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# DYNAMICS OF FOOD ADDITIVE USE IN THE HALAL FOOD INDUSTRY AND APPROACHES FROM AN ISLAMIC PERSPECTIVE

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***Abstract:*** *This article examines the dynamics of food additive use (BTP) in producing of halal food products and proposes ways to address them from an Islamic perspective. This study uses a narrative review method, which summarizes and analyzes the literature descriptively. This study found that producers frequently commit violations, namely producing food unfit for public consumption by using hazardous food additives as production materials. Therefore, this article offers two main approaches in addition to the regulatory and supervisory approaches carried out by the government: the Halal Supply Chain Management (HSCM) approach in order to maintain the security of the supply chain from upstream to downstream, and a religious approach, where spirituality is the most important element in guiding the determination of business goals. Meanwhile, individual belief in God as the sole supervisor who knows all human activities is an effective means of reducing violations.*
***Keywords:*** *Food Additives; Halal; Food Industry; Islam.*

***Abstrak:*** *Artikel ini bertujuan untuk mengkaji dinamika pengguanaan bahan tambahan pangan (BTP) dalam mewujudkan produk-produk makanan halal dan cara mengatasinya dalam perspektif Islam. Kajian ini menggunakan metode narrative review, yang merangkum dan menganalisis literatur secara deskriptif. Dalam kajian ini mendapati pelanggaran yang sering dilakukan produsen, yaitu memproduksi makanan yang tidak layak dikonsumsi oleh masyarakat melalui penggunaan zat tambahan makanan yang berbahaya digunakan sebagai bahan produksi. Sehingga dalam artikel ini menawarkan dua pendekatan utama selain pendekatan regulasi dan pengawasan yang dilakukan oleh pemerintah, yaitu: pendekatan Halal Supply Chain Management (HSCM) dalam rangka menjaga keamanan rantai pasok dari hulu hingga hilir dan pendekatan keagamaan, dimana spiritualiatas menjadi unsur yang paling penting dalam memberikan panduan untuk menentukan tujuan dalam berbisnis. Sementara itu, keyakinan individu terhadap Tuhan sebagai pengawas tunggal yang mengetahui segala aktifitas manusia adalah sistem pengawasan yang efektif dalam mengurangi pelanggaran.*

***Kata Kunci:*** *Bahan Tambahan Pangan; Halal; Industri Makanan; Islam*.

## INTRODUCTION

Food constitutes a fundamental human necessity because it serves as the primary source of nutrients required for maintaining bodily functions and supporting daily activities. As a basic need, food should provide adequate nutritional value that corresponds to physiological requirements. For this reason, ensuring the availability of safe and wholesome food is essential to prevent potential health problems that may emerge as long-term consequences of unsafe consumption.

However, recent developments show an alarming increase in the circulation of food products containing hazardous substances and meat that is unfit for consumption. This problem has become increasingly complex and difficult to resolve. Various measures have been implemented, including producer education, consumer awareness programs, unannounced inspections, and legal sanctions enforced by relevant authorities. Yet, these violations persist and even extend beyond food products to pharmaceuticals, as reflected in the cases of counterfeit vaccines that caused widespread public concern.

Within this context, the Islamic concept of *halalan thayyiban* does not merely emphasize permissibility, but also wholesomeness, safety, and moral responsibility. It integrates spiritual, ethical, and humanitarian considerations into the assurance of food quality and safety. Islam positions halal principles as universal guidance for all humanity so that food consumption remains safe and beneficial. Thus, *halal* and *thayyib* refer to food that is safe, nutritious, non-toxic, and not harmful to human health.

The enormous variety of food products—from street vendors and home-based producers to industrial manufacturers—creates serious challenges for monitoring and enforcement. Traditional regulatory approaches often prove insufficient to control violations, particularly regarding the misuse of food additives (BTP). Although numerous studies discuss food safety, relatively few examine the dynamics of BTP use and its supervision from an Islamic perspective. Accordingly, this article explores more effective ways to address producers' violations involving hazardous additives and the distribution of food that is not suitable—or not halal—for public consumption. The central question guiding this study is: What effective approaches can be developed to address violations related to the improper use of food additives by food producers from an Islamic perspective?

## LITERATURE REVIEW

### Halalan Thayibah

Terminologically, the word *halal* derives from Arabic and means "permissible," "released," or "not restricted." Conceptually, *halal* refers to something allowed because it is free from prohibitions stipulated by Islamic law (Fatmawati, 2019). Meanwhile, *thayyib* refers to food that is beneficial for humans—healthy, clean, not impure, not intoxicating, and not harmful to health (Tieman, 2011). It also implies purity, nutritional adequacy, and product safety (Dewi & Agustina, 2021), and is often associated with high-quality goods and products (Yahya et al., 2016).

*Halalan thayyiban* represents an Islamic expression encompassing processes, locations, contamination control, and broader aspects of food safety. The concept of *thayyib* is closely intertwined with *halal*, especially when referring to food and its related elements. The purpose of *thayyib* is to achieve maximum hygiene and minimum contamination, while the overarching goal of *halal–thayyib* food is to ensure peace of mind and psychological comfort during consumption. This sense of comfort cannot be achieved merely through safe and nutritious food; it also requires alignment with one's beliefs. Food choices reflect belief systems, influence mood, and contribute to overall well-being (Alzeer et al., 2018).

Food, however, can act as a vehicle for disease transmission. Islam places strong emphasis on food safety and contamination prevention. Applying the concept of *thayyib*—as a public health priority—is essential for protecting human health and improving quality of life. Any food contaminated with pathogenic microbes or toxic substances that pose risks to human health is considered *not thayyib*, and therefore not halal for consumption (Kurniadi & Frediansyah, 2017).

### Halal Supply Chain Management

Halal Supply Chain Management (HSCM) is a process-oriented approach that manages the flow of materials, information, and capital through strategic coordination and collaboration among stakeholders, with the objective of creating value and improving supply chain performance so that *halal* and *thayyib* integrity is preserved from farm to table (Khan et al., 2018).

This definition highlights that every activity in the halal supply chain—procurement, handling, processing, storage, transportation, and retail—must be properly documented and implemented in accordance with credible halal standards. These processes must be designed to eliminate cross-contamination between halal and non-halal products, whether physical, chemical, or biological.

Supply chains also manage multiple flows: products, capital, and information. In halal contexts, each flow must comply with Shariah requirements to ensure halal integrity for consumers (Ali et al., 2017). Halal supply chain management therefore requires strategic coordination and

collaboration among stakeholders, facilitated by resource sharing—information, technology, knowledge, and skills—throughout the supply chain network (Kohli & Jensen, 2010).

**The Halal Food Industry**

In the development of the halal food industry, food safety represents a crucial factor in everyday consumption. Thus, food must not only be available, affordable, and palatable, but also safe, healthy, and halal. Before distribution, food must meet quality, appearance, and taste standards while first ensuring that it is completely safe to consume—free from harmful substances such as heavy metals, pesticides, pathogenic microbes, and contaminants that may undermine public trust and religious confidence (Kristiyanti, 2022).

Food products considered safe, healthy, and halal are those free from two key risks: prohibited ingredients and hazardous food additives.

**a. Use of Prohibited Ingredients**

Certain issues require careful attention in food consumption, particularly when production processes do not meet halal criteria. Meat and meat-based products are especially vulnerable to fraud, substitution, and mislabeling (Chuah et al., 2016). For reasons largely tied to cost reduction, counterfeit meat products pose serious challenges for Muslim consumers—especially concerning pork content. Mixing or substituting beef with pork makes authenticity difficult to detect. Meat-derived products such as sausages and meatballs are also prone to contamination or adulteration with unlawful ingredients, complicating authenticity verification.

These challenges become more pronounced in non-Muslim countries, where halal certification is limited. Although labeling helps inform consumers and supports food safety, authenticity and traceability remain difficult to guarantee.

Beyond pork, halal food must also be free from alcohol. Ethanol is often used in food production or occurs as a by-product during processing. Animals must also be slaughtered according to proper Islamic rites. Furthermore, porcine gelatin is widely used in confectionery and pharmaceuticals. Gelatin provides structural stability and protects products from exposure to light and oxygen, yet its porcine origin renders such products non-halal (Hom et al., 1975).

**b. Use of Hazardous Food Additives**

Food additives (Bahan Tambahan Pangan — BTP) are chemical substances intentionally added to food—though not naturally part of raw materials—to enhance flavor, color, texture, or appearance (Ratnani, 2009). Additives are not primary ingredients but are introduced for technological purposes during processing, packaging, storage, or transportation.

Indonesian regulations define food additives as substances—nutritive or otherwise—not typically consumed as food, intentionally added for technological functions to produce specific

characteristics. These include colorants, flavor enhancers, stabilizers, antioxidants, preservatives, emulsifiers, anti-caking agents, bleaching agents, and thickeners.

Excessive or inappropriate use of BTP poses serious health risks. While intentional contamination is rare, misuse frequently occurs for economic gain, particularly to extend shelf life or enhance appearance. Consequently, consumers must increase awareness and knowledge regarding unsafe additive practices.

**Regulation of Food Additives in Indonesia**

The Indonesian government has enacted strict regulations governing the permissible and prohibited use of food additives, including the Food Law No. 18/2012, Ministry of Health Regulation No. 033/2012 on Food Additives, BPOM Regulation No. 11/2019 on Food Additives, and BPOM Regulation No. 11/2021 on Flavoring Additives. These regulations define allowable substances, specifications, and usage limits.

Prohibited additives include potassium chlorate, diethylpyrocarbonate, salicylic acid and its salts, borax, chloramphenicol, dulcin, and brominated vegetable oil. Conversely, approved additives include anti-caking agents, artificial sweeteners, antioxidants, bleaching agents, acidity regulators, stabilizers, and emulsifiers, provided they comply with established limits.

**Spirituality and Ethical Compliance**

Spirituality refers to an individual's subjective relationship with the transcendent, through which meaning, purpose, and connection with oneself, others, society, and the sacred are sought (Austin et al., 2017). It represents the intuitive and experiential dimension of human nature, expressing inner and personal relationships beyond purely communal structures (Zimmer et al., 2016). Spirituality is closely linked with religious belief (Issa & Pick, 2011) and plays a central role in the lives of many believers (Hall, 2012).

Spirituality encompasses beliefs shaping a person's relationship with God, including moral and ethical behavior rooted in these convictions. For religious individuals, spiritual belief forms part of their worldview and informs ethical obedience and decision-making (Bahmani et al., 2018). In the context of food production, such spirituality can foster accountability and ethical restraint, functioning as an internal supervisory mechanism that complements external regulations.

## RESEARCH METHOD

This study focuses on examining the use of food additives (BTP) in food products within the halal food industry, particularly in relation to efforts to ensure food safety so that products comply with the principles of *halalan thayyiban*. The method employed in this study is a narrative review, which summarizes and analyzes existing literature descriptively. The aim of this method

is to provide a comprehensive overview of a particular issue, identify research gaps, and develop new insights.

The literature was collected from multiple sources, including national and regional reports issued by the Indonesian Food and Drug Authority (BPOM) concerning violations related to the use of food additives. These documents provide an overview of existing practices and allow exploration of real conditions in the field. In addition, previous research findings in the form of journal articles and relevant books were also reviewed to identify appropriate approaches to addressing these problems, particularly from an Islamic perspective.

The review process consisted of several stages: identifying and collecting relevant literature, critically reviewing selected sources, identifying emerging themes and patterns, synthesizing the findings, and finally formulating conclusions. Through this approach, the study seeks to offer a conceptual understanding and alternative solutions regarding the misuse of food additives in halal food production.

## RESULTS AND DISCUSSION

### Review of Violations Related to the Use of Food Additives in Indonesia

The use of food additives (BTP) in the food industry should be carried out responsibly and in accordance with regulations issued by the government. Food additives are intended to improve product quality, shelf life, appearance, and taste. However, not all additives are safe for consumption. Certain prohibited additives contain hazardous chemicals such as borax, formalin, rhodamine B, and methanil yellow. These substances are frequently misused by irresponsible producers because they are perceived to extend shelf life or enhance product appearance. In reality, long-term consumption may cause serious health problems, including organ damage, liver and kidney disorders, and an increased risk of cancer. Despite these risks, the misuse of food additives has become increasingly common as producers seek higher profits by using cheap substances to maintain product attractiveness.

Findings from various inspections across Indonesia (using representative case reports) indicate a large number of food products circulating in the market that fail to meet health standards and are unfit for consumption. Laboratory tests conducted by the Indonesian Food and Drug Authority (BPOM) in 2005 revealed that out of 700 food samples collected from Java, South Sulawesi, and Lampung, 56% contained formalin (BPOM, 2005). Similarly, a national survey involving 4,500 elementary schools in 2008 conducted by the SEAFAST Center IPB found that 12.9% of snacks tested positive for formalin, 9.7% contained borax, and 2.2% contained rhodamine B (Andarwulan & Madanijah, 2009).

Further examinations of school snacks by BPOM Bandar Lampung in 2011 analyzed 197 samples, consisting of meatballs, tofu, noodles, local foods, candy, and puffed rice products. The results indicated the presence of borax in 11 meatball samples, formalin in two tofu samples, borax in 11 noodle samples and formalin in 21, borax and rhodamine B in several local foods, methanil yellow in 11 candy samples, and methanil yellow in three puffed rice samples (Lampung, 2011).

Testing of School Snack Foods (PJAS) by mobile laboratories in Jakarta in 2012 showed that 17% of samples contained hazardous substances such as borax, formalin, and rhodamine B. This condition illustrates that the control of hazardous materials in food distribution has not yet been effective. To facilitate circulation, these chemicals are often repackaged into small units resembling legitimate food ingredients, making detection more difficult (Kementerian Perdagangan, 2013).

The BPOM report of 2014 showed that laboratory testing of 5,496 samples of food supplements demonstrated that 98.05% met safety and quality standards, an increase compared to 2010. However, during 2011–2014, the proportion of compliant products showed a fluctuating downward tendency, indicating persistent challenges in monitoring compliance (BPOM, 2014).

These findings collectively demonstrate that regulatory mechanisms alone have not been sufficient to prevent violations related to hazardous food additives. Producers may still attempt to circumvent regulations for economic gain, highlighting the need for complementary approaches that integrate supply chain control and ethical-spiritual awareness, as discussed in the following sections.

**Tabel 1. Supervision Results for Low- and Medium-Risk Foods, 2020**

| Monitoring Type | Category | Compliant (MK/MS) | Non-Compliant (TMK/TMS) | Sub-Total | Total |
|---|---|---|---|---|---|
| Food Labeling | MD/ML | 7.016 (87.77%) | 978 (12,23%) | 7.994 (100%) | 9.116 |
| | PIRT | 376 (33.51) | 746 (66.49%) | 1.122 (100%) | |
| Food Products | Random Sampling | 9.816 (93.39%) | 2.503 (6.61%) | 12.319 (100%) | 17.763 |
| | Targeted Sampling | 3.852 (75.74%) | 1.592 (24.26%) | 5.444 (100%) | |

(BPOM Annual Report, 2020)

Another significant finding—although beyond the direct focus of this study but still related to products consumed by the human body—was the discovery of counterfeit vaccines in June 2016 by the Indonesian National Police Criminal Investigation Department. Incidents such as counterfeit vaccines and the continued misuse of hazardous food additives indicate that these

problems resemble an iceberg phenomenon: only part of the issue is visible, while deeper structural weaknesses remain unresolved despite various regulatory efforts.

The BPOM Report of 2020 further shows that inspections and investigations of low- and medium-risk food products still detected relatively high levels of violation. This finding reinforces the argument that regulatory supervision alone has not been sufficient to prevent improper practices among food producers.

Meanwhile, examinations conducted by BPOM Bandar Lampung in 2020 on 197 snack samples revealed the following results: out of 44 meatball products, 11 tested positive for borax; out of six tofu samples, two contained formalin; among 22 noodle products, 11 contained borax and 21 contained formalin—indicating that several products contained both substances simultaneously. Furthermore, out of 35 candy samples, 11 contained methanil yellow; among 62 samples of local foods, two contained borax and 20 contained rhodamine B; and out of 28 puffed rice samples, three contained methanil yellow.

These findings illustrate that violations continue to occur not only in large-scale industries but also in small-scale snack production commonly consumed by school-aged children and the wider community. This situation underlines the pressing need for preventive mechanisms that combine regulatory, supply-chain, and ethical-religious approaches, as elaborated in the subsequent discussion.

**Tabel 2. Laboratory Testing of Snack Foods by BPOM Bandar Lampung, 2020**

| Food Item (Number of Samples) | Number of Positive Samples | Description |
|---|---|---|
| Meatballs (44) | 11 | Contained borax |
| Tofu (6) | 2 | Contained formalin |
| Noodles (22) | 11 ; 21 | Contained borax; contained formalin |
| Local food products (62) | 2 ; 20 | Contained borax; contained rhodamine B |
| Confectionery (35) | 11 | Contained methanil yellow |
| Puffed rice snacks (28) | 3 | Contained methanil yellow |

(BPOM Bandar Lampung Annual Report, 2020)

In 2023, a total of 2,442 cases of food poisoning were reported through the BPOM SPIMKer KLBKP reporting system. Verification results showed that 1,164 cases (48%) were attributed to foodborne poisoning, as well as cases related to abuse and misuse.

Meanwhile, in 2024, BPOM conducted inspections of Ramadan “takjil” food products. From 9,262 samples examined, 102 samples were found to contain prohibited substances, including rhodamine B (0.30%), formalin (0.53%), methanil yellow (0.01%), and borax (0.28%).

**Islamic Approaches in Developing a Halal Food Industry**

There are two primary approaches to addressing violations in the halal and *tayyib* food industry. The first is the management of the supply chain from raw materials through the production process, commonly referred to as Supply Chain Management (SCM). The second is a religious approach that emphasizes strengthening faith and adherence to religious teachings. Without belief in God as the ultimate overseer of all human actions, individuals are more likely to justify unethical behavior in pursuit of material gain.

**Supply Chain Management in Halal Food Production**

The halal industry has expanded across various sectors, including food and beverages, finance, travel, fashion, cosmetics and pharmaceuticals, media and entertainment, healthcare, and education. Maximizing the potential of the halal industry requires strong synergy among all stakeholders in order to achieve comprehensive halal standards (Waharini & Purwantini, 2018).

The concept of halal supply chain management does not only monitor the processing of goods and services, but also considers the ethical boundaries of natural resource utilization. This includes the sustainability of ecosystems, guided by Islamic values that discourage overproduction and excessive consumption (Pujayanti, 2020). Economic activities must therefore promote welfare and sustainability while remaining environmentally responsible, as an expression of humanity's stewardship (*amanah*) over creation.

The ethical foundation of halal and *tayyib* food production is firmly rooted in Islamic teachings. This is reflected, for example, in the Qur'anic command regarding honesty and justice in economic transactions. As stated in Surah Al-A'raf (7:85):

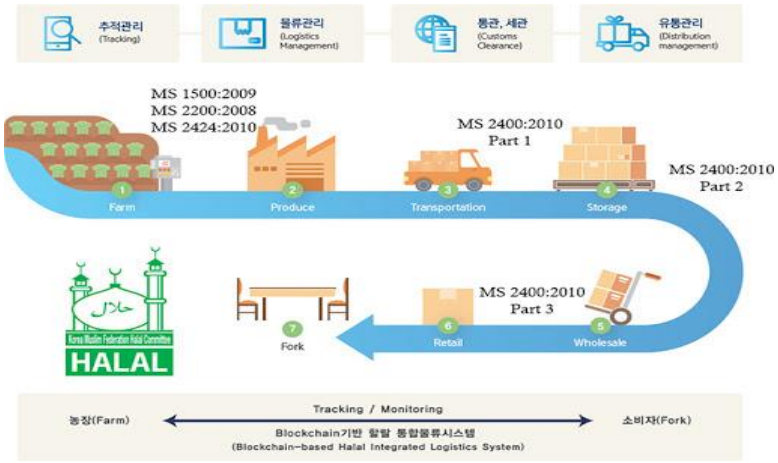
وَاِلٰى مَدْيَنَ اَخَاهُمْ شُعَيْبًاۗ قَالَ يٰقَوْمِ اعْبُدُوا اللّٰهَ مَا لَكُمْ مِّنْ اِلٰهٍ غَيْرُهٗۗ قَدْ جَاۤءَتْكُمْ بَيِّنَةٌ مِّنْ رَّبِّكُمْ فَاَوْفُوا الْكَيْلَ وَالْمِيْزَانَ وَلَا تَبْخَسُوا النَّاسَ اَشْيَاۤءَهُمْ وَلَا تُفْسِدُوْا فِى الْاَرْضِ بَعْدَ اِصْلَاحِهَاۗ ذٰلِكُمْ خَيْرٌ لَّكُمْ اِنْ كُنْتُمْ مُّؤْمِنِيْنَۚ

> *"And to the people of Madyan We sent Shu'ayb, one of their own. He said, 'O my people, worship Allah; you have no deity other than Him. Clear evidence has come to you from your Lord. So give full measure and weight, and do not deprive people of what is rightfully theirs. Do not spread corruption on the earth after it has been set in order. That is better for you, if you are truly believers."* (Q.S. Al-A'raf : 85)

In the era of globalization and rapid innovation, food supply chains face significant risks and challenges (Kamalahmadi & Parast, 2016). Moreover, the complex and diverse nature of food supply chains makes them more vulnerable to disruption and risk (Tan et al., 2017). Globally, various regulations and standards have been developed to govern halal food processing and halal supply chain practices; however, research on compliance risks remains limited. Halal consumers

expect assurance that the food they consume has been handled in accordance with halal principles from farm to finished product. Nevertheless, several incidents—such as the detection of porcine DNA in coffee, halal-certified butter, and halal-certified chocolate (M. H. Ali & Suleiman, 2018)—have heightened consumer concern regarding the integrity of halal food products. Therefore, the halal industry needs to develop models and practices capable of strengthening consumer trust. In addition, systems for risk identification and mitigation are essential to ensure the integrity of halal products and to build confidence among consumers.

Accordingly, to realize a reliable halal supply chain, one approach is to implement supply chain management (SCM) strategies as a core component of competitive strategy for improving productivity and profitability in halal markets. The production and distribution of halal goods and services can be conceptualized using SCM principles. The concept of the halal supply chain has been discussed and applied by both academics and practitioners (Omar & Jaafar, 2011). The food supply chain—often described as "from farm to fork"—covers production, processing and packaging, storage, and retail stages. By implementing SCM strategies, shared confidence in the halal supply chain as a competitive entity can be strengthened, aligning all collaborative components within the chain to enhance overall efficiency and preserve halal integrity.




**Picture: 1. Halal Supply Chain Management Model** (Food Safety System Certificate 22000)

Halal supply chain management is defined as "the control and regulation of material, information, and capital flows through strategic coordination and collaboration among stakeholders, in order to create value and improve supply chain performance in a manner consistent with halal and tayyib principles" (Khan et al., 2018). The food industry must implement comprehensive quality frameworks to reduce integrity risks across the supply chain so that consumers can place trust in products that comply with health and halal standards. These approaches synchronize and integrate halal food processing with halal quality assurance systems.

A key component of the halal supply chain is halal certification (Noordin et al., 2014), which constitutes the formal process of certifying products or services in accordance with Islamic law. Certification plays a vital role in ensuring smooth halal supply chain operations. Similar to other supply chains, an efficient halal supply chain requires a strong information system backbone. A halal information system is a specialized case system governed by religious principles, specifically Islamic Sharia law.

**Religious Approach**

Religion serves as a source of guidance regarding what is good and bad, right and wrong, particularly in matters of moral conduct and economic behavior (M. D. Ali, 2007). The reality observed in society today reveals deviations from religious teachings and the erosion of ethical values in business, where business activities are often reduced merely to the pursuit of profit. As Küng (2002) explains, it is necessary to distinguish between what ethics can communicate as truly human values on one hand, and what can ultimately only be conveyed by religion—namely deep-rooted yet rational faith in God—on the other.

Religion can function as a powerful driving force that shapes individual and collective behavior. A religious person develops certain mental attitudes shaped by both the teachings they adopt and the depth of their understanding. Misinterpretations of religious teachings, however, can sometimes lead to unproductive behavior (Burhanuddin, 2014).

The Indonesian Islamic Encyclopedia explains that religion is viewed as a way of life inherited across generations, aimed at creating peace, order, and harmony in society. The elements of religion include: recognition of a supernatural power influencing human life; belief that human well-being depends on maintaining a good relationship with that power; emotional attitudes of reverence, fear, hope, and surrender; and observable practices such as prayer, fasting, charity, honesty, and avoidance of corruption (Syarif, 1992). Religion therefore shapes practical attitudes toward daily activities (Odea, 1995). This is evident in economic systems rooted in belief in God, where individuals feel constantly observed by a divine presence (Al-Qaradhawi, 2022).

Within this framework, two fundamental elements must be shaped among business actors in the food industry: faith and production objectives.

**Aspect of Faith**

A Muslim's conviction that God continuously supervises human actions in this world and will hold them accountable in the hereafter constitutes the most essential moral asset. The awareness of God's presence functions as a form of supervision far stronger than any human monitoring (Al-Qaradhawi, 2022). According to Ahmad et al. (2001), business behavior should

not be driven merely by fear of government sanctions or the desire to accumulate wealth. Instead, it should be grounded in God-consciousness (taqwa), seeking divine pleasure. Ethical business thus extends beyond mere legality. A God-conscious individual avoids not only what is explicitly prohibited but also doubtful matters (shubhat), maintaining inner peace by acting with integrity.

For Muslim entrepreneurs, taqwa means remembering God in all business activities and avoiding deceit, fraud, and manipulation. Such individuals believe that divine assistance accompanies ethical conduct consistent with Islamic teachings (Hasan, 2009). Spirituality therefore becomes an essential compass guiding business objectives and restraining harmful practices. The presence of God as the ultimate supervisor prevents deception and exploitation.

Understanding of religion thus becomes a decisive factor in shaping ethical production behavior. Individuals with strong religious understanding strive to consistently apply Islamic teachings not only in worship but also in economic relations (muamalah). A truly consistent Muslim will trade and produce according to Sharia principles (Mohammad & Mustofa, 2014).

**Purpose of Production**

The objective of production in Islam is to generate optimal benefit (maslahah) for consumers and society as a whole. Achieving optimal maslahah leads to falah, the ultimate goal of economic activity and human life (P3EI UII, 2008). Blessing (barakah) is a fundamental component of maslahah; thus, barakah must be embedded in every input and output of production. Producers who apply Islamic principles will not create products that violate Sharia or harm society (Al-Arif & Hamidawati, 2011).

Production, therefore, is not merely the creation of goods but the enhancement of their usefulness for human well-being. Humans act not as destroyers of nature, but as stewards who transform resources responsibly (Mannan & Nastangin, 1997). Al-Qaradhawi (2022) emphasizes that ethical production requires adherence to what God has permitted without transgressing boundaries. Although the halal domain is broad, human greed often pushes individuals toward forbidden practices.

Islamic economics instructs producers to obtain lawful inputs and channel outputs toward goodness, ensuring no harm to others. Inputs and outputs must therefore comply with Islamic law and avoid contributing to destruction (Karim, 2021).

## CONCLUSION

This study concludes that the use of food additives (BTP) in the food industry is not only a matter of food safety and technical production processes, but is also closely related to the ethical dimension and the moral integrity of producers. The evidence reviewed in this article indicates

that violations related to the misuse of food additives tend to be systemic rather than incidental. Consequently, regulatory enforcement alone is insufficient, as many violations escape formal monitoring mechanisms.

Therefore, complementary approaches are required. Halal Supply Chain Management (HSCM) provides a framework for risk identification and mitigation that helps ensure the integrity of halal food products throughout the entire supply chain. In addition, a spirituality-based approach serves as an ethical foundation that shapes moral awareness and strengthens producers' commitment to compliance. Personal faith functions as a key driver of ethical behavior, as belief in God as the ultimate overseer influences the practical attitudes of individuals toward their daily activities, including business practices.

This study is limited by its qualitative and interpretive orientation, which restricts generalizability. Future research should adopt quantitative designs to empirically examine the relationship between producers' level of spirituality and their compliance with ethical and halal standards.

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