between *Jamratul Wusta* and *Jamratul Aqaba* was 200 meters. The pilgrims throw the pebbles following the footsteps of Prophet

Abraham when he threw stones on the Satan when he tried to prevent Prophet Abraham's readiness to sacrifice his son, Ishmael. The walking paths were crowded and air-conditioned with drinking water was supplied during the way. The crowd density at this location is high, typically resulted in a stampede and accident. There were 100,000 air-conditioned tents were provided to pilgrims in Mina for their convenience. The size of the tents ranged from 4x4m through to 8x12m in which each tents can accommodate about 50 to 100 people for 3 days.

Tawaf: It is circumambulation of the Ka'ba seven times in the anti-clockwise direction, which may cover the distance between 500 m to 1 km. Ka'ba is a building that is located in the middle of Islam's most sacred mosque in Makkah, Saudi Arabia. According to the Quran, Ka'ba is the world's first ever-constructed building by Abraham together with his son, Ishmael, which is considered as a "House of God". It is the central point or the direction for all Muslims in the world face when performing the second pillar of Islam, the five times prayer. Hajj shows the symbolic of unity and fraternity among all Muslims around the world where, millions of pilgrims gather together to circle the Ka'ba. This ritual present symbol that connects all Muslims regardless of whether rich and poor, black and white, high and low rank, eastern and western, and northern and southern.

Sa'e: It involves walking between the hills of Safa and Marwa seven times, in which each distance between the two hills is 420 meters. The total distance covered for the completion of sa'e is 2.94 km. The history of sa'e begun when Hajar, the wife of Prophet Abraham ran between the hills of Safa and Marwah when her son, Ishmael started to cry due to hunger and thirst. In her desperation seeking for the water, Ishmael kicked the

ground with his feet and discovered that water suddenly gush out near Ishmael's foot and named it as Zamzam water which means 'stop flowing'. It provides the water to billion pilgrims and located within the masjidilHaram, Makkah.



Figure 1.1: The pilgrimage route

(Source:<https://ilmrush.files.wordpress.com/2011/12/hajj.jpg>)

1.1.2 Crowd and issues

Crowds or large concentration occurs frequently in many events especially during religious events (Halabi, 2006). There are several major religious events in various places, such as Bodh Gaya, the most important pilgrimage site for Buddhist, Western Wall at Israel that has been a site for Jewish prayer, Kumbh Mela festival along the Ganges River for Hindus and Makkah for Muslim pilgrimage. These mass gatherings were associated with a large number of people to perform their religious duty. Apart from being an obligatory religious duty, each religious ritual has a spiritual journey according to their followers. The outcome for mass gathering often creates highly undesirable and extremely negative outcome.

Every year, there were many incidents happened due to the crowd. The following list shows some of the events that contributed to the worse tragedies.

1989- A total of 766 people injured during a football game at Hillsborough Stadium, Sheffield, England.

1991- A total of 105 people died and 108 injured during a crowd in a major festival in Taiyuan, China.

1996 – A total of 147 people injured during a crowd prior to the World Cup qualifying match in the stadium at Estadio Mateo Flores, Guatemala City.

2000- A total of 9 people died, 26 injured and 3 critical during a crowd at Roskilde festival, Denmark.

2012- A total of 5 girls died in a panic-driven stampede during a Halloween party in Madrid, Spain

2013- A total of 60 people died and 200 injured in a stampede during a New Year's fireworks celebration in Abidjan, Ivory Coast.

2014- A total of 32 people died and 26 injured in a stampede after the Dasehra celebrations at the Gandhi Maidan, Patna, India.

2015- A total of 74 people were injured and 2 people were critical when a glass stairwell collapsed due to stampede in Paceville, Republic of Malta.

1.1.3 Incident during Hajj pilgrimage

Halabi (2006) and Helbing and Mukerji (2012) mentioned that crowd related disasters occurred all over the world with depressing frequency. For instance, the large-scale congestion during mass gathering events is more likely to be associated with the rushing of people to perform their religious rituals. As a result, hundred of them were killed and thousand of them were injured because of crushing and trampling.

On the other hand, Illiyas *et al.* (2013) indicated that human stampede and crushes often occurred in mass gathering events that were recognized by a huge number of followers. Human stampede at previous Hajj events have been resulted in injuries and death of many pilgrims mostly happened in Mina. Other than that, the some other incidences also have been reported to happen in other countries. For example, Hsieh *et al.* (2009) have investigated the incident of stampede disaster occurred for a number of many events all around the world between 1980-2007. During that period, it has been

reported that about 7069 people were killed and 14,000 of them were injured. For example, three major human stampede in the world over the past century include the stampede during the water festival in Phnom Penh, Cambodia in 2010 reported that 327 people were killed and hundreds of them were injured. Another stampede include in Baghdad during a religious procession in 2005, reported that 953 people were killed and hundreds of them were injured, while 183 children were killed at the Victory Hall concert hall in Sunderland, England in 1883 due to mass gathering resulting in stampede. Another incident of mass gathering also have been compiled by Soomaroo and Murray (2012) occurred between the year 1971-2011 through a peer-reviewed journal.

The sudden surge of a large population of humans concentrated in one place creates crowding or sometimes overcrowding. Every year, the total number of pilgrims travelling to Makkah is dramatically increasing. It has been reported that, the total number of pilgrims in 2008 was 3.1 million up to 3.3 million in 2009 (Dupret and Pinto, 2012). However, the expansion project of Grand Mosque in Makkah has limited the number of pilgrims thus led to reductions in number of pilgrims from 3.16 million in year 2012 (Memish *et al.*, 2014) to 1.98 million in year 2013. The gathering during the Hajj can be considered as the largest and the most peaceful gathering of people in the world (Mosher, 2005). Ministry of Hajj, Kingdom of Saudi Arabia disclosed that this event could be one of the most crowded events in the world, as it is estimated that more than fifteen million Muslims visit Makkah every year and the number is growing.

There have been many serious incidents during Hajj that have left thousands of pilgrims died, lost and injured. Several major incidents that had happened in the past were due to stampedes, fires, and buildings crashed (Yamin, 2006). These incidents happened when a large number of pilgrims from many countries move together to perform the Hajj ritual at the same place (e.g. Arafat, Mina and Muzdalifah) in short period of time. Example of these countries involved are Southeast Asian countries such as Malaysia, Singapore, Philippines, East Timor, Brunei, Cambodia, Laos, Myanmar (Burma), Thailand, and Vietnam. Another countries involved from Western Country such as France, Ireland, United Kindom and Belgium. On the other hand, Middle East Countries such as Egypt, Jordan, Iran, Kurdistan, Iraq, Qatar, Bahrain, United Arab Emirates and Kuwait also participated during Hajj.

The Hajj has witnessed a number of major crowd incidents happened starting from year 1990 - 2015. For example, in July 2, 1990, at least 1400 pilgrims have been killed in a panic-attack in the pedestrian tunnel near Makkah. This accident has been reported as the incident with highest mortality. Many of them were from Malaysian, Indonesian and Pakistan (al-Ken, 1995; Alamri, 2010). In May 23, 1994, at least 270 pilgrims died due to stampede in Mina (Alamri, 2010) and 251 pilgrims were died during the stoning ritual in Mina in 2004 (Hoseinpourfard *et al.*, 2017). Recently, at least 2431 pilgrims were died during a stampede in 2015 Hajj. (Ganjeh and Einollahi, 2016).

Nuaim Masry *et al.*, 2012 has summarized the major incidents during Hajj from 1975 to 2006. The overcrowding condition was identified as the main factors of the stampede, fire and suffocation during Hajj that have killed and injured thousand of pilgrims. These incidents are summarized in Table 1.

Table 1: Hajj tragedies from 1975 to 2006

Date	Accidents	Casualties	Place
1975	Fire	Death of 200 pilgrims	Camp for pilgrimage near Makkah
1990	Suffocation	Death of 1,426 pilgrims	Inside a pedestrian tunnel
1994	Stampede	Death of 270 pilgrims	Al-Jamarat in Mina
1998		Death of 118 pilgrims, with another 180 injured	
2001		Death of 35 pilgrims	
2003		Death of 14 pilgrims	
2004		Death of 251 pilgrims, with another 244 injured	
2006		Death of 346 pilgrims, with another 289 injured	

1.2 Malaysian and Hajj pilgrims

1.2.1 Demographic of Malaysia

Malaysia a federal constitutional monarchy located in the Southeast Asia, covering an area of about 329,758 square kilometers and consisting of 13 states and 3 territories including the east Malaysian states of Sabah and Sarawak on the northern coast of Borneo and Peninsular Malaysia. Peninsular Malaysia shares land borders with south Thailand north Singapore and east Indonesia. The Malaysian land borders include Brunei, Indonesia and Thailand with a total land border length of 3,147.3 km and maritime border include Philippines, Singapore and Vietnam.

According to the Population and Vital Statistics 2014, Malaysia's current population of in total was 30,002.100. The population distribution increased from the first quarter of 2013 (29,620.200). From the total population, 15,418.200 (52%) are males. The population of Malaysia consists of 3 main ethnic groups, which are Malay, Chinese and Indians. The Department of Statistics showed in 2010 that the Malays were the predominant (67.4%), followed by Chinese (24.6%) and Indians (7.3%).

Malaysia is a multicultural country in which Muslims constitute the majority of Malaysia's population. In 2014, the total Muslims population of Malaysia was 18 million. Of these numbers, 61.32% were Malays. All Malaysian Malays were automatically a Muslim, as stated in Article 160 of the Constitution of Malaysia. This article defined 'Malay' as a person who satisfies two sets of criteria: the person must be

one who professes to be Muslim, habitually speaks in a Malay language and adheres to Malay customs (Abdul Rashid, 2012). The second largest religion in Malaysia is Buddhism (19.84%), while the third largest religion was Christianity (9.24%). Hinduism represented 6.27% of the Malaysia's population and other religions such as Taoism and other traditional Chinese religion represented 1.30%, according to Malaysian Population and Housing Census in 2010. The Muslims population in Malaysia increased from 50.04% in 1970 to 60.36% in 2000 and it was estimated that by 2020, Malaysian Muslims population would be 33,479.579 million (Kettani, 2010).

1.2.2 The Scenario of Malaysian Pilgrims

According to Tabung Haji (TH) annual report 2013, the Kingdom of Saudi Arabia has fixed a quota for Hajj of 0.1% from the total population of each member states of the Organization of the Islamic Cooperation (OIC) including Malaysia. Therefore, Malaysia's quota is 28,000 since 2009. However, due to construction works at MasjidilHaram in Makkah, the quota for all number of pilgrims from all over the world was reduced by 20%, thus leading to the reduction number of Malaysian performing Hajj in Makkah to 22,320 during Hajj season 2013/1434H.

Every year, an increasing number of Malaysian registered for Hajj with TH, where majority of them are elderly people. Based on the condition, each pilgrim may have to take turn to perform Hajj and this will usually take a long time. The pilgrims will

be eligible to be selected to perform Hajj according to their turn based on the rotation system and the quota set by the Saudi Arabia government.

Before performing Hajj in Makkah, Malaysian pilgrims have to go through various preparations, spiritually, mentally, and physically. These preparations usually take about four or five months before the actual date of departure. In preparing for Hajj, pilgrims need to attend Hajj courses, read books as well as other printed materials on Hajj, to familiarize themselves with all aspects of Hajj rituals. The pilgrims are advised to do physical exercises such as cardio exercises, walking and jogging, a few months prior to the scheduled departure. This would increase the physical stamina among the pilgrims and help them to cope with the hectic journey while performing Hajj ritual. Developing good habits such as praying on time, praying Tahajjud, Istikharah, regularly reciting the Quran, lots of Talbiyya and du'a are among few ways the pilgrims can do as a part of preparation for Hajj.

The pilgrims are asked to get meningococcal and advised to take pneumococcal vaccination prior to embarking to Saudi Arabia, respectively to reduce the infection of meningitis and pneumonia during hajj. Pneumonia can be prevented through several ways including the use of facemask and nutritional intervention. The use of facemask is possibly a preventive method to reduce the risk of respiratory infection during Hajj.

Overcrowding during Hajj would increase the incidence of respiratory tract infection (RTI) especially among those with high risk factors such as elderly person (Sagala, 2008) . Every year, majority of Malaysian pilgrims who perform Hajj are

pilgrims aged more than 50 years old and most of them have pre-existing health conditions such as diabetes and hypertension (Hasan *et al.*, 2014). Pilgrims with pre-existing diseases will usually develop respiratory diseases. The factors that may contribute to the health problems among Malaysian pilgrims are overcrowding and fatigue (Azizkhan, 2015).

1.2.3 Diseases and health problems during Hajj

The sudden surge of large population of human within a relatively small area of Makkah would create numerous hazardous health factors involving health impacts. The congestion of people during Hajj increases the risk of communicable and non-communicable diseases. Communicable diseases or known as infectious diseases are illnesses caused by infectious agents such as bacteria and viruses, through direct contact or indirect contact. Communicable diseases include respiratory diseases, meningococcal diseases, fever, and diarrhea. The extreme crowds, insufficient basic facilities, and close contact during Hajj would facilitate the transmission of contagious diseases, such as the respiratory diseases. While, non-communicable diseases can be defined as non-infectious diseases and non-transmissible diseases which occurred in both men and women at any age (Bradshaw *et al.*, 2011). Common non-communicable diseases during Hajj include cardiovascular diseases, injuries, and environmental heat injury.

Several studies have reported that respiratory infections are the most common illnesses among the pilgrims (Alzeer, 2009) and pneumonia is the main reason for

hospital admission which is 39% of total hospital admission (Al-Ghamdi *et al.*, 2003). Other health problems include cardiovascular diseases (Al Shimemeri, 2012), gastrointestinal problems (Khamis, 2007) and meningococcal diseases (Aguilera *et al.*, 2002) These diseases and their complication become a serious health concern due to its devastating effects on mortality and morbidity rates.

Factors that might influence health problems among pilgrims during Hajj were temperature, humidity, atmospheric pressure, airborne agent, congestion of people and vehicle (Ahmed *et al.*, 2006; Memish, 2010). Other than that, the pollutions also are one of the factors that can cause serious health problems among pilgrims. The pollution in Makkah were emitted by a wide range of sources, which included massive road traffics, intensive construction works, re-suspension of dust particles, and windblow sand and dust particlles (Alharbi *et al.*, 2013).

1.3 Tabung Haji (TH) as a Hajj institution: An overview

In line with the concept of Islam as “ Addeen”, the only religion approved by Allah, the Muslim's attitudes and their way of life must be in line with Islamic concept. All Muslims must carry out what Allah has commanded because it would give benefit to all Muslims. All Muslims including women, elderly persons, children and disabled person must perform Hajj. The spiritual dimension in each ritual that they perform and each place they visit during Hajj are huge and only Allah knows the rewards that await the pilgrims.

With strong believed on the reward that await them in worldly life and in eternal life in the hereafter, all pilgrims' particularly Malaysian pilgrims have tried a variety of ways to gather their money for Hajj performance in Makkah. These traditional practices eventually destroy the structure of the rural economy and threaten economic growth. Therefore, in 1962, Tabung Haji (TH) was established as an important institution for the Muslims society (Ishak, 2011). The main idea behind its establishment is to help Muslims to gradually built up their saving and at the same time invest their money based on Shariah principle.

1.3.1 History of TH

Historically, before the establishment of Tabung Haji (TH), Malaysian pilgrims traveled to Makkah for Hajj by ships that were handled by *hajj syeikh* (Hassan, 2002), or known as “ Sheikh Haji Melayu” in Malay. This organization was operated in Singapore, Pulau Pinang and Indonesia (Maslan, 2014). This organization was responsible for ensuring that the pilgrims safely arrived in Makkah, providing necessary accommodation to the pilgrims in Makkah and Madinah (Hassan, 2002), providing food to the pilgrims, and other services.

The journey to Jeddah took about a few months (Hassan, 2002), which cost a lot of money. In order to perform Hajj, the Muslims in Malaysia accumulate or save their money by using traditional way and some of them invested their money by purchasing land or other assets, which gives the highest returns in both long and short-term period.

They were then sold it at a profit when the price rises, thus enable them to get the money and perform Hajj at Makkah. There were also those who sold their properties or treasures to gain sufficient money to perform Hajj. In addition, some elderly person saves their money by putting them under the pillow, blanket, cupboards or bamboo tubes as well as built wooden boxes or earthen jars (Ishak, 2011).

When Malaysian pilgrims arrived in Makkah, they were not only performing the Hajj, but also studying Islamic religious sciences as well as learning Quran with Tajweed properly. As a consequence, when they returned home, some of them opened a learning center called *Pondok* with an intention to teach the community (Hassan, 2002). The students involved consisted of local students and student from neighboring countries such as Thailand, Singapore, and Cambodia. In most Madrasah and mosque, students who learn Islamic knowledge from “*Pondok*” were able to become *imam*, *muezzin*, and *kadi*. In Malay culture and society, those pilgrims who were returned from Hajj are known as “Pak haji” for men and “Hajah” for women.

After Malaysia received independence in 1957, the organization of Hajj was changed due to the existence of the new Hajj institution, which is “Tabung Haji”. Tabung Haji or more popularly known as Lembaga Tabung Haji (TH) is the Malaysian hajj pilgrims fund board who comes into existence as an Islamic financial institution to fulfill the need of Malaysian Muslim community in the country. TH is the largest Islamic fund manager and the most popular institution among Muslim nations (Kassim *et al.*, 2009).

TH was established in November 1962 and has started its operation on September 30, 1963 when a paper presented by the Royal Professor Ungku Aziz titled; “Plan To Improve The Economy of Prospective Pilgrims” in 1959 has been accepted by Malaysian government.

This paperwork has been praised by Sheikh Mahmoud al-Shahltut the Rector of Al-Azhar University of Egypt and has agreed with its implementation (Mannan, 1997). It became a mean to improve the socio-economy of future pilgrims and position of the Muslim particularly those in rural areas according to Shari'ah principles. Through this implementation, Muslim can save their money free of interest (“*Riba*”). The word (“*Riba*”) also known as “usury”. Usury may refer to excessive interest derived in a trade or busines that was definitely prohibited in Islam. Thus, the corporation was merged with Penang-based Pilgrimage Affairs Management Office in 1969 and had come out with the new name known as Pilgrimage Management and Fund Board or better known as Tabung Haji (TH) which is under the Act 8 of the Pilgrimage Fund and Management Board Act 1969 (Mannan, 1997).

The main objectives of TH under act 8 are:

- a) To provide excellent and satisfactory hajj service to Malaysian hajj pilgrims,
- b) To enable Muslims to save money gradually over a period of time for the purpose of performing hajj or other beneficial purposes and to ensure the welfare of Malaysian hajj pilgrims by providing various facilities and services.

The goals of TH are:

- a) To enable Muslims to save money gradually in order to provide for their expenses in performing the pilgrimage or for other expenses beneficial to them;
- b) To enable Muslims through their savings to participate in investments in industry, commerce and plantations as well as real estates, according to Islamic principles; and
- c) To provide for protection, control and welfare of Muslims while on pilgrimage through various facilities and services of TH (Ishak, 2011)

1.3.2 Services provided by TH during Hajj

The provisions of the healthcare services to pilgrims in Makkah have been provided by the Ministry of Health and co-administered by TH that manages two types of Hajj packages, which are *Muassasah* (Hajj services partially subsidized by the TH) and private package provided by tour and travel agents. The TH allows tour and travel agents to provide private Hajj packages as an alternative for pilgrims who do not want to use the *Muassasah* service.

TH is synonymous with Hajj management as it is its core business. In fact, TH has been recognized as a world-class model by other countries (Mannan, 1997). The Hajj

management of TH in the front linear of successful Hajj and Umrah services provider in the country and has been entrusted with providing the services and facilities of Hajj both in Malaysia and Makkah. TH provided the services and facilities stated for pre-Hajj and during Hajj.

1.3.2(a) Pre-Hajj services

TH has provided pre-Hajj services in Malaysia to ensure that all pilgrims are well equipped with adequate knowledge, facilities and services before departure. Pre-Hajj services that are provided by TH to Malaysian pilgrims involved:

- Hajj registration
- Health screening
- Hajj guidance courses
- Consultation before departure
- Advice on vaccine
- Hajj passport and Hajj visa
- Travel arrangement

a) Hajj registration

For prospective Malaysian pilgrims, registration for Hajj can be done based on TH requirements includes the pilgrims must be Malaysian citizen, Muslims, depositor with a TH account and must have a minimum of RM1300 in TH account. According to TH

website, Hajj registration can be made at over TH's branch offices in each state, through TH website (www.tabunghaji.gov.my), at any Bank Islam Uniteller and Bank Rakyat branches, at ATM / CDM Maybank, and at ATM BIMB.

b) Health screening

For pre-hajj medical check up, all future Malaysian Hajj pilgrims must undergo health screening at medical centers such as clinics or other private healthcare providers approved by TH before embarking on the Hajj. This is to ensure that they are fit to perform the Hajj ritual and able to perform other religious obligation without any difficulties. Pilgrims who have underlying illnesses, will be given consultation and be provided with adequate supplies of medications from the healthcare providers. All medical reports of each pilgrim such as the pilgrims' past diseases, types of medicines that should be taken by pilgrims and their present health conditions are recorded in the pilgrim's health book. This book becomes a reference for the Ministry of Health (MoH) and TH on whether to allow them to perform Hajj based on four-colour codes that represent the pilgrims' health status. The codes are as follows:

Green: Indicates that the pilgrims are healthy and is considered fit to perform Hajj.

Yellow: Indicates pilgrims with chronic medical problems such as heart problems, diabetes and hypertension but in stable condition and passed the health examination.

Red: Indicates pilgrims with high-risk illnesses but passed the health examination and require a healthy escort of same gender while in Makkah.

Black: Indicates pilgrims who fail the health examination and are not allowed to perform Hajj.

c) Hajj guidance courses

Before the pilgrims are allowed to perform Hajj, they are recommended to attend the series of Hajj courses known as “*Kursus Asas Haji*” that have been organized by TH, that involved 16 series. After finishing the Hajj courses, the pilgrims are recommended to attend intensive hajj course, “*Kursus Intensif Haji*” followed by a premier Hajj course called “*Kursus Perdana Haji*” that also have been organized by TH and were conducted at the mosque or other suitable venues in each state (Edruce *et al.*, 2014). On the first day of premier course was focused on how to perform Umrah and Hajj rituals. While in the second day was focused on health-related issues and other Hajj issues. Generally, the courses conclude the practical training to ensure the pilgrims have a good understanding about the Hajj rituals and also to prepare the pilgrims mentally, physically and spritually.

d) Consultation before departure

All Malaysian who have underlying diseases such as diabetes and hypertension should consult a doctor for proper tips and advices during Hajj. In addition, for those who were suffering from chronic diseases such as kidney problem and cancer, were not be allowed to perform Hajj in order to avoid any complications during Hajj.

e) Vaccine

The Ministry of Health, Saudi Arabia has come out a guideline and requirement for visa application for Hajj. One of the requirements is a mandatory for the pilgrims to get meningococcal vaccination prior embarking to Saudi Arabia. This is a protection against meningitis among the pilgrims. This vaccine is given free to all Malaysian pilgrims at government clinics and hospital that have been approved by TH. Another vaccine recommendation for pilgrims is influenza vaccine (Ahmed *et al.*, 2006) to be taken at least two weeks before departure. However, influenza vaccine was not compulsory to Malaysian pilgrims and depend on them whether to have it or not (Mustafa *et al.*, 2003). Flu vaccination is important especially for pilgrims who are at greater risk for flu illness such as elderly pilgrims, young children and those with underlying diseases such as respiratory diseases, cardiovascular diseases, and renal failure. Apart from that, Ministry of Health Malaysia recommended the nominated pilgrims for pneumococcal vaccination. This vaccine is considered as prevention against pneumococcal disease, necessary for pilgrims aged above 65 years old and those who have chronic diseases such as diabetes, heart diseases, lung diseases, liver diseases and renal diseases. However, until now, there is no recommendation from Ministry of Health, Kingdom of Saudi Arabia regarding the requirement of pneumococcal vaccine for Hajj.

f) Hajj passport and Hajj visa

A Hajj passport and visa is needed only to perform Hajj at Makkah for Muslim Malaysian citizen only. The application for Hajj visa for Malaysian pilgrims must be apply through TH that further will be issued by Royal Saudi Embassy in Kuala Lumpur.

g) Travel arrangement

Before 1970, historically the Malaysian journey to Makkah to perform Hajj was arranged by *sheikh* through ships and continued to do so until 1980 when TH has partnered with Malaysia Airlines for the Hajj services, which was operated in seven-departure stations namely Kuala Lumpur, Bayan Lepas, Terengganu, Alor Setar, Senai, Kota Kinabalu and Kuching. In early 1970s, about four to six thousands of Malay pilgrims perform Hajj every year and this number increased every year. According to TH annual report 2013, about 85% of the pilgrims performed Hajj under *Muassasah* and the rest perform Hajj under private travel agent.

1.3.2(b) Services given during Hajj

Services that are provided by TH to Malaysian pilgrims during Hajj in Makkah involved:

- Medical services
- Accommodation