The Relationship between Halal Logistics Practices and Organisational Competitiveness: A Study on Halal Food Industry in Kuala Lumpur, Malaysia

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***Abstract*— The largest and fastest-growing market in recent years is the Halal sector, which has received limited attention. The halal market is extremely competitive, and halal logistics are crucial to the growth of the halal food industry in Malaysia. The purpose of this study is to examine the relationship between Halal logistics practices and Organisational Competitiveness of Halal food industry in Kuala Lumpur, Malaysia. Quantitative analysis performed on a survey data of 108 respondents from Halal Industry in Kuala Lumpur. The novel findings affirm that halal logistics practices, such as Halal Equipment, Halal Safety and Halal Transport Information System positively affect Organisational Competitiveness in Halal Industry in Kuala Lumpur. Managers/logisticians should aware that halal value creation in halal logistics practices have a positive effect on halal organisations competitiveness. The results draw the novel contributions of the importance of halal logistics practices to sustain halal organisational competitiveness in Malaysia.**

Keywords— *Halal logistics practices, Halal organisational competitiveness, Halal organisational performance.*

1. Introduction

The "Halal" word very popular in Arabic world. The halal aspect emphasis on the restricted ingredients of food product accordance and permitted by Shariah Law/Islamic Law. In Malaysia the Department of Islamic Development Malaysia or known as JAKIM developed relevant regulation to control and improve the halal food and halal related information. There are various principles of halal development program not only focus on food ingredients and its giving priority of non-product factors also complied with Islamic regulation and other supporting activities such as logistics activities for the halal products [25] [2].

The logistics process being one of the essential processes in supply chain of products. To server halal products to deliver to end consumers, and to conduct the best practices of halal supply chain through logistics activities. There are various activities in logistics process such as halal transport, halal warehouse and halal retail [31]. The halal industry essential in term of developing economic and wealth propensity, at the same time there are various challenges and demands in halal industry in many Islamic countries like Malaysia [19]. There are much evidence shows that there are high possibilities that the competitiveness of organisation can achieve through halal operations [20], [34].

Strong evidence shows that the halal industry and halal related business rapidly progressing in Malaysia. In today's dynamic and competitive business environment, halal organisations seeking for effective business model and solution to stand strong in halal industry [25]. According to [23] concluded in their study that halal business process has been perceived as rationalized in current ecosystem and acquaint with halal practices.

For instance, logistics perceived as most essential halal function and its play a significant and vital role to ensure the integrity of halal products and services for better consumption [2]. In basic arrangement logistics having various process or functions such as inbound, outbound logistics, storage/warehousing, handling of goods, order fulfilment, Inventory management and many more functions. The "halal logistics" focuses on to prevent contamination of perishable, raw materials and food products during distribution and transportation process. In common arrangement

halal logistics mainly focus on supplying either products or services with complied with requirement of "Shariah Law" according to procedure of "Muslim Consumers" [32].

Malaysian Standard for Halal Logistics (MSHL) (MS..2400: 2010) [5], justify that the halal business and halal related logistics activities highly required to follow accordance to "Shariah Law". This includes of halal related logistics activities such as transportation process, inventory management, warehousing, handling of materials, packaging, labelling, serving and retailing process. There are few main concerns related to the execution of halal logistics among halal organisations, such as that organisation should considered to taking serious about the guidelines and standards of halal logistics practices [7]. Secondly the halal organisations required to segregate their business functions and facilities in producing and distributing activities for halal products and related services [12].

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2. Background

The halal industry having very high potential and broad opportunity in domestic and international market. Malaysian government has gone ahead with many effective approaches to pro-mote and continuously growing this industry comprehensively. For example, Malaysian government focus on improving various platforms, facilities, programs and incentives. For the continuous improvement of halal industry in Malaysia, the government has given authority to JAKIM to develop, monitor and control and being central agency in Islamic affairs. JAKIM playing essential role since from 1974 provides many opportunities to Muslim and non-Muslim community in tandem the growth and development of the country and Islam as the official religion of the federation.

Halal Industry Master Plan (HIMP) executed by Malaysian government as great afford to improve halal integrity in local and global orientation market and being on stop centre or hub for invention and business trade [1]. The Halal Development Centre (HDC) perceived as key driver of HIMP and has been well acknowledged and significantly contribute to growth of halal food industry. The following table 1 provides the details of phases of HIMP from year 2008 to 2022.

Table 1: Phases of Halal Industry Master Plan

Phase I: Year 2008 to 2010	Phase II : 2011 to 2015	Phase III : 2016 to 2020
Develop Malaysia as a global center for Halal integrity and prepare the industry for growth	Establish Malaysia as one of the preferred locations for Halal-related business	Broaden geographic footprint of home-grown companies

The above table 1 provided with three main phases of halal industry master plan. The HIMP divided into three main phases as such phase I from year 2008 to 2010, this phase emphasis on the global centre development and at the same time this phase giving priority to focus on integrity and continuous growth of industry. This phase focused on 3 years. The second phase II from year 2011 to 2015, this phase giving priority to promoting the Malaysian halal industry and promoting Malaysia as halal-related business hub and serving domestic market and international market. This phase carries out for 5 years. The third phase III from year 2016 to 2020, this phase giving priority to broaden geographic footprint of home-grown companies.

The certification of halal organisation has been started in the early of 1965. For example, Ajinomoto Malaysia Berhad one of the companies received halal certification from Selangor state of Islamic Religious Department (JAIS) (Ajinomoto Malaysia Berhad, personal communication, August 6, 2018). In year 1974, JAKIM official halal certification implemented as research centre, Islamic affairs division. There are numerous of Malaysian companies fulfil the MS 1900 2005 standard and being version has been reviewed in recent years. There are many business entities in Malaysia are instigating Shariah practices as an effort to attain the standard of MS1900 2014 certification. The halal certification in Malaysia for Malaysian firm being competitive advantage. The following table 2 shows the details of Malaysian Halal certified firms in year 2019.

Table 2: The Number of Malaysian Halal Certified Companies in 2019

States	Halal Certified Companies
Selangor	1041
Johor	499
Pulau Pinang	390
Kuala Lumpur	364
Perak	202
Negeri Sembilan	198
Melaka	196
Sabah	162
Kedah	103
Sarawak	57
Kelantan	51
Terengganu	45
Pahang	45
Perlis	7
Putrajaya	6
Labuan	6

Source: Department of Islamic Development Malaysia (2019)

This table provides the details of halal certified business entities from east Malaysia and west Malaysia. The Selangor state having largest number of halal certified firms and follow by other states such as Johor, Pula Pinang, Kuala Lumpur, Perak, Negeri Sembilan and so on [5].

Halal industry being and increasingly important to improve competitive advantage of organisations. There are much research shows that price not only the main determination of competitiveness of an organisation. There are various factors influence on competitive advantage such as ecological, health, safety, hygiene, and welfare involved collectively [1]. There is continuous compression in local and global business environment and competition contribute to the demands of all above mentioned factors. The halal certified business entities not only required to delivery halal quality products and services they also highly required to comply to economic, environmental and social interest of business [2].

Business environment has experienced many changes in recent years, today's business environment well known as dynamic. Specially, Malaysian halal industry particularly in halal logistics and manufacturing are facing many problems and deal with lack of competitiveness, that's why, maintaining business competitiveness is a major concern for halal firms in Malaysia to comply with Islamic halal sharia compliance [8]. Therefore, to sustain the competitiveness of halal industry and comply with halal management standard is a major concern for halal industry firms in Malaysia.

There are very limited business entities having limited resources, knowledge, capabilities and practices in the perspective of halal to determine and enhance their competitiveness and performance [9]. One of key strategy in halal industry is halal logistics, this business process still a growing and has been experienced many changes. There is lack of exposure in the context of halal logistics and this industry still growing in domestic and international market. There are many organisations having very poor understanding, knowledge, practices and strategies [17]. The halal logistics having various processes such as warehousing, transportations and inventory management many more. Proper segregation of halal and non-halal food product should be highly to practiced avoiding contamination (19]. The halal logistics practices in halal organisations still not having full focus and there are many things required to look into to improve accordingly. In the same time, relationship in between halal logistics practise and organisational performance in halal industry still received lack of attention and exposure. Hence, this research seeks to establish unique relationship in between halal logistics practices and competitiveness of halal organisation.

Based on the above discussion, the ultimate aim of this research emphasis on in between efficient halal logistics practices in halal food industry in Kuala Lumpur and justify the relationship in between efficient halal logistics practices (e.g. equipment, safety and transportation information system) towards halal food organisation competitiveness. The objective of this study to examine the relationship between halal logistics practices and organizational competitiveness in the halal food industry in Kuala Lumpur, Malaysia.

3. Lecturer Review

This study focuses on the influence of efficient halal logistics practice on halal food organisation competitiveness in halal food industry in Kuala Lumpur. The halal concepts become prominent and being basic way of Muslim life. The Halal concepts beyond within a decade on safety, cleanliness, health and environmental stewardship on halal products and services. [22] has highlighted the impact of economic and wealth propensity in halal industry. There are various challenges and demands postured in Malaysian Halal business environment [1]. Nevertheless, [22] this scenario

has elevated a query on how those organizations can routine their competitive advantage to operate their business in the halal market.

In recent years' halal industry in Malaysia progressing fast and facing many challenges in competitive environment, halal organisations forced to enhance effective solutions on how they can male momentous variations in succession their halal venture [12]. As per defined by [23] the halal market has been rationalized the entire business ecosystem and acquaint with halal practices in every process. Take example of logistics, the logistics being essential function and plays a significant role in ensuring integrity of halal products and services at the point of consumption [2]. Logistics plays various functions such as inbound, outbound transportation, fleet management, storage/warehousing, handling of goods, order fulfillment, logistics network design, inventory management and many more functions. Logistics considered part of supply chain where consist of many business entities, for example Suppliers, Manufacturers, Distributors, Wholesaler and Retailers [32]. All these key functions work as team to acquire materials and transform them into final products and services. "Halal Logistics" is an approach which helps to avoid contamination of perishable, raw materials and food products during transportation or distribution activities [24]. The Halal logistics helps to avoid products or services missed information and to ensure that "Muslim Consumers".

According to Malaysian Standard for Halal Logistics (MS.2400:2010) [5], the Halal Logistics requirements follow accordance to "Shariah Law" including the requirement of logistics providers for transportation, warehousing and retailing. The application of Halal logistics practices should be involved from processing to handling, distribution, storage, display, serving, packaging and labeling. There are few concerns regarding the implementation of *halal* logistics among logistics players. First, there is concern whether these players follow all guidelines and standards for *halal* logistics. Second, there is concern whether these players segregate their workers and facilities in producing and distributing activities for *halal* and *non-halal* products. players.

This study is therefore interested to study on efficient halal logistics practice on halal food organisation competitiveness in Halal Food Industry in Kuala Lumpur. Accordingly, the study starts with introductory chapter, which gives general idea about the research topic and background of the study. The study also provided a short overview of the halal business, then, explains the problem of the study, research questions and objectives of the study.

3.1 Organisational Competitiveness

The concept of halal food refers to a way of producing food in a way that has been approved by Islamic law. Therefore, the halal food industry is very important for Muslims around the world [5]. Because of the importance of maintaining halal practices in the food industry for Muslims, an organization was formed that aims to select and ensure halal practices in each of the food products that will be marketed later. With a global Muslim population of 1.8 billion, the halal food market is estimated at US $ 547 billion per year [8]. This trend is expected to increase to USD 2.1 trillion in line with the five-fold dynamics driving the global halal food market such as the growth of the Muslim population, the main market for halal food, an increase in income in the main market for halal food which increases the demand for safe and high-quality food. in the primary market, increasing demand for halal products, and the incidence of food being marketed as halal but failing [15]. Malaysia is the best example in the world in benchmarking halal food that has been in accordance with the Codex Alimentarius and has been established by the United Nations [5], [6].

A single halal standard is applied throughout the country with the result that the Malaysian standard has become the basis for the development of the world's halal food industries (SME Annual Report 2006, 2007). Malaysia has to remain competitive in the global halal marketplace as this is not an industry without serious challenges [19],[20],[22]. One such challenge is that of product differentiation that meets customers' needs and expectations to ensure competitive edge and business sustainability revolves [18]. Failure to respond to this challenge could erode Malaysia's competitiveness as a global player in halal food companies [21]. Malaysia stands out as a potential leader in the halal food industry compared to other Muslim countries and is the only Muslim-dominated country at the top of the ranking [6]. This advantage is highly expected by Malaysia to utilize it in accordance with its goal of becoming a Global Halal Food Center in recent years [6].

3.2 Halal Logistics Practices

3.2.1 Equipment (ET)

The concept of halal is not only about the source of food and beverage ingredients but also includes the manufacturing process and all equipment used must be considered because Muslim consumers are very

concerned about the ingredients of the products they consume and use [22]. Therefore, a producer must be responsible for compliance with halal regulations. Special cleaning and preparation of equipment and facility are necessary prior to the commencement of halal production. If all of these requirements are met, all the food-making processes can be said to be halal. However, it is not only from the producer side that must meet the halal criteria, but the suppliers of the ingredients must be also Muslim and approved as halal.

This is because to prevent the occurrence of materials that violate the rules in Muslim because many other suppliers can be less careful. During the preparation, processing, packaging, storing, and transporting processes, the product must be fully isolated from any non-halal food [33]. It must consistently perform the same type of production and produce the same group of approved products with the same ingredients to approve a facility for general halal certification. During the production process, of course, it involves a lot of equipment. The equipment, machineries, and other materials used must not be made of non-halal materials [10]. By fulfilling all this, the food or drink can be categorized as a halal product and suitable for consumption by Muslims. Storage, display, and serving of products that have been marked as halal products must be separated from non-halal products to make it easier for consumers. During the delivery and distribution process, non-halal and halal goods must be separated to prevent contamination [16].

3.2.2 Safety (ST)

Food safety and halal food have been something that has been actively researched in the food quality literature over the last few years. In the last two decades, research in food safety certification (FSC) has become a normal topic in the food safety board [22]. FSC is a form of product quality and safety standards, which is implemented voluntarily by a company or requested by an outside party. The Food Safety Management Standard (ISO 22000), Hazard Analysis and Critical Control Point (HACCP) or Good Manufacturing Practices (GMP) are popular examples of FSC [23]. This FSC is awarded by an independent certification authority after a series of inspections and tests covering food safety knowledge, proper food handling and sanitation procedures and in-depth knowledge of food-borne diseases [25] in a similar sense, food safety is arguably emphasizing similar goals, especially from the health aspect. The issue of food safety is something that is important to be thoroughly researched and investigated because if the food safety system is still lacking the data will cause various losses. The fact is that the demand for assurance of food safety has risen sharply in recent years as cases have been reported globally of deaths due to consumption of unsafe foods [34].

According to [31] food contamination with harmful bacteria, viruses, parasites, and chemicals that causes more than 200 diseases, from diarrhea to cancer, is profoundly affecting the way consumers globally raise safety standards for food products. The halal food market has grown significantly over the past five years. Due to an increase in demand, this type of food is now being consumed by both Muslim and non-Muslim customers [33]. Researchers have previously studied and reported on the latest developments regarding food safety and halal food in the supply chain. Among the topics studied, under the food safety literature in SC, are food safety management systems for fresh produce in SC [16], traceability in SC foods [19] and multi-player interactions in food safety in integrated SC [22]. The cleanliness, sanitation, and safety of the products are considered as the foundation of halal food preparation in line with the concept of “halalan tayyiban”. The objectives is to ascertain that the food is produced hygienically with all existing processes and equipment during the production process. All foods must be prepared, processed, packaged, transported, and stored in such a manner in order to maintain their hygiene. Hygiene can be defined as free from unclean contamination, and harmful germs [13]. Manufacturer must be responsible for monitoring pollution, chemical used and disposal of wastes to ensure the food is safe and hygienically clean for consumption [15].

3.2.2 Transportation Information System (TIS)

Another category of strategy options has to do with the use of Information and Communication Technology (ICT) as integration platform. This may integrate firms' competitive advantages with strategy choices that may value add their long-term business prospects. The potential problem with the ICT strategy is information overload. As such business organizations need to select only those information resources that are suitable to their purpose. Information and Communication Technology (ICT) is often the main driver in a business solution, creates a good vision and future, and can support the vision of the business by managing the security of ICT information structures with good security [23].

ICT can provide powerful tools and techniques that are helpful in analyzing early external and internal warning signals. In addition, Information and Communication Technology (ICT) also provides a

number of information that will be needed to make decisions on shipping and marketing strategies [27]. In terms of the Malaysian halal food industry, Information and Communication Technology (ICT) is supported by technological advances that have become an integral part of the growth of Malaysia itself as an industrialized country. The nation's persistent drive to engage modern technologies proves to be a great advantage to manufacturers in Malaysia, including the halal food industry [. To accelerate the process of strengthening ICT capabilities and capacities of SMEs, including the halal food, SMEs must be prioritized by collaborating with specialized government research institutions and universities [28].

3.3 Research Framework and Hypothesis Development

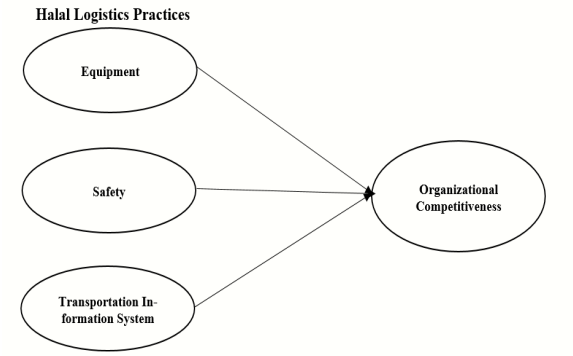

Figure 3: Research Framework

The above figure 3 Shown above is a Research framework for our research. The research framework shown above includes Dependent Variables which are Factors Affecting the Competitiveness Performance of Halal Food Organizations. It also includes Independent Variables Namely Equipment, Safety, and Transportation Information System. Our study aims to assess the factors affecting the Competitiveness of Halal Food Organizations followed by the impact of these factors.

H_1 : The is significant and positive relationship in between equipment (ET) and organisational competitiveness (OC) in Halal food industry.

H_2 : The is significant and positive relationship in between safety (ST) and organisational competitiveness (OC) in Halal food industry.

H_3 : The is significant and positive relationship in between transportation information system (TIS) and organisational competitiveness (OC) in Halal food industry.

4. Research Methodology

As per mentioned above, the structured survey questionnaire considered most suitable for this research area. The questionnaire designed to helps to identify and justify the relationship in be-tween variables. The online questionnaire considered for this research and will be distribute online via “google questionnaire” and the link of questionnaire will be share with relevant selected respondents to achieve the ideal sample units. This will help the process of data collection will very smooth, simple, straightforward and easy to obtain relevant data information from particular respondents or sample group.

The structured questionnaire will be having three main sections, such as section A (demographic questions) around 6 demographic questions will be considered for this research. The section B will focus on independent variables (e.g. Equipment, Safety and Transportation information system) there three variables considered as independent variables and each variable will be considered around five items. The section c will be focus on dependent variable Halal food organisations’ competitiveness. There will be around 6 to 8 items will be considered accordingly. The five scale “Likert scale” considered for this research, such as “Strongly Disagreed” (SD), “Disagreed” (D), “Neutral” (N), “Agreed” (A) and “Strongly Agreed” (SA).

This part will focus on overall population and how was the selection of sample size has been carry out accordingly. The target population for this research is such as the Halal certified organisations in Kuala Lumpur area. The list of details of Halal certified organisations can be obtain from Malaysian Department of Islamic Development (JAKIM). The halal certified firms are selected main because they are having relevant experiences, knowledge, best practices and operational performance of their business entity. Furthermore, the selection of these firm based following characteristics as well such as large sector, economy contribution, employment, sales volume and halal certification. The database of halal firms will be generating from JAKIM system and Federation of Malaysian Manufactures (FMM) [5] and [6].

The estimated overall population in Kuala Lumpur area based on JAKIM database around 300 to 400 halal organisations. The sample size calculation made based on Krejcie and Morgan (1970) table estimated population and sample size [28]. The following table 3.1 shows the details of estimated sample size. Refer to above table 4 the "N" represents the total target population and "S" the sample size. The estimated targeted population is around 300 to 400, so the estimated sample size for this study will fall in between 169 to 196. Each organisation considered as unit of analysis. The simple random sampling method considered for this research [29], [30].

Table 4: Krejcie and Morgan , Sample Size

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

N is population size.
S is sample size.

5. Results and Discussion

5.1 Survey Response Rate

The online structured survey questionnaire distributed via google form questionnaire as per stated . The survey questionnaire distributed among Halal certified organisations in Kuala Lumpur area. The list of details of Halal certified organisations can be obtain from Malaysian Department of Islamic Development (JAKIM). The online survey questionnaire distributed around 250 to 300 sets to the potential respondents to meet the total estimated sample size. An organisation perceived as "Unit of Analysis". The following table 5 provides the details of respondents' details according.

Table 5: Details of Response Rate

Questionnaire Response	Frequency	Rate (%)
Number of Questionnaires Distributed	250	100
Returned Questionnaires	108	43.20
Usable Questionnaire	108	43.20

Around 250 of survey questionnaire distributed to the potential respondents, around 108 respondents provided their response and the researcher received from them. This shows that this study achieved around 43.20 percentage of respondents from the total distribution of questionnaire. As per stated by Chatman (2007), archive around 35 percentages of response rate considered good and acceptable. This study achieved around 43.20 and reflecting that the response rate is "Very Good".

5.2 Analysis of Pilot Study

Table 6: Reliability Output of Pilot Study

Scale Name	Cronbach's Alpha	No of Items
Equipment (ET)	0.865	6
Safety (ST)	0.880	6
Transportation information system (TIS)	0.813	6
Organisational Competitiveness (OC)	0.789	10

The overall outcome of pilot study for reliability analysis shows that all variables are scored above 0.70 Cronbach's Alpha. The Equipment (ET) scored 0.865, Safety (ST) scored 0.880, Transportation Information (TI) scored 0.813 and Organisational Competitiveness (OC) scored 0.789. All variables are scored above 0.70 Cronbach's Alpha. This shows that all variables are having "Good Reliability".

5.3 Reliability Analysis (Final Study)

Reliability analysis performed on the final number of respondents of 108 take part in this study. The following table 7 provides the details of reliability test outcome.

Table 7: Reliability output of final study

Scale Name	Cronbach's Alpha	No of Items
Equipment (ET)	0.878	6
Safety (ST)	0.859	6
Transportation information system (TIS)	0.914	6
Organisational Competitiveness (OC)	0.846	10

The above table shows that all four variables are achieve above 0.70 Cronbach's Alpha. The Equipment (ET) scored 0.878, Safety (ST) scored 0.859, Transportation Information System (TIS) scored 0.914 and Organisational Competitiveness (OC) scored 0.846. All variables achieved "Good Reliability"

5.4 Normality and Outliers Analysis

The normality analysis considered for this study. The normality test performed for all variables. The aim of the normality analysis to verify and justify all variables are well distributed. The purpose of this study the "Histogram Analysis" considered and performed accordingly [28]. The aim of the Histogram analysis to test either all constructs are having "Normal" distribution such as "Bell" Curve and having smooth probability density and kernel smoothing techniques. [29] and [30] concluded that "normal bell curve" perceived as the data distributed in a normal perspective and having great shaped of data distribution. The following histogram charts provide the details.

The below table 8 provided with overall summary of Normality analysis for all constructs. The following details reflecting that the statistics shows that all constructs having "Normal Curve" and well distributed with "Bell-Shape" achieved accordingly. The average mean score for all variables is around 3.55 and average Standard Deviation is 0.671.

Table 8: Summary of Histogram Analysis

Construct (s)	Mean Value	Stand Dev, Value	Curve Distribution
ET	3.51	0.893	Normal
ST	3.57	0.545	Normal
TIS	3.69	0.719	Normal
OC	3.4	0.527	Normal

The following table 9 provided the details of demographic analysis and statistics details, there 7 factors used to collect the demographic information from the potential respondents. The overall and mean score and Std. Deviation score shows that there not much differences in the statistics findings. The following sections provides the details accordingly.

Table 9: Summary of Descriptive Analysis of Demographic factors

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	108	1.00	2.00	1.0102	0.10692
Age	108	1.00	5.00	3.3510	0.53028
Job	108	1.00	4.00	2.8200	0.55765
Ethnicity	108	1.00	4.00	1.8640	0.49930
Academic Qualification	108	1.00	5.00	2.5054	0.58918
Department Details	108	1.00	5.00	3.2100	0.64430
Years of Business Establishment	108	1.00	5.00	3.0512	0.53201
Valid N (listwise)	108				

Table 10: Summary of Descriptive Analysis of Demographic factors

	N	Minimum	Maximum	Mean	Std. Deviation
ES	108	1.00	5.00	3.6274	0.71892
ST	108	1.00	5.00	3.6807	0.71983
TIS	108	1.00	5.00	3.4938	0.99260
OC	108	2.00	5.00	3.5574	0.80546
Valid N (listwise)	108				

The table 9 and table 10 above reflecting the overall summary of demographic statistics and variables statistics. There were around seven factors used to measure the demographic information from the respondents. The overall summary of mean score and Std. deviation scores are reflecting accordingly.

5.5 Correction Analysis

Table 11: Correlations Analysis

	ET	ST	TIS	OC
ET				
ST	0.658**			
TIS	0.496**	0.645**		
OC	0.789**	0.734**	0.615*	

** Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (1-tailed)

The table 11 above provides the details of "Pearson's Correlation Analysis" performed for all variables. There are three correlation relationship proposed in this study. There are three independent variables such as Equipment (ET), Safety (ST), Transportation Information System (TIS) and one dependent variable Organisational Competitiveness (OC). The range of correlation valued from "-1.0" and "+1.0", any correlation within the range of "-1.0" considered having "negative relationship", if any correlation within the range of "+1.0" considered having "positive relationship".

The above tables reflecting that Equipment (ET) and Organisational Competitiveness (OC) having correlation coefficient at range of "r" value is 0.789 (within range of 0.60 to 0.80) considered "High Correlation". Safety (ST) and Organisational Competitiveness (OC) having correlation coefficient at range of "r" value is 0.734 (within range of 0.60 to 0.80) considered "High Correlation" and Transportation Information System (TIS) and Organisational Competitiveness (OC) having correlation coefficient at range of "r" value is 0.617 (within range of 0.60 to 0.80) considered having "High Correlation".

The above tables reflecting that Equipment (ET) and Organisational Competitiveness (OC) having correlation coefficient at range of "r" value is 0.789 (within range of 0.60 to 0.80) considered "High Correlation". Safety (ST) and Organisational Competitiveness (OC) having correlation coefficient at range of "r" value is 0.734 (within range of 0.60 to 0.80) considered "High Correlation" and Transportation Information System (TIS) and Organisational Competitiveness (OC) having correlation coefficient at range of "r" value is 0.615 (within range of 0.60 to 0.80) considered having "High Correlation".

5.6 Justification of Hypotheses

Equipment (ET) and Organisational Competitiveness (OC)

The Pearson's Correlation Coefficient Analysis reflecting that there is positive relationship in between Equipment (ET) and Organisational Competitiveness (OC). The "r" valued scored 0.789 and having significant at 0.01 (p : 0.005). the coefficient value within range of ±0.60 to ±0.80, having high correlation level in between these two variables and significant at p- value at 0.01. As a conclusion the following hypothesis is accepted and supporting the relationship.

H_1 : *The is significant and positive relationship in between Equipment (ET) and Organisational Competitiveness (OC) in Halal food industry*.

Safety (ST) and Organisational Competitiveness (OC)

The Pearson's Correlation Coefficient Analysis reflecting that there is positive relationship in between Safety (ST) and Organisational Competitiveness (OC). The "r" valued scored 0.734 and having significant at 0.01 (p : 0.002). the coefficient value within range of ±0.60 to ±0.80, having high correlation level in between these two variables and significant at p- value at 0.01. As a conclusion the following hypothesis is accepted and supporting the relationship.

H_2 : *The is significant and positive relationship in between Safety (ST) and Organisational Competitiveness (OC) in Halal food industry.*

Transportation Information System (TIS) and Organisational Competitiveness (OC)

The Pearson's Correlation Coefficient Analysis reflecting that there is positive relationship in between Safety (ST) and Organisational Competitiveness (OC). The "r" valued scored 0.615 and having significant at 0.05 (p : 0.040). the coefficient value within range of ±0.60 to ±0.80, having high correlation level in between these two variables and significant at p- value at 0.01. As a conclusion the following hypothesis is accepted and supporting the relationship.

H_3 : *The is significant and positive relationship in between Transportation Information System (TIS) and Organisational Competitiveness (OC) in Halal food industry.*

The overall summary of research findings and reflecting that all three hypotheses are accepted and supported accordingly.

6. Discussion

This research focusses on the halal logistics practice on halal food organisation competitiveness in Halal Food Industry in Kuala Lumpur. There are three key efficient halal logistics practises are considered in this research such as halal equipment, halal safety and halal transformation information system and its possible these halal practices can be influence on organisational competitiveness in halal food industry.

All three hypotheses are accepted accordingly. The relationship in between Equipment (ET) and Organizational competitiveness (OC) along in Halal Food Industry justify that, the usage of halal Equipment as Efficient halal logistics practices possible to influence on the overall competitiveness of halal organization. The concept of halal is not only about the source of food and beverage ingredients but also includes the manufacturing process and all equipment used must be considered because Muslim consumers are very concerned about the ingredients of the products they consume and use [18]. Similarly, the relationship in between Safety (ST) and Organisational Competitiveness (OC along in Halal Food Industry also reflecting that the safety features considered very important to justify the overall competitiveness of halal organisation. The research findings shows that there is strong relationship in between halal safety features and organisational competitiveness [19].

Food safety and halal food have been something that has been actively researched in the food quality literature over the last few years. In the last two decades, research in food safety certification (FSC) has become a normal topic in the food safety board. FSC is a form of product quality and safety standards, which is implemented voluntarily by a company or requested by an outside party [21]. The Food Safety Management Standard (ISO 22000), Hazard Analysis and Critical Control Point (HACCP) or Good Manufacturing Practices (GMP) are popular examples of FSC. The Transportation Information System (TIS) also reflecting that being essential to maintain organizational competitiveness in the Halal Food Industry. The research findings shows that, there is strong relationship in between Transportation Information System (TIS) and Organisational competitiveness (OC). This may integrate firms' competitive advantages with strategy choices that may value add their long-term business prospects. The potential problem with the ICT strategy is information overload [25]. As such business organizations need to select only those information resources that are suitable to their purpose. Information and Communication Technology (ICT) is often the main driver in a business solution, creates a good vision and future, and can support the vision of the business by managing the security of ICT information structures with good security [20], [34].

7. Conclusion

Halal logistics providers must be aware of and comprehend the significance of logistical practices such as equipment, safety, and transportation information systems, as described previously. Logistics players must have the vision to transition from traditional logistics to halal logistics. Furthermore, logistics actors must obtain support from all levels of management within the organization, as well as employee approval of halal operations and halal logistics activities. Aside from that, the state of the logistics company's internal and external environments must be considered, and a Halal Assurance System (HAS) must be established for each company working in the halal

industry. Food-based logistics operators with a halal logistics vision should be equipped with a new halal management team that will oversee all areas of halal logistics operations. Logistics firms should have at least one halal adviser or halal internal auditor to help management monitor day-to-day logistics operations [15]. Companies could also hire trainers to instruct their employees on halal training programmes.

Several constraints must also be highlighted. The focus of this study is limited to Malaysian Halal Logistical providers and ignores additional Halal logistics difficulties experienced in other Muslim or non-Muslim nations. Future research should attempt to identify other nations' barriers to Halal logistics operations. Furthermore, future research should include a cross-country comparison because Halal logistics operations varies between nations [33]. Furthermore, this study only looks at Halal logistical practices and ignores other forms of Halal services like Halal tourism, Halal marketing, and Halal pharmaceuticals or cosmetics. In order to have a better knowledge of the primary barriers in the Halal industry, future research agendas should cover the barriers encountered in other Halal business sectors. Furthermore, future research should put the barriers outlined above to the test in the real world by gathering additional data from a bigger sample [12], with emphasis on highlighting the 'driving barriers' and the 'dependent barriers' [14].

As a result, a more comprehensive grasp of the true undermining concerns can be shown. Finally, this study adds to the existing body of knowledge about the Halal industry, specifically Halal logistics. It also evaluated the use of Halal in logistics management and practices. It is intended that this study would help industry players gain a better understanding of the Halal logistics environment and aid them in making decisions to embrace Halal logistics [24]. In terms of academic contribution, this research could aid in more studied research and the development of survey instruments.

References

[1] Ab Talib, M.S., Pang, L,L. and Ngah, A.H, *"The role of government in promoting Halal logistics: a systematic literature review"*, Journal of Islamic Marketing, Vol. 12, No.9, pp. 1682-1708. https://doi.org/10.1108/JIMA-05-2020-0124. 2020.

[2] Aziz, A, A. and Zailani, S, *"Halal Logistics; The Role of Ports issues and Challenges",* (2017). Advances in Islamic Finance, Marketing and Management, pp. 09-321,2017.

[3] Creswell, J, *"Qualitative inquiry and research design":* choosing among five approaches", 2nd ed. Thousand Oaks,CA: Sage Publications Inc. (2007).

[4] Creswell, J, *"Research Design Qualitative, Quantitative and Mixed Approaches",* 3rd ed.London, UK:Sage Publications Inc,(2009).

[5] Department of Islamic Development Malaysia, Databased, Available at:https://www.data.gov.my/datams_MY/Organisation/Jabatan-Kemajuan -Islam- Malaysia-Jakim, (20-05-2022).

[6] Department of Standards Malaysia, "Overview Halal Supply Chain Management System", Available at; http://www.jsm.gov.my/ms-2400-2, (22-07-2022).

[7] Fathi, E., Zailani, S., Iranmanesh, M, and Kanapathy, K, "Drivers of consumers" willingness to pay for halal logistics", British Food Journal, Vol. 118, No.2, pp. 464-479 ,2016.

[8] Haleem, A. and Khan, M.I, "Towards successful adoption of halal logistics and its implications for the stakeholders", British Food Journal, Vol.119, No.7, pp.1592-1605, 2017.

[9] Jones, A. B. and Knoppen, D, *"The role of strategic purchasing in dynamic capability development and deployment; a contingency perspective"*, International Journal Operations and Production Management, Vol. 28, No. 2, pp. 446-473.

[10] Karia, N, "*Knowledge resources, technology resources and competitive advantages of logistics service providers",* Knowledge Management Research and Practice, Vol. 16, No.4, pp. 1-13, 2018a.

[11] Karia, N, *"How knowledge resource does matter in technology and cost advantages of a firm?, Evidence for Malaysian logistics sector"*, Asian Journal of Technology Innovation, Vol.26, No.3, pp. 346-368, 2018b.

[12] Karia, N, "*Halal logistics: practices, integration and performance of logistics service providers",* Journal of Islamic Marketing, Doi:10.11/JIMA-08-2018-0312, 2019.

[13] Khalid, S.M.N, *"Food safety and quality management regulatory systems in Afghanistan: Policy gaps, governance and barriers to success"*, Food Control, Vol. 68, pp.192-199, 2016.

[14] Khan, M.I. and Haleem, A, *"Understanding Halal and Halal certification & accreditation system- A brief review,"* Saudi Journal of

Business and Management Studies, Vol.1, No.1, pp.32-42, 2016.

[15] Lyu, G., Chen, L. and Huo, B, *"Logistics resources, capabilities and operational performance: a contingency and configuration approach"*, Industrial Management and Data Systems, Doi: 10.1108/IMDS-01-2018-0024, 2018.

[16] Mangla, S., Govindan, K. and Luthra, S, "Critical success factors for reverse logistics in Indian industries: A structural model", Journal of Cleaner Production, Vol. 129, pp. 608-621,2016.

[17] Mandal, S, *"The influence of dynamic capabilities on hospital-supplier collaboration and hospital supply chain performance",* International Journal of Operations and Production, Vol.37, No. 5, pp.664-684.

[18] Malaikhah, F, Mulyati, H, Cahyadi, E, R., Rahman, S.A, "Creating Strategies for implementing Halal Logsitcis in Malaysia", 2021.

[19] Mohamed, Y., Rahim, A. and Ma'aram, A, *"The effect of halal supply chain management on halal integrity assurance for the food industry in Malaysia"*, Emerald Journals, 2020.

[20] Syazwan, M, Ab Talib., Hamid, A.B.A. and Thoo Ai, *"Can halal certification influence logistics performance?",* Journal of Islamic Marketing, Vol.7, No. 4, pp. 461-475, 2017.

[21] Noorliza, K, *"Resource-capability of halal logistics services, its extent and impact on performance"*, Journal of Islamic marketing, Vol. 12, No. 4, pp.813-829, 2021.

[22] Noorliza, K., Asaari, M.H.A.H. and Rosdi, S.A..M, *"Halal Logistics: empowering competitive advantage and Sustainability in Hall C.M. and Prayag, G. (eds*)", The Routledge Handbook of Halal Hospitality and Islamic Tourism, Routledge, London, 2019.

[23] Ngah, A.H., Zainuddin, Y. and Ramayah, T*," Applying the TOE framework in the halal warehouse adoption study",* Journal of Islamic Accounting and Business Research, Vol.8, No. 2, pp.161-181, 2017.

[24] Omar, E.N., Jaafar, H.S. and Osman, M.R, *" Halal supply chain : Assessing the Islamic Values of the Poultry Industry,* International Journal of Supply Chain Management, Vol. 8, No.2, 2019.

[25] Tarmizi, H, A., Kamarulzaman,H, N, Latiff, I,A. and Rahman, A.A*,"Factors behind Third-Party Logistics providers Readiness towards Halal Logistics"*International of Journal Supply Chain Management, Vol.3, No.2, 2014.

[26] Saunders M., Lewis, P. and Thornhill, A, *"Research Methods for Business Students",* 5th ed. London, UK; Pearson Education Limited, 2009.

[27] Shou, Y., Shao, J. and Chen, A, *"Relational resources and performance of Chinese thirty-party logistics providers; the mediating role of innovation capability",* International Journal of Physical Distribution and Logistics Management, Vol. 47, No.9, pp. 864-883, 2017.

[28] Sekaran, U. and Bougie, R, "Research Methods for Business – A skill building approach, 5th ed. London, UK ; John Wiley and Sons, 2009.

[29] Sekaran, U, "Research Methods for Business: A skill building approach, 5th ed, United Kingdom: Wiley India, 2010.

[30] Sekaran, U, and Bougie, R, "Research Methods for Business", 6th edn, Italy, John Wiley & Sons Ltd, 2013.

[31] SIRIM Annual Report, *"Overview SIRIM standards"* http://www.marcusgomez.com/samples/sirim-annual-report, access date of (17042022)

[32] Talib, M, *"Motivations and benefits of halal food safety certification*," Emerald Journals, 2017.

[33] Zailani, S., Jafarzadeh,S., Iranmanesh, M., Nikbin, D. and Selin, N.I.I, *"Halal logistics service quality: conceptual model and empirical evidence",* British Food Journal, 2018.

[34] Zainuddin, N., Saifudin, A.M., Deraman, N. and Osman, A.A, *"The effect of halal traceability system on halal supply chain performance"*, International of Journal Supply Chain Management, Vol.9, No.1, 2020.