

**THE MOTIVE, IMPACT AND DEMOGRAPHIC ON THE
IMPLEMENTATION OF MS 1500:2009 BY HALAL
FOOD INDUSTRY IN MALAYSIA**

BY

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**A thesis submitted in fulfilment of the requirement for the
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ABSTRACT

This research aims to study about MS 1500:2009 holistically which includes: the motives that drive the firms to implement this MS, the firms' perception towards the implementation and the limitations of its implementation, the impact of this implementation for the firm and also the demographic factors of this MS. There are two main issues which contribute to this study. Firstly, the problems and challenges that frequently lead to unsuccessful execution of implementation of MS 1500. Secondly, the unexplored and inconclusive findings in the area of research related to Malaysian Halal Certificate and Halal Logo, especially the ones related to MS 1500. This research gave particular attention on firm or industry side. Institutional Theory of DiMaggio and Powell had been adopted to analyse the motive behind implementation of this MS. Meanwhile to elaborate and analyse the implementation itself, this research adopted and modified the findings of Peter, Trans & Adam; Fixsen et.al and Kalaskar. Six type of impact of standardization from Bellina et.al was also adopted and modified to analyse the impact of implementation of this MS. The Food and Beverages Industry in Malaysia which already got Halal Certificate and Halal Logo are chosen as scope of population with 212 convenience sampling companies. Data was collected using a 5 scale-Likert scale questionnaire. Data analyses include the descriptive statistics analysis, reliability test, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Model Analysis using Covariance-Based Structural-Equation-Modelling (CB-SEM) method. From a series of data analysis and 5 hypothesis testing, it was discovered that there is a close correlation between motive, implementation and impact. For Hypothesis 1, it was found that motives behind implementation has a significantly positive influence on the implementation of MS 1500:2009 with 99% confidence level. Every 1 unit increase in motive leads to a 0.509 unit increase in the implementation itself. For Hypothesis 2, it was found that implementation of MS 1500:2009 has a significantly positive influence on its Impact with 99% confidence level. Every 1 unit increase in implementation leads to a 0.347 unit increase in the impact. For Hypothesis 3, it was discovered that Implementation of MS 1500:2009 has a significantly positive influence on mediating the relationship between Motives and Impact with 99% confidence level. From the bootstrap test, it was found that partial mediation of implementation occurs at VAF value equal to 32.1%. For Hypothesis 4, it was found that difference in company characteristic and size will not give any significant difference on the strength of the relationship between motive and the implementation. Lastly, for Hypothesis 5, it was found that the different age of implementation of MS 1500:2009 will give a significantly positive influence to the strength of the relationship between implementation and its impact, with 99% confidence level. From chi-square test (χ^2 test), it was found that the age of implementation has a full moderation effect. Companies at full stage of implementation were found to achieve the highest impact from their efforts to implement MS 1500-2009. A brief and compact questionnaire which only consisted of 35 questions has been produced from the structural model analysis. This questionnaire is expected to be able to be utilized as an assessment tool and research instrument for further research related to implementation of MS 1500 or for other Malaysian halal standard research by performing several required modifications.

ملخص البحث

يهدف هذا البحث إلى التعرف على MS 1500: 2009 بشكل شامل؛ بما في ذلك الدوافع التي تدفع الشركات إلى تطبيق هذا MS ، ما هو تصور الشركات تجاه التطبيق وما هي القيود المفروضة عليه، وتأثير هذا التطبيق على الشركة وكذلك العوامل الديموغرافية لهذا MS. هناك نوعان من القضايا الرئيسية التي تساهم في هذه الدراسة. أولاً، المشكلات والتحديات التي تؤدي في كثير من الأحيان إلى تنفيذ غير ناجح لتطبيق MS 1500. ثانياً، النتائج غير المكتشفة وغير الحاسمة في مجال البحث المتعلق بشهادة الحلال الماليزية وشعار الحلال، خاصة تلك المتعلقة بـ MS 1500. يقدم هذا البحث اهتماماً خاصاً على جانب الشركة أو الصناعة. تم اعتماد النظرية المؤسسية لديماجيو وياول لتحليل الدافع وراء تطبيق هذا MS. وفي نفس الوقت، من أجل توضيح وتحليل التطبيق نفسه، اعتمد هذا البحث وعدل النتائج التي توصل إليها بيتر وترانس وأدم؛ فيكسن وآخرون وكالاسكار. ستة أنواع من تأثير التوحيد القياسي من بيلينا وآخرين تم تبنيها وتعديلها لتحليل تأثير تنفيذ هذا MS. تم اختيار صناعة الأغذية والمشروبات في ماليزيا والتي حصلت بالفعل على شهادة الحلال وشعار الحلال كنطاق للسكان مع 212 شركة لأخذ العينات الملائمة. يتم جمع البيانات باستخدام استبيان 5 مقياس ليكرت. تشمل تحليلات البيانات تحليل الإحصاء الوصفي، واختبار الموثوقية، وتحليل عامل الاستكشاف (EFA)، وتحليل عامل التأكيد (CFA)، وتحليل النموذج الهيكلي باستخدام طريقة النمذجة الهيكلية القائمة على التباين المشترك (CB-SEM). من سلسلة من تحليل البيانات واختبار الفرضيات الخمسة، تم الاكتشاف أن هناك علاقة وثيقة بين الدافع والتطبيق والتأثير. بالنسبة للفرضية 1، وجد أن الدوافع وراء التطبيق لها تأثير إيجابي كبير على تطبيق MS 1500: 2009 بمستوى ثقة 99%. حيث تؤدي كل زيادة وحدة في الدافع إلى زيادة 0.509 وحدة في التنفيذ نفسه. للفرضية 2، وجد أن تطبيق MS 1500: 2009 له تأثير إيجابي كبير على تأثيره بمستوى ثقة 99%. حيث تؤدي كل زيادة وحدة في التنفيذ إلى زيادة 0.347 وحدة في التأثير. للفرضية 3، تم الاكتشاف أن تطبيق MS 1500: 2009 له تأثير إيجابي كبير على التوسط في العلاقة بين الدوافع والتأثير بمستوى ثقة 99%. من الاختبار التمهيدي، وجد أن الوساطة الجزئية للتطبيق حدثت بقيمة VAF تساوي 32.1%. للفرضية 4، وجد أن اختلاف خصائص الشركة وحجمها لن يعطي أي فرق معنوي في قوة العلاقة بين الدافع والتطبيق. وأما الفرضية 5 وهي الأخيرة، وجد أن اختلاف عمر تطبيق MS 1500: 2009 سيعطي تأثيراً إيجابياً كبيراً في قوة العلاقة بين التطبيق وتأثيره بمستوى ثقة 99%. من اختبار مربع سي (اختبار χ^2)، وجد أن عمر التطبيق له تأثير اعتدال كامل. الشركة في مرحلة التطبيق الكاملة حصلت على التأثير الأكبر من جهودها لتطبيق MS 1500: 2009. وكما تم إنتاج استبيان موجز ومضغوط يتكون من 35 سؤالاً فقط من تحليل النموذج الهيكلي. فمن المتوقع أن يكون هذا الاستبيان قادراً على استخدامه كأداة تقييم وأداة بحث لمزيد من البحث المتعلق بتطبيق MS 1500 أو لبحث معيار حلال ماليزي آخر من خلال إجراء العديد من التعديلات المطلوبة.

APPROVAL PAGE

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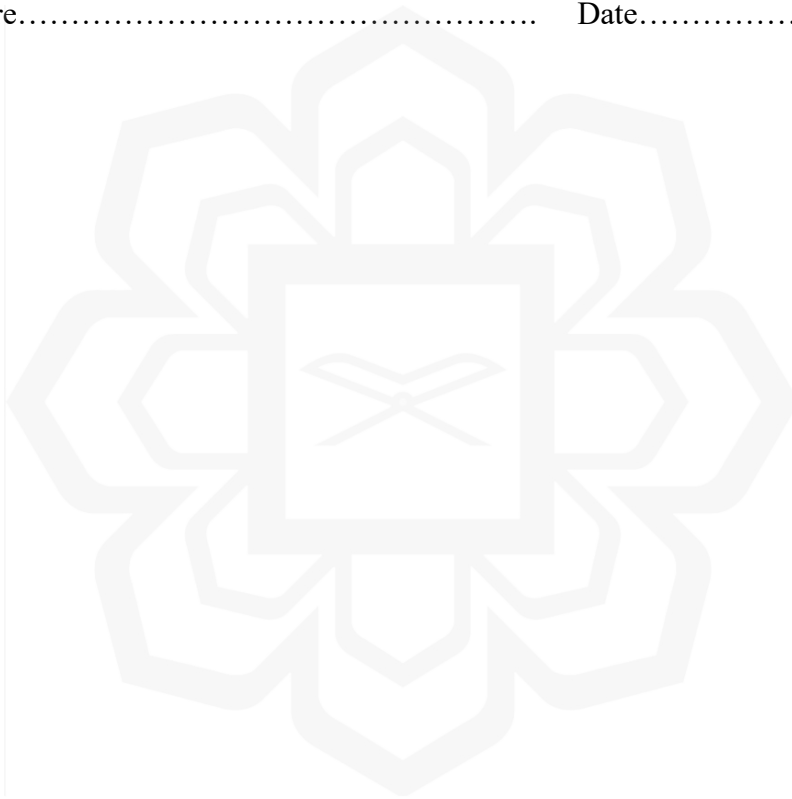
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DECLARATION

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DEDICATION PAGE

This humble thesis is especially dedicated to my main support system...

My Dearest Lovely Husband Syafruddin Syaiyar,

Who always showered me with his endless love and always encourage and convince me that I am able to finish what I have started.

Both of my wonderful kids... love of my life and my best cheerleaders, who are always there for me, help me, pray for me and cheer me up when I feel down:

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AND

My Sholehah Smart Pretty Daughter, Adek Siti Hanifah Adiiba

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AND

My Late Mother, allahyarhamah Rukmini Barsis

Who never stop loving me since I was born until the day they returned to Allah

I Love You All, Now, Forever and Always

May Allah the Almighty will always pour His Bless, Guidance and Protection for All of Us,

.....Aamiin Allahumma Aamiin ya Mujibas sailin.....

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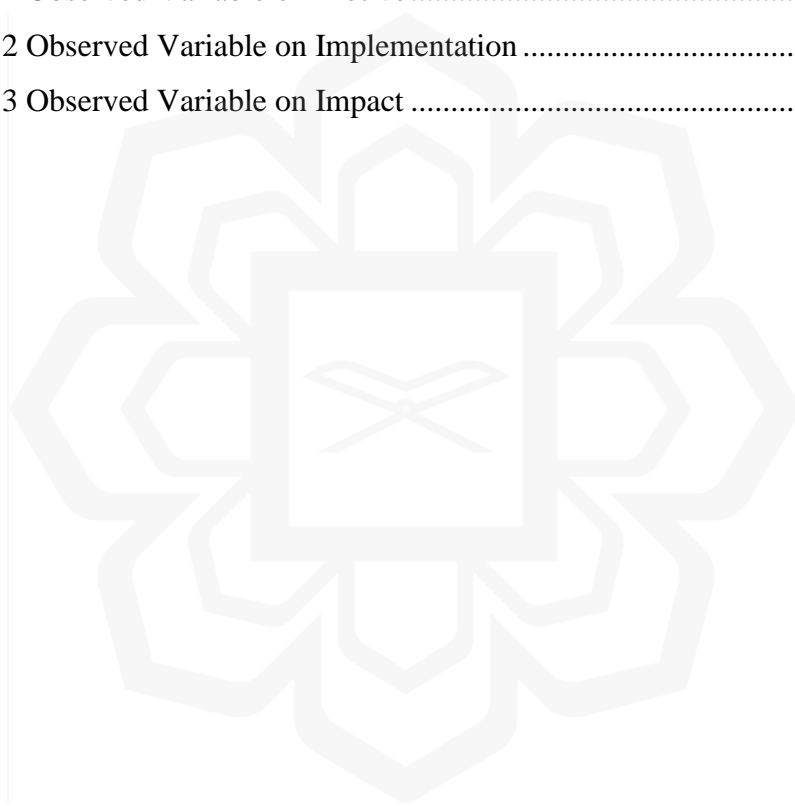
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LIST OF ABBREVIATIONS

AM	: Alternative Model
AMOS	: Analysis of Moment Structures
ASV	: Average Shared-square Variance
AVE	: Average Variance Extracted
CAGR	: Compound Annual Growth State
CCA	: Confirmatory Composite Analysis
CFA	: Confirmatory Factor Analysis
CIR	: Company's Image & Reputation
CMV	: Component Matrix Value
CONS	: Consumer
CQP	: Competitiveness & Quality of Product
CR	: Composite Reliability
CSPP	: Clean & Safe Production Process
CSR	: Corporate Social Responsibility
CV	: Communalities Value
DSM	: Department Standard Malaysia
EFA	: Exploratory Factor Analysis
EV	: Eigen Value
FRL	: Finance & Regulation Limitation
GCM	: Growth Curve Model
GDP	: Gross Domestic Product
GFI	: Goodness of Fit Index

GHP	: Good Hygienic Practice
GM	: Generating Model
GMP	: Good Manufacturing Practice
HACCP	: Hazard Analysis and Critical Control Points
HALFEST	: Halal Festival
HCSA	: Halal Control System Activities
HDC	: Halal Development Corporation
HFS	: Halal Food Standard
HIMP	: Halal Industry Master Plan
HM	: Hypothesis Model
IEC	: International Electro-technical Commission
INNO	: Innovation
IR	: Implementation Research
ISO	: International Standard Organization
JAIN	: Jabatan Agama Islam Negeri
JAKIM	: Jabatan Kemajuan Islam Malaysia
KMO	: Kaiser Meyer Olkin
LFA	: Logical Framework Approach
LGM	: Latent Growth Modelling
LLC	: Large Local Company
LVSM	: Latent Variable Structural Model
MAHA	: Malaysia Agriculture, Horticulture and Agro-tourism
MAR	: Missing At Random
MATRADE	: Malaysia External Trade Development Corporation
MCAR	: Missing Completely At Random

MI	: Modification Indices
MIDA	: Malaysia Industrial Development Authority
MIFB	: Malaysian International Food and Beverages
MIHAS	: Malaysia International Halal Showcase
MITI	: Ministry of International Trade and Industry
ML	: Maximum Likelihood
MNC	: Multinational Company
MPPHM	: Manual Prosedur Pensijilan Halal Malaysia
MS	: Malaysian Standard
MSA	: Measures of Sampling Adequacy
MSV	: Maximum Shared-square Variance
NFI	: Normed Fit Index
NMAR	: Non-ignorable Missing At Random
NNFI	: Non-Normed Fit Index
OIC	: Organization of the Islamic Conference
OMEL	: Owner Management or Employee Limitation
PA	: Path Analysis
PAF	: Principal Axis Factoring
PCA	: Principal Component Analysis
PIA	: Pre-service & In-service Activities
PLS	: Partial Least Square
POI	: Perception on Implementation
RMSEA	: Root Mean Square Error of Approximation
SEG	: Standard Expert Group
SEM	: Structural Equation Modelling

SGIE	: State of Global Islamic Economic
SME	: Small Medium Enterprise
SRMR	: Standardized Root Mean Square Residual
TFM	: Trade & Free Movement
TPB	: Theory of Planned Behaviour
TRA	: Theory of Research Action
VAF	: Variance Accounted For
WTO	: World Trade Organization



CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

The growth of the issue of “halal-ness” of products and services is in tandem with the growth of the World’s Muslim population. The vast enhancement of Muslim population and Muslim purchasing power will bring a lot of promise in the future of the global halal industries including foodstuffs, cosmetics, fashion and health care. Nevertheless, the intensity of sensitivity of Halal will increase when it comes to food-related matters. According to Elasrag (2016), the growth of global Halal food industry is triggered by the increasing awareness among Muslims on the need and necessity to consume only halal food. Another triggering factor is the ascending trend of halal product consumption by non-Muslim consumer for ethical, health and safety reasons (Ambali & Bakar, 2014).

According to Pew Research Centre (2010), Islam is the second largest religion in the world (23.2% of world population), just below Christians (31.5%). Moreover, Pew Research Centre Forum on Religion & Public Life (2011) mentioned that the world’s Muslim population is expected to increase about 35% in the next 20 years, from 1.6 billion in 2010 to 2.2 billion by 2030. Meanwhile, the world’s Muslim population is expected to be 2.6 billion by 2050 (see Figure 1.1).

In the meantime, Surkes (2017) mentioned that a growth rate of approximately 73% is expected for the Muslim population from 2010 to 2050. This number is much larger than the average growth of the global population which is predicted to be around 37%. If those rates of growth continue past 2050, the global Muslim population will match with the global Christian population by 2060 (Surkes, 2017).

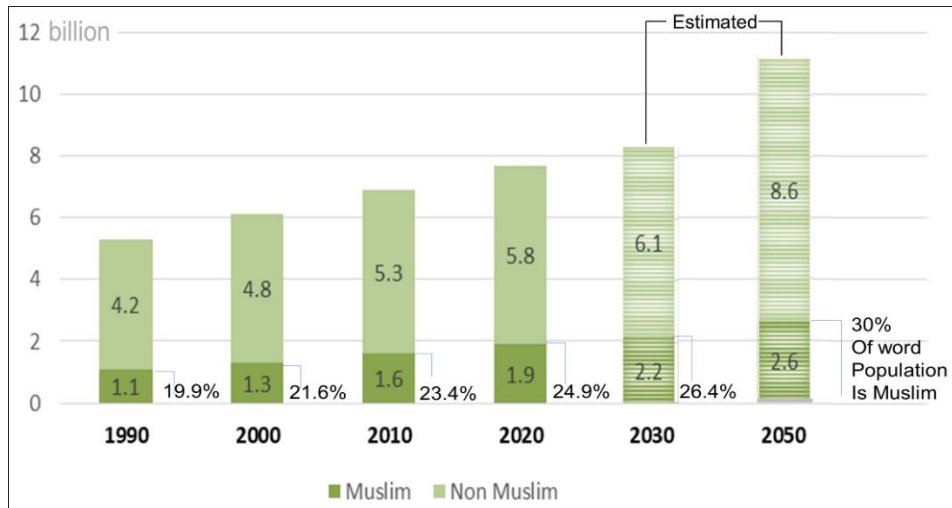


Figure 1.1 The Future of Global Moslem Population

The incredible growth of world's Muslim population will open a big opportunity to tap in the global Halal market and Halal industry. However, Halal Food industry has grown faster than any other industry in the Islamic economy sector. The Global Islamic Economic Report 2018/2019 mentioned that by category of spending, Halal Food & Beverages Industry still holds the biggest share with a value of about US\$ 1,303 billion in 2017, and it is expected to reach US\$ 1,863 billion by 2023 (see Figure 1.2).

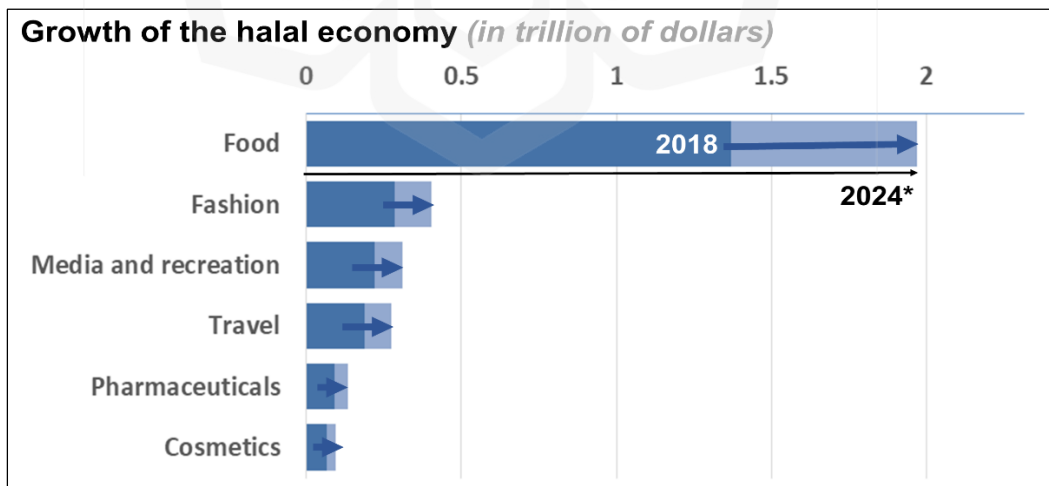


Figure 1.2 Growth of the Halal Economy

The fact that the Halal Food industry has the biggest share in the Islamic economy is in line with the statement of Elasrag (2016) which mentioned that by 2020, the Muslim food expenditure is expected to grow to US\$1,585 billion. It is estimated to account for 16.9% of global expenditure. This amount is equated to a 5.8% CAGR growth between 2014 and 2020 (see Table.1.1).

Table 1.1 The 2020 Projected Global Halal Market

2014	2020
<ul style="list-style-type: none"> ▶ Total Global Market Size was US\$6,755 billion. 	<ul style="list-style-type: none"> ▶ With 5.8% CAGR the Total Global Market Size will be US\$9,406 billion
<ul style="list-style-type: none"> ▶ Global Muslim Market spending on food & lifestyle at 2015/16 was US\$1,128 billion (17% of global expenditure on 2014) 	<ul style="list-style-type: none"> ▶ Potential Muslim Market spending on food & lifestyle is predicted to be US\$1,585 billion.
<ul style="list-style-type: none"> ▶ Global Muslim Market spending on Food only was US\$795 billion. 	<ul style="list-style-type: none"> ▶ Potential Global Muslim spending on Food only is predicted to be about US\$2,537 billion.

Adopted from: Elasrag (2016)

Moreover, the State Global Islamic Economic (SGIE) Report 2019 mentioned that the Islamic economy market size in 2017 was about US\$ 4,545 billion and expected to reach US\$ 6,816 billion by 2023. Meanwhile, the Adroit Market Research (2018) has announced that global halal market size is expected to reach US\$ 9,710 billion by 2025. Previously, the SGIE reported that the total global Muslim spending on food and beverages in 2016 was about US\$1, 240 billion, while in 2015 it was about US\$1,128 billion. The graph of halal food and beverages industry's growth can be seen in Figure 1.3.

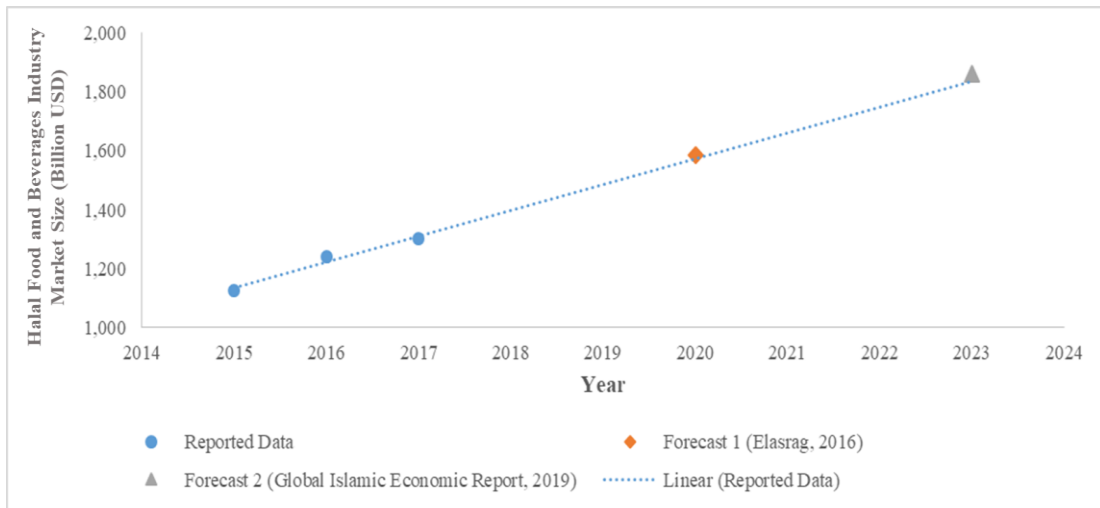


Figure 1.3 Growth of Halal Food & Beverages Industry Market Size

As seen in Figure 1.3, the trend of the Halal Food & Beverages Industry is clearly growing. Through the linear forecast based on the reported data from 2015 to 2017, the market size in 2020 is estimated to be roughly US\$ 1,580 Billion and the market size in 2023 is predicted to be US\$ 1,850 Billion. These values are very close to the US\$ 1,585 Billion in 2020 forecasted by Elasrag (2016) and US\$ 1,863 Billion in 2023 forecasted by the SGIE 2018/19 respectively.

These big opportunities of Halal Market has been captured by several countries in the world, both Muslim and non-Muslim countries. As a Muslim country, Malaysia aspires to be a halal hub and is aggressively working towards becoming the key player in delivering halal food products (Mohamad & Backhouse, 2014). Therefore, Halal Industry in Malaysia has grown significantly.

According to Malaysian Ministry of International Trade and Industry (2016), Malaysian Halal Industry has a growth of 258.54%, from RM4.1 billion in 2012 to RM10.6 billion in 2015. Meanwhile, Malaysia's halal exports grew by 7.1% to RM42.18 billion in 2016. These significant growths are aligned with the SGIE 2019/2020 report which mentioned that for the sixth consecutive year, Malaysia maintains its position as the leading country in terms of overall Islamic economic ecosystem.