

Risk Identification of Halal Products among Young Muslim Consumers in Malaysia

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ABSTRACT

Halal products encompass not only food but also modest apparel, cosmetics, medicines, logistics, media, and other sectors that serve the global Muslim population. At the core of these sectors is the notion of halal integrity, which embodies Islamic ethical consumption by ensuring that products are religiously permissible and maintain transparency, hygiene, and fairness throughout the production chain. This study examines young customers, acknowledging them as a dynamic demographic whose understanding and decisions profoundly influence the future of the halal sector. The research aims to achieve three specific objectives: first, to identify the principal factors affecting young people's awareness of risks associated with halal products; second, to integrate qualitative and quantitative data into a cohesive halal risk register; and third, to create a risk management matrix that systematically classifies, assesses, and mitigates risks to halal integrity. The results indicate that halal-certified products, typically priced higher than non-certified options, exhibit greater susceptibility to risks, with an exposure rating of 0.76. This increased risk is associated not just with fraud and mislabeling but also with deficiencies in consumer awareness and supply chain oversight, which can erode confidence in halal certification. The study emphasizes the necessity of merging ethical considerations with risk management to preserve halal integrity, so ensuring customer confidence, protecting industry reputation, and responding to the increasing demand for halal products in both Muslim-majority and non-Muslim countries. The study emphasizes the value of raising young consumers' awareness of halal products and highlights the risks associated with their choice of halal goods.

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1. INTRODUCTION

Halal, originating from Arabic, denotes what is permissible or lawful according to Islamic law. Malaysia's Department of Islamic Development (JAKIM) defines halal food as devoid of unlawful or impure components, including forbidden animal derivatives such as pork, and prepared, processed, and manufactured in accordance with sanitary and safe procedures. The notion of halal extends beyond dietary regulations to include ethical standards, such as bans on corruption, theft, and the incorporation of non-halal components in products like cosmetics (Movendi, 2021).

Halal-certified items signify adherence to Islamic law across sectors, including food, cosmetics, and pharmaceuticals. Certification assures Muslim consumers that products are manufactured in accordance with Islamic principles, devoid of contamination, and upheld to rigorous standards of cleanliness and safety. This assurance has driven rising demand for halal products, especially among younger demographics, who are increasingly aware of both religious duties and ethical consumption practices.

While Muslims are the principal consumers of halal products, the global halal industry has also garnered interest from non-Muslims. Halal-certified products, particularly in the meat industry, are frequently perceived as healthier, more transparent, and ethically superior options. The reliability and traceability provided by halal certification systems have enhanced customer confidence, facilitating the further growth of the global halal sector post-2021.

Significantly, halal extends beyond food. The notion of halal integrity, which underscores transparency, equity, and ethical accountability across the supply chain, encompasses industries including logistics, Muslim-friendly tourism, modest fashion, halal media, and medicines. These industries collectively highlight the increasing significance of halal as a religious duty and an ethical benchmark influencing global consumption trends (ChemLinked, 2024).

Aside from this expansion, concerns remain in the halal industry, especially with fraud, mislabeling, and inconsistent enforcement throughout global supply chains. These challenges jeopardize customer trust and undermine the integrity of halal certification. Prior research has mainly concentrated on consumer preferences and market evolution, with insufficient emphasis on systematic frameworks for identifying and mitigating concerns associated with halal-certified items. Furthermore, scant research has investigated how younger consumers, an impactful and expanding generation within the halal market, perceive and respond to these risks.

This gap underscores the urgent necessity for a systematic risk management strategy that fortifies halal integrity and elevates consumer awareness. This study aims to discover factors affecting young people's risk awareness for halal products, combine qualitative and quantitative data into a comprehensive risk register, and create a risk management matrix specifically for halal goods. This study offers a structured methodology for assessing and mitigating risks, thereby enhancing halal authenticity, bolstering customer trust, and promoting the sustainable development of the halal industry.

2. RESEARCH OBJECTIVE

This study goes into the complex world of halal concerns affecting a range of sectors, painstakingly analyzing the dangers while concurrently investigating proactive steps to increase consumer confidence in the halal industry. Three main goals serve as the foundation for the research. It first aims to pinpoint the different types of risk awareness for halal goods among the younger generation. Second, the research tries to create a thorough risk register by carefully balancing qualitative and quantitative analysis. Finally, the researchers want to create a customized risk-management matrix with a focus on halal items. It is predicted that the accomplishment of these goals will produce priceless information that will substantially advance the management of the halal business. Additionally, the study aims to open the door for the implementation

of successful risk management techniques that are especially suited to the special circumstances of halal products. In the end, the research aims to support the halal industry's sustainable growth and improvement while preserving its integrity and addressing the changing demands of both consumers and stakeholders.

3. LITERATURE REVIEW

Islam is the most rapidly expanding religion worldwide, with over 1.9 billion adherents, and halal is integral to the everyday practices of Muslims, who represent 60% of Malaysia's populace. The phrases halal and haram signify what is allowed and forbidden under Islamic law, whereas *najis* pertains to contaminants that may contaminate halal items (Kassim et al., 2014). The overarching principle of *halalan-toyyiban* underscores not merely permissibility but also the safety, purity, and wholesomeness of food products. In this context, food operators are required to adhere to regulations set forth by the Ministry of Health (MOH) to maintain the principles of *halalan-toyyiban*. Studies reveal that numerous young consumers are attracted to viral or trendy food establishments, often neglecting considerations of cleanliness or halal compliance, hence heightening the chance of encountering non-halal or unsafe practices (Harun et al., 2023).

The halal-haram divide underpins Islam's legal structure, encompassing not just dietary regulations but also money sources, lifestyle choices, and religious practices. For Muslims, the use of halal food is both a religious obligation and is thought to enhance spiritual commitment and personal integrity (Mohamed Amin, 2022). The relationship between halal consumption and religion highlights the necessity of preserving halal purity in all industries.

The profitability and international expansion of halal products offer both opportunities and challenges. The halal food market in Vietnam, while modest, possesses considerable export potential owing to the nation's status as a prominent food producer in Southeast Asia and its proximity to Indonesia, the largest Muslim-majority country globally (Vietnam Chamber of Commerce and Industry – Center for WTO and International Trade, 2023). Enhancing Malaysia–Vietnam cooperation via initiatives like the Memorandum of Understanding (MoU) between Global Haltech Sdn Bhd and the Vietnam Halal Centre (VHC) underscores the strategic significance of establishing dependable halal supply chains. Malaysia's proficiency in certification, training, and supply chain management persists in bolstering Vietnam's initiatives to cultivate its halal ecosystem.

Comprehending the viewpoints of adolescents is crucial, as people aged from their teenage years to mid-20s constitute a significant demographic undergoing the transition from youth to adulthood (Baker, 2016). Peer influence, social pressure, and lifestyle choices significantly impact consumption habits, frequently leading individuals to priorities convenience or trends over halal authenticity (Faizah et al., 2023). Research indicates that enhancing knowledge among young consumers is essential for enabling informed decision-making and preventing the purchase of fraudulent or inaccurately labelled items (Khalek, 2014; Harun et al., 2023).

Incidents of food fraud and mislabeling in multiple nations highlight the dangers linked to inadequate halal integrity. Controversies have emerged in London around the eradication of non-halal practices and intricate food supply chains. In Thailand, enquiries uncovered a significant fraud involving pork disguised with oxblood and marketed as halal beef, whereas in Malaysia, accusations emerged regarding customs officials allegedly accepting bribes over a 40-year span to import frozen meat misrepresented as halal but not slaughtered in accordance with Islamic standards (Malaysian Cartel Allegedly Sold Fake Halal Meat to Muslims for 40 Years, 2020). These instances underscore the weaknesses in halal supply chains and the potential for young customers to be inadvertently misled into ingesting non-halal products (Movendi, 2021).

4. METHODOLOGY

This methodology outlines the approach used to assess and manage risks associated with halal products, with a focus on consumer preferences among young consumers. The study aims to identify and evaluate potential risk events and their impacts on halal products, considering the likelihood of occurrence. The outcome will be represented through a risk-management matrix, which plots the risks from lowest to highest based on their risk score and opportunities for mitigation. The step in developing a risk-management matrix consists of two steps, which is identifying the risk score for each of the events and mapping the risk score into the matrix.

The first step involved developing a comprehensive list of risk events related to halal products. This was accomplished by conducting an in-depth review of existing research papers and relevant literature on halal products, focusing on risk-related aspects. The identified risk events served as the basis for further analysis.

To determine the likelihood of each risk event, the researcher collected relevant data and conducted surveys or experiments, specifically addressing the factors contributing to the occurrence of each risk event. The results obtained from this data collection were used to quantify the likelihood of each risk event.

The impact of each risk event was evaluated based on consumer preferences among young consumers. Surveys and interviews were conducted to gauge the potential consequences of these risk events on the perception and acceptance of halal products among the target demographic.

The risk score for each risk event was calculated by multiplying the likelihood and impact values obtained in the previous steps. This score provided a quantitative measure of the overall risk associated with each event.

The risk-management matrix was created by plotting risk events along the x-axis, ranked from lowest to highest based on their respective risk scores. The y-axis represented opportunities for risk mitigation, with higher positions indicating greater potential for addressing and managing the identified risks.

The data collected throughout the research process were subjected to rigorous analysis to ensure accuracy and reliability. Measures to maintain data integrity included cross-referencing, validation through peer review, and statistical analysis when applicable.

Ethical principles were adhered to throughout the research, with proper consent obtained from participants during data collection. The research respected the privacy and confidentiality of respondents and complied with all relevant ethical guidelines. It is important to acknowledge potential limitations in the methodology, such as sample size, the specific demographic of young consumers surveyed, and any inherent biases in data collection techniques.

By following this methodology, the study aimed to provide valuable insights into the risks associated with halal products from a consumer perspective, enabling stakeholders to develop targeted risk management strategies and enhance the appeal of halal products in the market.

4.1 Risk Management Matrix

To design a risk management matrix, the initial step to be taken is to identify the risk that is exposed to the halal issue among young consumers. Therefore, these are the risky events that relate to halal products as listed in Table 1.

From the table, it reports each risk event and its corresponding risk score. The use of a risk event table is to develop the risk-management matrix purposely to map the risk event and risk score into Table 1. The risk-management matrix table can be used by anyone who wishes to review the risk score of such event.

Table 1. Risk Event and Risk Score

No.	Risk Event	Risk Score (Likelihood * Impact)
1	If the supply raw material comes from a non-Muslim country it can be exposed to the direct contact of the non-halal products There is a higher integrity risk with global suppliers especially if it's coming from non-Muslim countries and it requires more extensive risk management than suppliers from Muslim countries (Azmi et al., 2020).	$0.9*0.1 = 0.09$
2	The halal food market potential in the world is limited to non-Muslim countries. In Malaysia, 25 percent of the total accounts of Islamic financial institutions, which work with an interest-free system, are owned by non-Muslim people (Hussain et al., 2015).	$0.3*0.8 = 0.24$
3	Chemical suppliers must be undertaking to ensure the Halal source/produce of chemicals (Bohari et al., 2013).	$0.9*0.1 = 0.09$
4	Procurement in charge is responsible for ensuring that packaging materials are of Halal source or produce and takes Halal declaration from the suppliers of packaging materials (JAKIM, 2014).	$0.7*0.5 = 0.35$
5	The container or truck can contaminate the unacceptable product or convert into impure (<i>najis</i>) Senior Management is responsible to ensure that the container or truck which is used for product transportation shall be reserved for Halal products transportation. However, Lab-in-Charge and Store-in-Charge shall inspect the container/truck prior to the loading of products (Ziegler et al., 2021).	$0.8*0.2 = 0.16$
6	The pest activity can spoil or alter the product or food into hazardous or unacceptable form. Devices shall be installed to stop the entry of pest into the processing areas and to control microbial hazards, area and equipment are monitored through Microbiology Lab (World Health Organization, 2004).	$0.8*0.1 = 0.08$
7	If the rapid rate of technology change decreases, then the order to enhance their competitiveness might not work. A survey by the Small and Medium Sized Industries (SMI) Association of Malaysia showed that only 30% of SMEs in Malaysia embraced basic Information and Communications Technology (ICT) (Alam et al., 2011).	$0.3*0.7 = 0.21$
8	If consumers perceived physical risk from halal foods or products, then their purchase intention will decrease. Contribution of interest to halal foods to purchase intention is 56.1%. Pleasure value and intrinsic religiosity also have a positive contribution. If intrinsic religiosity levels, pleasure value, and interest level of consumers increase, then their purchase intention about halal foods also increases. Physical risk is the only variable that has a negative effect on purchase intention (Yener, 2015).	$0.6*0.2 = 0.12$
9	If psychological risk levels increase, then food safety of halal foods will decrease. As social and psychological risk levels increase, food safety of halal foods consequently decreases with values of 26.6% and 12.2% (Yener, 2015).	$0.12*0.5 = 0.06$
10	The economic uncertainty driven by the COVID-19 pandemic has pushed struggling companies over the top into bankruptcy proceedings. It includes risks of the leading supplier's failures that can stop halal product companies' working activities. (Sumarlia et al., 2021).	$0.5*0.9 = 0.45$
11	Over 1/3 of the convenience stores in Malaysia sell alcohol and pork such as 7-Eleven, CU Mart, 99 Speedmart, and most supermarkets like Lotus, AEON, and Giant are also involved in selling those non-halal products.	$0.5*0.9 = 0.45$
12	JAKIM as a halal body authority is very strict and careful in certifying products. Unfortunately, there are possibilities of black markets which provide illegal import of fake products which are suspicious of their purity (Amin et al., 2020).	$0.1*0.1 = 0.01$
13	It is impossible for non-Halal meat smuggling to happen since not only JAKIM, but the Department of Veterinary Services (DVS) and the Ministry of Health also visit and investigate slaughterhouses abroad (Basyir, 2020).	$0.15*0.1 = 0.015$

14	The proliferation of fake certificates. There are several reports regarding fake halal products originating from China, India, Thailand, and Malaysia itself.	$0.3 \times 0.4 = 0.12$
15	Defamatory information. Social media such as TikTok, Facebook, Instagram, and Twitter have become a platform for people to defame products. Some of it might be true due to valid sources and further research, and some of it was created using non-valid sources. The lack of awareness makes people fail to determine their halal status.	$0.4 \times 0.5 = 0.2$
16	Youths' habit to buy things without investigating. Lack of awareness and knowledge among young consumers brings them to chaos in life where halal and haram mixed and bring Allah's wrath. Some research found that 59.2% of youth dine in restaurants that don't show their halal logo and unknown halal status (Halimi et al., 2022).	$0.6 \times 0.1 = 0.06$
17	In Malaysia, some of non-halal products can be found under brand names with Jawi letters which is Arabic-sounding. This causes some consumers to take for granted the halal word or the halal logo without questioning its authenticity and brings high exposure to halal risk.	$0.6 \times 0.1 = 0.06$
18	Some investors, including youths, are eager to earn more profit without questioning its authenticity. Studies show some of them trading in high-risk, high reward trade such as foreign exchange (Forex) and cryptocurrency such as Bitcoin even though they are aware of its authenticity.	$0.8 \times 0.1 = 0.08$
19	Indian-Muslim, called 'Mamak' in Malaysia, many of them open their own style restaurant and attract most Malaysians. Even though they have halal certificates, many reports found that the workers working at Mamak restaurant are not Muslim. This brings high exposure to halal risk.	$0.7 \times 0.1 = 0.07$
20	The peer influence towards young consumers choosing unsure products (Faizah et al., 2023).	$0.83 \times 0.8 = 0.664$
21	Food products with halal certification are generally more expensive than without halal certification are promotion, place, price, market demand. Based on data, food products with halal certification are generally more expensive than without halal certification with 95.2% (Mohd Dali et al., 2009).	$0.95 \times 0.8 = 0.76$
22	The family had an influence on choosing halal products. 91.7% of respondents strongly agreed that they prefer their family to choose halal food and influenced them (Harun et al., 2023).	$0.83 \times 0.9 = 0.747$
23	The Halal Food Fraud. Only 11 (3.1%) respondents have not heard of any fraudulent food related to halal. Most of the Muslim consumers had received halal food fraud information from both mass media and social media (Ruslan et al., 2018).	$0.03 \times 0.9 = 0.027$
24	The viewpoint towards non-halal products on young consumers for their way of their life (Musa & Hashim, 2022).	$0.11 \times 0.8 = 0.088$

4.2 Risk Matrix

The risk matrix shows the value of risk score and opportunities of risk exposure. Food products with halal certification are generally more expensive than without halal certification, indicating higher exposure of risk score which is 0.76 as compared to other risk scores. The young consumers only cater to the price of the product rather than concerning usage of the raw material for the product. To make sure the product is certified as halal it must follow through as mentioned by Azmi et al. (2020) there were nine significant risks in the halal food supply chain which were the human resource, processing risk, logistic risk, raw material risk, certification, traceability, market characteristic, outsourcing practices, and product characteristics. This study also indicates the young consumers agreed that JAKIM, the DVS and the Ministry of Health have played its role as halal authority that provided strict regulation on certifying the halal products which at the end this risk plotted as low-risk score (0.01). As this result produced, it is quite similar as mentioned by Amin et al. (2020) which in that study, the researchers designed Malaysia's halal certification process where it was constructed in Manual Prosedur Pensijilan Halal Malaysia (Semakan Ketiga) 2014 produced by JAKIM (JAKIM, 2014).

Table 2. Risk Matrix for Halal Products

Probability	Threats Risk Score = Probability x Impact					Opportunities High (RED) / Med (YEL) / Low (GRN)				
0.90 Very Likely	0.09 (1) (3)	0.16 (5)	0.3	0.5	0.76 (21) (22)	High	High	High	Med	Low
0.70 Likely	0.08 (6) (18) (19)	0.12	0.35 (4)	0.53	0.66 (20)	High	High	Med	Med	Low
0.50 Possible	0.06 (16) (17)	0.2 (15)	0.3	0.45 (10) (11)	0.6	High	High	Med	Low	Low
0.30 Unlikely	0.04	0.12 (14)	0.21 (7)	0.24 (2)	0.36	High	Med	Med	Low	Low
0.10 Very Unlikely	0.01 (12) (13)	0.03 (23)	0.06 (8) (9)	0.08	0.09 (24)	Med	Low	Low	Low	Low
	0.10	0.20	0.40	0.60	0.80	Very High	High	Med	Low	Very Low
Example Impact Definitions – May Be Tailored to Each Project Objective Impact on an Objective (e.g., Cost, Schedule, Scope, Quality)										

5. CONCLUSION

It is impossible to exaggerate the importance of halal products since the preservation of its authenticity is a shared obligation in a nation with a majority Muslim population. The notion of halal goes beyond the food industry to a few other industries, including tourism, logistics, fashion, journalism, and recreation. Through this study, several risks associated with adolescents' selection of halal goods have been identified. These concerns include exposure to non-halal items, problems with the components, and production methods.

Even though many articles and research concentrate on halal food items and certifications, the study stresses how crucial it is not to overlook the packaging component. Halal packaging affects productivity, efficiency, and total costs during transit and storage, which is a crucial part of logistics. The study called for more empirical and non-empirical research in this field by identifying critical difficulties with halal packaging, such as certification, product handling, distribution, storage, and traceability.

The study's findings showed that young Muslim consumers, particularly those at Malaysian higher education institutions, had a favorable attitude towards halal food establishments and the JAKIM halal certification. Surprisingly, family support for the adoption of halal food outlets among their members was not as strong, highlighting the need for Muslim families to take a more active role in educating their young relatives about halal food.

Teenagers frequently priorities rapid satisfaction and imitate friends rather than making thoughtful judgments, and peer influence has been identified as a crucial element influencing young people's choices. To combat this, cultivating relationships with those who value halal options and broadening young people's perspectives helps debunk stereotypes and successfully deal with the problem of peer pressure.

The study also made clear the importance of raising young people's understanding of halal products while considering the impacts of limited exposure, cultural norms, and societal standards. Raising awareness and promoting halal products may be greatly aided by including kids in religious activities and organizations.

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7. CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

8. AUTHORS' CONTRIBUTIONS

Ahmad Nur Azam carried out the research, wrote and revised the article. Nor Faezah conceptualized the central research idea and provided the theoretical framework. Anis Zafirah and Siti Nur Aisyah designed the research, supervised research progress, anchored the review, revisions and approved the article submission.

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