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Research Paper

Halal and *Tayyiban* Food Security: Towards an Ethical and Sustainable Global Food System

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Abstract

This study aims to explore how *Halal* and *Tayyiban* principles can be integrated into the wider discourse on food security to promote a more sustainable, ethical, and spiritually conscious global food system. It seeks to identify the potential of these principles to enhance resilience, trust, and inclusivity within food supply chains. This paper employs a systematic literature review, synthesising findings from peer-reviewed publications, institutional reports, and policy documents that address the intersections among halal assurance, sustainability, and food security. The review highlights key themes, conceptual relationships, and policy implications that emerge from the literature. The analysis shows that *Halalan Tayyiban* food security strengthens traditional food security models by incorporating ethical, environmental, and social justice dimensions. Upholding *tayyiban* standards encourages responsible production and consumption, boosts consumer confidence, and promotes sustainable resource management. The findings emphasise the importance of multi-stakeholder collaboration, effective halal governance, and transparency in ensuring that food systems remain both secure and spiritually meaningful. This study is based on secondary data and conceptual analysis. Future empirical research is necessary to test the implementation of *Halalan Tayyiban* principles across different cultural and institutional contexts. This paper contributes to the emerging global dialogue on Islamic perspectives in sustainable food systems. It offers a holistic conceptual framework that integrates *Halal* and *Tayyiban* values into the broader agenda of global food security, fostering an ethical, resilient, and spiritually aligned approach to feeding the world.

Keywords: *Halal, Tayyiban, Food Security, Sustainability, Ethical Food Systems*

INTRODUCTION

Food security remains one of the most pressing global challenges of the twenty-first century, directly influencing human welfare, economic stability, and environmental resilience. The Food and Agriculture Organisation (FAO, 2006) define food security as a condition in which "all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life." This widely accepted definition rests upon four fundamental pillars: availability, accessibility, utilisation, and stability; each reflecting essential dimensions of a secure and sustainable food system.

However, despite significant progress, global food security remains undermined by the combined pressures of climate change, population growth, geopolitical conflicts**,** and economic inequality (World Bank, 2024). The recent COVID-19 pandemic and the ongoing disruptions in global supply chains have further exposed the fragility of food systems worldwide, especially in low- and middle-income countries (FAO, IFAD, UNICEF, WFP, & WHO, 2023). As the global population is projected to exceed 9.7 billion by 2050, ensuring an adequate food supply within the limits of environmental sustainability remains a critical concern.

In response to these challenges, the global development community has emphasised the need for sustainable and ethical transformations in food production and consumption. The United

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Nations' Sustainable Development Goals (SDGs), particularly SDG 2 (Zero Hunger), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action), emphasise the need for food systems that are environmentally sound, economically viable, and socially just. However, beyond these material and structural considerations, there is growing recognition that food security also carries moral and spiritual dimensions that shape how societies produce, distribute, and consume food (Idris et al., 2022; Rahim et al., 2021).

From an Islamic perspective, food security extends beyond material sufficiency to encompass notions of ethical integrity, spiritual purity, and social equity. The *Halalan Tayyiban* framework, derived from the Qur'an and Sunnah, encapsulates this holistic understanding. The term *halal* denotes what is lawful or permissible under Shariah law, while *tayyiban* refers to what is wholesome, safe, clean, and beneficial. The Qur'an repeatedly instructs believers to consume what is both *halal* and *tayyib* (e.g., Qur'an 2:168; 5:88; 16:114), emphasising that food consumption is not merely an act of sustenance but a form of worship and gratitude towards Allah (SWT).

Within this context, food security involves not only ensuring the availability and accessibility of food but also guaranteeing that it meets ethical and spiritual standards. Therefore, the *Halalan Tayyiban* approach complements and enriches conventional understandings of food security by introducing moral, social, and ecological accountability throughout the entire food chain, from production to consumption (Arif & Sidek, 2015; Ahmad & Nordin, 2023).

As the global demand for *halal* products continues to expand, reaching an estimated market value of USD 2.04 trillion by 2027 (Statista, 2024), there is growing interest in how *Halalan Tayyiban* principles can contribute to the transformation of sustainable food systems. Beyond serving Muslim consumers, the values embedded within this framework resonate with universal sustainability goals, including responsible production, ethical trade, and environmental stewardship.

This paper explores how integrating Halalan Tayyiban principles into the global food security discourse can foster a more ethical, sustainable, and inclusive food system. Accordingly, this study seeks to answer the following research questions:

1) RQ1: How does the existing literature conceptualise the relationship between Halalan Tayyiban and food security?
2) RQ2: How can Halalan Tayyiban principles strengthen sustainable food systems?
3) RQ3: What theoretical, practical, and policy implications emerge from integrating Halalan Tayyiban into global food security?

By systematically reviewing relevant literature, the study seeks to identify how these Islamic principles reinforce the environmental, social, and governance (ESG) pillars of sustainability. It also contributes to the broader academic dialogue by positioning *Halalan Tayyiban* as a value-based framework that enhances trust, resilience, and moral accountability within the global food system.

LITERATURE REVIEW

Food security has evolved into a multidimensional concept that encompasses the economic, social, and environmental aspects of development. The FAO (2006) and World Bank (2024) outline four foundational pillars of food security: availability, accessibility, utilisation, and stability, which together determine the adequacy and resilience of global food systems. However, persistent challenges such as climate variability, urbanisation, resource degradation, and socioeconomic inequality continue to threaten these foundations.

The global food crisis of the 2020s, exacerbated by geopolitical instability and the COVID-

19 pandemic, has underscored the need for sustainable and resilient food systems (FAO et al., 2023). The Sustainable Development Goals (SDGs): particularly SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action) explicitly connect food security with environmental protection, social equity, and economic inclusion.

In recent years, attention has expanded toward ethical and value-based dimensions of food security. Scholars argue that the sustainability agenda should not be limited to efficiency and productivity but should also include moral responsibility, transparency, and justice in food systems (Idris et al., 2022; Rahim et al., 2021). This perspective provides an entry point for integrating Islamic principles, particularly the concept of *Halal* and *Tayyiban*, into the global dialogue on ethical and sustainable food systems.

Conceptual Foundations of Halalan Tayyiban

The *Halalan Tayyiban* concept, rooted in Islamic law (Shariah), provides a comprehensive framework for ensuring the lawful (*halal*) and wholesome (*tayyiban*) nature of food. The Qur'an explicitly commands believers to consume food that is both *halal* and *tayyib* (Qur'an 2:168; 5:88; 16:114), highlighting that dietary practices should align with divine guidance.

Scholars such as Arif and Sidek (2015) and Mustaffa (2019) emphasise that *halal* denotes legality and permissibility, while *tayyiban* encompasses quality, safety, cleanliness, and ethical integrity. Therefore, *tayyiban* enhances the *halal* dimension by incorporating broader health, moral, and environmental considerations. Alzeer et al. (2018) further argue that *tayyiban* food must be free of impurities (najis), toxins, and other substances harmful to health and society.

The *Halalan Tayyiban* framework thus reflects a holistic understanding of food ethics, extending beyond physical purity to include spiritual, environmental, and social well-being (Ahmad & Nordin, 2023; Bujang et al., 2020). It promotes balanced consumption, environmental stewardship, and fairness in economic transactions; principles that closely align with the ideals of sustainability and the circular economy (Islam et al., 2024b).

***Halalan Tayyiban* and Sustainable Development**

From a sustainability standpoint, *Halalan Tayyiban* principles converge with global calls for responsible production and consumption. The emphasis on avoiding waste (*israf*), protecting natural resources (*amanah*), and ensuring equitable distribution resonates with SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).

Idris et al. (2022) and Khan et al. (2018) note that *Halalan Tayyiban* practices inherently support environmental protection, fair trade, and animal welfare; values that also underpin the concept of "One Health" and sustainable agri-food systems. Rahim et al. (2021) further highlight that governments play a central role in ensuring that food systems uphold justice (*adl*), transparency, and collective welfare, all of which are integral to the *maqasid al-shariah* (objectives of Islamic law).

The concept, therefore, strengthens the ethical foundation of sustainability by linking material well-being with spiritual accountability. In this sense, *Halalan Tayyiban* food systems promote not only human health but also ecological and social harmony.

Expanding Global Relevance

While *Halalan Tayyiban* originates from Islamic teachings, its application transcends religious boundaries. Global demand for halal food continues to expand beyond Muslim-majority markets. The halal industry's projected value of USD 2.04 trillion by 2027 reflects increasing interest from non-Muslim consumers seeking products associated with quality, safety, and ethical

sourcing (Statista, 2024; Dahlal & Ahmad, 2018).

This broader acceptance underscores the universality of *Halalan Tayyiban* values, which emphasise purity, fairness, and sustainability. The integration of these principles into global supply chains can strengthen consumer trust, enhance the credibility of certifications, and support the achievement of global sustainability targets.

A Conceptual Framework for Halalan Tayyiban and Sustainable Food Systems

This review is underpinned by a conceptual framework that positions Halalan Tayyiban as an integrated ethical foundation for sustainable food systems. While conventional food security frameworks primarily focus on the four dimensions of food security: availability, accessibility, utilisation, and stability (FAO, 2008), they pay comparatively less attention to the ethical, spiritual, and governance values that influence how food is produced, distributed, and consumed. Conversely, Halalan Tayyiban extends beyond legal compliance with halal requirements by incorporating the principles of *tayyiban*, which encompass food safety, quality, environmental stewardship, social justice, ethical production, and responsible consumption (Alzeer et al., 2018; Abdul Mokti et al., 2024).

Drawing on the Sustainable Food Systems approach (FAO, 2018) and Islamic ethical principles, this review conceptualises Halalan Tayyiban as a value-based framework operating across the entire food value chain. Rather than viewing food security solely in terms of food availability and access, the framework proposes that Islamic ethical principles influence food system outcomes through four interconnected dimensions: ethical food governance, sustainable production and responsible consumption, institutional governance, and societal well-being. These dimensions collectively contribute to broader sustainability outcomes, including enhanced food security, environmental sustainability, consumer trust, social equity, and resilience. Accordingly, Halalan Tayyiban is conceptualised not merely as a religious certification standard but as a holistic sustainability paradigm that integrates ethical values with contemporary sustainable food system objectives.

Guided by this conceptual framework, this systematic literature review examines how existing studies have interpreted, operationalised, and applied Halalan Tayyiban in the context of sustainable food systems. The framework also provides the analytical structure through which the findings are synthesised into four overarching themes: (1) ethical foundations of food security, (2) sustainable production and responsible consumption, (3) governance and institutionalisation, and (4) alignment with global sustainability goals.

Research Gaps

Despite the growing body of literature on halal food systems, Halalan Tayyiban remains insufficiently conceptualised within the broader discourse on global food security and sustainable food systems. Existing studies have predominantly focused on halal certification, supply chain management, market development, and consumer behaviour. At the same time, the *tayyiban* dimension, which encompasses ethical production, environmental stewardship, resource sustainability, food safety, and governance, has received comparatively limited scholarly attention (Abdul Mokti et al., 2024; Islam & Wahab, 2022). Consequently, the literature has largely treated halal compliance as a legal or commercial issue rather than as a holistic framework for advancing ethical and sustainable food systems.

Furthermore, although scholars have highlighted the importance of integrating *tayyiban* principles into food production and governance, there remains a lack of clear conceptual frameworks and measurable indicators for operationalising *tayyiban* across the food value chain (Demirci et al., 2016; Alzeer et al., 2018). This conceptual ambiguity hinders the standardisation of

tayyiban practices, limits their incorporation into sustainability assessment frameworks, and constrains their contribution to global food security policies and the Sustainable Development Goals (SDGs).

More importantly, existing studies have largely examined Halalan Tayyiban, sustainability, and food security as separate or loosely connected areas of inquiry. There has been a limited systematic synthesis of how Islamic ethical principles can complement contemporary sustainability science and strengthen food security beyond the conventional dimensions of availability, accessibility, utilisation, and stability. As a result, the potential of Halalan Tayyiban to serve as an integrated ethical framework for promoting resilient, inclusive, and sustainable food systems remains insufficiently understood.

To address these gaps, this study undertakes a systematic literature review to synthesise the current body of knowledge on Halalan Tayyiban, sustainability, and food security. By integrating empirical and conceptual evidence, the study proposes a more comprehensive understanding of how Halalan Tayyiban principles can strengthen sustainable food systems and contribute to the development of an ethical, resilient, and value-based global food security framework.

RESEARCH METHOD

The research questions above guided the systematic literature review. The study employs a systematic literature review (SLR) to collect and critically assess existing research on the intersection of *Halalan Tayyiban* concepts, food security, and sustainability; a topic that remains notably underexplored. The effectiveness and reliability of this method are supported by its successful application in related studies, including Abdul Mokti et al. (2024) on *tayyiban* in halal food production, Hamdan et al. (2024) on meat cultivation from an Islamic perspective, Idris et al. (2022) on *Halal, Tayyiban* and the Sustainable Development Goals (SDGs), and Khan et al. (2018) on definitions within the halal supply chain.

Systematic Literature Review Protocol

This study adopted the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) framework (Page et al., 2021) to ensure a transparent, systematic, and replicable review process. PRISMA was selected because it provides internationally recognised guidance for identifying, screening, assessing, and synthesising literature while minimising selection bias. Following the PRISMA protocol enhances methodological rigour by documenting each stage of the review process and providing clear justification for the inclusion and exclusion of studies.

The review was conducted through five sequential stages: (1) identification, (2) screening, (3) eligibility assessment, (4) quality appraisal and thematic synthesis, and (5) final inclusion (Figure 2). This process ensured that only studies relevant to Halalan Tayyiban, sustainability, and food security were included in the final analysis.

Identification Stage

The identification stage aimed to capture the broadest possible body of literature related to Halalan Tayyiban and sustainable food systems. Three electronic databases were selected: Scopus, ScienceDirect, and Google Scholar. Scopus was chosen for its comprehensive coverage of high-quality, peer-reviewed journals, while ScienceDirect provided access to journals specialising in food science, sustainability, and agricultural research. Google Scholar was included to reduce publication bias by identifying relevant conference proceedings, book chapters, and emerging studies that may not yet be indexed in major bibliographic databases (Hamdan et al., 2024; Idris et

al., 2022; Khan et al., 2018). To maximise retrieval, multiple search strings were developed using Boolean operators and alternative spellings of *Tayyiban*.

- "Halal" AND "Tayyiban" AND "Food" AND "Security"
- "Halal" AND "Tayyib" AND "Food" AND "Security"
- "Halal" AND "Thoyyiban" AND "Food" AND "Security"
- "Halalan Tayyiban Food Security"
- "Halalan Tayyiban" AND "Sustainability" AND "Food Systems"

The searches were conducted between January and March 2025 and yielded 432 records across the three databases.

Screening Stage

Following identification, duplicate records were removed (n=42) before applying predefined inclusion and exclusion criteria: the screening process assessed publication year, publication type, language, topical relevance, and sustainability focus.

Only studies published between 2014 and 2024 were considered to capture the most recent developments in Halalan Tayyiban and sustainable food systems. English-language publications were selected to ensure consistency in interpretation and analysis. Peer-reviewed journal articles were prioritised; however, conference proceedings and book chapters were also included because the literature directly addressing Halalan Tayyiban and food security is relatively limited.

Studies focusing solely on halal certification, marketing, or consumer purchasing behaviour without addressing *tayyiban*, sustainability, ethics, governance, or food security were excluded (n=118). Application of these criteria reduced the dataset from 432 to 272 studies.

Eligibility Stage

The remaining studies underwent full-text assessment to determine their suitability for addressing the research objectives. Eligibility assessment considered both conceptual relevance and substantive contribution. Each publication was evaluated against four questions:

1. Does the study explicitly discuss Halalan Tayyiban or Tayyiban principles?
2. Does the study contribute to understanding food security, food systems, or sustainable agriculture?
3. Does the study address at least one sustainability dimension (environmental, social, ethical, governance, or economic)?
4. Does the study provide sufficient conceptual or empirical evidence relevant to the research questions?

Studies satisfying all criteria were retained for further analysis. Non-open-access articles were also excluded. This stage reduced the number of eligible publications from 272 to 107 studies.

Quality Appraisal

To strengthen the methodological rigour of the review, the eligible studies were subjected to a quality appraisal before inclusion. Rather than relying solely on publication type, each study was evaluated according to four quality criteria adapted from established systematic review guidelines:

- relevance to the research objectives;
- methodological transparency;
- conceptual or empirical contribution; and
- discussion of sustainability or food security implications.

Studies that provided only descriptive discussions of halal certification without meaningful consideration of Halalan Tayyiban, sustainability, or food security were excluded (n=94). Preference was given to studies demonstrating clear theoretical, conceptual, or empirical contributions. Following quality appraisal, 13 core studies met all criteria.

Snowballing and Final Inclusion

Given the emerging nature of the research area, backward snowballing was undertaken by examining the reference lists of the included studies to identify additional relevant publications that had not been retrieved during the database searches. Five additional studies met the inclusion and quality appraisal criteria, yielding a final dataset of 18 studies.

Although relatively modest in number, the final dataset reflects the specialised nature of research on Halalan Tayyiban and food security. Comparable systematic literature reviews in this field have similarly synthesised relatively small bodies of literature (e.g., Khan et al., 2018; Idris et al., 2022; Hamdan et al., 2024). The emphasis of this review was therefore placed on the conceptual richness and relevance of the selected studies rather than on the size of the dataset.

Data Extraction and Thematic Synthesis

A standardised data extraction protocol was employed to ensure consistency across the reviewed studies. For each publication, information was extracted on publication characteristics, study objectives, research methodology, geographical context, sustainability dimensions addressed, and the principal findings relating to Halalan Tayyiban and food security.

The extracted data were analysed using thematic synthesis. Initially, recurring concepts were identified through inductive coding of the included studies. Similar codes were subsequently grouped into broader analytical categories through iterative comparison across the literature. This process resulted in four dominant themes:

1. Ethical foundation of food security;
2. Sustainable production and responsible consumption;
3. Governance and institutionalisation; and
4. Alignment with global sustainability goals.

The themes emerged from repeated patterns identified across multiple studies rather than being predetermined, thereby enhancing the credibility and transparency of the synthesis process. Figure 1 presents the complete PRISMA 2020 flow diagram summarising the identification, screening, eligibility assessment, quality appraisal, and inclusion stages undertaken in this review.

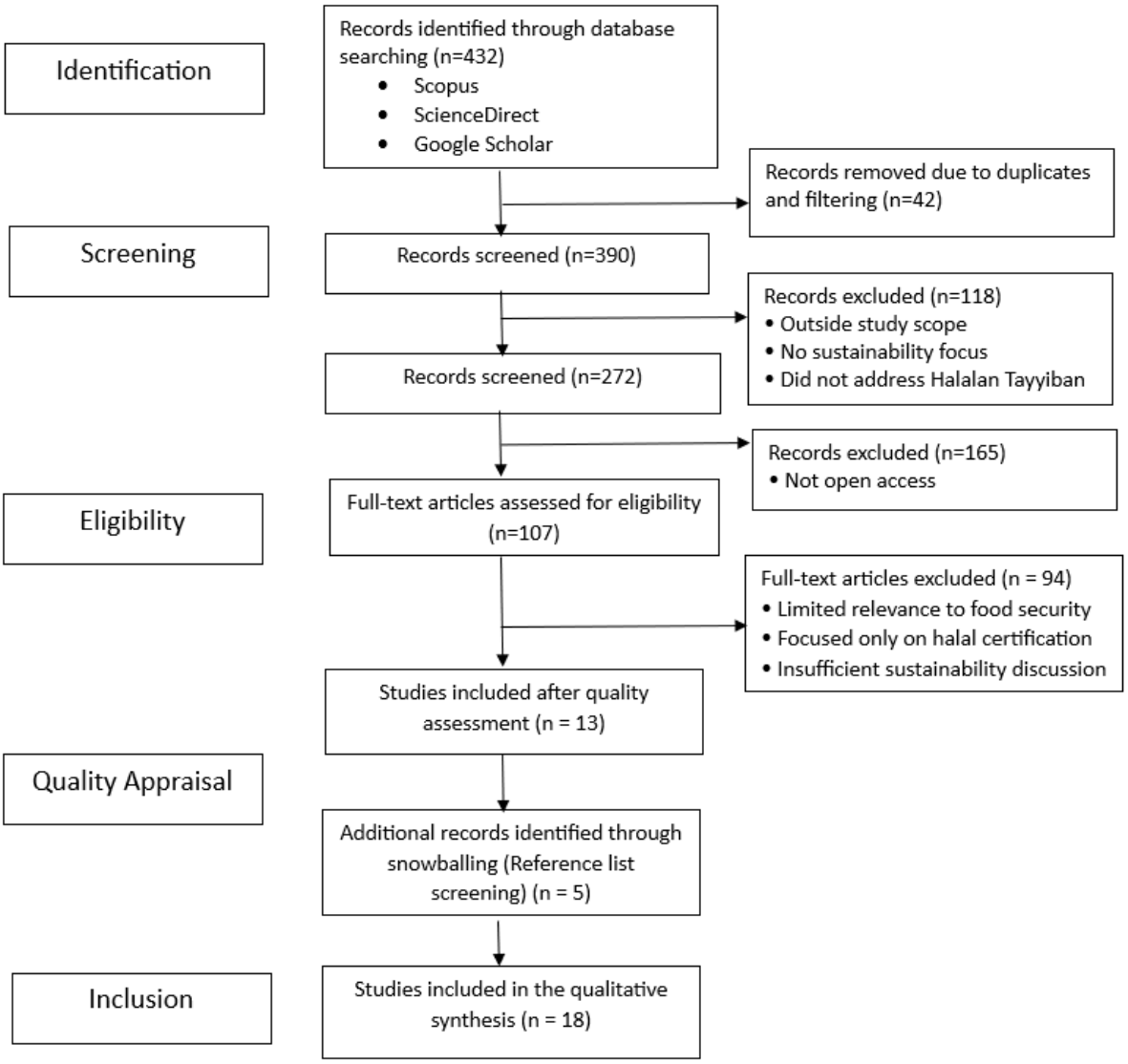


Figure 1. PRISMA 2020 Flow Diagram
Source: Author's own

FINDINGS AND DISCUSSION

The thematic synthesis of the selected studies demonstrates that, although direct investigations of the intersection between Halalan Tayyiban, sustainability, and food security remain limited, the existing body of literature consistently positions Halalan Tayyiban as more than a religious compliance framework. Across the reviewed studies, four interconnected themes emerged: (1) the ethical foundation of food security; (2) sustainable production and responsible consumption; (3) governance and institutionalisation; and (4) alignment with global sustainability goals. Rather than representing discrete concepts, these themes collectively illustrate how Halalan Tayyiban can function as an integrated framework that embeds ethical, environmental, social, and governance considerations throughout the food system. This synthesis extends previous research by demonstrating that Halalan Tayyiban has the potential to strengthen food security not only through food safety and halal assurance but also through sustainability, resilience, and responsible resource management.

Following the PRISMA selection process, the characteristics of the included studies were systematically extracted and are summarised in Table 1. The table provides an overview of each study's design, thematic focus, sustainability dimension, and contribution to the synthesis, thereby enhancing the transparency and reproducibility of the review.

Table 1. Characteristics of Studies Included in the Systematic Literature Review

Author (Year)	Primary Focus	Sustainability Dimension	Key Contribution to This Review
1. Arif & Sidek (2015)	Halalan Tayyiban standards	Ethics, Governance	Established Halalan Tayyiban as a holistic food standard.
2. Demirci et al. (2016)	Halal assurance and food safety	Governance	Highlighted integration of food safety within halal assurance systems.
3. Alzeer et al. (2018)	Halal, Tayyib and food safety	Food Safety, Governance	Identified the need for clearer operationalisation of tayyiban.
4. Mustaffa (2019)	Halalan Tayyiban in the food industry	Ethics	Positioned Halalan Tayyiban as an Islamic ethical framework.
5. Bujang et al. (2020)	Halal food processing technologies	Sustainable Production	Linked food safety, technology, and Halalan Tayyiban principles.
6. Yahaya & Ruzulan (2020)	Hospitality food sector	Governance	Demonstrated application of Halalan Tayyiban in food services.
7. Rahim et al. (2021)	Halal food security	Food Security	Proposed Islamic criteria for halal food security.
8. Uddin (2021)	Food control and poverty reduction	Social Sustainability	Connected Islamic food governance with human development.
9. Ikomatussuniah & Maler (2021)	Religious governance	Governance	Examined institutional roles in implementing Halalan Tayyiban.
10. Idris et al. (2022)	Halalan Tayyiban and SDGs	Sustainability, SDGs	Demonstrated strategic alignment between Halalan Tayyiban and the SDGs.
11. Islam & Wahab (2022)	Food business practices	Ethics	Identified gaps in applying Halalan Tayyiban beyond halal certification.
12. Ahmad & Nordin (2023)	Food safety	Environmental Sustainability	Linked Halalan Tayyiban with environmental approaches to food safety.
13. Abdul Mokti et al. (2024)	Tayyiban indicators	Ethics, Sustainability	Synthesised measurable tayyiban indicators for

Author (Year)	Primary Focus	Sustainability Dimension	Key Contribution to This Review
			sustainable food production.
14. Dahlal et al. (2024)	Food safety and service quality	Food Safety	Integrated halal compliance with ethical food safety practices.
15. Jelan et al. (2024)	Halal meat production	Environmental Sustainability	Demonstrated compatibility between halal production and environmental stewardship.
16. Hamdan et al. (2024)	Cultivated meat	Sustainable Innovation	Discussed the ethical evaluation of emerging food technologies.
17. Islam et al. (2024a)	Upstream halal business	Governance	Developed theoretical perspectives for sustainable halal businesses.
18. Islam et al. (2024b)	Circular economy	Circular Economy	Linked Halalan Tayyiban principles with circular economy and resource efficiency.

Source: Author's own

Ethical Foundation of Food Security

A consistent finding across the reviewed literature is that Halalan Tayyiban expands the conventional understanding of food security beyond the four widely accepted dimensions of availability, accessibility, utilisation, and stability. The studies collectively suggest that Halalan Tayyiban introduces an additional ethical dimension in which food is evaluated not only by its quantity and safety but also by its lawfulness (halal), wholesomeness (tayyib), and moral integrity. This interpretation is firmly grounded in the Qur'anic injunctions to consume food that is both halal and tayyib (Qur'an 2:168; 5:88; 16:114), indicating that food consumption is simultaneously a physical necessity, a moral responsibility, and an act of worship (Mustaffa, 2019).

While Arif and Sidek (2015) and Ahmad and Nordin (2023) emphasise that Halalan Tayyiban enhances consumer trust by integrating legality, food safety, and ethical sourcing, Abdul Mokti et al. (2024) move the discussion further by proposing measurable indicators of *tayyiban*, including nutrition, cleanliness, authenticity, quality, and safety. Similarly, Dahlal et al. (2024) broaden the concept by highlighting ethical sourcing, responsible production, and waste minimisation as essential characteristics of *tayyiban*. Taken together, these studies demonstrate a shift in the literature from viewing Halalan Tayyiban primarily as a religious requirement towards recognising it as a multidimensional ethical framework for food security. The recurring concepts of justice (*adl*), trust (*amanah*), and excellence (*ihsan*) identified by Idris et al. (2022) and Rahim et al. (2021) further reinforce that ethical values are not peripheral but constitute the normative foundation of sustainable food governance.

Although the reviewed studies consistently acknowledge the ethical importance of Halalan Tayyiban, there is less consensus regarding how the *tayyiban* dimension should be defined and measured. For example, Abdul Mokti et al. (2024) propose measurable indicators such as nutrition,

cleanliness, safety, and authenticity, whereas other studies conceptualise *tayyiban* more broadly through Islamic values such as justice (*adl*), trust (*amanah*), and excellence (*ihsan*) (Idris et al., 2022; Rahim et al., 2021). This conceptual variation reflects the multidimensional nature of *tayyiban* but also highlights the absence of a universally accepted framework for assessing ethical food security. Consequently, comparisons across studies remain challenging, and empirical validation of proposed indicators is still limited.

Sustainable Production and Responsible Consumption

The reviewed studies consistently demonstrate substantial conceptual convergence between Halalan Tayyiban principles and contemporary sustainability frameworks. Rather than treating sustainability as an external objective, Halalan Tayyiban embeds environmental responsibility within Islamic ethical values, particularly moderation (*wasatiyyah*), stewardship (*amanah*), and the avoidance of waste (*israf*). These principles closely correspond with internationally recognised sustainability objectives concerning efficient resource use, circular production systems, and responsible consumption.

Several studies illustrate this convergence from different perspectives. Islam et al. (2024b) argue that Halalan Tayyiban complements circular economy principles through waste reduction and resource efficiency. In contrast, Bujang et al. (2020) emphasise the importance of ensuring that food is simultaneously halal, safe, nutritious, and accessible. Jelan et al. (2024) extend these principles to halal meat production by demonstrating that compliance with Shariah requirements can coexist with environmental protection, while Hamdan et al. (2024) show that emerging technologies, such as cultivated meat, must satisfy both halal requirements and broader ethical considerations. Collectively, these studies indicate that Halalan Tayyiban does not oppose technological innovation; rather, it provides an ethical framework for innovation. The synthesis, therefore, suggests that Halalan Tayyiban offers both normative guidance and practical mechanisms for advancing sustainable production and responsible consumption.

While the reviewed studies broadly agree that Halalan Tayyiban is compatible with sustainability principles, the strength of the supporting evidence varies considerably. Much of the literature is conceptual or review-based, with relatively few empirical studies that measure environmental outcomes or evaluate the effectiveness of Halalan Tayyiban practices in improving sustainability performance. Furthermore, the sustainability dimensions examined differ across studies, with some emphasising circular economy and waste reduction (Islam et al., 2024b), while others focus primarily on food safety or technological innovation (Ahmad & Nordin, 2023; Hamdan et al., 2024). These variations suggest that although the theoretical relationship between Halalan Tayyiban and sustainability is well established, stronger empirical evidence is needed to validate its practical impact across different food systems.

Governance and Institutionalisation

Although considerable progress has been made in halal certification globally, the reviewed studies consistently identify governance of the *tayyiban* dimension as one of the most significant gaps in the literature and in practice. Across multiple studies, the absence of universally accepted definitions, measurable indicators, and harmonised certification standards emerges as a recurring challenge limiting the implementation of Halalan Tayyiban within sustainable food systems.

Demirci et al. (2016). Alzeer et al. (2018), Islam and Wahab (2022), and Abdul Mokti et al. (2024) collectively argue that fragmented governance arrangements hinder the operationalisation of *tayyiban*, particularly regarding ethical production, environmental sustainability, and food quality. Rather than representing isolated institutional shortcomings, these studies point to a broader governance challenge in which existing halal certification systems continue to prioritise

legal compliance while paying comparatively less attention to sustainability performance. Additional evidence from Rahim et al. (2021), Ikomatussuniah and Maler (2021), and Yahaya and Ruzulan (2020) suggests that effective implementation requires coordinated governance involving governments, certification agencies, producers, industry stakeholders, and consumers. The experiences of Malaysia and Indonesia demonstrate important institutional progress; however, the literature indicates that certification frameworks remain predominantly compliance-oriented.

The literature also reveals considerable variation in governance approaches across countries. While Malaysia and Indonesia have developed relatively comprehensive halal governance systems, their implementation of the *tayyiban* dimension remains uneven and is largely centred on regulatory compliance rather than broader sustainability outcomes. In contrast, studies conducted in other contexts place greater emphasis on food safety or consumer confidence without explicitly integrating environmental stewardship or ethical governance (Demirci et al., 2016; Islam & Wahab, 2022). These contextual differences suggest that governance models are influenced by institutional capacity, regulatory priorities, and the maturity of national halal ecosystems, limiting the transferability of findings across jurisdictions.

Overall, the synthesis suggests that future governance should evolve beyond certification towards integrated governance models that embed ethical accountability, environmental stewardship, and sustainability performance throughout the food value chain.

Alignment with Global Sustainability Goals

The final theme emerging from the synthesis is the strong conceptual alignment between Halalan Tayyiban principles and the United Nations Sustainable Development Goals (SDGs). Rather than representing an alternative sustainability paradigm, the reviewed literature suggests that Halalan Tayyiban complements and reinforces internationally recognised sustainability objectives by providing an ethical foundation for their implementation.

Despite strong conceptual alignment between Halalan Tayyiban and the SDGs across the reviewed studies, direct empirical evidence of measurable contributions to SDG achievement remains scarce. Most studies infer alignment based on shared ethical principles rather than evaluating concrete outcomes using sustainability indicators. Moreover, while some authors argue that Halalan Tayyiban offers a universally applicable ethical framework, others primarily examine its relevance within Muslim-majority contexts, leaving questions regarding its broader applicability in multicultural and non-Muslim food systems. Future research should therefore move beyond conceptual mapping towards empirical assessments of how Halalan Tayyiban contributes to SDG implementation across different institutional and cultural settings.

The halal dimension contributes to institutional transparency, accountability, and ethical governance, thereby supporting SDG 16 (Demirci et al., 2016). Meanwhile, *tayyiban* directly advances SDG 3 by emphasising food safety, nutrition, and consumer well-being (Ahmad & Nordin, 2023). The prohibition of *israf* provides a clear ethical basis for SDG 12 by encouraging responsible production and consumption (Islam et al., 2024a). At the same time, the principle of *amanah* aligns closely with SDG 13 by promoting environmental stewardship and responsible resource management (Uddin, 2021). More broadly, the Islamic principles of justice (*adl*) and public welfare (*maslahah*) reinforce the objectives of SDGs 1 and 2 by advocating equitable access to safe, nutritious, and ethically produced food (Rahim et al., 2021). Collectively, these findings indicate that Halalan Tayyiban possesses universal relevance that extends beyond Muslim communities and offers an ethical framework capable of supporting global sustainability agendas.

Integrative Synthesis

Overall, the reviewed studies demonstrate broad conceptual agreement that Halalan Tayyiban has the potential to strengthen ethical and sustainable food systems. Nevertheless, the evidence base remains uneven. Most studies adopt conceptual, descriptive, or review-based approaches, with comparatively few empirical investigations examining the implementation or effectiveness of Halalan Tayyiban in improving food security outcomes. Furthermore, differences in the interpretation of *tayyiban*, the sustainability dimensions emphasised, and the governance contexts examined contribute to variations across the literature. While these differences reflect the field's evolving nature, they also indicate that Halalan Tayyiban remains an emerging research domain characterised by conceptual diversity rather than methodological consensus.

Implications For Ethical and Sustainable Food Systems

Practical Implications

From a practical standpoint, integrating *Halalan Tayyiban* principles into food security frameworks provides concrete guidance for producers, consumers, and certification bodies. For producers, adherence to *tayyiban* standards requires not only compliance with *halal* regulations but also the incorporation of hygiene, safety, and sustainability practices throughout the supply chain (Abdul Mokti et al., 2024; Alzeer et al., 2018). This includes reducing chemical inputs, ensuring ethical sourcing, and adopting environmentally conscious farming methods (Islam et al., 2024b; Jelan et al., 2024). For consumers, *Halalan Tayyiban* enhances confidence in food products by guaranteeing both permissibility and wholesomeness, thereby strengthening trust and loyalty in *halal*-certified goods (Arif & Sidek, 2015; Ahmad & Nordin, 2023). Certification bodies, meanwhile, can operationalise *tayyiban* through measurable indicators such as nutritional value, safety standards, and environmental impact, ensuring that *halal* certification evolves into a holistic assurance system. These practical applications demonstrate that *Halalan Tayyiban* is not merely a spiritual ethic but a functional framework for building sustainable, ethical food systems.

Theoretical Implications

Theoretically, *Halalan Tayyiban* enriches the discourse on food security by introducing a fifth pillar: ethical and spiritual integrity into the conventional FAO framework of availability, accessibility, utilisation, and stability (FAO, 2006; Idris et al., 2022). This expansion situates food security within a value-based paradigm that integrates Islamic jurisprudence with the principles of sustainability science. By embedding concepts such as *adl* (justice), *amanah* (trust), and *maslahah* (public welfare), *Halalan Tayyiban* provides a moral compass for food governance that resonates with universal sustainability principles (Rahim et al., 2021). The framework also contributes to comparative scholarship by offering a distinctive Islamic perspective that complements other ethical food systems such as Fair Trade, organic certification, and One Health (Islam & Wahab, 2022). In this sense, *Halalan Tayyiban* functions as both a theoretical model for integrating ethics into food security and a bridge between religious values and global sustainability discourse.

Policy Implications

At the policy level, *Halalan Tayyiban* provides a transformative lens for designing food security strategies that extend beyond technical efficiency to encompass fairness, transparency, and ecological responsibility. Governments can embed *tayyiban* principles into national food policies by mandating traceability, promoting humane farming practices, and ensuring fair treatment of workers (Rahim et al., 2021; Ikomatussuniah & Maler, 2021). International organisations such as the FAO and the Organisation of Islamic Cooperation (OIC) can leverage *Halalan Tayyiban* to harmonise *halal* standards across borders, thereby facilitating trade while

upholding ethical accountability (Demirci et al., 2016; Jelan et al., 2024). Policy frameworks should also incorporate sustainability indicators such as carbon footprint, resource efficiency, and labour ethics into *halal* certification regimes, ensuring that *tayyiban* is treated as an essential component of food governance rather than a peripheral consideration (Abdul Mokti et al., 2024). Furthermore, educational and research institutions can play a pivotal role by integrating *Halalan Tayyiban* into curricula and capacity-building initiatives, cultivating a new generation of policymakers and entrepreneurs equipped to lead ethically grounded innovation in the food sector. Collectively, these policy implications underscore the potential of *Halalan Tayyiban* to serve as a globally recognised paradigm for ethical and sustainable food governance.

CONCLUSION

This study has examined the intersections between *Halalan Tayyiban* principles and global food security, demonstrating that these Islamic values provide a transformative framework for building ethical and sustainable food systems. By extending the conventional FAO pillars of availability, accessibility, utilisation, and stability with a fifth pillar of moral and spiritual integrity, *Halalan Tayyiban* reframes food security as not merely a material pursuit but as a comprehensive expression of justice, stewardship, and accountability. The findings reveal that *Halalan Tayyiban* strengthens consumer trust, promotes sustainable production and consumption, and enhances governance structures, while aligning closely with the United Nations' Sustainable Development Goals (SDGs).

The practical implications highlight the necessity of operationalising *tayyiban* standards through measurable indicators that ensure food is safe, nutritious, and ethically sourced. Producers, certification bodies, and consumers all stand to benefit from a framework that integrates hygiene, sustainability, and fairness into food systems. The theoretical implications underscore *Halalan Tayyiban's* contribution to food security discourse by embedding Islamic jurisprudence into sustainability science, thereby offering a value-based model that complements other ethical frameworks such as Fair Trade and organic certification. Policy implications further emphasise the importance of harmonising halal standards globally, embedding sustainability indicators into certification regimes, and cultivating capacity through education and research.

Looking ahead, future research must focus on developing robust *tayyiban* indicators, conducting empirical studies across diverse contexts, and exploring comparative frameworks to situate *Halalan Tayyiban* within broader sustainability dialogues. Interdisciplinary inquiry and digital innovation will be crucial for enhancing traceability, transparency, and accountability in halal supply chains. Educational institutions also have a vital role in mainstreaming *Halalan Tayyiban* principles, ensuring that future generations of policymakers, entrepreneurs, and consumers are equipped to advance ethically grounded innovation in the food sector.

The review also highlights important limitations within the existing body of knowledge. Much of the available literature is conceptual, with limited empirical evidence evaluating the effectiveness of Halalan Tayyiban in improving sustainable food systems and food security outcomes. Variations in the definition and operationalisation of *tayyiban*, together with differences in governance structures and national halal ecosystems, contribute to inconsistent findings across studies. Addressing these gaps will require the development of standardised indicators, cross-country comparative research, and longitudinal empirical studies capable of validating the proposed relationships.

Ultimately, the incorporation of *Halalan Tayyiban* into global food security discourse reinforces the idea that achieving food security is not solely a matter of production efficiency or market access, but of moral stewardship. By embedding ethical consciousness into the governance of food systems, *Halalan Tayyiban* offers a pathway toward resilience, inclusivity, and ecological

balance. It positions food security as both a spiritual obligation and a universal ethical commitment, thereby contributing to the creation of a global food system that is not only efficient and resilient but also compassionate, just, and sustainable.

LIMITATION & FURTHER RESEARCH

While this study provides a conceptual synthesis of *Halalan Tayyiban* principles in relation to food security, several avenues for future research remain open. These directions are essential for operationalising the framework and ensuring its relevance across diverse cultural and institutional contexts.

First, there is a need to develop measurable indicators for the *tayyiban* dimension. Current halal certification systems primarily emphasise legality and compliance, but they lack clear criteria for assessing wholesomeness, sustainability, and ethical integrity (Abdul Mokti et al., 2024; Alzeer et al., 2018). Future research should focus on designing robust indicators that capture nutritional quality, environmental impact, labour ethics, and consumer trust. Such indicators would enable policymakers and certification bodies to integrate *tayyiban* into food governance in a systematic and verifiable manner.

Second, empirical studies are required to test the practical implementation of *Halalan Tayyiban* principles. While conceptual analyses highlight the ethical and sustainable potential of the framework, there is limited empirical evidence on how these principles function in practice. Case studies across Muslim-majority and non-Muslim-majority countries could examine how Halal and Tayyiban standards are applied in the agriculture, manufacturing, and retail sectors, and how they influence consumer behaviour, supply chain resilience, and market competitiveness (Hamdan et al., 2024; Jelan et al., 2024).

Third, comparative research should explore the intersections between *Halalan Tayyiban* and other ethical food frameworks. Systems such as Fair Trade, organic certification, and One Health share similar commitments to sustainability, justice, and ecological balance. Comparative studies could offer insights into how *Halalan Tayyiban* can be integrated into global sustainability dialogues and cross-framework collaborations (Islam & Wahab, 2022; Idris et al., 2022).

Fourth, interdisciplinary inquiry is needed to bridge Islamic ethics, sustainability science, and food policy. Future research should draw on fields such as environmental economics, governance studies, and consumer psychology to deepen understanding of how *Halalan Tayyiban* principles can be embedded into global food systems. This includes examining the role of digital technologies, such as blockchain and AI, in enhancing traceability, transparency, and accountability in *halal* and *tayyiban* supply chains (Rahim et al., 2021).

Finally, educational and capacity-building initiatives should be studied as vehicles for mainstreaming *Halalan Tayyiban*. Universities, training institutions, and community organisations can play a transformative role in cultivating awareness and expertise. Research into curriculum development, pedagogical approaches, and stakeholder engagement would help ensure that future generations of policymakers, entrepreneurs, and consumers are equipped to advance ethical and sustainable food systems (Ahmad & Nordin, 2023; Mustaffa, 2019).

REFERENCES

Abdul Mokti, H., Kamri, N. A., & Mohd Balwi, M. A. W. F. (2024). Tayyiban in halal food production: A systematic literature review. *Journal of Islamic Marketing, 15*(2), 397–417.

Ahmad, F. N., & Nordin, N. F. H. (2023). Environmental approach for securing the halalan toyyiban concept in food safety: A mini-review. *Halalsphere, 3*(1), 27–30.

Al-Amin, R. A. M. (2023). Food consumption from an Islamic perspective: Evidence from Qur'an and Sunnah. *European Journal for Philosophy of Religion, 15*(3), 257–280.

Alzeer, J., Rieder, U., & Abou Hadeed, K. (2018). Rational and practical aspects of halal and tayyib in the context of food safety. *Trends in Food Science & Technology, 71*, 264–267.

Arif, S., & Sidek, S. (2015). Application of halalan tayyiban in the standard reference for determining Malaysian halal food. *Asian Social Science, 11*(17), 116–xx.

Bujang, A., Rahman, F. A., & Omar, S. R. S. (2020). Nanotechnology in the food processing and packaging: An overview of its halalan tayyiban aspect. *Malaysian Journal of Consumer and Family Economics, 24*, 1–14.

Dahlal, N. M., & Ahmad, F. A. (2018). Beyond halal in food product: Present and future of halalan tayyiban. *Review of Integrative Business and Economics Research, 7*, 276–289.

Dahlal, N. M., Saniff, S. M., & Noh, C. N. C. (2024). Harmonising food safety and friendly service through halal and toyyib principles. *Halalsphere, 4*(1), 80–87.

Demirci, M. N., Soon, J. M., & Wallace, C. A. (2016). Positioning food safety in halal assurance. *Food Control, 70*, 257–270.

Food and Agriculture Organization of the United Nations. (2006). *Food security* (Policy Brief No. 2). https://www.fao.org/fileadmin/templates/faoitaly/documents/pdf/pdf_Food_Security_Cocept_Note.pdf

Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development, United Nations Children's Fund, World Food Programme, & World Health Organization. (2021). *The state of food security and nutrition in the world 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all*. FAO. https://doi.org/10.4060/cb4474en

Hamdan, M. N., Jalil, R. A., Ramli, M. A., Ramli, N., Ibrahim, M. N. A., Ab Rahman, M. F., & Abd Rahman, N. N. H. (2024). A review of the discussions on cultivated meat from the Islamic perspective. *Heliyon, xx*(x), Article xxxxx.

Hamdan, N. F., & Hashim, N. (2022). The practices of halalan thayyiban aspect in Japanese restaurants in Brunei Darussalam. *Journal of Halal Science and Technology, 1*(1), 67–73.

Idris, P. S. R. P. H., Musa, S. F. P. D., & Sumardi, W. H. H. (2022). Halal-tayyiban and Sustainable Development Goals: A SWOT analysis. *International Journal of Asian Business and Information Management, 13*(2), 1–16.

Ikomatussuniah, M. R. B., & Maler, M. W. (2021). Transformation of ulama's role in Nusantara: A case study of halalan thayyiban food law in Indonesia. *International Journal of Academic Research in Business and Social Sciences, 11*(4), xx–xx.

Islam, A., & Wahab, S. A. (2022). The concerns associated with future prospects of the food cart business in Chittagong, Bangladesh: Is the concept of halalan tayyiba a missing link? *Rajagiri Management Journal, 16*(1), 21–35.

Islam, M. M., Ab Talib, M. S., & Muhamad, N. (2024a). Developing theoretical lenses for upstream halal businesses. *Journal of Islamic Marketing, 15*(1), 192–220.

Islam, M. M., Ab Talib, M. S., & Muhamad, N. (2024b). Islamic marketing and circular economy to foster sustainability of product life cycle enhancement. In [Editor] (Eds.), *Strategic Islamic business and management: Solutions for sustainability* (pp. 125–141). Springer.

Jelan, Z. A., Pratiwi, A., & Isnaeni, P. D. (2024). Halal meat production in the modern era: Concepts and applications. In [Editor] (Eds.), *Technological innovations in tropical livestock development for environmental sustainability and food security* (pp. 1–6). [Penerbit].

Khan, M. I., Haleem, A., & Khan, S. (2018). Defining halal supply chain management. *Supply Chain Forum: An International Journal, 19*(2), 122–131.

Mustaffa, K. A. (2019). Developing halalan tayyiban concept in Malaysia's food industry. *Halal Journal, 3*(3), 97–108.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L.,

Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., . . . Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, Article n71. https://doi.org/10.1136/bmj.n71

Rahim, S. I. A., Mansor, S. K. M., Ruzulan, Z., & Ismail, N. (2021). Developing basic criteria in halal food security: An overview from Islamic perspectives. In [Editor] (Eds.), *Enhancing halal sustainability: Selected papers from the 4th International Halal Conference 2019* (pp. 109–116). Springer.

Ruzulan, Z., Jamaludin, M. A., & Ishak, A. H. (2021). Meat and meat-based products: Challenges and opportunities in halal food security. *IOP Conference Series: Earth and Environmental Science, 756*(1), Article 012017. https://doi.org/10.1088/1755-1315/756/1/012017

Statista. (2024). *Forecast market revenue of halal food worldwide from 2018 to 2027 (in billion U.S. dollars)* [Data set]. Retrieved August 23, 2024, from https://www.statista.com/statistics/785499/halal-food-market-revenue-global/

Uddin, M. N. (2021). Food controls to build workable human resources in Muslim countries for poverty reduction: An Islamic view. *IIUC Studies, 18*(1), 33–46.

United Nations Development Programme. (2024). *The SDGs in action*. Retrieved August 23, 2024, from https://www.undp.org/sustainable-development-goals

World Bank. (2024). *What is food security?* Retrieved August 7, 2024, from https://www.worldbank.org/en/topic/agriculture/brief/food-security-update/what-is-food-security

Yahaya, A. M., & Ruzulan, Z. (2020). Quranic concept of halalan tayyiban and its application in food and beverages of hospitality sector in Malaysia. *Journal of Contemporary Islamic Studies, 6*(1), 61–75