

# COSMETIC MANUFACTURERS READINESS TO IMPLEMENT HALAL CERTIFICATION BY INVESTIGATING THE EFFECTS OF TOP MANAGEMENT SUPPORT AND KNOWLEDGE MANAGEMENT PROCESS



NUR SYAZANA BINTI ZULKIFLI

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

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# DEDICATION

My dear husband and little princess

Saiful Deen bin Mohd Nawi Safiyya Hana binti Saiful Deen

My lovely mom and siblings

Pn Hjh Rusmawati binti Noordin Muhammad Syafiq bin Zulkifli Nur Zahira binti Zulkifli Nur Syazwani binti Zulkifli

Thank you for your understanding, support and encouragement throughout this PhD journey

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

## COSMETIC MANUFACTURERS READINESS TO IMPLEMENT HALAL CERTIFICATION BY INVESTIGATING THE EFFECTS OF TOP MANAGEMENT SUPPORT AND KNOWLEDGE MANAGEMENT PROCESS

By

# NUR SYAZANA BINTI ZULKIFLI November 2021 Chairman : Professor Azmawani binti Abd Rahman, PhD Faculty : School of Business and Economics

As the top scorer of Global Islamic Economy Indicator (GIEI), Malaysia plays an important role to capture the fast-changing demand for halal industry products and services, including halal cosmetic. This phenomenon has created vast opportunities for cosmetic manufacturers to implement Halal Certification as a strategic move. Most previous researches on Halal Certification have focused on food industry, thus understanding on halal cosmetics industry remain sparse.

The main purpose of this study is to investigate the readiness of cosmetic manufacturers in Malaysia to implement Halal Certification. Specifically, this study investigates the influence of the external factors like government pressure, government support, supplier pressure, customer pressure and competitor pressure towards firm's readiness to implement Halal Certification. This study also incorporates top management behaviour and knowledge management process for mediation and moderation effect respectively. This study employs an Institutional Theory, Theory of Planned Behaviour (TPB) as well as the Resource-Based View Theory (RBV) to explain the interlinkages. Based on 143 usable responses from the cosmetics manufacturers, the Statistical Package for the Social Sciences (SPSS) and the Partial Least Square (PLS) are applied to test the proposed hypotheses. Overall, all six dimensions of readiness to implement Halal Certification developed were strongly associated with the degree of organizational readiness for the adoption of Halal Certification in their cosmetics business operations.

The results show that institutional pressure and top management behaviour (as mediator) are positively related to the organizational readiness to implement Halal Certification. However, the relationship between knowledge management process and organizational readiness to implement Halal Certification is found to be insignificant. Information in this study is beneficial to assist top management in cosmetics industry to increase their efforts toward best practises in order to implement Halal Certification in the future and stay competitive in the market, particularly in Malaysia.

Key terms: External Pressure, Top Management Support, Knowledge Management Process, Organizational Readiness to Implement Halal Certification, Malaysia



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

## KESEDIAAN PENGILANG KOSMETIK UNTUK MELAKSANAKAN SIJIL HALAL KAJIAN TERHADAP EFEK SIKAP PIHAK PENGURUSAN TERTINGGI ORGANISASI DAN PROSES PENGURUSAN PENGETAHUAN

Oleh

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November 2021

Pengerusi : Profesor Azmawani binti Abd Rahman, PhD Fakulti : Sekolah Perniagaan dan Ekonomi

Sebagai peneraju utama Indikator Ekonomi Islam Global (GIEI), Malaysia memainkan peranan penting untuk menjejak sebarang bentuk perubahan yang terjadi di dalam aktiviti industri halal, termasuk industri kosmetik halal. Fenomena ini dikatakan memberi peluang keemasan kepada organisasi pengilang kosmetik untuk membuat keputusan strategik dalam melaksanakan Pensijilan Halal. Kewujudan kajian mengenai pensijilan Halal terus terarah kepada industri makanan dan logistik berbanding industri kosmetik.

Tujuan utama kajian ini adalah untuk menjalankan siasatan terhadap faktor dan keadaan yang menjadi penyumbang terhadap kesediaan pengilang kosmetik di Malaysia untuk melaksanakan Pensijilan Halal. Fokus kajian ini juga adalah untuk meneliti faktor-faktor tekanan luar institusi seperti tekanan oleh pihak kerajaan, bantuan dari pihak kerajaan, tekanan oleh pihak pembekal, tekanan dari pengguna dan tekanan dari pesaing. Kajian ini juga meletakkan sikap pihak pengurusan tertinggi organisasi dan proses pengurusan pengetahuan sebagai kesan mediator dan moderator. Kajian ini yang juga menggabungkan *Institutional Theory, Theory of Planned Behaviour (TPB)* dan *Resource-Based View Theory (RBV)*. Berdasarkan kepada 143 respon yang diberi oleh pengilang industri kosmetik yang terlibat, kajian ini diuji dengan menggunakan teknik *Statistical Package for the Social Sciences* (SPSS) dan *Partial Least Square* (PLS) untuk menguji cadangan hipotesis kajian. Secara keseluruhan, kesemua enam (6) dimensi tahap kesediaan syarikat yang dibangunkan didalam kajian ini

ditemukan signifikan terhadap kesediaan pengilang kosmetik di Malaysia untuk melaksanakan Pensijilan Halal.

Keputusan kajian menunjukkan kedua-dua tekanan luar institusi dan sikap pihak pengurusan tertinggi organisasi (sebagai mediator) mempengaruhi kesediaan organisasi untuk melaksanakan Pensijilan Halal. Walaubagaimanapun, hubungkait di antara proses pengurusan pengetahuan dan kesediaan organisasi untuk melaksanakan Pensijilan Halal didapati tidak signifikan. Dari aspek implikasi teori, kajian in telah menyumbang kepada literatur mengenai Theory of Planned Behaviour (TPB) dan Resource-Based View Theory (RBV) dari perspektif pemain industri. Maklumat dapatan kajian ini berguna bagi membantu pihak pengurusan tertinggi organisasi untuk meningkatkan usaha syarikat dalam perlaksanaan amalan baik terhadap dalam melaksanakan pensijilan Halal pada masa akan datang disamping untuk kekal kompetitif di dalam pasaran khususnya di Malaysia.

Kata kunci: Tekanan Luar, Sikap Pihak Pengurusan Tertinggi Organisasi, Proses Pengurusan Pengetahuan, Kesediaan Organisasi untuk Melaksanakan Pensijilan Halal, Malaysia

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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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# LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
B2B	Business-to-Business
B2C	Business-to-Consumer
CB-SEM	Covariance-based Structural Equation Modelling
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
EDI	Electronic Data Interchange
EFA	Exploratory Factor Analysis
ERP	Electronic Resource Planning
FMM	Federation of Malaysian Manufacturers
f <sup>2</sup>	Effect Size
GDP	Gross Domestic Product
GIEI	Global Islamic Economy Indicator
НАССР	Hazard Analysis Critical Control Points
HAS	Halal Assurance System
HDC	Halal Development Corporation Berhad
HOS	Halal Orientation Strategy
IDD	Industry Development Division
ISO	International Organization for Standardization
KMC	Knowledge Management Capability
KMP	Knowledge Management Process
JAKIM	Department of Islamic Development Malaysia

# MNE Multinational Enterprises

NPRA National Pharmaceutical Regulatory Agency

PBC Perceived Behavioural Control

PLS-SEM Partial Least Square-Structural Equation Model

SPSS Statistical Package for the Social Science

TAM Technology Acceptance Model

TPB Theory of Planned Behaviour

TRA Theory of Reasoned Action

TRI Technology Readiness Index

- RBV Research-Based View
- UAE United Arab Emirates
- USD United States Dollar

## CHAPTER 1

## INTRODUCTION

### 1.1 Chapter Overview

This chapter presents the background of the study, followed by an overview of Muslim populations, cosmetics market demand, as well as the plans and efforts of Malaysian government regarding Halal Certification, the problem statement, research questions and objectives, significance of the study, scope of the study, definition of each key terms and the organization of the thesis. Finally, a brief summary is provided to conclude this chapter. This study discusses the antecedents and consequences of the readiness of cosmetic manufacturers in Malaysia to implement Halal Certification and the moderating effect of knowledge management process between top management support and organizational readiness.

### 1.2 Research Background

The Islamic economy has been experiencing exponential growth over the last few years (Global Islamic Report, 2020). The rising number of consumers in an Islamic economy requires companies to provide halal products and services to fulfill the Muslim needs. Basically, specific Islamic laws required Muslims to follow according to the Holy Quran, regarding ethical practices in daily life. Halal concept in Islam which has been provided for Muslim society, known as Shariah compliance guidance is very crucial and must be abided strictly. It focuses specifically to determine how and what to trade, interact with others and what is non-prohibited or prohibited for consumption. Nothing is forbidden unless it is forbidden by a Quranic verse or a genuine and explicit Sunnah of the Prophet Muhammad (SAW), as Hadith says:

"The Halal is that which Allah has made lawful in His book and the Haram is that which He has forbidden, and that concerning which He is silent, He has permitted as a favour to you", (see: Ibn Majah, No 3367).

The causes for the prohibition of goods due to impurity and harmfulness were underlined in Islam. According to the holy Quran as the guidance, it is clearly stated that Muslims are forbidden to be involved with any "*haram*" (illicit) activities. Below is the statement related to illicit activities, cited as reference in the holy Quran, Surah Al-Maidah; Verse 3.

"Forbidden to you (for food) are: dead meat, blood, the flesh of swine, and that on which hath been invoked the name of other than Allah. that which hath been killed by strangling, or by a violent blow, or by a headlong fall, or by being gored to death; that which hath been (partly) eaten by a wild animal; unless ye are able to slaughter it (in due form); that which is sacrificed on stone (altars); (forbidden) also is the division (of meat) by raffling with arrows: that is impiety. This day have those who reject faith given up all hope of your religion: yet fear them not but fear Me. This day have I perfected your religion for you, completed My favour upon you, and have chosen for you Islam as your religion. But if any is forced by hunger, with no inclination to transgression, Allah is indeed Oft-forgiving, Most Merciful". (Surah 5 - Al Maidah: Verse 3 [5:3])

Since halal is about wholesomeness which covers purity, cleanliness, safety, hygiene, sanitation, transparent, and fulfilling Shariah requirement, previous studies on halal have proven that Muslims will not compromise in selecting and consuming halal products (Alam and Sayuti, 2011). Halal originates from the Arabic word namely *halla*, *yahillu*, *hillan*, *wahalalan* which means allowed or permissible by the Shariah law (Manual Procedure Malaysia Halal Certification, 2014). The fact that halal concept is a moral code of conduct for Muslims, consumers have touched every single facet of Islamic life (Alserhan and Alserhan, 2012), and indicated that halal is a global symbol synonymous with good quality, safety, health and trust in the mainstream market among Muslim and non-Muslim (Burgmann, 2007; Hanzaee and Ramezani, 2011).

As Muslim consumers' knowledge of their faith has grown, they have become more selective in the items and services they purchase (Tieman, 2015). Muslims who are highly religious are identified to have different consumption patterns in consuming halal products and services (El-Bassiouny 2014; Briliana and Mursito, 2017). Therefore, halal is identified as an important and meaningful element which influences the purchasing and consumption habits of consumers (Alam and Sayuti, 2011; Briliana and Mursito, 2017).

The growing demand for halal products has sparked fast development of halal industry. The rapid rise in Muslim concerns about halal products has been attributed to the way they are produced, kept, packed, and distributed in accordance with Shariah law (Suparno, 2020). Besides, the halal market is growing every year as a result of a well-established halal regulatory environment (Salaam Gateway, 2020). Furthermore, halal has turns into a lobal image for life-style choice and first-rate guarantee (Wilson and Liu, 2011). As a result, even non-Muslims can be enticed to consume the halal products. These factors have an impact on the expansion of halal businesses around the world, including in countries with a non-Muslim majority.

The emergence of halal industries is caused by several factors such as the rise of Muslim populations around the world, digital connectivity, ethical consumerism, growing modest fashion brands and increasing affluence of GDP per capita (Dinar Standard, 2021). Global Islamic Report 2019/2020 by Salaam Gateway showed the growth of halal industry performance in various fields.

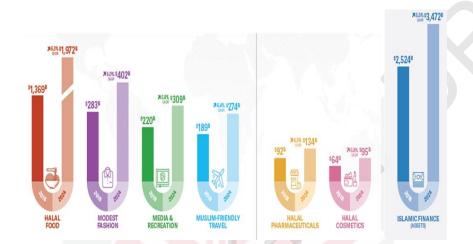


Figure 1.1: Global Islamic Economy Sectors (USD Billion) (Source: Global Islamic Economy Reports 2019/2020)

Figure 1.1 shows the latest developments and trends among various halal industry markets. It is estimated that all halal sectors will have tremendous growth in the upcoming year until 2024 (Dinar Standard, 2020). The emerging market of halal industry has been identified as one of the driver of economics performance, parallel with socioeconomic and political factors in contributing to the nation's Gross Domestic Product (GDP). It demonstrates how critical it is for current and future halal sector participants, government agencies, and investors to participate in the Islamic economy across all essential pillars and earn significant profits, as evidenced by the growth of total estimated expenditure by the Muslim market on food, beverage, and lifestyle sectors.

The global Muslim population is expected to grow from 1.7 billion in 2014 to 2.2 billion by 2030 (+29.4%) (Dinar Standard, 2019). The young Muslims, known as millennial consumers, totalling 0.7 billion in 2027 across OIC countries, represent an increasingly important segment in the Islamic Economy (Thomson Reuters, 2017).

## **1.2.1** The Rise of Muslim Populations

The worldwide Muslim population is predicted to grow in the following years and become a major driver towards the growth of halal industries (Dinar Standard, 2019). Muslims is estimated to spend USD 2.2tn in the food, pharmaceutical and lifestyle industries, all of which are influenced by Islamic faith-based ethical consumption requirements (State of the Global Islamic Economy Report (GIER), 2019/2020). The increasing demand for quality and integrity of the product they consumed has become a concerns of at least 1.8 billion Muslims in year 2030 (Ngah et al., 2015). According to a report published by the Global Islamic Economy, the halal industry will continue to grow as long as the items produced are halal certified.

Asia is known as home to most of the world's Muslims with 61.7% share and it will continue to do so in future (Pew Research Centre, 2017). In 49 nations around the world, Muslims make up the majority of the population. Therefore, it is identified that the small Asian kingdom has in recent years built a strong demand for halal with a great Muslim population identified in the country. Table 1.1 shows the Asian country with huge Muslim populations. Indonesia and India represent the top two countries with massive Muslim populations with 219 million and 194 million respectively. Malaysia represents the top 6, with 16 million Muslims living in the country.

Asian Country	Muslim Populations
Indonesia	219 million
India	194 million
Pakistan	184 million
Bangladesh	144 million
China	133 million
Malaysia	16 million

Table 1.1: Asian Country with Big Muslim Populations

(Source: http://www.pewresearch.org 2017)

The large number of Muslim populations especially in Asian country has indicated huge market potential for halal business players to grow exponentially. Furthermore, the combination of halal as part of the belief system for Muslim society now has led to huge halal market across the globe. This situation has sparked the demand for every halal food, products and services including increasing demand for halal cosmetics. Overall, the cosmetics sector has grown in both developed and developing countries around the world (Azmi Hassali et al., 2015; Krishnan et al., 2017).

The potential growth of the halal beauty business in Asian country has received a lot of attention among cosmetics industry players. The report highlighted that the cosmetics and personal care industry has risen to the top of the list as the fastest growing segment (Dinar Standard, 2019). The rise in disposable incomes and the continuous urbanisation of South East Asia also affected the boost of halal cosmetics consumer among Asian (Thomson Reuters, 2016). The growing pattern on cosmetics consumption among South East Asia countries is seen by the growing number of Muslim populations, also increasing disposable income among Muslim consumers (Anubha, 2021).

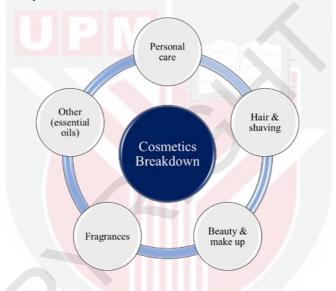
According to the press reported by Halalfocus.net, dated 7 September 2017, it is highlighted that Malaysia, India, Indonesia, Pakistan and Bangladesh would be expecting high demand for halal cosmetics because they have large Muslim populations with improving socio-economic conditions. The improvement in the socio-economic status of Muslim households in India have aided this segment's willingness to spend on cosmetics consumption (Anubha, 2021). Furthermore, the growing pattern of using social media has also influence the trend of cosmetics consumption among Millenial Muslim consumers in Indonesia (Handriana et al., 2021). It is forecasted that young Muslim women will drive Muslim consumption since they have more disposable cash and are more educated and employed (Ishak et al., 2020; Handriana et al., 2020).

Besides, millennial consumers will become the engine of transformation across the retail economy address the needs of Muslim millennials (people who born in between 1980 and 2000), a sizeable, value-based customer segment (Dinar Standard, 2018). Millennials are a generation of young people defined by their regular usage and adaptation of technology, as well as their attitudes, life experiences, motivation, and general purchasing behaviour (Moreno et al., 2017). This young and affluent generation is driving the trend and major consumerism in beauty and cosmetics industry.

Increasing beauty obsession among Muslim Millenial also has led to the immense growth of cosmetics industry in Malaysia (Ishak et al., 2019). It is identified that young generation in Malaysia nowadays is educated, independent and is capable enough in purchasing cosmetic items with their own money (Khan et al., 2021). On top of that, generation Y has also been described as a large cosmetics user in Malaysia. It was discovered that this group rely on the halal logo as a predictor of cosmetics product safety to be consume (Khan et al., 2021). Therefore, these group of users emerging as the next biggest opportunity for halal cosmetics to tap into Malaysian market.

## 1.2.2 The Rise of Cosmetics Market

According to The European Union and Association of Southeast Asian Nations (ASEAN), cosmetics are defined as "any substance or preparation intended to be placed in contact with the various external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance and/or correcting body odors' and/or protecting them or keeping them in good condition". According to Mohezar et al. (2016), cosmetic items are any of various preparations used to beautify, preserve, or enhance the skin tone and texture, hair, lips, nails, eyes, or teeth.



**Figure 1.2: Global Personal Care/Cosmetics Segment Breakdown** (Source: Global Islamic Economy Reports 2019/2020)

Figure 1.2 illustrates the breakdown of global personal care/cosmetics segment. The breakdown segments of cosmetic are personal care, hair & shaving, beauty & make up, fragrances and other essential oil. The emerging of cosmetics have risen in large scale during the last few decades (Al-Dayel et al., 2011). The increasing trend of beauty obsession among women and men has led towards rapid growth of cosmetic industry. According to a survey conducted by L'Oreal Company, in 1990 there are only 4% of men who stated to use face care products on a daily basis. However in 2001, it has increased to 21% and finally in 2015, it was predicted that 50% of men would start to use facial care products (Souiden and Diagne, 2009).

Chemicals were frequently utilized in the nineteenth century to substitute more expensive natural materials in the cosmetics manufacturing process (Dimitrova et al., 2009). However, nowadays consumers are more knowledgeable towards products safety; which created the trend that involves increasing interest in natural ingredients product. Today's cosmetic and ingredient safety assessments are not only focused on science, but also consider other factors such as animal testing ethics. They believed this revolution of cosmetic has brought innovation towards products requirement in order to maintain market competitiveness.

The innovation in cosmetic products which includes the natural cosmetics are one of the most popular cosmetics, with brands promoting them as environmentally friendly. However, in the new cosmetic world, Muslim populations have long awaited the Shariah compliance based cosmetic or better known as halal cosmetic. The revolution of Muslim market growth has influenced Muslim consumers to consume halal cosmetics in their daily life (Dinar Standard, 2019).

According to the global market statistics, the global cosmetics market value was USD 507.8 billion in 2018 and it was projected to value at about USD 758.4 billion by 2025. A closer look at halal cosmetics reveals that the market will be worth USD 52.02 billion by 2025, with a compounded annual growth rate of 12.3% (Halal Dinar, 2019). By 2024, Muslim consumers are expected to spend USD 95 billion on halal cosmetic, up from USD 61 billion in 2017 (Halal Dinar, 2019).

Furthermore, halal cosmetic start-ups have been in lined with the increasing demand in modest fashion whereby the global Muslims spend on clothing has seen a growth of 4.8% from USD 270 billion to USD 283 billion in 2018 (Dinar Standard, 2019). As the modest fashion brings into fashion festivals such as Islamic Fashion Festival in Malaysia, Istanbul Modest Fashion in Turkey, New York Fashion Week and others, it has indirectly influenced an increasing demand for halal cosmetic to be used as make-up by the models. Therefore, it is important for cosmetic industry players to start practicing Halal Certification in their business, since the demand for halal cosmetics has been a business opportunities and halal is known as a landscape of hygiene, safety, and standards (Swidi et al., 2010).

Therefore, due to the fact that cosmetics market has become outrageous from time to time, the purpose of this research is to find out more about the readiness of cosmetic manufacturers to implement Halal Certification in their business since there is an increasing demand for halal cosmetic among consumers.

## **1.2.3** Demand for Halal Cosmetics

According to the Department of Islamic Development Malaysian (jakim.gov.my) website, "Halal originates from an Arabic phrase that means allowed or permitted by Islamic Law". This is consistent with the definition of cosmetic given by the European Union; Association of Southeast Asian Nations ASEAN and the Department of Standards Malaysia. Thus this study would define halal cosmetic as "Practicing shariah compliance and wholesomeness, which covers purity, cleanliness, safety, hygiene, sanitation, transparent for any material made for contact with various outer layers of the body (epidermis, hair, nail, lips, and external sexual organ) or on teeth and mucus channel in the mouth which the sole objective is to clean, to perfume, to change appearance and/ or improve body odor and/ or protect or preserve them in good condition." It has been identified that there is an increasing demand for halal cosmetic, due to consumer awareness towards halal products.

This is because the consumers are now becoming more aware of the importance of purchasing halal cosmetic in the market (Abd Rahman et al., 2015; Khan et al., 2020; Handriana et al., 2020). Consumer behaviour is influenced by a person's religious orientation, which shapes their perception and awareness of religious laws (Muhamad et al., 2016). Furthermore, Muslim consumers are becoming more aware to use halal products in daily life because of the increased usage of social media platforms such as Twitter, Instagram, and Facebook (Shahid et al., 2018).

Moreover, halal concept are found to support green marketing, value symbiotic connections for long-term development, and oppose animal cruelty and environmental devastation (Aoun and Tournois, 2015). The trend of awareness also has increased the demand for halal products among non-Muslims who focus on the importance of using clean, organic, nutritious, and safe products, since halal signifies hygiene and quality (Ambali and Bakar, 2014). It demonstrates both Muslim and non-Muslim consumers seeking a safe and hygienic product are becoming more aware of halal cosmetic.

It is the Muslim's responsibility to seek for halal and toyyiban products in daily life. It is highlighted that toyyiban has associate with product safety, which indicates that the product must be free of alcohol, najs, infection, and any genetically modified organisms (Sutono, 2015). According to Danziger (2019), beauty customers are drawn to new brands and cosmetics that are natural, clean, and sustainable, all of which are characteristics that fit the description of toyyiban. It shows that cosmetic consumers are becoming more educated and more concerned about product quality to be consume in daily life. Hence, it affect the consumption patterns towards halal cosmetic products expenditure in the market.

Table 1.2 identifies the top Muslim markets in halal cosmetics expenditure. India shows the highest market expenditure in halal cosmetic products, with a total amount of USD 6 billion spent and followed by USD 4 billion respectively for Indonesia, Malaysia and Russia. Since the total population of Malaysia is small as compared to the other countries in the world, it shows that Malaysia has contributed the largest consumers in halal cosmetics products in the market.

Table 1.2: Halal	Cosmetics 1	Expenditure	Market
------------------	-------------	-------------	--------

Country	Total Spend (USD)	
India	6 billion	
Indonesia	4 billion	
Malaysia	4 billion	
Russia	4 billion	
Bangladesh	3 billion	

(Source: Global Islamic Economy Reports 2019/2020)

The rapid growth of halal cosmetic represent the recent upward trend among young Muslims generations who practice in conformity with Islamic law (Syara') lifestyle. According to the report indicated by GlobalData (2021), Malaysia's cosmetics and toiletries industry is set to expand from USD 1.6 billion in 2018 to USD 2.1 billion by 2023. Strong domestic demand and private consumption are driving Malaysian consumption, which is expanding at a CAGR of 4.2%, with the colour cosmetic category expected to rise at the quickest rate of 4.7% between 2018 and 2023 (GlobalData, 2021). According to Khan et al. (2021), Malaysian consumer refer to the halal logo and product safety to make a decision in buying cosmetic products. Most of Malaysian cosmetics consumer make their purchase decision to buy halal cosmetic based on their knowledge and perception about halal. Furthermore, Malaysian cosmetics consumer are willing to pay higher prices for branded halal cosmetic (Ishak et al., 2019).

On top of that, Malaysia is a well-known Muslim country that has taken the actions to solve the problem regarding halal and *haram* by setting up a body to manage the issues. The Department of Islamic Development Malaysia (JAKIM) was established in order to manage any matters regarding Islamic law and ways of living in Malaysia. In fact the department, as a pioneer, has introduced Halal Certification in most products to ensure Shariah principles and compliance are observed by all parties.

## 1.2.4 Halal Certification Practices in Malaysia

The Department of Islamic Development Malaysia (JAKIM) was created in 1997 with the main objective to "protect the purity of faith and the teachings of Islam" (JAKIM, 2014). JAKIM plays a role as an authority body in the development of halal standard in Malaysia, conduct by the central government agency. The major task is to streamline and standardise Islamic law, as well as to monitor Islamic affairs administration at the Federal and State levels and to develop Islamic education (JAKIM, 2014). JAKIM specific task is to ensure compliance of products and services with halal regulatory requirements.

JAKIM has strengthen their strategy by leading as 'halal hub' for the global business. This effort is in line with Malaysian Government policy as stated in Halal Industrial Master Plan 2030 (HIMP 2030) to develop Halal Integrated Platrofm (HIP) which aims to help entrepreneurs to venture into new potential opportunities to gain domestic and international market access (HDC, 2020). The Halal Industrial Master Plan 2030 serves as Malaysia's latest specific policy in terms of the halal hub agenda.

JAKIM initiated the Halal Development Corporation Berhad (HDC) in 2006, as a special body in-charge for the whole development of halal industry in Malaysia. It encompasses the development of halal standards, as well as halal product and service auditing and certification (JAKIM, 2014). Malaysia Halal Certification has become a paradigm for the global halal food market. Malaysia has been cited by the Codex Alimentarius Commission, a United Nations organization responsible for global food preparation laws, as the best example of halal food certification (Asean today, 2016). It is supported the data from Thomson Reuters Islamic Report: State of the Global Islamic Economy 2019/2020 which announced that Malaysia is leading in the top rankings of the Global Islamic Economy Indicator (GIEI) as top scorer for the best quality ecosystem practices in halal management. Given its high standards and assurance of integrity under the idea of Halalan Toyyiban, Malaysia recently achieved worldwide acceptance and acknowledgement for the Halal Malaysia logo (Quoquab and Sadom, 2020). Malaysia was the first country to implement halal laws in the early 1980s, and it continues to be a global leader in matters of Halal Certification (Riaz and Chaudry, 2004).

JAKIM strategy to promote 'halal hub' comes with the struggle to support the proper image of halal industries. Most of the halal standard introduced by JAKIM has been used by the world today (Dinar Standard, 2019). In addition, the Global Islamic Economy Indicator Score (GIEI) has identified Malaysia as the strongest management of Islamic Economy in the Islamic economy system. The GIEI is a weighted index that shows the current state of Islamic Economy indicators across each of the pillars of the Islamic Economy. The Indicator is proposed to evaluate the the overall quality of the Islamic economic system.

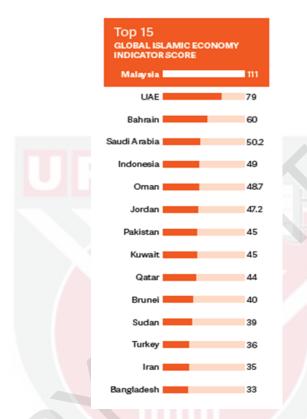


Figure 1.3: Global Islamic Economy Indicator Ranking (Source: Global Islamic Economy Reports 2019/2020)

Figure 1.3 shows the top ten countries having the highest Global Islamic Economy Indicator score (GIEI). Malaysia leads the rankings among the 111 Global Islamic Economy Indicator score (Islamic finance and Muslim friendly travel sectors). Each sector was evaluated based on: 1) supply/demand drivers relative to country size, 2) governance, 3) awareness, and 4) social issues in order to assess the health of the GIE ecosystem per country. For the seventh year in a row, Malaysia leads the GIEI (Dinar Standard, 2019). It is proven that Malaysia has the best halal certified practice and JAKIM is maintaining the best quality of halal ecosystem.

According to reports, the Southeast Asian cosmetic market is more developed than elsewhere due to increased consumer awareness and a well-established halal regulatory environment focused on cosmetics laws, particularly in Malaysia and Indonesia (Dinar Standard, 2019). This shows that the halal industry in Malaysia is given due attention by the government, as one of the biggest and important industries. Therefore, the guidelines endorsed by the Malaysian government could be used by industry players for the purpose of training, handling, and storing halal product (Talib and Johan, 2012).

Halal Certification is referred as the certificate, used as a symbol of verification issued by an Islamic institution to certify that the products fulfill the Islamic dietary guidelines (Ab Talib et al., 2015). Muslim consumers identify halal certified products by referring to the halal logo symbol, shown on the product's packaging or the food premises. To date, there are 414 cosmetics manufacturers registered under Federation of Malaysian Manufacturers (FMM) and National Pharmaceutical Regulatory Agency (NPRA) in year 2021. According to JAKIM directory 2021, 717 cosmetics industry players are Halal certified.

From the discussion above, it shows that Halal Certification authorized by JAKIM has successfully build a very strong ecosystem. From the government perspectives, halal products and services are regarded as an important sector which could contribute in developing the economy in the country. In addition, JAKIM has consistently observed the growth especially in terms of import and export of products and goods since 1 January 1997.

As halal became a global symbol for quality assurance and perceived reputation in Malaysia, there are increasing trend among companies to apply for Halal Certification (Ab Talib et al., 2015). Furthermore, the connection between JAKIM and other government departments such as the Ministry of Health, Ministry of Agriculture & Food Industries, also Ministry of Domestic Trade, Co-operatives & Consumerism in the halal development demonstrates their efforts to manage and retain their status as the originator of the halal standard, while also encouraging industry participants to improve their readiness to implement Halal Certification in commercial operations.

## 1.2.5 Readiness of Cosmetic Industry Players to Implement Halal Certification

JAKIM has shown great effort towards managing halal sector including the introduction of several standards, *fatwa* decisions and related regulations as guidance for the industry players to implement Halal Certification in their

business operations. As a basic reference, cosmetic industry players shall comply with: (i) MS2634:2019 Halal Cosmetics - General Requirements; (ii) Guidelines for Control of Cosmetic Products in Malaysia, National Pharmaceutical Control Bureau; (iii) Guidelines on Cosmetic Good Manufacturing Practice, National Pharmaceutical Control Bureau; (iv) decisions of the National Fatwa Council for Islamic Affairs or Fatwa decreed by the states; and (v) other related guidelines and regulations, in order to acquire the Halal Certification for their business.

MS2634:2019 Halal Cosmetics – General Requirements (First Revision) is the first version of standard guidelines for cosmetics industry players to incorporate halal in their business. This guideline highlighted that all 'personal care' merged as 'cosmetics' terms. This standard has been amend and improved from the Malaysian Standard MS 2200-1:2008, Islamic Consumer Goods – Part 1: Cosmetic and Personal Care – General Guidelines. The most important part, this standard has introduce the requirements on halal integrity, record management, religious practice and staff participation in cosmetics 'management responsibility' (Department of Standard Malaysia, 2019). The organizational readiness is identified as an important criterion that should be taken into account before the organizations tap into the decision in implementing any changes in the company.

According to the business dictionary, readiness is identified as "state of preparedness of persons, systems, or organizations to meet a situation and carry out a planned sequence of actions. Readiness is based on thoroughness of the planning, adequacy and training of the personnel, and supply and reserve of support services or systems". In the business operations, 3 different stages have been identified to lead the journey, namely readiness (pre-implementation stage), lean practices (implementation stage), and lean performance (post-implementation stage) (Narayanamurthy and Gurumurthy, 2016). Therefore, readiness is categorized as a pre-implementation stage in the organizations in order to adapt new changes in the business. In implementing Halal Certification, it is important to identify organizations readiness since halal is a complex process to be followed by manufacturers. However, it is identified recently that manufacturers have shown readiness in implementing Halal Certification due to the rising demand from the Muslim consumers.

In order to fulfil the rising demand especially among Muslim consumers, cosmetics industry players have started to submit an application for Halal Certification for their cosmetics products. According to Halal Industry Master Plan 2030, Malaysia's Halal market is expected to grow from USD 68.4 billion in 2018 to USD 113.2 billion in 2030 (HDC, 2019). In general, Malaysia's halal cosmetics sector is expected to grow rapidly in the coming years, with market

demand at USD 7.0 billion in 2018 expected to reach USD 11.7 billion by 2030 (MIDA, 2020). Industry players realize that they have to capitalize the trend of rising demand on halal cosmetics in the market by adopting the Halal Certification in their cosmetic products. In fact, according to Ahmad et al. (2015), halal is considered a vital product for society, and as people become more aware of the prohibitions on using alcohol, pork, and other related items, the demand for halal cosmetics is expected to increase in the future.

Several international companies have started to seek for Halal Certification from JAKIM to strengthen the company strategies to market halal products internationally since Malaysia is a pioneer in the field of halal management. JAKIM has put the halal industry growth strategy on the proper path, resulting in the creation of a unique ecosystem that allows private and governmental sectors to work together (HDC, 2016). As reported, South Korea's government has started to bridge the cooperation agreements with Malaysia in order to strengthen the overall ecosystem focusing on producing more halal cosmetics (Dinar Standard, 2019). The increasing demand to obtain Halal Certification for the cosmetic products among giant multinational cosmetics industry players is believed to be a good strategy to penetrate their products into the global market and thus increased the readiness among local cosmetics industry players to obtain the Halal Certification.

Since halal is not an obligatory to be implemented by the cosmetics industry in Malaysia, the question on the organization readiness to implement Halal Certification is still vague. Readiness could be explained as a concept whereby the organizational assets, processes and activities have to be moved from the current state to a new desired state. To begin, it is critical to underline the elements that motivate organizations to use Halal Certification, which is regarded as a symbol of quality for all products produced by manufacturers.

#### 1.3 Problem Statement

Halal Certification is an important factor which affect economic development in emerging markets. In Global Islamic Economy Report 2019/2020, the growth of halal industry has put the size of Islamic economy to be estimated at USD 3.2 trillion by 2024, rising from USD 1.9 trillion in 2015 (Dinar Standard, 2019). As suggested by Zailani et al. (2015) halal nowadays is not only related to religion in terms of Halal Certification or halal standard but also regarded as the "best value" in terms of economic growth. Since halal is an enforcement in religious requirement and standard for quality, the multinational companies acknowledge the halal's importance in maintaining competitiveness (Fischer, 2012).

First, there is an increase in the volume of studies on Halal Certification in recent years, such as halal supply chain (Tieman, 2015; Che Hashim and Sharif, 2016; Tieman, 2017; Zulfakar et al., 2018), halal food logistics (Ab Talib et al., 2014; Tarmizi et al., 2014; Tieman and Ghazali, 2014; Zailani et al., 2018; Susanti et al., 2020), and halal food certification (Marzuki et al., 2014; Ab Talib et al., 2015; Ab Talib et al., 2016; Ab Talib et al., 2017; Salindal, 2019; Bashir and Kim, 2019). However, according to the literature, the majority of Halal Certification research has been concentrated on the food industry. The evidence has proposed that Halal Certification is among the most important factors for Muslim consumers who are interested in modern consumption but remain sensitive to the values of their faith (Ngah et al., 2016).

Second, the demand trend on halal cosmetics shows tremendously growth for the past few years (Dinar Standard, 2019). The fact that customers are more educated and more concern on product quality has sparks the increasing demand for halalan toyyiban cosmetics products to be produced in the market (Khan et al., 2021). However, prior study found that Muslims are more concerned with eating and drinking halal meals and beverages than with using halal cosmetics (Handriana et al., 2021). Since halalan toyyiban or products safety is highlighted as a concern among cosmetics customer (Sutono, 2015; Danziger, 2019), it is important to investigate the readiness of cosmetics manufacturers to implement Halal Certification since they are at the core of cosmetics product chain in the market.

Furthermore, it demonstrates that the importance of Halal Certification is growing and gaining popularity among consumers. Basically, the number of studies related to consumer behaviour towards Halal Certification has been discovered in several areas such as islamic finance (Abou Youssef et al., 2015; Md Husin and Ab Rahman, 2016; Warsame and Ireri, 2016), halal food (Tieman and Ghazali, 2014; Mohtar et al., 2014; Azam, 2016; Liu, 2016), and halal cosmetics (Hashim and Musa, 2014; Abd Rahman, 2015; Handriana et al., 2020; Khan et al., 2020). It shows that there is a lack of study focusing on the halal cosmetics industry, especially from the perspectives of industry players. Since halal cosmetics industry has started to grow as to fulfill the demand from Muslim and non-Muslim consumers globally (Aziz and Chok, 2013), it is relevant for this study to focus on cosmetics industry from the manufacturers perspective.

Third, Halal Certification is a popular concern among industry players around the world (Salaam Gateway, 2020). According to the Department of Statistics Malaysia (DOSM), the number of Halal Certification applications in Malaysia has increased from 855 in 2017 to 8844 in 2019, bringing the overall number of halal applications to 54423 (DOSM, 2020). It is reported that in 2018, JAKIM has released 78,232 halal food certification, 2,129 halal cosmetics product certification, and 1,418 halal pharmaceuticals certification (JAKIM, 2018). However, it is reported that Malaysia's beauty and personal care business is still dominated by global beauty giants, with a market share of 60%, and Malaysia's halal cosmetics and personal care export value is RM 1.7 billion, or 5% of the global halal market (Ministry of International Trade and Industry [MITI], 2017). Malaysia has identified a massive global halal market opportunity, with an estimated 80% gap between global halal product demand and production, including halal cosmetics (HDC, 2020). This shows that halal certified cosmetics have already become more accepted, but somehow there are still lack of suppliers to fulfil the great demand in the market. Therefore, it is crucial to assess the readiness of Malaysian cosmetics manufacturers to apply Halal Certification since JAKIM is a pioneer in halal standard management and the status of Halal Certification authorized by JAKIM is extensively established around the world.

Forth, it has been recognised recently that halal cosmetic has grown in popularity and attracting a broad range of consumers. Non-Muslims are increasingly seeking halal certified cosmetics, with this group emphasising the importance of consuming clean, organic, nutritious, and safe items in their daily lives (Ambali and Bakar, 2014). According to the report by Ministry of International Trade and Industry Malaysia (MITI) 2017, halal cosmetics and personal care items are the fastest expanding consumer segment in Malaysia. The increasing concern on Muslims obligation to use halal cosmetics, and non-Muslims awareness towards hygiene and safe cosmetics has encouraged the cosmetics producers to provide products that align with Muslim consumer's requirements (JAKIM, 2019). Study by Zailani et al. (2017) found that market demands and competitive opportunities related to halal serices are the main factors toward the implementation of halal logistics. As a multi-ethnic country, both Muslims and non-Muslims consumer in Malaysia purchase products at the same shops (Kawata et al., 2018). As there is a huge halal cosmetics demand identified, this study requires investigation of the factors that influence the readiness of cosmetics manufacturers in Malaysia to adopt Halal certification in their business operations. Moreover, factors of implementing Halal Certification among cosmetics manufacturers remain scarce.

Fifth, previous study on the top management believe towards implementing changes has focused on testing the Theory of Planned Behaviour (TPB). For example, TPB among managers has been tested in technology adoption (Scannell, 2012), green manufacturing (Pratap Singh et al., 2017), sustainability supply chain (Swaim et al., 2016), and energy in logistics (Busse et al., 2017). Limited studies have been focusing on management personnel behavioural change towards the implementation of Halal Certification in cosmetics industry. On the other side, low organisational mindset is found significant with a low

level of Halal Certification application in the industry (Wilson 2014a, b). Moreover, a study by Shahijan et al. (2014) on retailers' behavioural intention in managing halal meat handling found positive relationships between attitude, subjective norms and retailer belief. However, there is a scarcity of research on top management support for Halal Certification implementation.

On the other hand, external pressures have been discovered as factors that influence company's decision to implement Halal Certification in their business operations. In previous studies, several external pressures such as governmental pressure, peer influence, supplier availability, halal market demand, business benefit (Soltanian et al., 2016; Zailani et al., 2015), perception of market/competition benefits and perception of operational benefits (Abd Rahman et al., 2017) are found to be significant towards the industry players readiness to implement changes in business operations. For example in the halal food industry, Ab Talib et al. (2016) found that the Institutional Theory offered a suitable explanation and motivation for companies to implement Halal Foods Certification. However, there are few previous studies that explain external pressure factors that lead to halal implementation, particularly in the cosmetics industry. This situation requires an investigation of the external pressures that influence the halal cosmetic manufacturers in Malaysia to adopt Halal Certification in their business operations.

Previous research by Chang et al. (2015) highlighted that Knowledge Management (KM) has evolved as a new paradigm capable of bridging the gap between a firm's existing condition and its desired state in terms of achieving sustainability goals. Another study conducted by Ferraris et al. (2017) supported that Knowledge Management Process (KMP) has influenced management capabilities toward innovative performance. It is then expected that limited KM in implementing Halal Certification in cosmetics production is more serious among manufacturers. Abd. Rahman et al. (2013) discovered that the KMP towards management and employees to enhance organizational effectiveness is important. Thus, it is critical to consider the significance of the KMP for cosmetics manufacturer to implement Halal Certification, in managing their businesses.

Finally, this study is concerned with Theory of Planned Behaviour (TPB) which refer as top management support as a factor to strengthen organization's decision making towards Halal Certification implementation among cosmetics manufacturers in Malaysia. The experience of a person to make a decision, the role of peers and personal traits and experience of making the same decision, are core components of the TPB framework (Samad et al., 2021). However, it shows that majority of halal manufacturers are lack of intention to adopt halal warehousing activities in their business operation (Ngah et al., 2015). On the other hand, Ngah et al. (2016) has found that the external pressure shows significant implementation of Halal Certification in food industry.

There have been numerous studies of magnitude to explain such interactions in this regard, but the present study is different in its scope. It is believed that external pressures such as rising consumer demand for halal cosmetics, government initiatives as halal ruler in Malaysia, as well as suppliers and competitors in the industry are expected to encourage top management as a decision maker to implement Halal Certification in their business operations. In order to fill these gaps in the literature, the current study constructs and tests a comprehensive model that examines the many factors that determine the cosmetic industry's readiness to apply Halal Certification in their business operations.

## 1.4 Research Questions

Based on the research problems stated above, the following questions need to be answered at the end of the study:

- 1. Do external pressures influence top management support and lead towards the organizational readiness to implement halal cosmetics certification?
- 2. How do top management support serve as antecedents to organizational readiness to halal cosmetics certification?
- 3. Does knowledge management process strengthen the relationship between top management support and organizational readiness to implement halal cosmetics certification?

# 1.5 Research Objectives

The main objective of this study is to examine the impact of pressure factors towards organizational readiness to implement halal cosmetics certification among cosmetics manufacturers in Malaysia. The following specific research objectives have been developed:

- 1. To examine the relationship between external pressure and top management support towards organizational readiness to implement halal cosmetics certification.
- 2. To examine the relationship between top management support and organizational readiness to implement halal cosmetics certification

- 3. To determine the mediating effects of top management support in relation to external pressures and organizational readiness to implement halal cosmetics certification.
- 4. To examine the moderating effects of knowledge management process in relation to the top management support and organizational readiness to implement halal cosmetics certification.

#### 1.6 Significance of the Study

As a result of the rising demand for halal cosmetics and the strong support from the government in halal ecosystem in Malaysia, this research is important in adding new information regarding readiness among cosmetics industry players in Malaysia to implement Halal Certification and the importance of knowledge management towards readiness. The Halal Development Corporation Berhad (HDC) has assigned the Industry Development Division (IDD) to trace the development and implementation of one of the key tenants of the National Halal Master Plan, known as "Enhancing the Economic Contribution from Halalrelated Industries by Identifying Programs and Providing Services to Increase Export-Led Growth and Reduce Imports (increase national self-sufficiency) in Halal-related Industries". According to the Global Islamic Economy Report 2019/20, Muslims spend an estimation of USD 64 billion on cosmetic in 2018 and the forecast estimation is expected to reach USD 95 billion by 2024. However, Malaysia is only on the second ranking for Islamic Economy Ecosystem in Halal Cosmetic Sectors behind United Arab Emirates (UAE). The ranking is based on four criteria which are governance, trade, social and awareness (Dinar Standard, 2019). In this present research, the focus is on the readiness of cosmetics manufacturers to adapt Halal Certification in the business practices. The study will also investigate on cosmetics manufacturers' knowledge management towards the readiness to apply Halal Certification in cosmetics business practices. This current research has the potential to provide significant theoretical and practical implications in the halal cosmetics area in relation to knowledge management field.

#### **1.6.1** Theoretical Implications

There are some theoretical implications emerging from this research, and they are identified as the following:

1. This study intends to add to the existing body of literature in the area of halal cosmetics industry. This study intends to ascertain the relationship of non-economic factors which contribute to the pressures towards the readiness of cosmetics industry players to implement Halal

Certification. This study provides an alternative lens to view Institutional Theory by constructing a conceptualized research framework based on the identified variables.

- 2. This study addresses the needs in the existing literature to examine the Theory of Planned Behaviour (TPB) in the context of halal cosmetics industry players. It is very important to understand the concept as the underlying values on the nature of business between industries as they are totally different. It provides information as to whether top management support in halal cosmetics industry are similar as compared with other industry.
- 3. This study will extend the Institutional Theory by including top management support as mediator and linking it to the organizational readiness to implement Halal Certification. As far as this study is concerned, it is believed that there occasionally has been studies that used top management support as mediator between these independent variables and dependent variable. Therefore, this study will contribute some information whether top management support as the decision maker will be an additional factor that affect organizational readiness to implement halal cosmetics certification
- 4. Knowledge management process could play a moderating role between top management support and organizational readiness to implement Halal Certification, which has not been investigated in the past. This study extends the knowledge management process by linking it to the halal industry context.

## 1.6.2 Practical Implications

This research has resulted in a number of practical contributions, which are listed below:

- 1. This study will be useful to cosmetics manufacturer who has desire to be engaged in halal business operations in future. This research will also enable cosmetics organization to implement better management practices in order to be ready for the challenge in halal certified cosmetics business.
- 2. This research will enhance cosmetics manufacturer's knowledge on readiness scale to implement Halal Certification in the business. As business practitioner, knowledge management is believed to be an important criterion towards better Halal Certification implementation.
- 3. This study is expected to reveal the true pictures of how top management support plays as a vital role towards changes in

practicing Halal Certification in cosmetics business operations. Top management, as the decision maker in an organization can bring better solutions and influences the other external pressures such as consumer demand and government supports in the halal industry.

4. This research would provide an insight to the Department of Islamic Development Malaysia (JAKIM) as policy makers in assisting the cosmetics manufacturer in Malaysia regarding Halal Certification. Thus, this study can be used as an eye opener to customize the implementation of Halal Certification among cosmetics manufacturer.

### 1.7 Scope of the Study

The research aims to investigate the cosmetics manufacturer readiness to implement Halal Certification. Cosmetics industry has been chosen as the research context due to the high potential to contribute as the important sector to the economy of Malaysia. The halal industry is expected to become a major economic driver for the country. This effort is in line with Malaysian Government policy as stated in Halal Industrial Master Plan 2030 (HIMP 2030) to develop Halal Integrated Platform (HIP) which aims to help entrepreneurs to venture into new potential opportunities to gain domestic and international market access (HDC, 2020). The scope of this research is on Malaysian cosmetics manufacturer who have not implemented Halal Certification in their business operations.

The target population of this study involves Malaysian cosmetics manufacturer, which chosen as respondent to the provided questionnaire. Cosmetics manufacturer who have not implement Halal Certification included in this study to obtain a greater understanding in details on factors that influence organizational readiness to implement halal cosmetics certification especially in Malaysian context.

### 1.8 Operational Definition of Key Terms

Four main terms are applied in this study. To avoid confusion among readers, a complete interpretation of the concepts which are critical and specific to this research would be provided. The operational definition of the key terms used are represented as guidelines in discussing the research findings based on the hypotheses are present in Table 1.3.

No.	Construct	Operational Definition
1	External Pressure	External pressure is defined as critical component of non-economic motivations, and is also known as social environment, which influence the structuring of organizations bounded by culture, policy, rules and regulations (Martinez and Dacin, 1999; Lawrence and Suddaby, 2006).
2	Top Management Support	Top management support in this study refer to top management behavioural belief which using TPB as underpinning theory (attitudes, subjective norms and perceived behavioural control). Top management is in charge of making
	UPI	organizational decisions and responding to developments in the outside market (Ajzen 1987; Liang et al., 2007).
3	Knowledge Management Process	Knowledge management process is defined as the strategic, systematic management process of an organizations knowledge asset that assist in the value creation, storage, distribution and application of knowledge (Abd Rahman et al., 2013) and knowledge sharing.
4	Organizational Readiness to implement Halal Certification	Organizational readiness to implement Halal Certification refer to the level of confidence of the company in terms of resource availability, organizational ability, top management and employee's motivation and personality attributes to implement Halal Certification.

#### Table 1.3: Operational Definition of Key Terms

# 1.9 Thesis Organizations

This dissertation is organized into six chapters (i.e., introduction, literature review, hypothesis development, methodology, data analysis & findings, discussion & conclusion). Chapter 1 includes an introduction to the background of the study, problem statement and contributions in conducting this study. Chapter 2 presents the literature review on top management support (i.e.: attitude, subjective norms and perceived behavioural control), external pressure, moderator and mediator variables. This chapter also discuss on relevant theories related to the readiness of cosmetics manufacturer to implement Halal Certification. These theories serve as the thesis's foundation for conceptualizing the research model. Chapter 3 illustrates the development of the research hypotheses based on relevant theories and the related literature. In chapter 4, the methodology used in this study will be elaborated. The main findings and analyses of this study will be presented in chapter 5 and lastly, chapter 6 will describe the research questions' answers and conclude the

findings of this study. The research's limitations are discussed, as well as future research directions. The structure of the chapters of this study is presented in Figure 1.4:

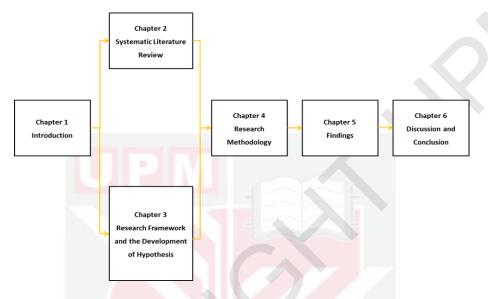


Figure 1.4: Chapter Structure in the Study

### 1.10 Chapter Summary

In summary, this section has highlighted the current rising demand for halal cosmetics around the world, and clearly explain the importance to investigate the organizational readiness to implement Halal Certification among cosmetics manufacturer. Despite Malaysia performance as top scorer of Global Islamic Economy Indicator (GIEI), this has not revealed any significant differences of halal cosmetics certification among cosmetics manufacturer in the country. The statistics of halal cosmetics manufacturer is still low as compared with other halal sector especially halal food industry. The study embarks to determine cosmetics manufacturer readiness to implement Halal Certification. The study findings will benefit both for practicality and literary.

#### REFERENCES

- Ab Talib, M. S., Abdul Hamid A. B., Zulfakar M. H., S. Jeeva A. (2014). Halal Logistics PEST Analysis: The Malaysia Perspectives. *Asian Social Science*, 10 (14), 119-131
- Ab Talib, M. S., Abdul Hamid A. B., Chin T. A., (2015). Motivations and limitations in implementing Halal food certification: A pareto analysis. *British Food Journal*, 117(11)
- Ab Talib, M. S., (2017). Motivations and benefits of halal food safety certification. *Journal of Islamic Marketing 8(4), 605-624*. DOI 10.1108/JIMA-08-2015-0063
- Achour, M., Khalil, A., S., Ahmad, B., Mohd Nor, R., Yusof, M., Y., Z., (2017). Management and supervisory support as a moderator of work-family demands and women's well-being. *Humanomics*, 33(3), 335-356
- Abdul, M., Ismail, H., Mustapha, M., & Kusuma, H. (2013). Indonesian Small Medium Enterprises (SMEs) and perceptions on halal food certification. *African Journal of Business Management*, 7(16), 1492–1500
- Abd Rahman, A., Imm, Ng S., Sambasivan M., Wong F., (2013). Training and organizational effectiveness: moderating role of knowledge management process. *European Journal of Training and Development*, 37(5), 472-488
- Abd Rahman, A., Asrarhaghighi E., Ab Rahman, S., (2015). Consumers and Halal cosmetic products: knowledge, religiosity, attitude and intention. *Journal of Islamic Marketing*, 6(1), 148 – 163
- Abd Rahman, A., Singhry, H. B., Hanafiah, M. H., Abdul, M., (2107). Influence of perceived benefits and traceability system on the readiness for Halal Assurance System implementation among food manufacturers. *Food Control* 73, 1318-1326
- Abdul Talib, A.N., Abd Razak, I.S. (2013). Cultivating export market oriented behavior in halal marketing: Addressing the issues and challenges in going global. *Journal of Islamic Marketing*, 4(2), 187–197. http://doi.org/10.1108/17590831311329304
- Abdullah Sani, N., Siow, O. N. (2014). Knowledge, attitudes and practices of food handlers on food safety in food service operations at the Universiti Kebangsaan Malaysia. *Food Control*, 37(1), 210–217. http://doi.org/10.1016/j.foodcont.2013.09.036

- Aboelmaged, M.G., (2010). Predicting e-procurement adoption in a developing country: An empirical integration of technology acceptance model and theory of planned behaviour. *Industrial Management and Data Systems*, 110(3), 392-414, https://doi.org/10.1108/02635571011030042
- Achu, C.Y., Rasid, A.H. (2016 Feb 13). Downturn not affecting demand in cosmetics sector. Retrieved from http://www.nst.com.my/news/2016/02/127240/downturn-not-affecting-demand-cosmetics-sector
- Adams G. L., Lamont B. T., (2003). Knowledge management systems and developing sustainable competitive advantage. *Journal of Knowledge Management*, 7(2), 142-154, https://doi.org/10.1108/13673270310477342
- Afifi, M. A. H., Salleh, M. M. M. (2012). The Possibility of Uniformity on Halal Standards in Organization of Islamic Countries (OIC) Country World. *Applied Sciences Journal 17 (Towards the Traceability of Halal and Thoyyiban Application)*: 06-10
- Ahmad, T. H., Kamarulzaman, N. H., Abd Latiff I., Abd Rahman A., (2014). Factors influencing readiness towards halal logistics among food- based logistics players in Malaysia. UMK Procedia, 1, 42 – 49
- Ahmadi, H., Nilashi, M., Shahmoradi, L., and Ibrahim, O. (2017). Hospital information system adoption: Expert perspectives on an adoption framework for Malaysian public hospitals. *Computers in Human Behavior*, 67, 161-189
- Alam, S.S. and Sayuti, N.M. (2011). Applying the theory of planned behavior (TPB) in Halal food purchasing. *International Journal of Commerce and Management*, 21(1), 8-20
- Alavi, M., and Leidner, D. E. (2001). Review: knowledge management and knowledgemanagement systems: conceptual foundations and research issues. *MIS Quarterly*, 25, 107–136
- Almahamid, S.M., Tareq, S. (2017). The impact of TQM practices and KM processes on organisational performance An empirical investigation. *Journal of Quality & Reliability Management*. 34(7) 1034-1055
- Alon A., Dwyer P. D., (2016). SEC's acceptance of IFRS-based financial reporting: An examination based in institutional theory. *Accounting, Organizations and Society 48, 1-16*

- Alserhan, B. A., and Alserhan, Z. A. (2012). Researching Muslim consumers: do they represent the fourth-billion consumer segment? *Journal of Islamic Marketing*, 3, 121–138
- Alshamaila, Y., Papagiannisids, S. and Li, F. (2013). Cloud computing adoption by SMEs in the north east of England: a multi-perspective framework. *Journal Information of Enterprise Management Information*, 26(3), 250-275
- Alvesson M. (1995). Management of knowledge-Intensive Companies. *Berlin: Walter de Gruyter*
- AL-QURAN: Surah Al-Maidah (5:3)
- Ambali, A.R. and Bakar, A.N. (2014). People's awareness on Halal foods and products: potential issues for policy-makers. *Procedia – Social and Behavioral Sciences*, 121, 3-25
- Annabi, C.A., Ibidapo-Obe, O.O. (2017). Halal certification organizations in the United Kingdom: An exploration of halal cosmetic certification. *Journal of Islamic Marketing*, 8(1), 107-126
- Anubha, (2021). Mediating role of attitude in halal cosmetics purchase intention: an ELM perspective. *Journal of Islamic Marketing*, 1759-0833
- Aziz, N.N.A. and Wahab, E. (2018). Intention to purchase halal cosmetic products using partial least squares. *International Journal of Engineering and Technology*, 7, 293-296
- Azmi Hassali, M., Tamimi, S.K., Dawood, O.T., Verma, A.K. and Saleem, F. (2015). Malaysian cosmetic market: current and future prospects. *Pharmaceutical Regulatory Affairs*, 4(4), 1-3
- Baker, M.A., Davis, E.A. and Weaver, P.A. (2014). Eco-friendly attitudes, barriers to participation, and differences in behavior at green hotels. *Cornell Hospitality Quarterly*, 55 (1), 89-99
- Bashir, K. M. I., Kim, J. S., Mohibbullah, M., Sohn, J. H., Choi J. S. (2019). Strategies for improving the competitiveness of Korean seafood companies in the overseas halal food market. *Journal of Islamic Marketing* 10(2), 606-632
- Baumard, P. (1996) Organizations in the fog: an investigation into the dynamics of knowledge. In B. Moingeon, and A. Edmondson (eds.), *Organizational Learning and Competitive Advantage. London: Sage Publications,* 74–91

- Berrone, P., Cruz, C., Gómez-Mejia, L.R., Larraza, M., (2010). Socioemotional wealth and organizational response to institutional pressures: do family controlled firms pollute less? *Administrative Science Quarterly* 55, 82–113
- Biesenthal, C., Stewart Clegg, S., Mahalingam, A., Sankaran S., (2018). Applying institutional theories to managing megaprojects. *International Journal of Project Management* 36, 43–54
- Bijaya M., Bhaskar, A. U. (2011) Knowledge management process in two learning organisations. *Journal of Knowledge Management*, 15(2), 344-359
- Brennan, L., Voros, J., Brady, E., (2011). Paradigms at play and implications for validity in social marketing research. *Journal of Social Marketing*, 1(2), 100-119
- Briliana V., Mursito N., (2017). Exploring antecedents and consequences of Indonesian Muslim youths' attitude towards halal cosmetic products: A case study in Jakarta. *Asia Pacific Management Review* 22, 176-184
- Burgmann, T. (2007). Halal flexes its marketing muscle. The Star
- Carrie A. A., Olufunbi O. I., (2017) Halal certification organizations in the United Kingdom: An exploration of halal cosmetic certification. *Journal of Islamic Marketing*, 8(1), 107-126
- Cai, S., Jun, M., Yang, Z. (2010). Implementing supply chain information integration in China: the role of institutional forces and trust. *Journal of Operations Management*, 28(3), 257-268
- Cao, H., Chen, Z. (2019). The driving effect of internal and external environment on green innovation strategy-The moderating role of top management's environmental awareness. *Nankai Business Review International*. 10 (3), 342-361
- Chang C.L., Lin T.C., (2015) The role of organizational culture in the knowledge management process *Journal of Knowledge Management*, 19(3), 433-455
- Christian B., Alexander R., Hariganesh C., Stephan M. W., (2017). Managerial perceptions of energy in logistics: An integration of the theory of planned behavior and stakeholder theory. *International Journal of Physical Distribution and Logistics Management*, 47(6), 447-471
- Craig C. A., Allen M. W., (2013). Sustainability information sources: employee knowledge, perceptions, and learning. *Journal of Communication Management*, 17(4), 292-307

- Culkin, N. and Smith, D. (2000). An emotional business: a guide to understanding the motivations of small business decision takers. *Qualitative Market Research: An International Journal*, 3 (3), 145-57
- Danziger, P.N. (2019). 6 trends shaping the future of the \$532B beauty business. Forbes. https://www. forbes.com/sites/pamdanziger/2019/09/01/6-trendsshaping-the-future-of-the-532b-beauty-business
- Davis, F.D. (1989). Perceived Usefulness, Perceived Ease Of Use, And User Acceptance. *MIS Quarterly*, 13 (3), 319-340
- Davenport, T., and Klahr, P. (1998). Managing customer support knowledge. *California Management Review*, 40, (3), 195–208
- De Groot, H.L.F., Verhoef, E.T. and Nijkamp, P. (2001). Energy saving by firms: decision making, barriers and policies. *Energy Economics*, 23 (6), 717-740
- Diamantopoulos, A. and Siguaw, J.A. (2006). Formative versus reflective indicators in organizational measure development: a comparison and empirical illustration. *British Journal of Management*, 17(4), 263-282
- DiMaggio, P.J., Powell, W.W., (1983). The iron cage revisited: institutional isomorph- ism and collective rationality in organizational fields. *Am. Sociol. Rev.* 48 (2), 147–160
- DiMaggio, P.J., Powell, W.W., (1991). Introduction. In: Powell, W.W., DiMaggio,
   P.J. (Eds.), The New Institutionalism in Organizational Analysis. University of Chicago Press, Chicago, pp. 1–38
- Dimitrova, V., Kaneva, M., and Gallucci, T. (2009). Customer knowledge management in the natural cosmetics industry. *Industrial Management and Data Systems*, 109(9). 1155–1165
- Donate, M.J., Pablo, J.D.S., (2015). The role of knowledge-oriented leadership in knowledge management practices and innovation. *J. Bus. Res.* 68 (2), 360-370
- Durmusoglu, S., Jacobs, M., Nayir, D. Z., Khilji, S., and Wang, X. (2014). Thequasi-moderating role of organizational culture in the relationship betweenrewards and knowledge shared and gained. *Journal of Knowledge Management*,18,19–37
- Durst, S., Edvardsson I. R., (2012). Knowledge management in SMEs: a literature review. *Journal of Knowledge Management*, 16(6), 879-903

- Egena, O., Rajenthyran, A. (2020). The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation. *Journal of Innovation & Knowledge*. *5*, 209–217
- Elhoushy, S., El-Said, O.A. (2020). Hotel managers' intentions towards female hiring: An application to the theory of planned behaviour. *Tourism Management Perspectives* 36, 100741
- El-Bassiouny, N. (2014). The one billion plus marginalization: Toward a scholarly understanding of Islamic consumers. *Journal of Business Research*, 67(2), 42-49
- Ewudolu, S.(2017 January 22) Malaysia Seeks to be Global Islamic Wealth Management Centre. Retrieved from https://aecnewstoday.com/2017/malaysia-seeks-global-islamic-wealthmanagement-centre/
- Eze, U.C., Tan, C.B. and Yeo, A.L.Y. (2012). Purchasing cosmetic products: a preliminary perspective of Gen-Y. *Contemporary Management Research*, 8(1)
- Ferreira, J., Mueller, J., Papa, A. (2018). Strategic knowledge management: theory, practice and future challenges. *Journal of Knowledge Management. doi:10.1108/jkm-07-2018-0461*
- Ferraris, A., Santoro, G., Dezi L., (2017). How MNC's subsidiaries may improve their innovative performance? The role of external sources and knowledge management capabilities. *Journal of Knowledge Management*, 21 (3), 540-552, https://doi.org/10.1108/JKM-09-2016-0411
- Fikru M. G., (2014). International certification in developing countries: The role of internal and external institutional pressure. *Journal of Environmental Management* 144, 286-296
- Fischer, J. (2014). Malaysian diaspora strategies in a globalized Muslim market. *Geoforum*, 59, 169–177
- Gamage, S. D. D., Gooneratne, T. (2017). Management controls in an apparel group: an institutional theory perspective. *Journal of Applied Accounting Research*, 18(2), 223-241
- Gholami, R., Sulaiman, A. B., Ramayah, T., and Molla, A. (2013). Senior managers' perception on green information systems (IS) adoption and environmental performance: results from a field survey. *Information and Management*, 50(7), 431-438

- GlobalData (2021). Country profile: cosmetics and toiletries in Malaysia. http://www.globaldata.com/malaysias-cosmetics-toiletries-industry-poisedfor-modest-value-cagr-of-4-2- over-2018-2023-says-globaldata/
- Gu H., Duverger P., Yu L.,(2017). Can innovative behavior be led by management? A study from the lodging business. *Tourism Management* 63, 144-157
- Gunasekaran, A. and Ngai, E.W. (2007). Knowledge management in 21st century manufacturing. *International Journal of Production Research*, 45 (11), 2391-2418
- Grant, R. (1996) Toward a knowledge based theory of the firm. *Strategic Management Journal*, 17, 109–122
- Gold, A.H., Malhotra, A. and Segars, A.H. (2001). Knowledge management: an organizational capabilities perspective. *Journal of Management Information Systems*, *18* (1),185-214
- Halal Cosmetics Market: Indonesia and Malaysia Most Lucrative Countries in Southeast Asia (2015, July 8). Retrieved from http://www.futuremarketinsights.com/press-release/apac-halalcosmetics-market
- Halal makeup becoming popular in industry (2016 April 25). Retrieved from http://www.star2.com/style/women/2016/04/25/halal-makeup-becoming-popular-in-industry/#Qthg3wPgL8g96urE.99
- Halawi, L. A., McCarthy, R. V., Aronson, J. E., (2006). Knowledge management and the competitive strategy of the firm. *The Learning Organization*, 13(4), 384-397
- Hanzaee, K.H. and Ramezani, M.R. (2011). Intention to halal products in the world markets. *Interdisciplinary Journal ofResearch in Business*, 1(5), 1-7
- Haque A., Sarwar A., Yasmin F., Kumar A., Mirza T., Hossain A. (2015). Non-Muslim consumers' perception toward purchasing halal food products in Malaysia. *Journal of Islamic Marketing*, 6 (1),133 - 147
- Hassan, M. H., Arif, S. and Sidek, S. (2015). Knowledge and practice for implementation internal halal assurance system among halal executives. *Asian Social Science* 11(17): 57-66
- HDC to double number of firms exporting halal products by 2020 (2017 Jan 12). Retrieved from http://www.thestar.com.my/business/businessnews/2017/01/12/hdc-to-double-number-of-firms-exporting-halal-

products-by-2020/#yszmx0qUGz1eJpRK.99

- He, Z. X., Shen, W. X., Li, Q.B., Xu S. C., Zhao B., Long R. Y., Chen, H., (2018). Investigating external and internal pressures on corporate environmental behavior in paper making enterprises of China. *Journal of Cleaner Production*, 172, 1193-1211
- Heimeriks, K.H. and Duysters, G. (2007). Alliance capability as a mediator between experience and alliance performance: an empirical investigation into the alliance capability development process. *Journal of Management Studies*, 44(1), 25-49
- Holsapple, C. W., Wu, J. (2011). An elusive antecedent of superior firmperformance: the knowledge management factor. *Decision Support Systems*, 52,271–283
- Holt DT, Armenakis AA, Feild HS, Harris SG (2007). Readiness for organizational change: The systematic development of a scale. *Journal Application Behavioural Science*, 43,232-255
- House, J.S. (2003). Job Stress and Social Support. Addison-Wesley, Reading Mass.
- Hsiaa, T. L., Chiang, A.J., Wuc, J.H., Tenge, N. N. H., Rubin, A.D. (2019). What drives E-Health usage? Integrated institutional forces and top management perspectives. *Computers in Human Behaviour* 97, 260-270
- Huang, Y.C., Hsuan, H.C., Yang. M.L. (2017) Drivers of green supply chain initiatives and performance Evidence from the electrical and electronics industries in Taiwan. *International Journal of Physical Distribution & Logistics Management*, 47(9), 796-819
- Hussin, S.R., Hashim, H., Raja Yusof, R.N. and Alias, N.N. (2013). Relationship between product factors, advertising, and purchase intention of halal cosmetic. *Pertanika Journal of Social Sciences and Humanities*, 21, 85-100
- Ishak, S., Ahmad, R.C.O., Khalid, K., Ab. Ghafar, I.S., Hussain, M.Y.(2019). Cosmetics purchase behavior of educated millennial Muslim females *Journal of Islamic Marketing*, 11 (5), 1055-1071
- Ismail N.A., Kuivalainen O. (2015). The effect of internal capabilities and external environment on small- and medium-sized enterprises' international performance and the role of the foreign market scope: The case of the Malaysian halal food industry. *J Int Entrep*, 13, 418–451, DOI 10.1007/s10843-015-0160-x

- Ireland, J., and Rajabzadeh, S. A. (2011). UAE consumer concerns about Halal products. *Journal of Islamic Marketing*, 2(3), 274-283. http://dx.doi.org/10.1108/17590831111164796
- Jacobs, G., Witteloostuijn, A., Christe-Zeyse, J. (2013). A theoretical framework of organizational change. *Journal of Organisational Change Management*, 26, 772–792
- JAKIM, Halal Malaysia Official Portal. Definition of Halal. Retrieved from http://www.halal.gov.my/v4/index.php?data=bW9kdWxlcy9uZXdzO zs7Ow==&utama=panduan&ids=gp1
- JAKIM, Halal Malaysia Official Portal. Halal Assurance System. Retrieved from http://www.halal.gov.my/v4/index.php?data=bW9kdWxlcy9uZXdzO zs7Ow==&utama=panduan&ids=gp3
- JAKIM, Halal Malaysia Official Portal. Malaysian Halal Certification Procedure Manual. Retrieved from http://www.halal.gov.my/v4/index.php?data=bW9kdWxlcy9uZXdzO zs7Ow==&utama=panduan&ids=gp4
- JAKIM, Halal Malaysia Official Portal. Malaysian Standard: Malaysian Standard on Halal Food (MS 1500:2009). Retrieved from http://www.halal.gov.my/v4/index.php?data=bW9kdWxlcy9uZXdzO zs7Ow==&utama=panduan&ids=gp2
- Joshi, K. D., Chi, L., Datta, A., Han, S. (2010). Changing the competitive landscape:continuous innovation through IT-enabled knowledge capabilities. *InformationSystems Research*, 21, 472–495
- Kawata, Y., Htay, S.N.N., Salman, A.S. (2018). Non-Muslims' acceptance of imported products with halal logo: A case study of Malaysia and Japan. *Journal of Islamic Marketing*, 9(1), 191-203
- Kayworth, T., Leidner, D. (2003), Organizational culture as a knowledge resource. In Holsapple, C.W. (Ed.), Handbook on Knowledge Management, Volume 1: Knowledge Matters, Springer-Verlag, Heidelberg, 235-252
- Kent, S., Jordan, P. J., Troth, A. C., (2014). Institutional Theory, Normative Pressures, Emotions, and Indirect Aggression. *Emotions and the Organizational Fabric*
- Khan, N., Abdullah, S., Booi, C.T., (2021). Determinants of purchase intention of halal cosmetic products among Generation Y consumers. *Journal of Islamic Marketing*, 12(8), 1461-1476

- Khan, S., Khan, M.I. and Haleem, A. (2019). Evaluation of barriers in the adoption of halal certification: a fuzzy DEMATEL approach. *Journal of Modelling in Management*, 14(1), 153-174
- Kirkman, D.,M., Phillips, T.,N. (2011). Putting the organizational knowledge system back together again: a strategic knowledge management typology for outsourcing firms. *Journal Business Inquiries*, 10 (1), 135-160
- Ko, D., Dennis, A. R. (2011). Profiting from knowledge management: the impactof time and experience. *Information Systems Research*, *22*, 134–152.
- Krishnan, S.D., Amira, N.S., Atilla, U.N., Syafawani, S. and Hafiz, M. (2017). The usage of cosmetic in Malaysia: understanding the major factors that affect the users. *Management*, *7*(1), 48-51
- Kumar, S., Massie, C., Michelle D. D. (2006). Comparative innovative business strategies of major players in cosmetic industry. *Industrial Management & Data Systems 106 (3), 285-306*
- Landmark cert enables halal pharmaceuticals to expand (2017 Feb 3). Retrieved from http://www.theborneopost.com/2017/02/03/landmark-certenables-halal-pharmaceuticals-to-expand/
- Law, K.M.Y, Gunasekaran, A., (2012). Sustainability development in high-tech manufacturing firms in Hong Kong: Motivators and readiness. *Int. J. Production Economics* 137,116–125
- Lee, N., Cadogan, J.W. (2013). Problems with formative and higher-order reflective variables. *Journal of Business Research 66*, 242–247
- Lee, V. H., Foo, A. T. L., Leong, L. Y., Ooi, K. B. (2016). Can competitive advantage be achieved through knowledge management? A case study on SMEs. *Experts systems with Applications* 65, 136-151
- Lertwongsatien, C., Wongpinunwatana, N. (2003). E-commerce adoption in Thailand: An empirical study of small and medium enterprises (SMEs). *Journal of Global Information Technology Management, 6(3), 67-83*
- Lever, J. and Miele, M. (2012). The growth of halal meat markets in Europe: an exploration of the supply side theory of religion. *Journal of Rural Studies*, 28(4), 528-537
- Liang, H., Saraf, N., Hu, Q., Xue, Y., (2007). Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management. *MIS Quarterly 31(1), 59-87*

- Lin, R.J., Sheu, C., (2012). Why Do Firms Adopt/Implement Green Practices? An Institutional Theory Perspective. *Procedia - Social and Behavioral Sciences* 57, 533 – 540
- Lin, H.F. (2014). Contextual factors affecting knowledge management diffusion in SMEs. *Industrial Management & Data Systems*, 114(9), 1415-1437
- Liu, S., Deng, Z. (2015).Understanding knowledge management capability in business process outsourcing: a cluster analysis Management Decision., 53 (1), 124-138
- Liu, X. and Jiang, C. (2015). The impact of TMT behavior integration on organizational ambidexterity: the mediating role of strategic decision thoroughness and the moderating role of long payment. *Journal of Business Economics*, 7(1), 25-33
- Lu, Y., Zhou, L., Bruton, G. and Li, W. (2010) .Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy. *Journal of International Business Studies*. 41(3), 419-436
- Low, C., Chen, Y.S. and Wu, M.C. (2011). Understanding the determinants of cloud computing adoption. *Industrial Management and Data Systems*, 111(7),1006-1023
- Mardani, A., Nikoosokhan, S., Moradi, M., Doustar, M. (2018). The Relationship Between Knowledge Management and Innovation Performance. *The Journal of High Technology Management Research*, 29(1), 12–26
- Marouf, L. (2017). Are academic libraries ready for knowledge management?. *The Electronic Library*, 35(1), 137-151, https://doi.org/10.1108/EL-01-2016-0008
- Magdalene C.H.. Ang, T. Ramayah, Hanudin Amin, (2015). A theory of planned behavior perspective on hiring Malaysians with disabilities. *Equality*, *Diversity and Inclusion: An International Journal*, 34(3), 186-200,
- Ma, S. and Seidl, D. (2018). New CEOs and their collaborators: divergence and convergence between the strategic leadership constellation and the top management team. *Strategic Management Journal*. 39 (3), 606-638
- Masa'deh, R.E., Shannak, R., Maqableh, M., Tarhini, A. (2017). The impact of knowledge management on job performance in higher education: the case of the University of Jordan. *Journal of Enterprise Information Management*, 30(2) 244-262

- Mao, H., Liu, S., Zhang, J. (2015). How the effects of IT and knowledge capabilityon organizational agility are contingent on environmental uncertainty and information intensity. *Information Development*, 31, 358–382
- Mao, H., Liu, S., Zhang, J., Deng, Z., (2016). Information technology resource, knowledge management capability, and competitive advantage: The moderating role of resource commitment. *International Journal of Information Management* 36, 1062–1074
- Meixell M.J., Luoma P., (2015). Stakeholder pressure in sustainable supply chain management: A systematic review. International Journal of Physical Distribution & Logistics Management, 45(1/2), 69-89
- Meso, P., Smith R., (2000). A resource-based view of organizational knowledge management systems. *Journal of Knowledge Management*, 4(3), 224-234
- Meyer, J., Rowan, B., (1977). Institutionalized organizations: formal structure as myth and ceremony. *Am. J. Sociol.* 83 (2), 340–363
- Millar, C. J. M., Lockett, M., Mahon, J.F., (2016). Guest editorial: Knowledge intensive organizations: on the frontiers of knowledge management. *Journal of Knowledge Management* 20 (5), 845-857
- Mohammed A. B. A., Elrehailb H., Ahmad Alatailat M., Elc A. (2017). Knowledge management, decision-making style and organizational performance. *Journal of Innovation and Knowledge 54, 15*
- Mohayidin, M.G. and Kamarulzaman, N.H. (2014). Consumers' preferences toward attributes of manufactured Halal food products. *Journal of International Food and Agribusiness Marketing*, 26 (2), 125-139
- Mohd Helmi, A., Suleiman, N., (2018). Eleven shades of food integrity: A halal supply chain perspective. *Trends in Food Science & Technology* 71, 216-224
- Mohezar, S., Suhaiza, Z. and Zainorfarah, Z. (2016). Halal cosmetics adoption among young Muslim consumers in Malaysia: Religiousity concern. *Global Journal Al Thaqafah*, 6(1), 47-59
- Mohtar N. M., Nur Alia Amirnordin N. A., Haron H. (2014). Ayamas Food Corporation Sdn. Bhd: A Study on the Factors of Consumer Behaviour towards Halal Product Selection. *Procedia - Social and Behavioral Sciences* 121 (2014) 166 – 185 INHAC

- Molnar, Z., Nguyen, H., Homolka L, Macdonald, R., (2011). Knowledge Management as a solution for the shortage of competent employees in SMEs at the developing country (Case study: Vietnam). *Journal of Systems Integration 3, 38-46*
- Molinillo, S., Japutra, A., (2017). Organizational adoption of digital information and technology: A theoretical review. *The Bottom Line*, 30(1), 33-46
- Moreno, F.F., Lafuente, J.G., Avia, F. and Moreno, S.M. (2017). The characterization of the millennials and their buying behavior. *International Journal of Marketing Studies*, 9(5), 135-144
- Mostafa E., Vitaliy, M., Adzhar K., Khaled, S. (2018). The impact of knowledge management processes on information systems: A systematic review. *International Journal of Information Management*, 43, 173-187.
- Muhammad, S., Maria J.,S., Saddam, H., Faisal, N., Minhong, W., Muhammad, U. (2019). Translating the impact of knowledge management processes into knowledge-based innovation: The neglected and mediating role of knowledge-worker productivity. *Journal of Business Research*. 94, 442-450
- Muhamad, N., Leong, V.S. and Mizerski, D. (2016). Consumer knowledge and religious rulings on products: young Muslim consumer's perspective. *Journal of Islamic Marketing*, 7(1), 74-94
- Nahapiet, J., Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–258
- Narayanamurthy, G., Gurumurthy, A., Moser, R., (2017). "8A" framework for value stream selection – an empirical case study. J. Organ. Change Manag. Ahead of Print
- Ngah, A. H., Zainuddin, Y., Thurasamy, R., (2014). Barriers and enablers in adopting Halal transportation services : A study of Malaysian Halal Manufacturers. *International Journal of Business and Management*, 2(2), 49– 70
- Ngah, A. H., Zainuddin Y., Thurasamy, R., (2015). Barriers and enablers in adopting of Halal warehousing. *Journal of Islamic Marketing*, 6(3), 354 – 376
- Ngah, A.H., Ramayah, T., Mohd, H.A., Khan, M.I. (2019). Halal transportation adoption among pharmaceuticals and comestics manufacturers Department of Operation Management. *Journal of Islamic Marketing*, 1759-0833

- Ngah, A. H., Gabarre, S., Eneizan, B., Asri, N. (2020). Mediated and moderated model of the willingness to pay for halal transportation. *Journal of Islamic Marketing*, 1759-0833
- Nonaka, I., and Takeuchi, H. (1995). The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation. *New York: Oxford University Press*
- O'Dell, C., Grayson, C. (1998). If only we knew what we know: identification and transfer of internal best practices. *California Management Review*, 40(3), 154–174
- Orlikowski, W.J. (1993). The duality of technology: rethinking the concept of technology and organisations. *Organization Science*, 3(3), 398-427
- Orlikowski, W.J., Barley S.R. (2001). Technology and institutions: what can research on information technology and research on organizations learn from each other? *MIS Q. 25 (2), 145–165*
- Osman, I., Syed Alwib, S. F., Mokhtar, I., Alid H., Setapa F., Mudaf, R., Abdul Rahim, A. R., (2015) Integrating institutional theory in determining corporate image of Islamic banks. *Procedia - Social and Behavioral Sciences* 211, 560 – 567
- Parasuraman A. and Colby C. L.(2014). An Updated and Streamlined Technology Readiness Index: TRI 2.0, *Journal of Service Research*
- Parasuraman, A. and Colby, C. L.(2001). Techno-Ready Marketing: How and Why Your Customers Adopt Technology: The Free Press
- Parasuraman, A.,(2000). Technology Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. *Journal of* Service Research, 2 (4), 307-320
- Park, J., Kim, H.J. and McCleary, K.W. (2014). The impact of top management's environmental attitudes on hotel companies' environmental management. *Journal of Hospitality and Tourism Research*. 38(1), 95-115
- Porter, L. J. (1996). Knowledge, strategy, and the theory of the firm. *Strategic Management Journal*, 17, 93–107
- Pratap Singh, M., Chakraborty A., Roy M., (2018). Developing an extended theory of planned behavior model to explore. circular economy readiness in manufacturing MSMEs, *India Resources, Conservation & Recycling 135*, 313–322

- Pratiwi, I.E. (2018). Halal food and young Muslims' purchase intention in Indonesia: a case study in Papua province. *International Journal of Islamic Economics and Finance Studies*, 4(3),21-34
- Rafferty, A. E., Jimmieson, N. L., Armenakis A. A., (2013). Change Readiness: A Multilevel Review. *Journal of Management* 39(1), 110-135
- Rafiki, A., Abdul Wahab, K. (2016). The human capital and obtainment of Halal Certification. *Journal of Islamic Marketing*, 7(2), 134–147
- Ramaseshan, B., Kingshott, R. P., Stein, A., (2015). Firm self-service technology readiness. *Journal of Service Management*, 26(5), 751-776
- Ramayah, T., Niu, S. L., Syed Abidur Rahman, S.K.T., (2016). Factors influencing SMEs website continuance intention in Malaysia. *Telematics and Informatics Issue* 33 pp.150–164
- Regenstein, J.M., Chaudry, M.M. and Regenstein, C.E. (2003). The kosher and halal food laws. *Comprehensive Reviews in Food Science and Food Safety, Vol.* 2 No. 3, pp. 111-127
- Renkema, A., Schaap, H., van Dellen, T., (2009). Development intention of support staff in an academic organization in The Netherlands. *Career Development International*, 14(1), 69-86
- Rezai G., Mohamed Z., Shamsudin M. N., (2012). Non-Muslim consumers' understanding of Halal principles in Malaysia. *Journal of Islamic Marketing*, 3(1), 35-46
- Rogiest, S., Segers, J., van Witteloostuijn, A., (2015). Climate, communication and participation impacting commitment to change. *Journal of Organizational Change Management*, 28(6), 1094 – 1106
- Rolland, C., Loucopoulos, P., Kavakli, V., Nurcan, S. (2000). Intention based modelling of organisational change: An experience report. *Information Systems Engineering Group*, 1-12
- Rusly, F. H., Corner, J. L., Sun, P., (2012). Positioning change readiness in knowledge management research. *Journal of Knowledge Management*, 16(2), 329-355
- Sahibzada, U.F., Cai, J., Latif, K.F., Sahibzada, H.F. (2020). Knowledge management processes, knowledge worker satisfaction, and organizational performance. *Aslib Journal of Information Management*. 72 (1), 112-129

- Samad, S., Abdulrahman, P.N., Kashif, M., Mingione, M., (2021). Islamic religiosity and ethical intentions of Islamic bank managers: rethinking theory of planned behaviour. *Journal of Islamic Marketing*. 1759-0833
- Santoro, G., Vrontis, D., Thrassou, A., Dezi, L. (2018). The Internet of things: building a knowledge management system for open innovation and knowledge management capacity. *Technological Forecasting and Social Change*. 136, 347-354
- Santoro, G., Thrassou, A., Bresciani, S., Del Giudice, M. (2019). Do knowledge management and dynamic capabilities affect ambidextrous entrepreneurial intensity and firms' performance?. *IEEE Transactions on Engineering Management*
- Salindal, N. A., (2019). Halal certification compliance and its effects on companies' innovative and market performance. *Journal of Islamic Marketing* 10(2), 589-605
- Scannell, T. V., Calantone, R. J., Melnyk, S. A. (2012). Shop floor manufacturing technology adoption decisions: An application of the theory of planned behavior. *Journal of Manufacturing Technology Management*, 23(4), 464-483
- Selen, W. (2000). Knowledge management in resource-based competitive environments: a roadmap for building learning organizations. *Journal of Knowledge Management*, 4 (4), 346-353
- Shahid, S., Ahmed, F., Hasan, U. (2018). A qualitative investigation into consumption of halal cosmetic products: the evidence from India. *Journal* of Islamic Marketing 9(3), 484-503
- Singh, B., Rao, M.K. (2016). Examining the Effects of Intellectual Capital on Dynamic Capabilities in Emerging Economy Context: Knowledge Management Processes as a Mediator. 2(1), 110-128
- Smith, R. (2016 August 10). Halal food certification proving a problem in Japan. Retrieved from http://www.thenational.ae/business/economy/halal-food-certification-proving-a-problem-in-japan
- Soltanian, M., Zailani, S., Iranmanesh, M., Aziz, A. A., (2016). Motivations of SME entrepreneurs to become halalpreneurs. *Journal of Science and Technology Policy Management, 7( 2), 173 – 189*
- Soon J. M., Wallace C. (2017). Application of theory of planned behaviour in purchasing intention and consumption of halal food. *Nutrition and Food Science*

- Souiden, N., Diagne, M. (2009). Canadian and French men's consumption of cosmetics: a comparison of their attitudes and motivations. *Journal of Consumer Marketing*, 26(2), 97–109
- Suk, S., Liu, X. and Sudo, K. (2013). A survey study of energy saving activities of industrial companies in the republic of Korea. *Journal of Cleaner Production*, 41, 301-311
- Sune, A., Gibb, J. (2015). Dynamic capabilities as patterns of organizational change: An empirical study on transforming a firm's resource base. J. Organ. Chang. Manag. 28, 213–231
- Suparno, C. (2020). Online purchase intention of halal cosmetics: S-O-R framework application. *Journal of Islamic Marketing*, 1759-0833
- Susana, S., Rebeloa, T., Francisco J., G. (2014). Inés Tomásc Learning culture and knowledge management processes: To what extent are they effectively related? *Journal of Work and Organizational Psychology*. 30, 113-121
- Susanty, A., Puspitasari, N. B., Caterina, A. D. (2019). Mapping the barriers for implementing halal logistics in Indonesian food, beverage and ingredient companies. *The Assessment Institute for Foods, Drugs, and Journal of Islamic Marketing* 1759-0833
- Susskind, A. M., Brymer, R. A., Kim, W.G., Lee, H. Y., Way, S. A., (2014). Attitudes and perceptions toward affirmative action programs: An application of institutional theory. *International Journal of Hospitality Management* 41, 38–48
- Sutono (2015). Understanding of the halalan tayyiban concept towards purchasing of halal cosmetics among young urban Muslim consumers. UPM-SAGE publications young writers. https://pdfs.semanticscholar.org/7230/3413b37db9b24675dcb2a152689c13e613 1c.pdf
- Swaim, J.A., Maloni, M. J., Henley, A., Campbell, S., (2016). Motivational influences on supply manager environmental sustainability behaviour. *Supply Chain Management: An International Journal*, 21(3), 305-320
- Taking the halal industry forward (2016 February 18). Retrieved from https://www.nst.com.my/news/2016/02/128127/taking-halal-industry-forward
- Tanriverdi, H. (2005). Information technology relatedness, knowledge management capability: and performance of multibusiness firms. *MIS Quarterly*, 29, 311–334

- Teng, P.K. and Jusoh, W.J.W. (2013). Investigating students awareness and usage intention towards halal labelled cosmetics and personal care products in Malaysia. *Presented at the International Conference on Business and Economic Research, Indonesia, 4-5 March, Bandung, Indonesia.*
- Thomas, V. Scannell, Roger J. Calantone, Melnyk Steven A., (2012) Shop floor manufacturing technology adoption decisions: An application of the theory of planned behavior. *Journal of Manufacturing Technology Management*, 23(4), 464-483
- Thomson Reuters (2016 October 3). Report: State of the Global Islamic Economy 2016/17
- Islamic Finance. Retrieved from https://www.salaamgateway.com/en/story/report\_state\_of\_the\_globa l\_islamic\_economy\_201617-salaam03102016111130/
- Thomson Reuters (2017 Nov 27). Report: State of the Global Islamic Economy 2017/18 Islamic Finance. Retrieved from https://www.salaamgateway.com/en/story/ReportStateoftheGlobalIsl amicEconomy201718-SALAAM27112017104745/
- Thoradeniya, P., Lee, J., Tan, R., Ferreira, A., (2015). Sustainability reporting and the theory of planned behaviour. *Accounting, Auditing and Accountability Journal, 28(7), 1099-1137*

Tieman, M. (2007). Halal Logistics : Orchestrating Model. Halal Journal, 32-33

Tieman, M. (2015). Halal clusters. Journal of Islamic Marketing, 6, 2-21

- Tieman, M., Che Ghazali, M. (2014). Halal Control Activities and Assurance Activities in Halal Food Logistics. *Procedia - Social and Behavioral Sciences*, 121, 44–57
- Tieman, M., (2017). Halal risk management: combining robustness and resilience. *Journal of Islamic Marketing 8(3), 461-475*
- Tseng, S. (2014). The impact of knowledge management capabilities and supplierrelationship management on corporate performance. *International Journal of Production Economics*, 154, 39–47
- Tuomela, A., Salonen, A. (2005). Network service organisation: a multiple pilot study. *Facilities*, 23 (3/4), 128-141

- Tzyh-Lih, H., An-Jen, C., Jen-Her, W., Nelson N.H.T., Amir, D.R. (2019). What drives E-Health usage? Integrated institutional forces and top management perspectives. *Computer in human behaviour*, 97, 260-270
- Vaishnavi, V., Suresh, M., Dutta, P. (2019). A study on the influence of factors associated with organizational readiness for change in healthcare organizations using TISM. An International Journal. 26(4), 1290-1313
- Von, K. G., Grand, S., (2002). From Economic Theory toward a Knowledge-Based Theory of the Firm. *The Strategic Management of Intellectual Capital and Organizational Knowledge, Oxford, UK: Oxford University Press, 163–83*
- Wang, L., Mao, N., Pan, X. and Jing, C. (2006). Empirical study on the relationship among director function, decision quality and decision commitment under the context of China. *Management World.* 7(1), 108-114
- Wang, X.-L., Ma, L. and Wang, Y.-L. (2013). The influence of executive team function background on enterprise performance: take Chinese information technology industry as an example. *Nankai Business Review*. 16(4), 80-93
- Wang, N., Xue, Y., Liang, H., Wang, Z., Ge Jiangsu, S. (2019). The dual roles of the government in cloud computing assimilation: an empirical study in China. *Information Technology & People*, 32(1), 147-170
- Waqar, A., Arsalan, N., Khan, F. (2020). Examining the impact of institutional pressures and green supply chain management practices on firm performance. *Management of Environmental Quality: An International Journal*, 31(5)
- Weiner, B.J. (2009). A theory of organizational readiness for change. *Implementation Science*, *4*, 67
- Whitehouse, L. (2016, Feb 4). Malaysia stepping up regulatory enforcement for cosmetics. Retrieved from http://www.cosmeticsdesign-asia.com/Regulation-Safety/Malaysia-stepping-up-regulatory-enforcement-for-cosmetics
- Wilson, J.A.J. and Liu, J. (2010). Shaping the halal into a brand?, *Journal of Islamic Marketing*, 1(2), 107-123
- Wilson, J.A.J. and Liu, J. (2011). The challenges of Islamic branding: navigating emotions and halal. *Journal of Islamic Marketing*, 2(1), 28-42

- Wilson, J.A.J. (2012). Executive interview: charting the rise of the halal market tales from the field and looking forward. *Journal of Islamic Marketing*, 3(3), 288-294
- Wong, K.Y. and Aspinwall, E. (2004). Characterizing knowledge management in the small business environment. *Journal of Knowledge Management*, 8 (3), 44-61
- Xie, Q., Song, W., Peng, X., Shabbir, M., (2017) Predictors for e-government adoption: integrating TAM, TPB, trust and perceived risk. *The Electronic Library*, 35(1), 2-20
- Yang, Y., Konrad, A.M., (2011). Understanding diversity management practices: Implications of Institutional Theory and Resource-Based Theory. *Group* and Organization Management 36(1), 6–38
- Ye, F., Zhao, X., Prahinski, C., Li, Y., (2013). The impact of institutiona pressures, top managers' posture and reverse logistics on performance- Evidence from China. *Int. J. Production Economics*, 143, 132–143
- Yousaf, U., Shamim, A., Siddiqui, H., and Raina, M. (2015). Studying the influence of entrepreneurial attributes, subjective norms and perceived desirability on entrepreneurial intentions. *Journal of Entrepreneurship in Emerging Economies*, 7(1), 23–34
- Yukongdi, V., Lopa, N. Z., (2017). Entrepreneurial intention: a study of individual, situational and gender differences. *Journal of Small Business and Enterprise Development*, 24(2), 333-352
- Zailani, S., Kanapathy, K., Iranmanesh, M. and Tieman, M. (2015). Drivers of halal orientation strategy among halal food firms. *British Food Journal*, 117(8), 2143-2160
- Zailani, S., Iranmanesh, M., Aziz, A. A., Kanapathy, K., (2017). Halal logistics opportunities and challenges. *Journal of Islamic Marketing*, 8(1), 127-139
- Zailani, S., Jafarzadeh, S., Iranmanesh, M., Nikbin, D., Irani, N. I. S., (2018). Halal logistics service quality: conceptual model and empirical evidence. *British Food Journal 120 (11), 2599-2614*
- Zhang B., Wang Z., Lai K. (2015). Mediating effect of managers' environmental concern: Bridge between external pressures and firms' practices of energy conservation in China. *Journal of Environmental Psychology* 43, 203-215

- Zhu, Z., Lin, S. F. (2018). Understanding entrepreneurial perceptions in the pursuit of emerging e-business opportunities. The dimensions and drivers. *Computers in Human Behavior. (in press)*
- Zimmerman, A. B., Fogarty T. J., Jonas G. A. (2017). Is accounting an applied discipline? An institutional theory assessment of the value of faculty accounting-related work experience in the academic labor market. *Journal of Accounting Education* 41, 33–47
- Zulfakar, M. H., Chan, C., Jie, F., (2018). Institutional forces on Australian halal meat supply chain (AHMSC) operations. *Journal of Islamic Marketing* 9(1), 80-98

