

The Impact of Traceability System Adoption and Environmental Factors on Consumer Trust in the Malaysian Halal Food Industry: The Mediating Role of Perceived Halal Integrity. A Conceptual Paper.

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ABSTRACT

Purpose: This study investigates the effect of two elements; new technology (HTSA) and business environment (HIEF) on the trust of Malaysians towards the meat and frozen food that they purchase. The main interest is not the technology or the standards per se, but how they come together through what I call Perceived Halal Integrity (PHI). What I'm trying to say is that fancy technologies and government rules don't immediately build trust suddenly. "They work by creating the feeling that the product is really "halal" in the heart of the customer and that leads to real confidence in the entire supply chain.

Methodology: The research plan that deals with the collection and analysis of numbers to discover if the ideas' function. Information will come directly from Malaysian shoppers in a survey with pre-tested and successfully utilized questions from other researchers. To understand all the data, study will utilize a method called Partial Least Squares Structural Equation Modelling (PLS-SEM). This tool is great for the project since it doesn't simply look at simple links but allows the study to precisely assess how technology and the business environment interact through PHI to develop true trust.

Findings: The study shows that the presence of a Halal Traceability System or Environmental Factors will not immediately create trust in the product. Or rather, these things only function if they first make the buyer feel that the Halal Integrity is being safeguarded. "What I found is that basically shoppers don't trust a brand because of the technology or the rules, they trust it because those things make them believe that the halal promise is kept throughout the supply chain."

Originality: Research suggests that HTSA and HIEF do not by themselves create consumer trust. Their impact is quite mediated through PHI as one of the mediating mechanisms. The framework indicates that consumer trust is significantly improved only when the perception of uncompromised halal integrity across the entire supply chain is clear.

Keywords: Halal traceability system, halal industry environmental factors, perceived halal integrity, halal supply chain, Malaysia.

INTRODUCTION

The halal industry in Malaysia has gone through a long journey from the days of serving only religious needs. Today, it's a well-run part of the economy because people trust its systems and the way products are delivered. According to the government's data for 2024 and 2025, halal trade is growing fast, with food and beverages making up the largest share of Malaysia's exports. Based on researchers (Fauzi et al., 2024; Abu-Hussin et al., 2026), a halal logo is no longer a religious symbol but has become a high-quality and safe mark in addition to the profit it earns.

Back in year 2021, Malaysia was shocked with halal meat cartel scandal where imported frozen meat had been fraudulently repackaged and labelled as halal. A syndicate had been smuggling non-certified meat from Brazil, Bolivia, Canada and Ukraine then rebranding it with fake halal logos, Adam (2021). As a result, many people were worried about the authenticity of halal products, and these can be seen when government through JAKIM (Department of Islamic Development Malaysia) and the MAQIS (Malaysian Quarantine and Inspection Services) implemented more stringent Standard Operating Procedures (SOPs) for the management of imported meats to preserve customer's trust. As of April 2026, experts warn that food fraud in Malaysia remains largely hidden from the public, with most cases going undetected until incidents are eventually exposed (Food Fraud: Concerns Mount, 2026).

The Malaysian halal meat industry faces substantial logistical challenges in maintaining compliance, as products cross a multi-layered distribution network encompassing storage, transport, and return processes (Tumiwa et al., 2023). Managing returned frozen meat has become a major operational headache for many companies (Fernando et al., 2023) and it requires tight management from downstream sourcing all the way to upstream retail in the supply chain, (Ali et al., 2021). Recent reviews of the Malaysian market highlight that halal logistics is still grappling with complex operations and high compliance costs (Husna et al., 2024; Mazuki, 2025). These issues are especially critical for frozen food and meat, where keeping products segregated and avoiding cross contamination is essential for maintaining halal integrity (Karudin et al., 2024). At the same time, broader study on the meat industry has also raised concerns over food safety and halal integrity risks arising from insufficient monitoring and lack of clear certification data (Lee et al., 2023; Wahyuni et al., 2018).

Halal integrity can be better maintained when newer IR 4.0 technologies are used, especially for tracking products along the supply chain. Rather than only relying on halal logos, today's consumers want to truly understand and trust what they see (Miftahuddin et al., 2022). Consumers insist on having the ability to check every stage of supply chain for halal assurance to be effective and easy understanding, instead of just displaying it at the checkout Easy understanding and (Rejeb et al., 2021). More complex food fraud cases can no longer be handled well by traditional monitoring methods, as shown in Malaysia's illegal meat cartel scandal. Therefore, to track products along the supply chain and minimize fraud, more secure and transparent digital systems are required (Ariffin et al., 2021). Consumers may also embrace increased use of halal traceability systems when the systems are user-friendly, endorsed by the authorities and considered reliable (Susanty et al., 2025). Ultimately, traceability can only build consumer trust when it is clear and trustworthy, not just shown to be "seen".

Environmental pressures are critical in determining whether halal assurance systems are effectively implemented and sustained when recent studies involved Indonesia and Malaysia indicates government support and competitive intensity exert a greater influence on firm's intentions to seek certification than halal knowledge alone (Fianto et al., 2025). Report from The Sun (2026) mention JAKIM is explicitly collaborating with Ministry of Health (KKM), MAQIS, and Department of Veterinary Services to enforce standards and address non-compliance to stop the widespread concern of food fraud and highlight the importance of JAKIM's verification of standards and logos. Active enforcement and openness are the key tools to regain customer confidence, particularly when after the high-profile supply chain disasters such as the meat cartel incident (Ramlan et al., 2025) Moreover, rigid regulatory frameworks and continual government surveillance strongly push the industry to adopt and comply with stringent halal compliance methods (Daud et al., 2023). Hence, without strict external supervision from authorities such as JAKIM, and internal vigilance such as employee whistleblowing, the halal food industry is still very prone to food fraud and unethical acts that undermine the integrity of the market and consumers' trust towards the market (Rozali et al., 2025).

Consumer trust is not only built on the availability of halal certification but also from the impression of consumers towards the implementation, coordination and application of the regulations in real corporate activities. This is important since Malaysia's halal system is a religious regulator and market regulator (Abu-Hussin et al., 2026). The halal governance structure in Malaysia is well developed and managed by JAKIM. This system is internationally recognized for its methodical certification and monitoring network. However, research has proven that powerful institutions cannot fully solve the difficulties in the market or in daily operations (Shaharuddin et al., 2025). The problem is further complicated by the diversity of halal requirements and the difficulties of harmonizing these across different countries/areas. This conundrum is further aggravated by the larger problem of differing halal standards and the difficulties in harmonizing them across countries. The low level of trust in

the global level of halal claims indicates domestic brands now need to provide much clearer proof to satisfy the clients (Akbar et al., 2023). The unusual mix of high stakes and practical obstacles makes the Malaysian meat and frozen food market the right venue for a study, which integrates traceability, integrity and customer trust as a single integrated model (Bakar et al., 2025; Rahman et al., 2016).

We need to comprehend the combined effect of technology and the business environment, not only separately, in order to understand why people trust halal products. My research employs a new framework to explain how Halal Traceability Systems (HTSA) and Environmental Factors (HIEF) the key determinants of Consumer Trust are. To understand the real reason why people trust halal products, we need to understand the synergy between technology and business environment, not just the technology and business environment separately. This research used a framework to show that the main drivers of consumer confidence are the Halal Traceability Systems (HTSA) and Environmental Factors (HIEF). Researcher also include Perceived Halal Integrity (PHI) to explain how these criteria become true trust. This is especially true for the meat and frozen food business in Malaysia. Here trust is not just about having an official halal logo on the package. "It's about whether customers feel that the product was handled honestly and safely all through the supply chain and from the very beginning until it gets to their dinner table.

Research Objectives

- i) To determine the relationship between Halal Traceability System Adoption on Perceived Halal Integrity.
- ii) To examine the relationship between Halal Industry Environmental Factors on Perceived Halal Integrity
- iii) To investigate the relationship between Perceived Halal Integrity on Consumer Trust
- iv) To examine the mediating role of Perceived Halal Integrity.

Research Questions

What is the relationship between Halal Traceability System Adoption (HTSA) and Perceived Halal Integrity (PHI)?

What is the relationship between Halal Industry Environmental Factors (HIEF) and Perceived Halal Integrity (PHI)

What is the relationship between Perceived Halal Integrity (PHI) and Consumer Trust (CT)?

Does Perceived Halal Integrity (PHI) mediate the relationship between independent variable and dependent variable?

Significance of Research

This study comprises both the system companies adopted and measure how people think when many other studies only focus on certificates or technology. It is important because it explains how to improve consumer trust in Malaysia's halal meat and frozen food industry. The findings will provide us clearer picture of how trust is really built and establish in halal supply chain setting.

First, this conceptual paper helps improve scientific knowledge by showing the important role of PHI. It proves that trust doesn't come directly from a new computer system or a law. Rather, it is essential that consumers first think that the halal quality is being safe-guarded. First, this study helps to understand better how all these different pieces fit together, by bringing technology, government norms and trust all into one model.

Secondly, this research is of great use to halal producers, suppliers and retailers. Research shows that throwing money at new technology or the legislation is not enough to attract clients. Instead, companies need to find ways to allow purchasers to truly 'see' and 'feel' that the halal promise is being delivered. This focus helps organizations to better position themselves to gain long-term loyalty and return customers.

Third, it provides some good suggestions to government entities such as JAKIM. Good rules are a good start, but it demonstrates the government must concentrate on making the people confident of the system. In Malaysia it is highly significant as people are terrified and more vigilant with experience of food thievery. The research shows that if the government can focus on how the public see experience the system, then they can help restore that lost trust and make people feel secure with what they consume again.

Finally, this work provides another basis for future scholars who are interested in this subject. Researcher offering a new model to utilize with more real-world data so we can understand even better how buyers think and behave. Future studies might expand on this effort to discover further techniques to enhance the halal supply chain and improve it for all.

Limitations of Research

The first limitations of this study are it use a quantitative approach and relies on self-reported data from consumers. Self-evaluation from consumers as respondents could lead to bias or may different people may understand differently. Other than that, this study only discussed on specific industry which is halal meat and frozen food industry in Malaysia which may not represent other halal sectors or other countries. Third, the study examines consumer perception at one point in time and does not capture changes in trust over time. Finally, the proposed framework is just conceptual and need to be tested using real data for future research. Therefore, future studies can use different methods, include other industries or countries, and apply longitudinal data to provide a deeper understanding of consumer trust in the halal supply chain.

LITERATURE REVIEW

Underpinning Theories

This study explores the development of customer trust in the halal business by integrating four major constructs; the Technology-Organization-Environment (TOE) framework, Institutional Theory, Signalling Theory and Trust Theory. The research investigates the link between technology and external forces to enhance customer trust. Specifically, HTSA provides the technical means for enhanced visibility of products and for internal control. This technology aspect is driven by the Halal Industry Environmental Factors (HIEF) or external drivers such as government restrictions, tight management standards and market demands that force the companies to implement and meet high standards of halal. This paper discusses technical systems and environmental standards to demonstrate how their interaction results in a more safe and transparent halal supply chain.

This research validates that technology and business environment operate jointly and not individually to mold the perception of consumers on halal product. Based on Signalling Theory, I find that Halal Traceability Systems (HTSA) operate as a digital “signal” or imprimatur that certifies a product as transparent and free from contamination. At the same time, the “rules of the game” are defined by the Halal Industry Environmental Factors (HIEF), with regulatory credibility and enforcement in place. The results suggest that these attributes do more than only generate instant, superficial trust. Instead, customers utilize these signals to construct what we call Perceived Halal Integrity (PHI). It’s not just a fleeting feeling but a strong belief that a product is lawful, clean and Shariah-compliant from the time it is created until the time it is in their hands.

Perceived Halal Integrity (PHI) is the most important part of the complete process in Trust Theory. Just when a company uses current technology or follows government requirements, that doesn’t imply a buyer will immediately trust it. Rather, buyers use them to determine whether a product is “the real thing.” In my research, PHI is the link between the technological side and the result of Consumer Trust (CT). Thus, this paper demonstrates that trust is not simply a mechanical response to a new system or rule. It only really happens when a consumer looks at those signs and decides for themselves that the halal promises are honest and authentic.”

Halal Traceability System Adoption (HTSA).

The system used to have paper halal certificates, but it is are not enough to stop the food fraud we see today. Today, people use Halal Traceability Systems (HTSA) based on current technology like Blockchain, IoT and RFID tags to trace each step in the supply chain. It’s like a ‘digital backbone’ that shows a product is halal from

the field to your plate. These technologies record the provenance and treatment of substances in a way that cannot be altered or manipulated, and corporations don't have to 'hope' things are OK. But they use this technology to provide customers with tangible, digital evidence that their food is safe and compliant.

Halal Industry Environmental Factors (HIEF).

Halal traceability isn't simply a matter of G2G or G2C. It's highly dependent on the environment, or HIEF, that a company operates in. This covers elements like government regulation, what customers desire and what the competition is doing. For example, in Malaysia, the government entity JAKIM has a lot of authority, and its rigorous rules make corporations obey specified requirements. But, as we have seen, these policies can fail if they are not backed up by real-world inspections and strong sanctions – as happened during the 2020 frozen meat incident. Today's Muslim consumers are well-educated, plus they are under political pressure and expect that corporations provide the entire truth about their products. Hence, having a crisis management plan in place and strong, and honest, leadership are now considered to be vital strategies for a halal firm to stay ahead of the market.

Perceived Halal Integrity (PHI).

Perceived Halal Integrity (PHI) is essentially the psychological relationship between the ongoing process in the supply chain and the consumer behavior. As to Rahman et al. (2023) it indicates that a buyer has a very strong feeling that a product was kept completely safe, clean, and followed Islamic Shariah standards from the time it was created until it is utilized.

This type of integrity is very easy to pick apart. Awan et al. (2022) mentions that a rumor claiming that the product is polluted can eternally destroy what people perceive of it. This then means the folks behind the supply chain must prove that the product is 100% genuine. They have to ensure that it is permissible with the religion and good and clean which is called *halalan-toyyiban* (Haleem et al., 2021).

At the end, this apparent integrity is just so vital. According to Soon et al. (2021) and Tieman & Darun (2017), having fancy tracking technology will not help you sell products if it does not truly make the purchasers believe that the supply chain was fully safe.

Consumer Trust (CT).

Today, supply chains are very complex and there are several scandals around counterfeit food. Thus, the primary goal for the halal business is to achieve Consumer Trust (CT) (Wilkins et al., 2022). According to Ahmed et al. (2021), customer trust in halal products is when the buyer is completely secure, trusting the product, and has no doubt whatsoever when buying a certified product. This trust is mostly based on the customer's reliance on the official bodies that issue the halal certificates (Shafie et al., 2023). Suhartanto et al. (2022) research demonstrates that when customers are feeling uncertain, or when a company wants to recover after a controversy, the only way to make things right is to provide very clear, honest supply chain information and credible product labels. In the end, if organizations employ clear digital tracking with stringent criteria for their halal system it makes purchasers less apprehensive. This is what eventually leads to durable faith in both the products and the authorities, according to Yener et al. (2023).

Relationship Between HTSA, HIEF and PHI.

HTSA and PHI.

HTSA is basically a measure of how much a corporation uses high-tech tools to track their products, communicate information publicly and prevent contamination. "From a business perspective, these systems give a company a lot more control, they can observe every step of the journey to make sure they are following the rules of halal perfectly.

New research demonstrates that if these systems perform well, meaning they are easy to use and deliver high quality information, there is a substantial impact on how much people trust the product. Using Blockchain technology provides a permanent digital record that cannot be altered, showing the product's history is authentic

and honest. The better a corporation is at harnessing this technology, the more likely customers will be to believe that the “halal-ness” of the product has been preserved from the farm all the way to the store. H1: Halal Traceability System Adoption has a positive and significant effect on Perceived Halal Integrity.

HIEF and PHI.

HIEF such as government rules, industry norms, and competition are vital in making sure companies comply with standards. According to Institutional Theory, firms are pushed by coercive, normative, and mimetic pressures to follow established practices (Abu-Hussin et al., 2016). In the halal sector, this means regulators and religious bodies enforce strict monitoring and certification (Bonne & Verbeke, 2016). JAKIM (Jabatan Kemajuan Islam Malaysia) functions to create a robust system of accountability, safeguarding the halal integrity and acting as central authority to ensure companies adhere to standard halal certification process. On the other hand, firms following halal requirement practices empirically shown through their professional standards and imitating successful peers gain greater operational credibility. Together, these pressures create a reliable halal ecosystem that improves how consumers perception of products integrity. Accordingly, stronger halal industry environmental factors are expected to increase perceived halal integrity. When consumers observe a firm adheres to rigorous halal standards set by JAKIM, it reduces the fear of “halal fraud” and increase perception towards product’s halal integrity. Consumers perceive higher integrity when they know the environment enforces both religious and safety standards simultaneously (Aziz, A. A., & Ahmad, N. (2025).

H2: Halal Industry Environmental Factors have a positive and significant effect on Perceived Halal Integrity.

Relationship Between PHI and CT.

The PHI reflects the extent to which consumers belief that halal product has remained halal integrity, free from contamination and ethically produced throughout the entire supply chain. From the perspective of Signaling Theory, consumers cannot directly check every stage of production, processing, and distribution. This happens because there is a gap in information between producers and consumers (Spence, 1973). This is a huge concern in the halal market since halal products are what experts call “credence goods.” This effectively means that even if you buy and eat a product you can’t ‘see’ or ‘taste’ if it was really halal, you just have to believe the company.

That’s why consumers are looking for “signals” they can really see, such halal branding, tracking systems, and proof that the company follows rigorous guidelines. These signals eliminate guessing and make consumers feel safer in their choices. When these indications are obvious and honest, it makes people feel more trust that the product is in accordance with Shariah. Trust is the number one reason individuals select one halal product over another, studies reveal. And if a buyer feels the quality of the product is robust, then their belief in those halal claims will go up..

The Mediating Role of PHI in Between Independent Variables (HTSA & HIEF) and Dependent Variables (CT).

Signalling theory is commonly used to explain how consumers trust products. The hypothesis states that since purchasers cannot constantly observe a product’s quality, they seek for “signals”, such as certificates or technologies to verify that it is good (Connelly et al., 2011; Spence, 1973). This is highly essential in the halal food market as “halal” is a trait that you cannot see or taste even after you have eaten the product (Verbeke et al., 2013). Recent studies reveal that even with modern technology like traceability systems, the technology alone does not automatically generate consumer trust in a brand. Rather, customers need to feel that technology is employed in safeguarding the real integrity of the halal process (Dashti et al., 2024). First consumers need to understand and interpret these signals before they can trust the goods.

PHI is a bridge in this process. It reveals consumers’ perceptions of the appropriate protection and maintenance of halal products along the supply chain. Consumers receive signals and use information from traceability systems and regulatory contexts to develop their opinion of halal integrity. After this perception is formed, then trust starts to build. This view is also backed by the Signaling Theory which states that signals need to be interpreted before having any impact on any outcomes (Spence, 1973; Connelly et al., 2011). There is also evidence that, in the

halal context, traceability and governance mechanisms only reinforce confidence if they increase perceived integrity and reduce uncertainty (Dashti et al., 2024).

The success of a traceability system depends on convincing the consumer that the religious standards are being honestly fulfilled from start to finish. While traceability adoption may increase product visibility and verification, customer trust is unlikely to be earned by technology alone, unless consumers see technology as proof that halal integrity is really safeguarded. In other words, the impact of traceability technologies on trust is more significant when they first improve the notion that the halal status is maintained along the supply chain. Recent research have argued that halal traceability increases confidence by rebuilding integrity (Dashti et al., 2024) and related halal supply chain work suggests that integrity might be a mediation mechanism between upstream behaviors and downstream outcomes (Rajendran et al., 2024). Therefore, it is expected that Perceived Halal Integrity will buffer the relationship between Halal Traceability System Adoption and Consumer Trust.

Environmental forces such as legislation, governance intensity, and customer expectations and competitiveness may push halal enterprises to adhere more tightly to halal standards, but these pressures do not inevitably develop consumer trust. First, buyers truly must think that these systems do a fantastic job of keeping the halal food safe and clean. A good illustration of this is the Malaysian halal meat cartel scandal. That case was a classic example of how the system can fail when people learn how to game the rules, even when those rules seem to be very good regulations on paper. Malaysia has some of the strongest halal laws in the world, but the “meat cartel” scandal showed restrictions alone aren’t enough to make people feel safe. It made shoppers stop and question, “Is my food really halal all the way through, or is somebody just claiming it is?”

This is the rationale for Perceived Halal Integrity (PHI). PHI ties high-tech things (like tracking systems) to regulatory regulations and the real trust that a client has. No matter how great technology in the world is, if the buyer doesn’t believe the product is clean and real, then it is useless. As recent studies reveal, if that perception of integrity is compromised — as it was during the beef crisis — no amount of legislation or technology can simply repair that broken trust. In short, PHI is the “middleman” that transforms a company’s efforts into customer confidence.

H4a: Perceived Halal Integrity mediates the relationship between Halal Traceability System Adoption and Consumer Trust.

H4b: Perceived Halal Integrity mediates the relationship between Halal Industry Environment Factor and Consumer Trust

CONCLUSION

Malaysia is a major player in the worldwide halal market, but the country still has complicated supply chains, and many are skeptical whether the items are actually halal (Tieman & Darun, 2017). Experts warn the government’s efforts may not be sufficient to prevent future fraud even with a certification system. This has led to a higher demand for new technology such traceability systems to better show the origin of food (Bachtiar et al., 2025).

In this study PHI is the most essential factor that indicates why people trust a product. New tech like HTSA, government rules like HIEF, trust don’t happen overnight. These procedures and rules give “signals” to the consumer that a product is certified or transparent (Connelly et al., 2011). However, these signals are effective only if customers recognize them and feel that the halal quality is safeguarded (Dashti et al., 2024). In short, technology and regulation only generate confidence when the consumer is convinced of the integrity of the product.

According to Signaling Theory, signals help to close the gap of information, but without the consumers’ right understanding, they do not always lead to trust (Spence, 1973; Connelly et al., 2011). Since halal products can’t be checked visually, the client must be a “detective” and check the information provided by authorities and the tracking system. This study refers to Perceived Halal Integrity (PHI). It is basically a measure of whether a buyer thinks that a product has been maintained safe and followed religious norms all the way.

This notion must be tested with data on future study to see if it will function in the real world. This will allow government officials and business owners to establish stronger systems that validate a product's integrity, adding more transparency to the process, and allowing consumers to trust what they're buying again.

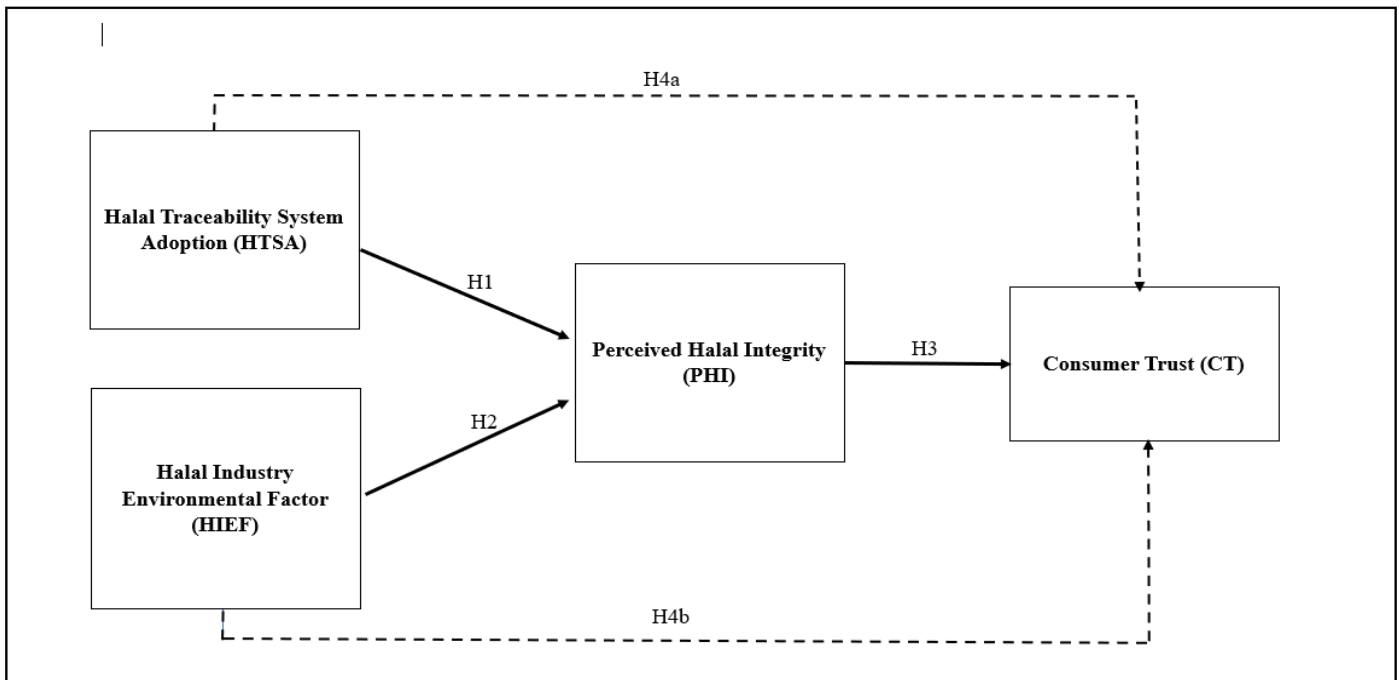


Figure 1: Proposed Research Framework

RESEARCH METHODOLOGY

The study employed a quantitative research design to empirically evaluate the correlations between Halal Traceability System Adoption (HTSA), Halal Industry Environmental Factors (HIEF), Perceived Halal Integrity (PHI) and Consumer Trust (CT) among Malaysian customers. The target demographic is the people with previous experience in buying halal meat and frozen food goods as both categories are quite sensitive to the halal integrity issues and supply chain hazards.

A purposive sample strategy is used to guarantee the respondents have relevant knowledge and experience on halal certified products. To be eligible, respondents need to (i) have purchased halal meat or frozen food in the last three months and (ii) have knowledge of Malaysian halal certification logos and practices. Data are collected by structured online questionnaire. The questionnaire consists of two main sections: demographic variables (e.g. age, gender, education and education and purchasing frequency) and measuring items of HTSA, HIEF, PHI and CT. To ensure content validity and reliability, all dimensions are evaluated using multi-item measures developed from prior validated investigations. To increase the clarity of the questionnaire and the precision of measurement, a pilot test is conducted.

Anonymity and confidentiality of respondents are assured to control common technique bias, and procedural remedies are used such as clear instructions and impartial wording. Partial Least Squares Structural Equation Modelling (PLS-SEM) is used for data analysis due to its suitability for testing complicated models with mediation effects and latent constructs. The analysis consists of the assessment of the measurement model (reliability, convergent validity and discriminant validity) and the structural model (path coefficients, coefficient of determination (R²), predictive relevance (Q²) and effect sizes (f²)). Bootstrapping strategies are used to test the relevance of relationships and the mediating role of PHI.

DISCUSSION

The findings support the view that it is important to maintain the integrity of halal throughout the whole supply chain of meat and frozen food products in Malaysia. The halal status is vulnerable at several points as discussed

in the document (see supply chain stages debate) including slaughtering, processing, storage, transportation and retail handling. This complexity indicates that the assurance of halal is not a static certification procedure but a dynamic process that is continuous and requires constant monitoring and coordination.

The results are in line with earlier literature indicating HTSA improves transparency and traceability, while HIEF improves regulatory compliance and governance procedures. But neither technology systems nor institutional frameworks directly generate customer trust. Their influence is instead passed through Perceived Halal Integrity (PHI) as a vital mediating mechanism. This confirms the view of consumers that they do not necessarily trust halal certification or innovative technologies; they build trust only when they sense that halal integrity is really maintained across the supply chain.

The study also finds that PHI is a cognitive evaluation process in which consumers interpret signals from traceability systems and regulatory contexts before they establish trust. This is consistent with Signalling Theory which argues that messages need to be interpreted to influence behavioral consequences. PHI decreases uncertainty and increases confidence and eventually leads to more customer trust in this setting.

The findings suggest that industry actors should not only adhere to halal requirements but also work to improve the perception of integrity among consumers by communicating transparently, providing accessible traceable information, and enforcing consistent processes. Similarly, officials like JAKIM should not only improve regulatory frameworks but also ensure that these efforts are visible and credible to the public to regain trust, especially in the wake of previous scandals like the Malaysian meat cartel event.

While this work has contributed, there are certain drawbacks. Furthermore, the concentration on Malaysian consumers and one business setting (halal meat and frozen food) may restrict the generalizability of the findings. Therefore, future research should extend the study to other nations and halal market scenarios to confirm the robustness of the suggested methodology. Also, other relevant variables such as religiosity, brand reputation, legitimacy of certifying authority and product quality may help to understand the establishment of customer confidence in halal supply chains. Longitudinal studies are also suggested to capture the shift of consumer trust over time.

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