

A Framework to Investigate the Use of MYeHalal Online System in Malaysia

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Abstract—MYeHalal system is a system developed to facilitate the application of halal certification in Malaysia. However, the competency of the system has become questionable as some of the applicants choose to hire consultants rather than applying for the certificate themselves. Thus, this situation has led applicants to spend unnecessary charges and wasting their own time instead of committing to apply the certification on their own. Therefore, the objective of this paper is to propose a framework to investigate the use of MYeHalal system using actor-network theory (ANT). ANT is used as a lens to identify the important factors that have influenced (facilitate or restrict) the usage of the system, also understand the ways, in which the technical actors and social actors interact with each other as they struggle to facilitate or restrict the halal certification application process via the use of the MYeHalal system. Further, a more user-friendly, efficient and better performing MYeHalal system could be developed to improve the users experience when they are applying for their halal certificate.

Keywords—MYeHalal; online halal certification; Actor Network Theory; framework

I. INTRODUCTION

AS the usage and growth of Information and Communication Technologies (ICT) have rapidly increased, e-government has been widely adopted by most developed countries as a mean

to adapt with the current demand and lifestyle [1-3]. The implementation of e-government worldwide has been implemented in various ways to ensure innovative and efficient practices of their service delivery systems. It has been validated by some scholars that the global innovation effort of implementing e-government system can help the developing countries to attain the efficiency in government functions via the use of ICT [4-6].

This initiative has also been taken by Malaysia as an effort to improve the delivery of the public services, and also to lower the operation cost and to strengthen the relationship between the government with its citizens and businesses [7]. To date, numerous comprehensive platforms for online services have been established to serve various branches of services to the citizens. As the use of technology is more familiarised day by day, it is also important to adopt innovation in halal certification services to ensure that the industry can be competitive and profitable in the future [8]. This situation has led the Department of Islamic Development Malaysia (JAKIM), with the assistance from the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) to collaborate to develop an online application for halal certification in Malaysia [9].

The online halal certification application (e-halal) system was first developed in 2007 with the objective to accommodate the halal certification application. This initiative is a response to the Government's objective stated in the Third Industrial Master Plan (IMP3), 2006-

2020 (Chapter 21) and 11th Malaysia Plan (RMK-11) (Chapter 8 and 18) that aspires to become the global halal hub for the production and trade in halal goods and services. As the responses were overwhelmed and the need for improvement is awakened by many parties, the e-halal system was then upgraded into the MYeHalal system in 2014 and it is complemented with an integrated plan for halal certification application. Since then, MYeHalal system is used as the main application platform for halal certification and also serves as the halal information database to halal manufacturers and users.

II. LITERATURE REVIEW

A. The Emerging of Halal Industry

As many are aware, the increment in Muslim population is undeniable [10]. It is also reported that the percentage of the World Muslim population with respect to the total World population has increased steadily from 15% in 1870 to 17% in 1950 to 26% by 2020 [10]. It also has been stated that the Muslim population was 2.04 billion in 2013 and increased to 2.08 billion in 2014. This situation gives positive impact on the demand of halal foods products which was worth about USD 650 billion in 2013 and expected to grow by 35% for the next 20 years [11]. Thus, Muslims are expected to hold a large portion of the global consumer spending for the upcoming years.

Malaysia's position in halal food production is considered huge as approximately RM37.7 billion halal products were exported out of the country on 2014, which was an increase of RM4.9 billion from the previous year of 2013 (RM32.8 billion) [12]. In Malaysia, any food products must earn halal certification from the reliable body to certify its halal status. In this case, halal certification represents that the product is trusted to be produced in high control of hygiene and has complied with the Islamic dietary guidelines and this will directly give the confidence among the consumers to buy the products. This enables any companies with halal certification to have the advantage of penetrating the halal industry on the international level, particularly countries with Muslim populations.

Malaysia has taken many initiatives to be the global halal hub and has realised the importance of having a credible and reliable halal certification system as the demand for halal certification is overwhelming. It has been recognised by numerous business owners that halal certification will give positive impacts to their businesses as it can help them to achieve wider demand [13], have a stronger brand recognition [14] and value-added provision to the company [15]. These advantages also have caused the halal certificate to be seen more as a commercial value rather than just the religion matter and it has becoming an obligatory, especially by food manufacturing companies.

Realising the goodness of having a halal certificate, many business owners have started to apply for halal certification through the MYeHalal system that is managed and monitored solely by JAKIM. This situation has caused JAKIM to perform some improvements on halal certification including the development of JAKIM's Halal Hub on 2005 to cater the demands for halal certification and to ensure the halal requirements are practiced, assured and complied. JAKIM is the only body that is responsible in monitoring the halal industry in Malaysia and it has delivered a stronger mandate from the Government upon the amendment of Malaysia's Trade Description Act on 2011 to regulate the halal industry in Malaysia. The reputation of Malaysian halal logo has been recognised by over 50 international bodies and it has been declared that the Malaysia's halal logo is the most globally-recognised hallmark and this has served Malaysia as a symbol of the nation's reputation as the world's leading halal hub.

B. The Concept of Halal and Haram in Islam

According to [12], "halal" is either a thing or an action permitted by Shariah Law, where there is no punishment imposed on the doer. Literally, the word "halal" is rooted from an Arabic word that means allowable, acceptable, permitted, and/or permissible [16]. It is also mentioned in the many verses and citations in the Holy Book of Al-Quran and hadith. It is further explained by [16] that halal is not only stressing on food,

but it covers all aspects in human consumptions, including food, beverage, banking services, logistics, tourism, medical, cosmetics and many others. Consuming halal goods and services is an obligatory as Muslim must protect human from harm, whether it applies to their body as well as to the entire community wellbeing. The concept of halal is divine, and it has been proven scientifically for its goodness, especially in food and beverages industry.

On the other hand, "haram" is the opposite side of halal. The word itself means unlawful or prohibited or illegal [17-19]. When it comes to food, it clearly refers to the food that is prohibited to eat. In Islam, haram foods are consisting of: animals that are not slaughtered appropriately (with the name of Allah); pork or swine; any foods or drinks that contained with alcohol and intoxicants; poisonous plants; animals with fangs and eat only meat (carnivorous); birds of prey; pests; insects that consume blood and domesticated donkey, mules and elephant [16].

C. Halal Certification and Application

Halal certification is the combination of halal (permissible) and thoyyiban (wholesome) [20]. For a Muslim, to find halal food is compulsory but it is better to consume good (thayyib) food daily. Moreover, it is also considered as a sign of professing to the faith if a Muslim choose to consume only the permitted and good food, which means that the foods are prepared, processed and delivered (from farm to fork) in the most hygienic way [21].

In Malaysia, the halal certificate is a symbol recognised by the consumers to determine that the food is permissible and good to eat. It will be awarded to the products and services which have passed the halal application requirements stated by JAKIM. Halal certificate is defined as a document issued by the Islamic Organisation and it is a symbol that certifies the product has complied with the Islamic dietary guidelines and the product is excluded from; pork and pork-related elements; alcohol and alcohol-related elements; and ingredients from animal origin [22]. In addition, the preparations of the products also must be performed with maximum care hygienically. Even Malaysia

itself has developed the nation's own standard guidelines and procedures through Standards Malaysia that covers all processes of halal production, manufacturing and logistics [17, 19]

Malaysia has centralised the supervision of halal certification under JAKIM. The practices of halal certification applications were made manually before JAKIM launched the E-Halal system in February 2006. This huge step was taken with the aim to streamline the halal certification process and to ease the manufacturers and operators in getting halal certificates. E-Halal system serves the industry as the application platform, database for the information on halal companies and its accessibility is open for any users and it is used to obtain the information on halal certification for any businesses and products, including restaurants and hotels [23]. Starting from April 2014, JAKIM has rebranded the Malaysian halal certification application systems to MYeHalal. The rebranding involves improvements to the application form, which is classified into seven certification schemes, which are: (1) Food and beverages products scheme; (2) Applied products scheme; (3) Food premises scheme; (4) Slaughterhouse scheme; (5) Logistics scheme; (6) Pharmaceuticals scheme and (7) Cosmetics and toiletries scheme [23]. Whereas a study related to the implementation of internal halal assurance system has been conducted by [24].

The development of MYeHalal system is emphasised as it can streamline all halal certifications in Malaysia and centralised all data under one database. Thus, it facilitates JAKIM to not only to monitor the applications, but also to hasten and ease the process for the halal applicants. The applicants can save their time and money to get or send the application form and in turn, JAKIM can save their operation cost and time as they are no longer required to print the blank application forms and applications can be managed from their desktop with a minimum amount of efforts compared to the manual practices before. Despite the advantages that this system is attempting to achieve, some researchers found that the system is not well organised and complicated to use [17, 25]. This is related to the functions in information

display and delivery, outdated database and limited intermediary language as it is only available in Malay language [25-26]. All of these have resulted to the needs of improvement to maximise the user's experience and to ensure the delivery of the functions is as intended.

Complaints also have been received by some applicants especially from small business entrepreneurs that this system is complicated to use, and it took them a large amount of time to complete their halal certification application. The period of obtaining halal certificate can reach up to two years and this is due from few reasons such as: (1) Ignorance of the procedures; (2) Difficulties faced while using the MYeHalal system; (3) The company do not maintain and organise the documentation that are required for the halal certification application; and (4) Lack or no knowledge on the halal certification requirements. These non-tackled lagging issues may restrict the business growth of the company and also may threaten the future prospects of the nation's halal industry and economy. Due to that, any companies that failed to solve their problem and issues have to resort in using external consultant to apply the halal certification on their behalf. As the demand for this services has continued to rise, many consultation agencies have been established and this caused the companies to spend the unnecessary charges for their services and this action is not encouraged by JAKIM.

The resistances and challenges rose from the usage of the MYeHalal system need to be critically addressed as they are the major elements that facilitate the halal certification application in Malaysia. This is important as it can develop a nuanced and holistic understanding of the MYeHalal system and it can serve as the medium of easing the system, resulting in the applicants to personally use the system instead of hiring others. For this purpose, a conceptual framework adapted from Actor-Network Theory (ANT) is presented in this paper to show the interconnections between social and technical factors that are embedded in the usage of MYeHalal system, thus enables the mechanism in the system usages to be understood vividly. This conceptual

framework is expected to be the ultimate guide for the non-problematic and fast application for halal certification via the MYeHalal system. This also fulfills the research gap as this study provides a conceptual framework for MYeHalal system usage which is considered as a novel approach that have not been covered by any prior researchers.

III. DISCUSSION

A. Actor Network Theory (ANT)

ANT emerged in the mid-1980s and it was contributively developed by Bruno Latour, Michel Callon and John Law. ANT is known as enrolment theory or the sociology of translation that suggested that the work of science is fundamentally similar with other social activities [27]. ANT connects the relationships between material (between things) and semiotic (between concept) or best described as material-semiotic methods [28-29]. ANT is also different from any other socio-technical approaches as it gives equal treatment to both human and non-human factors and associates all factors together in a network. This enables the same analytical and descriptive framework to be employed regardless of any kind of factors being studied, be it human or machine [30]. The network associated in all these heterogeneous factors of human, things, ideas or concepts are referred to as actors in the network [31].

All actors in the network can have their own associations and in essence, the process of tracing the possible associations or relationship both within and between actors are the key activities in ANT [32]. This situation will enable the actors to have their own network and associations and eventually, this will illuminate the most influential network and how these factors become more durable through enrolling both social and material actors, and finally, where power comes from and how it is exerted [33]. All these processes will clearly provide the holistic and comprehensive understanding towards any system's mechanisms.

The application of ANT in various fields of study is well dispersed and it is not limited to the social studies. The diaspora of ANT has spread to education, geography, tourism, management,

economics, anthropology, philosophical studies and others [33-34]. In more specific studies, ANT has the advantage to the information system and online technology studies [34]. Furthermore, ANT can be presented as a complementary approach to information system studies, which have largely avoided technologically deterministic hypothesis of causality between ICT innovation and particular organisational or societal effects [35]. It has the ability to provide and enhance understanding of online technology usage, to reveal the lagging factor of the online technology as well as to act as the guidance for online technology constructions [34].

B. Using ANT as a Framework to Analyse the use of MYeHalal System

ANT is adopted in this study as the basis for a conceptual framework that is developed to explore the social and technical factors that took place during the process of applying halal certificate via the MYeHalal system. The development of the conceptual framework is basically to address the difficulty and complexity faced by the MYeHalal system's users is highlighted. The identified difficulties are poor skills and knowledge in using the online technology, poor user interface design that caused the layout and functions to be hardly understood by the users and ignorance of the rules, regulations and guidelines pertaining with halal certification application.

ANT is a combination of socio-technical approach and it is expected to address the difficulties identified in the MYeHalal system usage. As the difficulties did not contain any full technical nor social elements, ANT seems to be the best tool to be used. MYeHalal system involves the interactions between human (system users or system administration) with various entities (rules, processes, technology). All these elements are deemed to perform collectively as one network or team to ensure the successful usage of MYeHalal system. There are 5 main possible actors that may have influenced MYeHalal system usage. The identified actors are users, processes, organizations, guidelines and technologies. Users refer to the halal

certification applicants that use the system to apply for their halal certification and it also can be referred to the system administrator that uses the system to manage the halal applications. As presented in Figure 1 below, the possible actors are users, processes, organisations, guidelines and technologies. The details for each actors are presented below:

- a) Users: It refers to the halal certification applicants that use the system to apply for halal certification
- b) Processes: Processes involve in the national and international halal certification applications
- c) Organisations: The organisations involved are JAKIM (system administrator) and MAMPU (system administrator).
- d) Guidelines: This actor is related to the guidelines, manuals, standards and acts that supervised the halal certification implementation.
- e) Technologies (System): This refers to the ICT, online technologies and technological devices that are used by the users to access into the MYeHalal system.

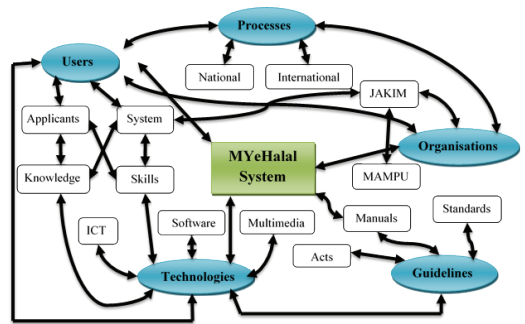


Fig. 1. The Interactions of Possible Entities

As shown in Figure 1, all variables collectively formed an interaction network and each actor can depend and interact to one another, be it human or non-human, and realising that they are all equally important to contribute to the successful usage of the system. In this study, ANT comprises and combines the elements of human (social) and non-human (technological) together in the effort to investigate the roles of each actors in detailed, describe the relationships that existed

and may exist between actors and its alliances and the possible interactions between them. All actors are then analysed by adopting the translation process of Actor-Network Theory (ANT). The translation process is the process where the actors are recognised, the interests are aligned, their roles are defined and aimed to unite the actors to perform accordingly as to ensure the successful usage of the system. [28] outlined the 4 stages of the translation process as conceptualised in Figure 2. The detailed explanation of the translation process is explained below [28]:

a) Problematisation

The stage of problematisation is where the focal actor persuades other actors to devote their individual resources and interest to find the ultimate solution to the problem. As the actors can consist of a diverse type of actors, it is expected that proposed solution to be diverse as well. However, the group of actors must be capable to think beyond individual spectrum but, bond their interest and effort in a group dynamic to propose the ultimate solution to the problem. This stage will indicate the most important actors, including human and non-human elements. It starts with the identification of the problem by 1 or more actors in the networks [36].

b) Interessement

Interessement is the stage where the focal actor attempts to reach a unified agreement among all actors to agree and confirm the proposed solution and to lock their position in the allies [37]. In this stage, the roles of each actors towards formulating the solution are defined and interessement is any strategies, approaches or methods and negotiations that are used to persuade the actors to be in the allies [38].

c) Enrolment

Enrolment is the successful result from interessement stage [39]. Thus, the successful results can be referred to the enrolment of various and multi-types actors with other various actors that are finally synthesising their interest for the ultimate goal [40].

d) Mobilisation

The identification of actors in the allies will then agree to give their voices to the primary actor and act as their spokesperson [41]. Therefore, the focal or primary actor will borrow the voices of other actors and translate each of their important roles. As the legitimate speaker, the focal actor needs to apply a set of manner to represent them. A complete structure of the actors’ alliances or best called association network can be established in this stage.

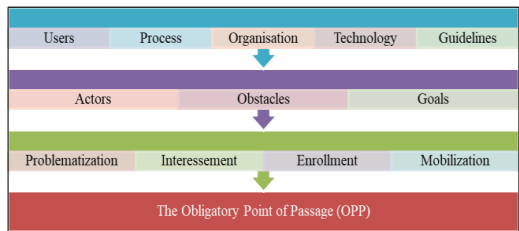


Fig. 2. The Translation Process

Based on Figure 2 which was adapted from [42], the translation process is the mechanism whereby the network is progressively taking form, resulting in a situation where certain entities control others. Here, the active and loud entities can be clearly identified and then, it will influence the passive and quiet entities in the network. The obstacles in each step of translation then will be identified and negotiated among each other to seek an obligatory passage point or “OPP” at the end of the translation process [35]. This process is done with equal consideration on every different entity within the network and it will eventually lead to a holistic and nuanced understanding of difficulty and complexity faced by users during the process of halal certification application. It helps to reveal the process and activities involved in the effort of stabilising and mobilising the network. Eventually, the processes and activities in the translation process itself will guide its way to where the system could actually work and interact with other elements related which will eventually create a possible way to increase efficient usage of MYeHalal system.

IV. CONCLUSION

The findings of this study are targeted to contribute to the generation of new knowledge on the usage of online technology. As the responses of the MYeHalal system's usages were found to be difficult and complicated by some users, this conceptual framework is expected to be the ultimate guide to the non-problematic and fast application for halal certification via the MYeHalal system. This also fulfills the research gap of providing a conceptual framework for MYeHalal system usage which has not been covered in any prior researchers. Further, it is proposed for future study to provide a more user-friendly, efficient and better performing MYeHalal system in order to improve the users experience while they apply for their halal certificate.

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