

ENTRUST HALAL INTEGRITY THROUGH HALAL FORENSIC: A PRELIMINARY DISCUSSION

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ABSTRACT

Islamic Law, Halal Standards and Acts, Halal Science, Halal Management and Health Implications are some of the elements that make up the idea of Halal Forensics. A product's halal status can be ascertained by combining these components, which work in concert with one another. It integrates Forensic Science and Syariah as the foundation for the development. Halal Forensic would help in many ways and cover a wide range of subjects. The halal status of a specific product was also significantly impacted by Halal Integrity. Despite blockchain technology's development, Halal Integrity still faces hundreds of hurdles to maintain its integrity. The raw material and ingredients still need to be ensured scientifically to get strong and accurate evidence compliance with syariah explanation. Thus, this study therefore intends to address the relationship between Halal Forensic and Halal Integrity, how Halal Forensic's role will impact Halal Integrity and recommendations for an action plan to strengthen Halal Integrity through Halal Forensic.

Keywords: *Halal Integrity, Halal Forensic, Halal Industry, Halal Supply Chain, Scientific Evidence.*

INTRODUCTION

The halal status of a specific product was significantly impacted by Halal Integrity. Despite blockchain technology's development, Halal Integrity still faces hundreds of hurdles to maintain its integrity. The raw material and ingredients still need to be ensured scientifically to get strong and accurate evidence compliance with syariah explanation. Starting from raw materials until it meets the consumers, the potential of halal integrity to be breached by cross-contamination with impure substances and ill intents need to be assured.

The origin, transparency, potential for fraud and adulteration, consumers' confidence, traceability (traceback and track forward) and quality issues (Hoorfar et al., 2011) are the elements of concern in supply chain to protect Halal integrity. Furthermore, the demand for halal certified products among consumers and the expansion of halal markets spur the need to ensure halal status is maintained. This has caused global halal market to experience substantial growth in producing halal certified products. Consequently, it would affect Halal integrity if the

production does not meet the halal quality. The food products scandals put the integrity of *halal* on the agenda.

General concern of halal integrity issues includes the risk of contamination, improper storage practices, potential mixing of halal and non halal products, inadequate awareness and compliance with varying regulatory standards across different regions and countries. A few food products scandals reported such as the horsemeat scandal in United Kingdom, “melamine milk” scandal in China, “meet - Taco Bell” scandal in California and “porcine-DNA” scandal in Malaysia has shaken consumer confidence and trust in food integrity.

Among the cases are detection of porcine DNA in Cadbury chocolate when the product being analyzed by Ministry of Health Malaysia. Besides that, there is also a laboratory analysis that has been done to randomly capsulated tablets which display halal logo from different halal certificate bodies on the products. The results show that among 20 samples taken, some of them poses a mixture of porcine and bovine gelatine, some of them poses bovine gelatine and some of them poses porcine gelatine. This would have a potential to shake the halal integrity in Malaysia. Continuous smuggling, fraudulent and adulteration in meat cartel crisis also one of the significant halal integrity issues that need an extra concern.

Consequently, the halal integrity and security would compromise halal status, loss of consumer trust, potential noncompliance with regulatory standards, and damage to the reputation of halal certified products and brands which would lead to bad reputation of Halal integrity in Malaysia. It also will affect the global trustworthiness of halal market towards Malaysia’s halal certificate if the issues are allowed to continuously happens.

Halal integrity is significant to the success of the emerging halal market. To improve halal integrity in international trade, transparency is the important key to trigger informed decisions among consumers (Alqudsi, 2014; Farouk et al., 2016). Halal forensics would have a significant potential to provide transparency by playing its crucial role in providing laboratory analysis for each ingredient or raw materials used in products tested comply with syariah justification. Besides, understanding and resolving the problem of ensuring halal integrity 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. Halal integrity is critical to the success of the Halal industry. Markets with high Halal sensitivity, such as Australia 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.

However, maintaining halal integrity for production of products poses significant challenges. The pattern for the activity of smuggling that happened month by month showed a frequent frequency. The current literature on this issue was focusing on Halal Integrity with Halal Supply Chain or Halal Logistic and implementation of blockchain technology as a medium or potential solution for Halal Integrity. But there is lack of discussion on implementation of Halal Forensic to entrust Halal Integrity.

METHODOLOGY

The type of research used is qualitative research. This study uses content analysis methods by referring to published papers and authoritative sources related to the study.

RESULTS AND DISCUSSION

The relationship between Halal Forensic and Halal Integrity

Halal Forensic involves the use of scientific techniques and the advancement of technologies provided with syariah justification to verify the halal status of the products. It does include laboratory testing or laboratory analysis to test the presence of non-halal ingredients, cross-contaminations and ensure the production process adheres to the halal standards. While Halal Integrity involves the trustworthiness and the authenticity of halal products throughout the whole stage in halal supply chain. The whole process starts from production until distribution needs to be ensured comply with halal standards. Among the relationship are:

- a) Verification of claims
- b) Prevent fraud
- c) Consumer trust
- d) Compliance of halal and monitoring

How Halal Forensic's role will impact Halal Integrity

Halal forensics would have a significant role in impacting Halal Integrity. Among the role are:

- a) Validation and verification
- b) Quality assurance
- c) Detection of contamination
- d) Support for certification bodies.

Recommendations for an action plan to strengthen Halal Integrity through Halal Forensic

A few recommendations for an action will be recommended to strengthen Halal Integrity through the implementation Halal Forensic. Among the recommendations are:

- a) Establish Robust Testing Protocols
- b) Regular audit and inspections
- c) Collaboration and standardization
- d) Regulatory framework

Halal Forensic and Halal Integrity would have a strong relationship in order to entrust Halal Integrity

The interconnection between Halal Forensics and Halal Integrity is fundamental to ensure trust and maintain compliance with halal standards across industries. This would include industry in food, cosmetics, pharmaceuticals and other consumables. Halal Forensic indicates the application of scientific and forensic techniques to identify and verify the halal status of products which includes DNA testing and chemical testing equipped with the advanced technologies for the equipment used. Halal Forensic serves as an investigative arm that provides the ingredients composition and traceability of production process in order to assure the halal standards are complied. On the other side, Halal Integrity enclose the commitment to sustain and reassure halal standards in all stages of Halal Supply Chain including sourcing, production, transportation, storage and distribution.

The significant relationship between Halal Forensic and Halal Integrity lies in their mutual goal to sustain and preserve trust and confidence among consumers. Halal Forensic is able to give support to Halal Integrity by supplying scientific evidence and contributing for validation. This is essential to prove that the products are genuinely halal and free from any contamination with non-halal substances. The scientific evidence provided can strengthen the transparency, authenticity, reliability and accountability in halal industry while building confidence and trust among customers to purchase halal products. While Halal Integrity is suggested to have proactive monitoring, evidence-based validation and ethical responsibility which this role can be accomplished by Halal Forensic.

Halal Forensic may contribute to Halal Integrity by carrying out its responsibility of providing scientific and trustworthy evidence

Halal Forensic may contribute to Halal Integrity through its significant role in providing scientific and trustworthy evidence. This significant role of Halal Forensic may help to strengthen Halal Integrity. This can be seen in a few aspects. First, Halal Forensic can provide verification and validation of halal claims. This can be accomplished by its expertise which are DNA analysis, chemical testing and identification of contamination in products with non-halal substances. Second, Halal Forensic can serve for authenticity and transparency in halal claims. Consumers often face challenges to put trust and confidence for halal claims due to many fraudulent and adulteration that happens. The transparency and scientific evidence provided would offer assurance of ethical and legitimate in manufacturing the halal products. This also would assist for validation in Halal Supply Chain to make sure their adherence to halal standard.

Furthermore, Halal Forensic may act as the basis to supply the trusted and authorize evidence regarding the ingredients or raw materials sourcing used in halal products. As for that, the evidenced provided must be scientific based on the objective and technique used, trusted which means it is free from bias and aligned with standard globally and comprehensive to counter every stage in product manufacturing until distribution. With that, Halal Forensic is able to assure the halal certification and compliance are based on the guideline needed rather than assumptions. Besides, Halal Forensics may contribute to integrity by monitoring Halal Supply

Chain. This can be accomplished by verifying raw materials sourcing, ensuring manufacturing process, storage, distribution and transportation free from cross-contamination with non-halal substances and are handled separately from non-halal goods. Halal Forensic is indeed capable of strengthening halal certification since halal certification bodies would rely on scientific evidence to clarify the halal status of products. Halal Forensic can take the action to assure the certification process is credible and indirectly provide support by offering factual and scientific evidence.

The evidence from Halal Forensic can also be used to prosecute the offender

Scientific evidence through Halal Forensic testing is a critical step to maintain Halal Integrity. The evidence can be used to support regulatory and legal actions adherence to halal standards. It can serve as the base to prosecute offenders by proving violation that happens through strong scientific evidence as foundation for legal cases. The evidence can be proved through several testing such as DNA analysis and chemical analysis. The scientific data can be used to justify non-compliance of products manufactured. It can be used to demonstrate questions on non-compliance to halal standard. Forensic evidence helps the enforcement of laws and regulations that criminalize misrepresentation and fraudulence in halal products.

Halal Forensic can support legal action. The scientific evidence must meet a few criteria to be admissible in legal proceedings such as proper handling, objectivity and reliability. Halal Forensic has the potential to meet the standards in a few ways such as identifying fraud by conducting DNA analysis and chemical analysis. DNA analysis can detect the presence of pork and impure substances in products that are wrongly labelled while chemical analysis can identify the use of alcohol or other prohibited ingredients. The findings can be used to charge the companies or individuals involved. It also would prove the negligence of the companies or individuals involved through Halal Supply Chain audits by uncovering the lapses in halal protocols. It demonstrates that the manufacturers failed to comply with the halal certification standards. Not only manufacturers but it would include distributors or retailers who falsely claim halal in their products.

Hence, Halal Forensic evidence can deter the offenders since it can equip a clear message on violations of Halal Integrity. It also can protect the rights of consumers in purchasing halal

products at market since consumers rely on halal certifications or halal logo to guarantee the halal status of the products. Prosecuting offenders may help to protect them from fraud or adulteration in halal products and services. This would build fair competition between companies that invest in halal compliance since legal action is able to assure the level playing field.

CONCLUSION

Halal Forensic has a vital role to entrust Halal Integrity which would be beneficial to the development of halal industry. The relationship between Halal Forensic and Halal Integrity are through verification of claims, prevent fraud, build consumer trust and compliancy of halal and monitoring. Halal Forensic's role will impact Halal Integrity by validation and verification, quality assurance, detection of contamination and provide support for certification bodies.

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