

## ENSURING HALAL INTEGRITY AND SECURITY IN WAREHOUSE OPERATIONS: AN INVESTIGATION OF BEST PRACTICES FOR HALAL FOOD AND BEVERAGE STORAGE

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### ABSTRACT

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Several steps can be taken to maintain halal integrity and security in warehouse operations, including drafting a halal policy, educating staff, adopting processes, auditing, and monitoring compliance, and responding to issues. Companies can contribute to ensuring that their halal products are safe, secure, and following Islamic law by following these procedures. Despite this step, there are still some industries that do not follow the procedures in warehouse operations. This study aims to study the investigation of best practices for food and beverage storage in warehouses. This study addresses the topic of guaranteeing halal integrity and security in warehouse operations that hold halal food and beverage goods. Halal food and beverage products have religious and cultural significance for Muslim consumers globally.

## **1.0 Introduction**

Ensuring halal integrity and security in warehouse operations is vital for halal food and beverage storage. The global halal market has experienced substantial growth due to increasing demand for halal certified products among Muslim consumers. However, maintaining halal standards throughout the supply chain poses significant challenges, with warehouses playing a critical role. The study of ensuring halal integrity and security in warehouse operations is justified to protect religious and cultural values, prevent contamination and fraudulent practices, enhance consumer trust, and ensure compliance with regulatory standards. By investigating best practices for halal storage, this study can contribute to the overall improvement and integrity of the halal supply chain, thereby meeting the growing demand for halal certified products while respecting the needs and preferences of Muslim consumers.

### **1.1 Problem Statement**

The problem addressed in this study is the challenge of ensuring halal integrity and security in warehouse operations to store halal food and beverage products. Halal food and beverage products hold significant religious and cultural importance for Muslim consumers worldwide. Adhering to halal guidelines and practices throughout the supply chain, specifically in warehouse operations, is crucial to maintaining the halal status of these products and meeting the expectations of Muslim consumers. However, several obstacles and complexities are associated with ensuring halal integrity and security in warehouse operations. These include the risk of contamination, improper storage practices, potential mixing of halal and non halal products, inadequate awareness, and training among warehouse personnel regarding halal requirements, and compliance with varying regulatory standards across different regions and countries. The problem arises from addressing these challenges and establishing effective strategies, protocols, and best practices for halal food and beverage storage in warehouses. Failure to ensure halal integrity and security can compromise halal status, loss of consumer trust, potential non compliance with regulatory standards, and damage to the reputation of halal certified products and brands. Therefore, understanding and resolving the problem of ensuring halal integrity and security in warehouse operations is essential to meet Muslim consumers religious and cultural expectations, uphold the authenticity and quality of halal products, comply with regulatory standards, and sustain the growth and credibility of the halal market.

### **1.2 Research Objective**

The objectives of this study are:

1. To investigate the direct factors that influence the halal integrity and security of warehouse operation.
2. To investigate the impact of compliance with halal certification standards in mediating the relationship between the direct factors and Halal integrity and security of warehouse operation.
3. To examine the impact of regulatory environmental policies to moderate the relationship between the direct factors and halal integrity and security of warehouse operation.

## **2.0 Literature Review**

This chapter consists of an overview of past literature as well as articles from other journals that are relevant to this research. Therefore, this chapter will be more focused on the related scope of the previous chapter. This includes the challenges and risks of halal integrity and security in

warehouse operations and the factor that affecting integrity and security of the food and beverage products in warehouse.

### **2.1 Halal Logistics**

Halal logistics refers to the process of handling the transportation of halal items across the supply chain in accordance with Islamic law. This involves ensuring that the items are not contaminated with haram (forbidden) chemicals, that they are handled by halal-trained Muslim or non-Muslim staff, and that they are kept and transported in a halal-compliant way. There are several difficulties related with halal logistics. One problem is the lack of a unified international standard for halal logistics. This implies that, depending on the area or region in which they operate, halal logistics companies must adhere to a range of different criteria. According to (Mohamad, 2015) Halal is not only for religious responsibilities, but there is also a growing demand from non-Muslims, worldwide interest and demand for Halal certified services and products is increasing. Halal is concerned with more than just religious criteria, such as the proper technique to kill animals and prepare food. Non-Muslim consumers are drawn to Halal items because they focus on where the product's resources and materials come from. As a result, traceability and product integrity are required for a product to be branded Halal. Halal practises do not end once the product has been made because a product can quickly lose its Halalness during transit and storage prior to sale. As a result, training industry professionals is critical, as a lack of expertise in the shipping and logistics process in the supply chain may put doubt on a product's Halal status. This study focuses on the level of Halal training that professionals in the third-party logistics industry have and what has to be done to close the training gap.

### **2.2 Warehouse Management**

The purpose of this article is to systematise the various approaches to defining the warehouse idea. It examines contemporary techniques to warehouse logistics management and analyses the major benefits and drawbacks of using them in an enterprise logistics system. The theoretical features of warehouse logistics are given in the paper, and the present techniques to warehouse logistics management in modern organisations are examined. The mechanism of warehouse logistics management was investigated, and suggestions for improving its efficiency were made. (Shyshkin V, 2020)

### **2.3 Food Safety**

According to (Al-Shami, 2021) Food is necessary for survival, hence food safety is a fundamental human right. Billions of people worldwide are at risk of consuming contaminated food. Every year, millions of people become ill, and hundreds of thousands die. The food chain extends from farm to fork/plate, with difficulties such as microbiological, chemical, personal, and environmental hygiene. Historically, recorded human tragedies and economic disasters caused by consuming tainted food occurred as a result of intentional or inadvertent personal behaviour and state failure to protect food quality and safety. While previous instances were mostly caused by chemical contamination, more current outbreaks have been caused by microbiological pathogens. The Disability Adjusted Life Years (DALYs) associated to these agents are most harmful to children under the age of five, the old, and the sick. Rapid and precise detection of pathogenic organisms is critical for ensuring food safety and preventing avoidable food borne infections. Culture-independent diagnostics such as antigen-based assays and polymerase chain reaction (PCR) panels are replacing culture-based procedures. Using nucleic

acids, antibodies, and other biomarkers assays, innovative technologies such as Nuclear Magnetic Resonance (NMR) paired with nanoparticles can detect various target microbial pathogens' DNA or proteins. The primary responsibility is with food manufacturers, distributors, handlers, and sellers, while consumers must remain cautious and literate. To protect public and individual health, government authorities must enforce food safety legislation. Medical practitioners must remain committed to preventing food borne illnesses and may consider treating diseases with safe diet therapy under the direction of a physician.

#### **2.4 Halal Certification**

Customers that wish to consume Halal products require a Halal certification system. The definition is given below. The definition of Halal is based on the opinions of famous Islamic scholars. There are various interpretations of Halal commodities, and many agencies certify these as Halal products. The originator of Halal Certification (HC) for products and services. It appears to be crucial for both the company and the consumers. We attempted to establish several criteria and sub criteria on which Halal certification is being done in order to comprehend the practises employed by multiple entities that certify Halal. JAKIM has made the most significant contribution to Halal food certification. This has now been expanded to other countries. As a significant exporter of Buffen, India's various enterprises strive to adhere to the importing country's standards. As a result, we have seen a proliferation of Halal Certifying Organisations (HCO), which has created more risks than opportunities for HC. (Al-Shami, 2021)

#### **2.5 Supply Chain Integrity**

According to (Mohd Hafiz Zulfakar, 2016) as Halal items move upstream and downstream the supply chain, it is critical to guarantee that the Halal integrity of that specific product is not jeopardised. It is a tremendous undertaking to maintain the integrity, because in today's physical logistics practises, the risks of cross contamination or the inclination of Halal items to be handled alongside non-Halal products are relatively significant throughout the supply chain. Halal integrity is critical to the success of the Halal sector, and Halal industry operators must invest to develop a premium image for Halal products. According to the results of a pilot study done by Mohamad and Hassan, halal integrity has a significant influence on product adaption strategy for halal product exporters. The study also discovered that markets with high Halal sensitivity, such as Australasia and Europe, may require a high level of Halal integrity to be integrated into the product. As previously stated, quality control and traceability in the Halal supply chain are greatly sought after by both manufacturers and consumers as vital components in assuring the Halal integrity of the Halal food supply chain.

#### **2.6 Technology**

According to (Junejo, 2021) Halal food is gaining popularity among Muslims and non-Muslims equally due to its nature of guaranteeing food is free of pollutants or contamination and is cooked hygienically. Because of the increased demand for Halal cuisine, several food-producing enterprises have certified their products as Halal. However, with current supply networks, there is no guarantee that these products are Halal. Blockchain technology is being offered as a possible option for ensuring Halal food authenticity. The application and utility of blockchain technology in food supply chain management systems is researched and highlighted in this

chapter. By showing numerous use examples, the paper illustrates how the trackability and traceability of blockchain networks may successfully contribute in maintaining the Halal integrity of food products. The adoption of blockchain technology in food supply chains will result in more transparent, secure, and resilient supply systems. This will have a wide range of health and economic benefits for food producers and consumers. The authors of this book chapter have focused on the benefits and use of adopting blockchain in food industry supply chain networks. The food business has recently seen a surge in demand for Halal cuisine from consumers all over the world, particularly in Asia. Regardless of claims or Halal certification, there is no means to verify that the food sold and distributed by a corporation is Halal and Tayeb (hygienic). This chapter investigates the adaptability and applicability of blockchain for supply chain management systems (SCMs) to ensure and authenticate Halal food. Furthermore, the incorporation of blockchain into existing SCMs would make it easier and more easy for food auditors to conduct audits.

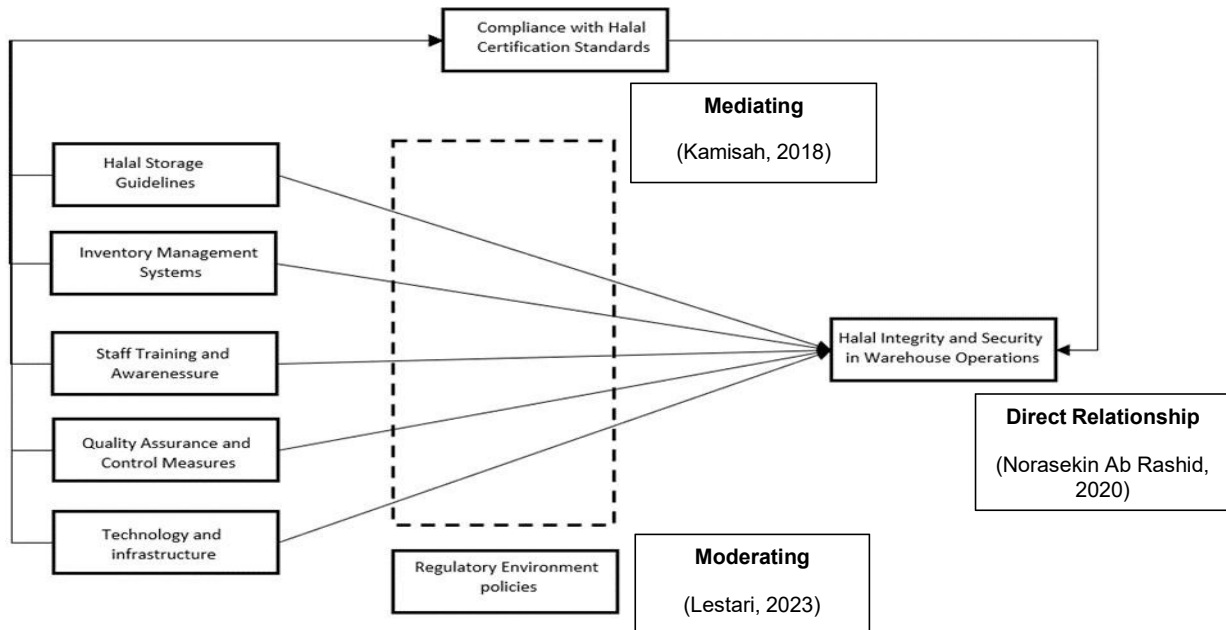
## **2.7 Traceability**

Despite the importance of the Halal food business to the economies of nations such as Malaysia, this industry is facing a number of issues. Furthermore, despite the rapid rise of this crucial industry, halal food literature is still in its infancy. As a result, the purpose of this review study is to highlight the obstacles that have surrounding the Halal business in general, and Malaysian firms in particular. This research also tries to uncover viable solutions to Halal food issues. This study's findings reveal numerous obstacles in the Halal food industry's operation, marketing, and certification processes. Improve traceability and supply chain checking. Enhance traceability and supply chain verification because the manufacturing processes in the food sector incorporate the various food supply chain components. This encompasses all actions and participants ranging from fundamental production to processing, transportation, retail outlets, and consumer consumption. According to the literature, rigorous quality and safety criteria must be necessary to comply with the food product meant for human consumption. (Al-Shami, 2021)

## **2.8 Halal Assurance System (HAS)**

According to (Yusaini H. Mohamed, 2022) Halal integrity is the foundation of a successful halal industry, regardless of the sorts of halal products. The integrity of halal products is the consequence of many activities that occur along the supply chain. This means that every activity along the supply chain is critical for preserving halal purity from the point of origin to the point of consumption. However, numerous supply chain parties have the issue of maintaining halal product integrity. This is owing to the increased probability of cross contamination or the mixing of halal and non-halal products during handling. The production stage of the halal food supply chain is the most crucial for halal product integrity because it involves several procedures. These stages include receiving ingredients and raw materials, combining, processing, packaging, labelling, and storing final products. If slight modifications are detected in the arriving ingredients, the halal integrity of previously certified halal products will be called into question. The equipment used to manufacture Halal products can also jeopardise their purity. As a result, halal food producers must be upfront about the production process and guarantee that personnel are instructed on how to maintain halal integrity across the food supply chain.

## 2.9 Research Framework



**H1** - Halal Storage guideline have a direct positive effect on Halal Integrity and security in warehouse operation. (Yusaini Hisham Mohamed and Abdul Rahman Abdul Rahim, 2020)

**H2** - Effective Inventory Management Systems positively influence halal integrity in warehouse operations. (Norasekin Ab Rashid, 2020)

**H3** - Comprehensive staff training and awareness positively influence halal integrity in warehouse operations. (Ali, 2022)

**H4** - Effective quality assurance practices positively influence halal integrity in warehouse operations. (Norasekin Ab Rashid, 2020)

**H5** - Advanced technology and infrastructure positively influence halal integrity in warehouse operations. (Mohamad Nasrul Nadzmi, 2020)

**H6** - Compliance with Halal certification standards mediates the relationship between Halal Guideline storage and Halal integrity and security in warehouse operations. (Kamisah, 2018)

**H7** - Compliance with Halal certification standards mediates the relationship between Effective Inventory Management Systems and Halal integrity and security in warehouse operations. (Kamisah, 2018)

**H8** - Compliance with Halal certification standards mediates the relationship between Comprehensive staff training and awareness and Halal integrity and security in warehouse operations. (Kamisah, 2018)

**H9** - Compliance with Halal certification standards mediates the relationship between Effective quality assurance and Halal integrity and security in warehouse operations. (Yusaini Hisham Mohamed and Abdul Rahman Abdul Rahim, 2020)

**H10** - Compliance with Halal certification standards mediates the relationship between Advanced technology and infrastructure and Halal integrity and security in warehouse operations. (Mohamad Nasrul Nadzmi, 2020)

**H11** - Regulatory environmental policy moderates the relationship between Halal Guideline storage and the effectiveness of Halal integrity and security in warehouse operations. (Lestari, 2023)

**H12** - Regulatory environmental policy moderates the relationship between Effective Inventory Management Systems and the effectiveness of Halal integrity and security in warehouse operations. (Norasekin Ab Rashid, 2020)

**H13** - Regulatory environmental policy moderates the relationship between Comprehensive staff training and awareness and the effectiveness of Halal integrity and security in warehouse operations. (Norasekin Ab Rashid, 2020)

**H14** - Regulatory environmental policy moderates the relationship between Effective quality assurance practices and the effectiveness of Halal integrity and security in warehouse operations. (Lestari, 2023)

**H15** - Regulatory environmental policy moderates the relationship between Advanced technology and infrastructure and the effectiveness of Halal integrity and security in warehouse operations. (Lestari, 2023)

### **3.0 Methodology**

The research methodology is covered in this chapter. Research methodology is a fundamental method that has certain methods or procedures that can be used to comprehend various scenarios within a discipline's scope. The method used to obtain knowledge and put it to full use in research is important. In the meanwhile, this chapter will have a significant impact on generating substantial output. The main topic of discussion in this chapter will be how the research was carried out.

### **4.0 Data Analysis and Findings**

This chapter includes the study's findings and a full presentation and discussion of the data analytics, as well as the conclusions. The first section of this chapter discusses the data collection process, descriptive analysis, and respondent profiles using demographic data such as age,

gender, status, education level, and data analysis. These analyses will assess the data and address the study's questions based on the research objectives. This measurement assessment and result interpretation will make use of descriptive analysis using PLS-SEM.

#### 4.1 Research Objective 1

The first section of this chapter discusses the data collection process, descriptive analysis, and respondent profiles using demographic data such as age, gender, status, education level, and data analysis.

*Table 1 shows the result of age*

Item	Frequency	Percentage (%)
15 –24 years old	7	14
25 – 34 years old	18	36
35 – 44 years old	14	28
45 years old and above	11	22

*Table 2 shows the result of gender*

Gender	Frequency	Percentage (%)
Male	17	34
Female	33	66

*Table 3 shows the result of status*

Status	Frequency	Percentage (%)
Student	18	36
Retired	3	6
Others	29	58

*Table 4 shows the result of education level*

Education level	Frequency	Percentage (%)
Diploma	7	14
Bachelor	28	56
Master	3	6
Others	12	24

#### 4.2 Research Objective 2

Table 5 below shows the listing of the variance inflation factor (VIF), average variance extracted (AVE), composite reliability (CR), and Cronbach's Alpha (CA) based on the data received and collected from the research studies.



Construct	Item	VIF	AVE	CR	CA	R2
Compliance with Halal Certification Standards	CHCS1	1.569	0.502	0.834	0.763	0.604
	CHCS2	1.319				
	CHCS3	1.446				
	CHCS4	1.734				
	CHCS5	1.787				
Halal Integrity and Security in Warehouse Operations	HISWO 1	1.568	0.564	0.838	0.743	0.16
	HISWO 2	1.568				
	HISWO 3	1.73				
	HISWO 4	1.639				
	HISWO 5	1.576				
Halal Storage Guidelines	Halal1	2.659	0.553	0.855	0.783	
	Halal2	2.493				
	Halal3	1.679				
	Halal4	1.899				
	Halal5	1.249				
Inventory Management Systems	Inv1	1.386	0.578	0.845	0.757	
	Inv2	1.548				
	Inv3	1.483				
	Inv5	1.396				
Quality Assurance and Control Measures	QACM 2	1.624	0.602	0.858	0.785	
	QACM 3	1.756				
	QACM	1.888				

	4					
	QACM					
	5	1.467				
Regulatory Environment Policies	REP2	1.505	0.789	0.882	0.733	
	REP3	1.505				
Staff Training and Awarenessure	STA1	1.331	0.513	0.84	0.762	
	STA2	1.669				
	STA3	1.572				
	STA4	1.459				
	STA5	1.551				
Technology and Infrastructure	TI1	1.626	0.514	0.84	0.762	
	TI2	1.656				
	TI3	1.319				
	TI4	1.624				
	TI5	1.568				

Construct validity has a subcategory known as discriminant validity. In other words, it demonstrates how accurately a test captures the idea it was supposed to capture. Discriminant validity assesses the reality of relationships between constructs that, on paper, shouldn't be connected to one another. As a result, the correlations with other latent constructs should be smaller than the square root of each domain AVE. High correlations between scales or scale items are regarded as problematic in terms of discriminant validity, while there is no general agreement upon it. When conceptualizing discriminant validity, it is generally accepted that values beginning at  $r = 0.85$  are high and unrelated. The figure 6 below shows the data for the discriminant reliability of the latent construct. From the result, it's shows that discriminant validity has no issue or problem in this research.

Table 5 show result of discriminant validity

	CHCS	HISWO	Halal	Inv	QACM	REP	STA	TI	REP x Inv	REP x STA	REP x Halal	REP x TI	REP x QACM
CHCS1	0.719												
CHCS2	0.657												

CHCS3	0.661												
CHCS4	0.743												
CHCS5	0.757												
HISWO2	0.748												
HISWO3	0.805												
HISWO4	0.759												
HISWO5	0.688												
Halal 1		0.85											
Halal 2		0.8											
Halal 3		0.748											
Halal 4		0.817											
Halal 5		0.415											
Inv1			0.717										
Inv2			0.788										
Inv3			0.785										
Inv5			0.749										
QACM2				0.728									
QACM3				0.742									
QACM4				0.854									
QACM5				0.773									
REP2					0.882								
REP3					0.895								
STA1						0.68							
STA2						0.688							
STA3						0.783							
STA4						0.772							
STA5						0.648							

TI1								0.723					
TI2								0.761					
TI3								0.72					
TI4								0.583					
TI5								0.78					
REP x STA										1			
REP x TI												1	
REP x Inv									1				
REP x QACM													1
REP x Halal											1		

Table 6 shows result data of fornell lacks

	CHCS	HISWO	Halal	Inv	QACM	REP	STA	TI
CHCS	0.709							
HISWO	-0.229	0.751						
Halal	0.708	-0.211	0.743					
Inv	0.695	-0.229	0.708	0.76				
QACM	0.632	0.012	0.685	0.607	0.776			
REP	0.578	-0.111	0.489	0.506	0.526	0.888		
STA	0.611	-0.176	0.617	0.66	0.59	0.42	0.716	
TI	0.581	-0.146	0.607	0.618	0.659	0.521	0.629	0.717

Table 7 shows the hypothesis verification for the research after conducting and generating the data from the questionnaire.

*Table 7 shows the result of hypothesis verification of the result data*

Hypot hehis	Relationship	T- value	P-value	Decision
H1	Compliance with Halal Certification Standards → Halal Integrity and Security in Warehouse Operations	2.65	0.008	Supported
H2	Halal Storage Guidelines → Compliance with Halal Certification Standards	6.612	0.000	Supported
H3	Halal Storage Guidelines → Halal Integrity and Security in Warehouse Operations	5.647	0.000	Supported
H4	Inventory Management Systems → Compliance with Halal Certification Standards	6.623	0.000	Supported
H5	Inventory Management Systems → Halal Integrity and Security in Warehouse Operations	4.475	0.000	Supported
H6	Technology and Infrastructure → Halal Integrity and Security in Warehouse Operations	1.070	0.285	Not Supported
H7	Halal Storage Guidelines → Halal Integrity and	2.455	0.014	Supported

	Security in Warehouse Operations			
H8	Quality Assurance and Control Measures → Halal Integrity and Security in Warehouse Operations	2.077	0.038	Supported
H9	Staff Training and Awareness → Halal Integrity and Security in Warehouse Operations	1.867	0.062	Not Supported
H10	Inventory Management Systems → Halal Integrity and Security in Warehouse Operations	2.400	0.016	Supported
H11	Regulatory Environment Policies X Inventory Management Systems → Halal Integrity and Security in Warehouse Operations	2.796	0.005	Supported
H12	Regulatory Environment Policies X Staff Training and Awareness → Halal Integrity and Security in Warehouse Operations	0.855	0.393	Supported
H13	Regulatory Environment Policies X Halal Storage Guidelines → Halal Integrity and Security in	2.204	0.028	Supported

	Warehouse Operations			
H14	Regulatory Environment Policies X Technology and Infrastructure → Halal Integrity and Security in Warehouse Operations	0.281	0.779	Not Supported
H15	Regulatory Environment Policies X Quality Assurance and Control Measures → Halal Integrity and Security in Warehouse Operations	3.278	0.001	Supported

### 4.3 Structure Equation Model

In this part, an adoption strategy is being developed that analyses how technology might help customers find the products on the display shelf. The inner model after the bootstrapping technique, based on the structural equation model, is shown graphically below:

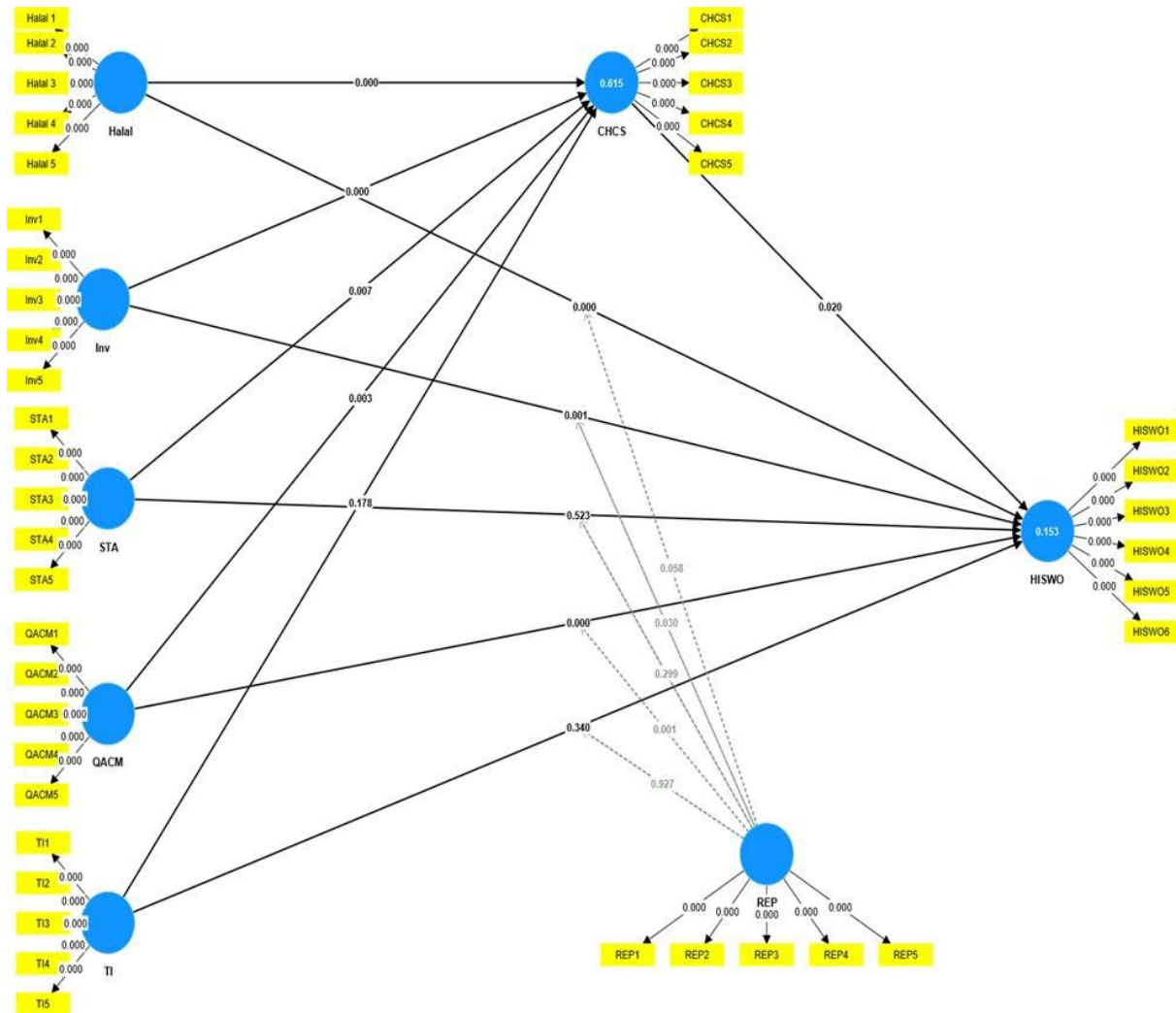


Figure 1 shows the result of the framework after bootstrapping

Given that there was no significant association (not supported) in enhancing the efficacy of the layout design, numerous constructs were deleted such as Signage, Direction, Information Quality, Design, Result demonstrability, and Accessibility. The current model's graphical representation of research objective 3 is shown below.



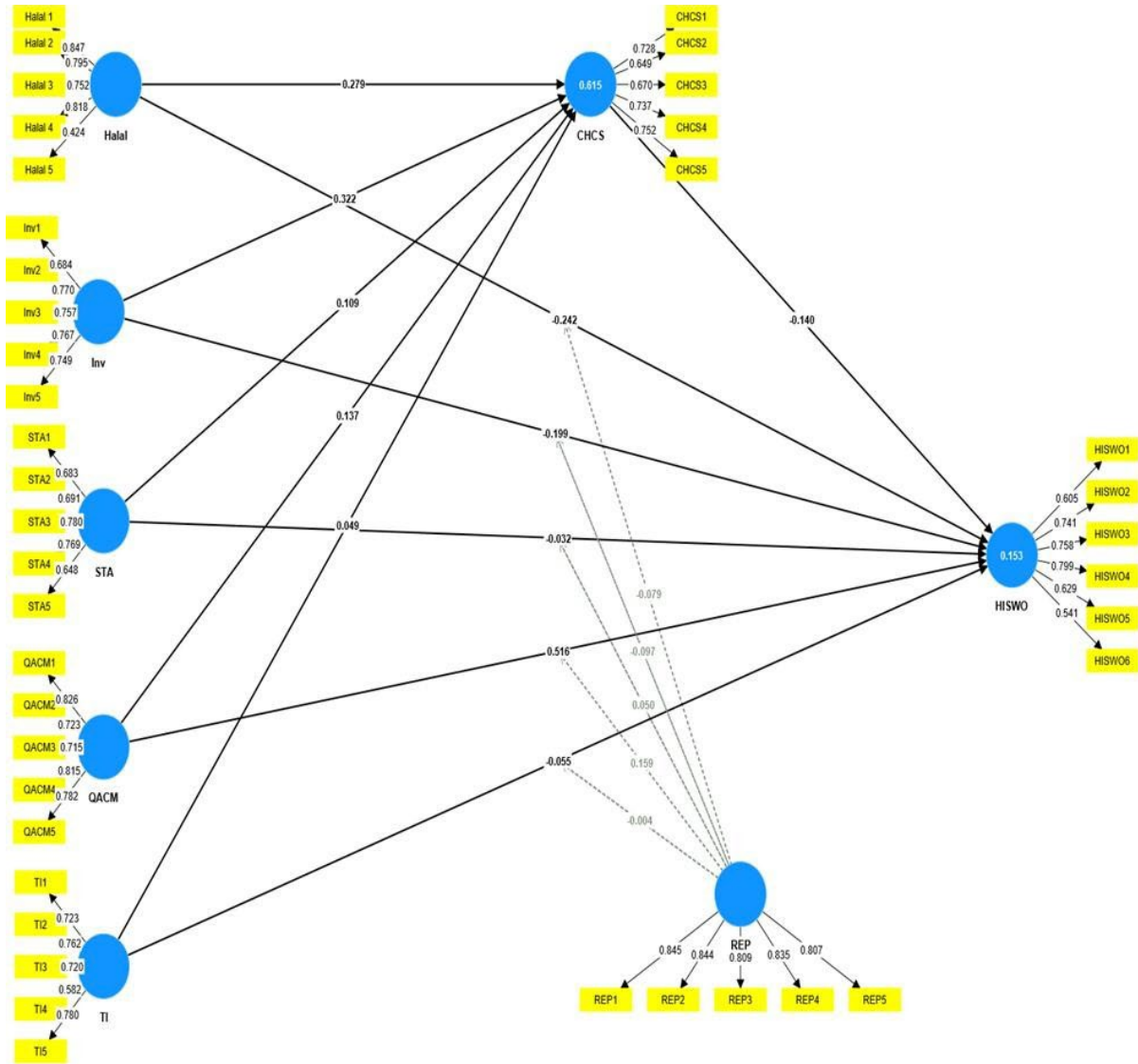


Figure 2 shows the new framework based on objective

## 5.0 Discussion and Conclusion

This chapter will give an overview of all perceives explored in the study and make recommendations based on the information gathered. This part will be based on the research discovered and discussed for the variable in section 4. This chapter will seek to complete the specifics and provide a detailed summary of the previous chapter's data. This section also provides an overview of the results and any restrictions. It is critical to grasp both the description and the implications of the findings. The researcher also encountered certain difficulties while doing the investigation. A suggestion for more research will be made for the overall study on the variables that affect the technology in ensuring of best practices for halal food and beverage storage.

### 5.1 Implication of Study

#### Theoretical Implication

This research on the ensuring halal integrity and security in warehouse operations is Emphasising halal integrity in warehouse operations is consistent with Islamic ideals of honesty, justice, and transparency, fostering ethical compliance in supply chain management. This commitment builds consumer trust in halal-certified items and fosters long-term relationships with Muslim customers. It also has a huge impact on brand reputation, particularly in Muslim-majority regions, by displaying a dedication to excellence and respect for Islamic values. Halal integrity helps warehouses comply with certification criteria, reduces legal concerns, and fosters supply chain resilience by lowering the possibility of contamination. Standardising halal processes strengthens integrity, but prioritising halal integrity demonstrates cultural sensitivity and encourages inclusivity. Furthermore, embracing halal integrity promotes economic growth by encouraging market expansion into Muslim-majority nations and providing access to premium-priced market segments around the world.

#### Managerial Implication

Managers must ensure that employees are well trained on halal regulations, including proper handling, storage, and transportation. Robust documentation and traceability systems are critical for transparency, product tracking, and accountability. Regular compliance monitoring and audits, both internal and external, are required to maintain halal standards and identify areas for improvement. Effective supplier management entails checking suppliers for halal compliance and upholding quality standards. Investing in infrastructure and technology, such as temperature control and tracking systems, improves halal compliance. Comprehensive emergency action plans should be devised to meet potential threats to halal integrity, including quick containment and communication. Continuous improvement through process reviews and stakeholder interaction, including customer and regulatory agencies, is critical to preserving halal integrity and establishing trust in warehouse operations.

### 5.2 Limitation of Study

1. A short period of time: The phrase time constraint refers to a variety of variables that place time constraints on completing the activity in a certain period of time. This includes setting deadlines, managing tasks, and allocating resources. This research faced several time constrain especially in the process of collecting the data.. Since the researcher is a full-time degree student and has a limited amount of time for research, the researcher's schedule is

already packed with other classes, quizzes, examinations, and assignments from other subjects. Additionally, because the results only reflect the outcomes of this particular time period, the researcher's decision to conduct this research in the short term may have an effect on the findings.

2. The insufficient sample size for quantitative tests: The researcher faced an insufficient sample size for the quantitative test. This research needs to be estimated at 160 respondents to answer the survey question. Collecting the research data especially when the sample size is 160 respondents is difficult and hence this study was only able to collect 50 respondents.

3. Lack of previous research done on the topic: The conclusions of this research may therefore seem to have a narrow scope of application. This study is limited to discussing the retail sector. It can be used by academics, business professionals, and management who operate in Malaysian retail firms. As a result, this study is significant to a specific market, and readers or researchers who wish to connect similar analyses in other markets should take into account the variable that comes with various business conditions.

### **5.3 Recommendation**

The recommendation is to form a Halal Integrity Committee. Create a dedicated committee inside the organisation to oversee and execute halal best practices in warehouse operations. Second, include representatives from key departments including quality assurance, supply chain, and operations. Besides that, Comprehensive staff training programmes. It can create and administer comprehensive halal training programmes for warehouse employees. Training should also include proper handling, storage, and transportation methods for halal food and beverage goods. Implementing these tips can help organisations improve the halal integrity and security of their warehouse operations, resulting in increased trust among customers and stakeholders in the halal food and beverage supply chain.

### **5.4 Conclusion**

To summarise, guaranteeing halal integrity and security in warehouse operations for the storage of halal food and beverages requires a multidimensional approach that combines theoretical considerations with practical managerial tactics. The theoretical foundation is built on the integration of ethical frameworks, cultural sensitivity, and compliance with global regulatory norms. Strategic planning, extensive staff training, technological integration, and supplier relationship management are all critical components of effective management. The adoption of modern technology, such as traceability systems and blockchain, improves transparency and accountability across the supply chain. Strict supplier verification procedures, regular audits, and crisis management preparation all contribute to proactive risk mitigation. Collaboration with halal certification authorities strengthens the commitment to halal integrity, whereas employee participation through training and whistleblower programmes fosters a culture of alertness. By using these best practices, organisations can not only meet halal regulations but also increase consumer trust by maintaining the security and integrity of halal food and beverage items at all stages of warehouse operations. This complete strategy not only coincides with ethical considerations, but also establishes the organisation as a dependable custodian of halal values in the food and beverage industries.

### **6.0 Acknowledgement**

A number of steps can be taken to maintain halal integrity and security in warehouse operations, including drafting a halal policy, educating staff, adopting processes, auditing and monitoring compliance, and responding to issues. Companies can contribute to ensure that their halal products are safe, secure, and in accordance with Islamic law by following these procedures. Despite this step, there are still some industries that do not follow the procedures in warehouse operations. This study aims to study the investigation of best practices for food and beverage storage in warehouses. This study addresses the topic of guaranteeing halal integrity and security in warehouse operations that hold halal food and beverage goods. Halal food and beverage products have religious and cultural significance for Muslim consumers globally. Adhering to halal norms and procedures across the supply chain, particularly in warehouse operations, is critical to keeping these items halal and matching Muslim consumers' expectations. The issue stems from resolving these issues and developing effective methods, protocols, and best practices for halal food and beverage storage in warehouses. Failure to ensure halal integrity and security can jeopardise halal status, erode customer trust, result in noncompliance with regulatory standards, and harm the reputation of halal certified products and businesses. The objectives of this study are to identify the challenges and risks associated with ensuring halal integrity and security in warehouse operations to store halal food and beverage products. Second objective is to assess the factors affecting the integrity and security of the food and beverage products in the warehouse. Third objective is to provide recommendations for stakeholders in the halal industry, including warehouse managers, regulatory bodies, certification agencies, and policymakers, on practical strategies and measures for ensuring halal integrity and security in warehouse operations. Additionally, the study of "operations" in halal food and beverage storage has the potential to significantly contribute to the existing literature. The study's goal is to examine and analyse relevant material in order to provide significant insights into best practices for halal preservation while also identifying areas for future research. The findings can be used as a foundation for future research, allowing researchers to investigate new aspects of halal integrity and security in warehouse operations, with a particular emphasis on guaranteeing halal integrity and security. Hence forth, the study's practical consequences are particularly pertinent to people working in halal certification organisations, food manufacturing, and warehouse distribution. The study gives guidelines and recommendations for optimal practices in halal food preservation, making it a helpful resource for practitioners. Implementing the study's conclusions can improve the integrity and security of halal products, hence increasing credibility and consumer trust. Following the recommended practices increases operating efficiency while decreasing the possibility of contamination or other integrity issues. Lastly, this line emphasises that the study's findings have important policy implications for governments and regulatory agencies that control halal food and beverage storage. The study's findings can inform the creation of strong laws and regulations to protect the halal integrity and security of stored items. Such precautions are critical for preventing fraud, mislabeling, and deceptive activities that could jeopardise the halal certification of items. Furthermore, these policies can protect consumer rights, encourage fair competition in the halal market, and instill faith and confidence in Muslim consumers. The study's recommendations can serve as a guide for policymakers to create effective policies matching with religious standards, helping to the growth and sustainability of the halal sector. The researcher wish that this research would help to improve the management of ensuring halal integrity and security in warehouse operations and continue to contribute to the economic growth in Malaysia. In addition, there are several limitations in this research and some recommendations that have been highlighted for future studies.

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