Halal Integrity from Logistics Service Provider Perspective

Zawiah Abdul Majid*¹, Nitty Hirawaty Kamarulzaman ², Azmawani Abd Rahman³, Harlina Suzana Jaafar⁴, Nor Aida Abdul Rahman⁵, Mohammad Fakhrulnizam Mohammad⁶

1,5,6 Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (UniKL MIAT)
 ²Department of Agribusiness and Bioresources, Faculty of Agriculture, Universiti Putra Malaysia
 ³ Department of Management and Marketing, Faculty of Economic & Management, Universiti Putra Malaysia
 ¹⁻³ Halal Product Research Institute (HPRI), Universiti Putra Malaysia
 ⁴Malaysia Institute Of Transport (MITRANS), Universiti Teknologi MARA (UiTM), Malaysia
 * Corresponding author E-mail address: zawiah@unikl.edu.my / inzawiah14@gmail.com

Abstract— In the complexity and dynamic supply chain network, understanding the integrity definition is paramount as to uphold Halal integrity from "farm to fork" to avoid miss-communication and fraudulent. This is because, the perceptions of Halal integrity varied among the Halal food supply chain stakeholders due to difference in scenario and perspectives. The authenticity and integrity of the Halal food supply chain is vital as it becomes the prerequisite in determining the potential business growth for sustainability. Consumers especially Muslim are concern about the integrity of Halal status of the food they consume as well as the product's origin. To the researcher understanding, there are limited study on halal integrity from the LSP perspective, this could be a novelty as the purpose of this paper is to explain how LSP perceives Halal integrity in compliance to Halal Supply Chain Management System: MS2400. Hence, the finding provided a guideline for future researchers or halal stakeholder a overview of LSP perception on halal integrity.

Keywords— Halal Integrity, Halal Food Supply Chain, Halal Logistics, Halal LSP, Halal authenticity

1. Introduction

Halal term is not only a religious issue, it also becoming the main issue for all business players to support Halal business trade globally. The Halal concept has emerged thousand years ago where it is stated in two main reference of the Muslim generation namely Al Quran and Hadith [1]. The 'Halal" term governs all aspect in Muslim lives worldwide.

The realm of Halal is not restricted to the consumable items only such as toiletries, food, pharmaceutical, cosmetics and finance services, but maintaining the Halal status from point of origin and throughout the supply chain process including logistics activities is significant [2], [3]. Transportation and storing activity of the Halal product is also critical to ensure the product is still Halal when it reach end consumer. The logistics provider should have a knowledge on how to maintain the Halal integrity of the products that they carry to avoid cross contamination with non-halal product as cross contamination could happen at any time and any place throughout the supply chain activity. Refer to [4], the objective of products\items segregation assures Halal supply chain can be achieved as follows:

- 1. Preventing from cross-contamination
- 2. Avoiding from mistakes occurrences
- 3. Ensure consistency among Muslim consumers expectations.

Recognizing upholding the Halal integrity is the prime consent in ensuring the Halalness of the product end to end, therefore, the common understanding of Halal integrity definition is vital. Halal integrity becoming crucial issue in-order to avoid miscommunication and fraudulent throughout the supply chain process. Having reviewed the literature, the definition of Halal integrity is also

inconsistent from one researcher to another. The notion of Halal integrity can be regard as maintaining the Halal status throughout the supply chain network from any activities that might breach the Halal status of the product intentionally and unintentionally [5]

The perceptions of Halal integrity varied among the Halal food supply chain stakeholders due to difference in scenario and perspectives. For instance, study by [2] highlighted that there are three (3) major issues discussed on the halal criteria requirements for in-flight halal kitchen that are proper segregation, Sertu (shariah cleansing) and worker's hygiene. The authenticity and integrity of the Halal food supply chain is vital as it becomes the prerequisite in determining the potential business growth for sustainability. Previously most studied concentrated on Halal manufacturer and there have been insufficient discussions about certified LSPs, although its paramount roles and responsibility in Halal food supply chain. In-addition, the study on Halal integrity perspective in journal and other publication is limited which had shown significantly huge gap in the body of knowledge.

Malaysia has been recognized as a leading country in supporting Halal industry worldwide. Malaysia via the development of Islamic regulatory body, JAKIM (Jabatan Agama Kemajuan Islam, Malaysia) and Halal Development Corporation (HDC) in promoting Halal trade activities, Halal is acknowledged as a new horizon of activity in many sectors such as logistics and supply chain, food and restaurant, tourism, banking, textile, medical devices and finance.

To ensure the Halal compliance of each product and services, Malaysian government via Standard Department of Malaysia has developed Halal standard. Halal standard is a reference book that can be used as a guideline to the industry players in establishing its Halal business. This standard has been the main reference not only for the industry players, but also to the customer inside and outside Malaysia. One of the examples of Malaysia standard is MS2400 Halal supply chain [2].

Table 1: The Department of Standard Malaysia: MS2400 Series on Halal Supply Chain [6]

Malaysian Standard (MS2400 Series) on Halal Supply Chain	Introduction
Halal Supply Chain	The halal supply chain links
	producers of products, goods and
	cargo with consumers. The pipeli
	provides assurance that products goods and/or cargo delivered from
	one custodian to another is in
	accordance with halal
	requirements, thus preserving the
	halal integrity of the products,
	goods and/or cargo
	This is the network from origin to
	consumer, assurance of halal
	requirement in managing the flow
	and upholding the halal integrity
	products, goods and/or cargo.
Halal supply chain	The halal supply chain that is
management System	translated into a set of manageme
_	system requirement standards wh
	comprise of transportation
Part 1:	
Transportation –	A standard of management system
General	which organise transportation
requirement (First	requirement of halal products,
revision)	goods and/or cargo
Halal Supply Chain	The halal supply chain that is
Management System	translated into a set of manageme
_	system requirement standards wh
	comprise of warehousing
Part 2:	
Warehousing –	A standard of management system
General	which organise warehousing
requirement (First revision)	requirement of halal products,
revision)	goods and/or cargo
Halal supply chain	The halal supply chain that is
management system	translated into a set of manageme
_	system requirement standards wh
Daniel 2. Data !!!	comprise of retailing
Part 3: Retailing –	A standard of management
General	A standard of management system
naminamant (First	which organise retailing
requirement (First revision)	requirement of halal products,

The lack of references in global halal standard is the main challenges to industry players to monitor business operation and its integrity. According to [7], having Halal standards is vital to support and facilitate Halal business which enables the companies to abide with relevant laws and regulation. According to JAKIM latest statistical data, from the total logistics companies operating in Malaysia, there are only 86 LSP who is certified Halal Logistics Provider (see Table 2 below) certification. It is shown in the table that Halal certification companies for food and beverage companies is 4800 and followed by restaurant (eating establishment), 1334 companies. Halal logistics provider is the lowest number that get Halal certification for Halal logistics compared to other. This is critical as this may lead to misunderstanding of the maintaining of Halal integrity of the product that they carry from one point to another point. As such, this big gap becoming a serious area to be studies among the scholars. This is aligning with [8] and [9] that call for more research in Halal logistics.

Table 2 : Halal certification scheme and number of companies in Malaysia [10]

No	Certification Scheme	Related MS	No of companies
			•
1	Food and beverage	MS1500	4800
2	Abattoir	MS1500	147
3	Eating establishment	MS1500	1334
4	Cosmetics	MS2200 -1	313
5	Pharmaceuticals	MS2424	194
6	Logistics	MS2400	86

Having discussed the above, the important research question can be captured from the above discussion is as below:

Research Question: How logistics service provider perceives Halal integrity with compliance to Halalan Toyyiban Assurance Pipeline Management System (HTAPs) – MS 2400 – 2010?

The aim of this research is to explore how logistics service provider perceives Halal integrity with a reference to MS2400 standard. The next section will discuss about Halal integrity literature review and followed by the methodology discussion adopted in this study. Single case study findings will be presented with the development of Halal compliance model with a reference to MS2400. This paper close with highlighting the contribution and implication for practitioners and suggestions for further research.

2. Literature review

The notion of Halal integrity

Previous research has established the importance of halal food supply chain. Recent study by [5] stress on the importance of the halal integrity with creating a critical awareness of the halal needs among the industry players in food industry. His study defines halal integrity as a process that is not only deals with permitted and prohibited foods, but the halal status of the food product (i.e. from raw materials until it reaches the consumers) should not be breached (i.e. no cross contamination with haram product). Earlier study by [11] suggested Halal integrity of a product is a result of various activities in the supply chain. This has not been clearly defined what are the elements that represent Halal integrity. Table 3 below presents past studies that is related to Halal integrity.

Table 3: Previous research on Halal Integrity and the Gaps (Adopted by researcher)

Source	Halal integrity issue	Gaps/ Critical analysis
[12]	No uniformity (no unified) of Halal	Difference
	concept as due to various level of	School of
	awareness and understanding of	thought on
	concept across the globe. The	Halal
	integrity of Halal product is being	Concept
	perceived differently among market	and
	Significance influence of Halal	perception
	integrity towards the degree of	of Halal
	product strategy from the findings	Integrity
	indicates that the religious aspect of	
	the product (i.e. Halalness) has	
	become importance attributes of	
	Halal product & export marketing.	
[11]	As the Halal integrity of the product	Halal
	is a result of the various activities in	critical
	the supply chain, a supply chain	control
	approach is important to guarantee the	point in
	Halal integrity at the point of	various
	consumption.	activities of
		Supply
		Chain
[13]	The Halal SC Model can be an	The
	important instrument to design &	important of
	manage Halal food SC in extending	Halal SC
	Halal Integrity from source to point of	Model as
	consumer purchase. As there is an	point of
	evident lack of academic research in	reference
	the field of Halal supply chain	
	management, it provides an important	
	reference for Halal logistics and	
F1.43	supply chain management.	T . 1 .:
[14]	Halal logistics and supply chain	Introductio
	management (SCM) is an important	n of HSCO
	discipline for the Halal industry in	as focal

	**	~ /
Source	Halal integrity issue	Gaps/ Critical
	extending the Halal integrity from the	analysis point for
	source to the point of consumer	better
	purchase. Better control of Halal food	control
	supply chains through the	from farm
	introduction of a Halal supply chain	to fork
	orchestrator (HSCO). It could provide	
	a key role in the authentication of	
	Halal, market access and a cost	
F4.83	advantage for the Halal industry.	
[15]	The concern of Halal food supply	The
	chains integrity is increasing (Zailani et al., 2010; Lam & Alhashmi, 2008).	complexity of the
	Firstly, the complexity of supply	network and
	chain causes the Halal integrity issues	cost
	are occurring more than before (Lam	reduction
	& Alhashimi, 2008) and focus on cost	making
	reduction of the logistics industry	integrity
	(Wilson and Liu, 2010). 2nd, the	issues
	complexity of today's supply chain is	difficult to
	making integrity issues harder to	detect
	detect (Zakaria, 2008; Shafie & Othman, 2004; Talib et al., 2008;	
	Abdul et al., 2009). 3rd, the	
	consequences of Halal integrity issues	
	in the supply chain have arguably	
	become costlier than before for brand	
	owners and retail chains to repair	
	(Waarden & Dalen, 2010; Zakaria &	
	Abdul-Talib, 2010; New Straits	
	Times, 2005).	
[16]	There are huge gan in the body of	Limited
[16]	There are huge gap in the body of knowledge and the limited numbers	Limited study on
[16]	There are huge gap in the body of knowledge and the limited numbers of publication in the research theme	Limited study on Halal
[16]	knowledge and the limited numbers	study on
[16]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity.	study on Halal integrity to enhance
[16]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal	study on Halal integrity to
[16]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of	study on Halal integrity to enhance
[16]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation	study on Halal integrity to enhance
	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade)	study on Halal integrity to enhance knowledge
[16]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation	study on Halal integrity to enhance
	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties	study on Halal integrity to enhance knowledge
	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain.	study on Halal integrity to enhance knowledge
	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among
	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder
	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity – One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are needed.	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal guidelines
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are needed. The paper aims to: a) conceptually	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal guidelines
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are needed.	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal guidelines
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are needed. The paper aims to: a) conceptually unpack the Halal integrity risk	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal guidelines Incomprehe nsiveness of
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are needed. The paper aims to: a) conceptually unpack the Halal integrity risk framework; and b) highlight the	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal guidelines Incomprehe nsiveness of the novel
[17]	knowledge and the limited numbers of publication in the research theme of Halal supply chain & Halal integrity. Halal Integrity — One (1) Journal Paper only (Topic: The influences of Halal integrity on product adaptation strategy for global trade) Big challenge for all the parties involved to ensure the integrity of the Halal product is intact throughout the whole supply chain. To protect Halal integrity, complete understanding of the whole Halal food SC is required Presently there is no standardize Halal guidelines because different countries & certification authorities apply different practices. In order for Halal logistics to be successfully implemented & ensuring Halal Integrity throughout the logistics network, a one-size-fits-all rules are needed. The paper aims to: a) conceptually unpack the Halal integrity risk framework; and b) highlight the supply chain integration practices	study on Halal integrity to enhance knowledge Unity in protection of Halal integrity among Halal Stakeholder No uniformity on Halal guidelines Incomprehe nsiveness of the novel Halal and

Source	Halal integrity issue	Gaps/
Bource	ridia integrity issue	Critical analysis
	the food supply chain - define six	Inclusive
	dimension of Halal integrity risk: a)	definition of
	production; b) raw materials; c) food	six
	security; d) outsourcing practices; e)	dimension
	service; and d) logistics.	in Halal
	Globalized supply chains increase the	integrity
	complexity of Halal food integrity. It	risk
	is more significant to the Halal food	
	industry due to incomprehensiveness	
	of the novel Halal and integrity	
	concept.	
	The outsourcing makes the supply	
	chain longer, which means it is harder	
	for the focal firm to keep track of their	
	quality control process along the	
	supply chain, i.e. Halal integrity. The	
	insights in the studies show various	
	processes are being outsourced such	
	as logistics, warehousing, packaging,	
	marketing, and sourcing of skilled	
	and unskilled workers.	
[18]	Halal SC services adoption in a	Segregation
[]	situation where manufacturers	of Halal
	especially Halal manufacturers using	Product
	Halal SC services in their SC	through
	activities in order to maintain the	Halal
	Halal integrity. It is known from farm	Supply
	to fork. Halal SC is a new dimension	chain
	of SC in which Halal products are	services
	handled separately with non- Halal	adoption
	products according to Syariah to	according to
	avoid cross contamination in order to	Shariah
	maintain their Halal integrity.	Law
[20]	Halal supply chain process is where	Awareness
	every stakeholder and activities are	of halal
	important in order to ensure that the	supply
	Halal status and integrity are	chain
	protected. The slightest presence of	process to
	non-Halal elements will void the Halal status, thus indicating the	stakeholder
	, .	
	criticality of Halal Supply Chain	
[21]	Halal is a profitable business and	Although a
	Halal logistics extends Halal	profitable
	products' integrity but there are	market,
	limited numbers of Halal LSP	limited
		Halal LSP
		entry

In general, Halal integrity can be classified to three elements namely individual integrity, corporate integrity and supply chain integrity. This has been illustrated in the Figure 1 below. As suggested by [22], integrity will link between ethical conduct and individual character. It can be referred as a quality or state of being complete; entirety; perfect and wholeness. This is referring to personal integrity.

Organizational integrity is related to workplace behaviour where psychological constructed and impacted on is receiving a considerable amount of attention in various industrial and organization psychology domains, such as leadership, organizational dynamics, employee wellness and employee selection. Supply chain integrity covers both operational and reputational dimensions. Operational integrity refers to the ability of the supply chain to meet objectives for quality, productivity and financial performance. While reputational integrity refers to the ability of the supply chain to protect and enhance the brand [23]



Figure 1: Types of Integrity (Drawn by author)

3. Research Methodology

The researcher opted for qualitative methodology to explore unobserved phenomena on the Halal integrity in the halal food supply chain in Malaysia. A single case study approach was adopted as a main strategy to collect rich data and gain in depth understanding on the issue of Halal integrity from Halal logistics service provider. [24] recommended single case study in examining unexplored phenomena. [24] also suggested that the number of respondents in qualitative study is not the main issue since the aim of study is to understand the phenomena, not to generalize the findings. As such, single case study in this research is justified.

This study follows case study protocol to ensure the reliability of the data. Semi structured interview was performed to collect rich data with regards to Halal integrity and the compliance to MS2400 standard on Halal Logistics [3]. One certified Halal Logistics Company has been examined in this study with the involvement of four Halal related managers. All four interviewees have been interviewed in a different

time and at different places. Each interview takes about 60 to 90 minutes. The details about all four interviewees as shown as below Table 4:

Table 4: Details of respondents

Respondents	Years in logistics industry	Position
A	5 years	Shariah Officer / Halal Executive
В	6 years	Head of Quality, Health, Safely & Environment
С	7 years	Fleet Manager
D	6 years	Business Development Executive

After the interview, all audio data has been transferred to verbatim text in Microsoft word and the researcher has transferred all interview transcript into Atlas ti software to help with organization of the data. Atlas ti and Nvivo are the software commonly used by qualitative researchers. Both software enables the researchers to work with chunks of data, to codes, categorize and developing themes. As suggested by past qualitative researchers, this software is the most suitable for exploratory research for theory building.

During the analysis, memos also been created by the researcher to interpret any remarkable note. The researcher uses qualitative content analysis as a data analysis method. Qualitative content analysis or known as thematic analysis, is one of the popular methods in analysing qualitative data. It is an interpretation method for qualitative interviews ([25], [26] which involves activity like summarizing raw data into categories or themes based on valid understanding and interpretation [27]. This process uses inductive reasoning, by which themes and categories emerge from the data through the researcher's careful analysis and continuous comparison.

As this study is about halal integrity with a reference from MS2400 Halal logistics standards, one of the methods in data analysis is also reviewing MS2400 document. Triangulation has been performed, between interview data and MS2400 document. This is significant in qualitative research to ensure the credibility of the qualitative data. To conclude, to take care the ethical issue in conducting research, all four respondents were given a consent letter and they are aware about the data that they need to share. During the analysis, all four respondents was renamed as respondent A, B, C and D. The next

section will highlight the key findings from the investigation.

4. Results and Discussion

In responding to the research question developed earlier on how logistics service provider perceives Halal integrity with compliance to Halal Supply Chain– MS 2400, initial findings show that there are eight factors emanates from the main interview data with regards to halal integrity incompliance to MS2400 halal logistics standard. There is training, practice, policy, assessment, Halal awareness, communication, and standard operating procedure (SOP), and top management commitment.

From the data, there are about 41% frequency of the respondents mentioned about training, 22% on practice, 16% on policy, assessment (6%), halal awareness (6%), communication (3%), SOP (3%) and top management commitment (3%). This is illustrated in below:

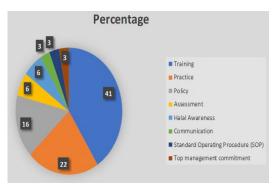


Figure 1: Percentage and frequency of the codes theme

As highlighted in above, interview conducted with the informant of this study indicate eight factors that contribute to halal integrity. The above result shown that training contribute 41% indicate the most crucial for LSP toward upholding Halal integrity in food supply chain. Therefore, training for LSP is important to enhance knowledge in understanding toward upholding Halal integrity. Training needs to be provided to all level of employee in the logistics organization and all channel members to establish understanding on Halal logistics and its importance to maintain the halal integrity. All four respondents agreed that proper training on the activities of Halal logistics is crucial which can be achieved thru awareness to ensure proper handling of the Halal product. This is also aligned with previous work by [28] and [29].

As highlighted by one of the respondents:

Understanding and awareness is important for the workers for them to operate in the halal environment, that's why the understanding should be in-depth. Then that's why our training program we conduct according to level. Firstly, is general, then secondly for intermediate which is more detail and, in the advance, how you manage the integrity for company. (Respondent b)

Training is deeming necessary as employer requires investment in costs (money), time and effort for their employees. Therefore, training need a systematic planning and human capital policy constitutes the top management commitment. In-line with human capital development toward organization's vision and mission with compliance to MS2400 toward upholding halal integrity which require specialized and affordable training. This is important to increase their competitiveness with the continued growth of the transportation industry locally and in global perspective. In addition, previous scholar stressed on the need of employee to continue to play an increasing role in the differentiation of product & service. Logistics continued in globalization in trade, delivering freight margin, complex contract, increasing competition, increased security risks, changing role of service providers, technological advancement, required contingency planning and future trade outlook and it is important that employee training seen as investment. Type of program must be reviewed by the organization, and selection of appropriate provider. In-addition, to evaluate what is the best fit and how the training program can support organization's future strategy and objective and can improve the performance productivity of staff and ensure they have the skills that industry needs. The possible training benefit would be increased employee motivation, satisfaction and morale, increased competitiveness, consistency message, increased efficiency, reduction in employee turnover & increased innovation in strategies & product [19]. Continuous training for new knowledge, understanding of Shariah and Islamic Principles will improve the synergy of workforce toward establishing smooth communication in operational of logistics activities.

In-addition to respondent's result of 41% in training, practice contribute to 22%. Result shown crucial for employer to emphasis the halal practices for employee. Collaborative initiatives should be

developed between logistics service provider and stakeholder as joint efforts. From the literature review of [30], clearly stated that many issues and challenges occur in the food industry because there is no integrity in halal practices. Issues and challenges are highly occurring to all industries in Malaysia within it is come from workers or management itself. Competition [30] source: Halal Supply Chain Management Streamlined Practices: Issues and Challenges

As highlighted by one of the respondents:

1.6. How do your company educate employees on halal integrity practices?

From our side also from the very beginning we give for the new employee we give what we call induction, this is very important because I think all the company doing the same practice, we give induction to them and also actually every year we decide especially to the employee actually not only to the employee, but also for the drivers, of course for the fleet department, drivers we have I think every quarter we have what we call training for them, temperature training include the halal training we give what we call awareness to them actually, inside ... in the our training but actually the content is provide by the QC department (respondent C)

Educating and awareness of Halal Integrity Practice to employee is crucial as there are responsible in handling the operational activities. Company must deal with avoid unwanted incident which is costly such as no contamination between halal product and non-halal products. This is the major concern for all employer to assure no breakage of halal procedure along the supply chain.

Halal Policy stated 16% contribution, in the company, this is where the information of the company objective toward halal policy. Information are display on the notice board, disseminate clearly and precisely on the shariah compliance including the do and don't on the policy. Employer need to create Halal awareness to make known to all stakeholders and continues training in Halal practice. The Halal policy too need to be followed and adhere to avoid any misleading and smoothen the operation process.

As highlighted by one of the respondents:

Yes that's why we have a process, the process lead by the what we call the head department, if meaning here that we need to understanding, for example we can share very easy, if any new product from the business development, when we want ... not only for the warehouse but also for the fleet, when they introduce for the new product to carry inside our truck we need to confirm what type of product either free pork for example, there is no liquor everything, than after we confirm with the committee and then we decide it's okay for our business then we run, but it not simply we take the business without the dedication from the committee, especially from the ustaz department (Respondent C)

Communication, SOP and top management commitment contribute 3% equally in each segment. Regular discussion and meeting are important to avoid communication breakdown. Required focal point or point of reference lead by the Halal committee. The roles of Halal executive to organize periodical meeting and discussion is crucial and commitment from top-down and bottom-up toward accomplished the company objectives. A precise standard operating procedure (SOP) should be disseminated and share value for all to smoothen the process of logistics activities.

Respondents agreed the top management commitment on halal policy in creation of halal awareness is crucial. Emphasis on training employees in ensuring success in halal practices. Establishment of halal policy, halal SOP and assessment. The organizations are to be responsible for developing, monitoring and controlling the halal assurance system to ensure its effectiveness. The important role of logistics in halal industry should be clearly described as [15] definition: Halal logistics is the process of managing the procurement, movement, storage and handling of materials, parts, livestock, semi-finished or finished inventory both food and non-food, and related information and documentation flows through the organization and the supply chain in compliance with the general principles of Shariah.

As highlighted by one of the respondents:

Actually, to facilitate we have control measure. To facilitate our policy or for facilitation, like what I want to say, to control we have our policy. For facilitation our existing SOP will facilitate and comply. (Respondent A)

5. Conclusion

In conclusion, based on the research question on how logistics service provider perceives Halal integrity with compliance to Halal Supply Chain MS2400. The initial findings show that there are eight factors emanates from the main interview data with regards to halal integrity incompliance to MS2400 halal logistics standard. There is training, practice, policy, assessment, Halal awareness, communication, and standard operating procedure (SOP), and top management commitment. The important of training is priority as it is in the top ranking to the company, to assure effective and efficient logistics activity for safe working environment. Untrained workers that lack of knowledge and skills might cause more susceptible to injuries while handling the equipment or materials used.

Since, this study is a first attempt on exploring the LSP perception of halal integrity, there are several limitations need to be highlighted. Firstly, this study only discussed on single case study of LSP in Malaysia, respondents may not be representing the whole population of halal logistics service providers. Secondly, this study needs to define the scope of Halal logistics activities which covers warehousing and transportation. It is recommended that further study should acquire in-depth data, for example obtaining views from industry experts through focus group for better understanding toward halal integrity perception in the logistics industry.

The result from this respondent could be a guideline and benefited to Halal Food Supply Chain stakeholder especially future certified Halal LSPs. This single case-study intends to ascertain the strategies used by a home-grown respondent whom the first Halal Logistics certified by Department of Islamic Development Malaysia (JAKIM), on Malaysian Standard (MS) Halal Supply Chain MS2400 Part 1: Management System Requirements for Transportation of Goods and /or Cargo Chain Services.

References

- Z. Abdul Majid, N. Hirawaty Kamarulzaman, and R. Abdul Rashid, "Developing Halal Food Supply Chain Integrity Model in Logistics Industry," 2014.
- [2] N. A. A. Rahman, M. F. Mohammad, J. Muda, M. F. Ahmad, S. A. Rahim, Z. A. Majid, and H. M. Noh, "Linking Halal Requirement and Branding: An Examination of Halal Flight Kitchen Provider in Malaysia," *Int. J. Suppl y Chain Manag.*, vol. 7, no. 3, pp. 208–215, 2018.
- [3] H. A. Tarmizi, N. H. Kamarulzaman, and I. A. Latiff, "Factors behind Third-Party Logistics Providers Readiness towards Halal Logistics," *Int. J. supply Chain*, vol. 3, no. 2, pp. 53–62, 2014.
- [4] M. M. Khairuddin, N. Aida, A. Rahman, and M. F. Mohammad, "Regulator Perspective on Halal Air Cargo Warehouse Compliance," *Int. J Sup. Chain. Mgt*, vol. 7, no. 3, pp. 202–207, 2018.
- [5] J. M. Soon, M. Chandia, and J. Mac Regenstein, "British Food Journal Halal integrity in the food supply chain Article information: Halal integrity in the food supply chain," no. January, 2017.
- [6] "Malaysian Standards Online." [Online]. Available: https://www.msonline.gov.my/default.php.[Accessed: 01-Jan-2018].
- [7] M. H. Zulfakar, F. Jie, and Caroline Chan, "HALAL FOOD SUPPLY CHAIN INTEGRITY: FROM A LITERATURE REVIEW TO A CONCEPTUAL FRAMEWORK." 2011.
- [8] N. Aida, A. Rahman, M. F. Mohammad, S. Rahim, S. A. Kadir, M. Khairuddin, and J. Muda, "Aviation Logistics Service Quality (ALSQ) Model in Malaysia: Literature Review and Conceptual Model," in 12th Asian Business Research Conference, 2015, no. October.
- [9] S. A. Rahim, B. Mohamad, and N. A. A. Rahman, "Influencing Factors on Halal Fourth-Party Logistics (4PL) in Malaysia," in Contemporary Issues and Development in the Global Halal Industry, 2016.
- [10] R. Kasim, "AN UPDATE ON MALAYSIAN STANDARDS ON HALAL."
- [11] M. Tieman, "The application of Halal in supply chain management: in-depth interviews management: in-depth interviews," J. Islam. Mark., vol. 2, pp. 186–195, 2011.
- [12] A. B. Mohamad and H. Hassan, "The Influences of Halal integrity On Product Adaptation Strategy for Global Trade." pp. 421–426, 2011.
- Global Trade." pp. 421–426, 2011.
 [13] M. Tieman, "Principles in halal supply chain management," *J. Islam. Mark.*, vol. 3, no. 3, pp. 217–243, 2012.
- [14] M. Tieman and M. C. Ghazali, "Halal Control Activities and Assurance Activities in Halal Food Logistics," *Procedia - Soc. Behav. Sci.*, vol. 121, no. September 2012, pp. 44–57, 2012.
- [15] M. Tieman, "Universiti Teknologi Mara the Application of Halal in Supply Chain Management: Principles in the Design and Management of Halal Food Supply Chains," no. April, 2013.

- [16] M. H. Zulfakar, F. Jie, and C. Chan, "Critical success factors for a successful implementation of halal red meat supply chain in Australia: meat processor's perspective," 10th ANZAM Oper. Supply Chain Serv. Manag. Symp. Melbourne, Aust., pp. 1–15, 2012.
- [17] M. H. Zulfakar, M. M. Anuar, and M. S. A. Talib, "Conceptual Framework on Halal Food Supply Chain Integrity Enhancement," *Procedia - Soc. Behav. Sci.*, vol. 121, pp. 58–67, 2014.
- [18] A. H. Ngah, Y. Zainuddin, and R. Thurasamy, "Modelling of Halal Warehouse Adoption Using Partial Least Squares," *Int. J. Contemp. Bus. Manag.*, vol. 1, no. 1, pp. 71–86, 2010.
- [19] M. H. Ali, K. H. Tan, and Za. M. Makhbul, "Mitigating halal food integrity risk through supply chain integration," *Asia Pacific Ind. Eng. Manag.* Syst., vol. 44, no. 0, pp. 0–9, 2013.
- [20] M. Syazwan, A. Talib, A. Bakar, A. Hamid, M. H. Zulfakar, and J. J. Wilson, "Halal supply chain critical success factors: A literature review," 2015.
- [21] M. S. A. Talib, A. B. A. Hamid, M. H. Zulfakar, and T. A. Chin, "Barriers to Halal logistics operation: views from Malaysian logistics experts," *Int. J. Logist. Syst. Manag.*, vol. 22, no. SEPTEMBER, pp. 193–209, 2015.
- [22] R. N. Trevinyo-Rodríguez, "Integrity: a systems theory classification," *J. Manag. Hist.*, vol. 13, pp. 74–93, 2007.
- [23] "PwC' s Food Supply and Integrity Services, a recipe for food trust," 2016.
- [24] John W.Creswell and Cheryl N.Poth, Qualitative Inquiry and Research Design Choosing Among Five Approaches fourth edition, 2018
- [25] F. Kohlbacher, "The use of qualitative content analysis in case study research," Forum Qual. Sozialforschung/Forum ..., vol. 7, no. 1, 2006.
- [26] Yan Zhang and Barbara M. Wildemuth, "Unstructured Interviews," in Applications of Social Research Methods to Questions in Information and Library Science, Second Edi., 2006.
- [27] N. A. A. Rahman, "The Car Manufacturer (CM) and Third Party Logistics Provider (TPLP) Relationship in the Outbound Delivery Channel: A Qualitative Study of the Malaysian Automotive Industry Nor Aida Abdul Rahman A thesis submitted in fulfillment of the requirements fo," Phd Thesis, no. Cm, 2012.
- [28] M. Tieman, "The application of <IT>Halal</IT> in supply chain management: in-depth interviews," *Journal of Islamic Marketing*, vol. 2. pp. 186–195, 2011.
- [29] K. M. Pahim, S. Jemali, S. Jamal, A. Nasir, and S. Mohamad, "The Importance of Training For Halal Logistics Industry in Malaysia," *IEEE Symp. Humanit. Sci. Eng. Res.*, 2012.
- [30] M. Hijrah, A. Kadir, R. Zuraidah, R. Mohd, and S. Sarah, "Halal Supply Chain Management Streamlined Practices: Issues and Challenges," vol. 012070.