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Bridging Faith and Reason: Examining Sertu Concerns through Islamic and Scientific Lenses

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ABSTRACT

The examination of "sertu," a significant purification practice within Islam, from both Islamic and scientific angles, underscores its importance, especially in scenarios where water availability is limited. It entails purifying objects tainted by dog and pig waste. This investigation delves into sertu from Islamic and scientific perspectives, scrutinizing issues and distinguishing between sertu and samak. To fulfill the specified objectives, this research scrutinized scientific and Islamic literature sourced from academic journals, Dewan Bahasa Pustaka, and pertinent Malaysian guidelines for data collection. Furthermore, it analyzed the viewpoints of scholars representing major schools of thought such as Malikites, Shafiites, Hanbalites, and Hanafites. The researchers noted a dearth of scientific perspectives compared to Islamic ones. Additionally, a differentiation between sertu and samak arises, where samak pertains to the cleansing of animal skin using sharp instruments for specific purposes. The study concludes by advocating for further exploration to expand the discourse surrounding sertu from scientific standpoints.

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INTRODUCTION

"Sertu," is one of the purifications methods that holds significant religious and practical importance for Muslims, particularly in situations where access to water is restricted or prohibited. In the debate of jurisprudence. Sertu involves purifying any part of the body affected by mughallazah faeces (from dogs and pigs) by cleaning it with water mixed with soil once, followed by rinsing it six times with clean water (Mohd Salleh et al., 2020). The concept of sertu, meaning "pure" or "clean" in Malay, plays a crucial role in both Islamic and scientific contexts.

Scholars and practitioners have long engaged in discussions and debates about the concept of sertu, which is central to Islamic teachings on ritual purity and cleanliness. The Quran and Sunnah provide a rich foundation for understanding sertu, with numerous verses and hadith highlighting the significance of cleanliness and purity in all aspects of life. Prophet Muhammad's own emphasis on personal hygiene and avoidance of impurities serves as a model for his followers

(Al-Qaradawi, 2013).

This matter is garnering increasing attention not only within the Muslim community but also among non-Muslims. This is due to instances where factories, premises, and other establishments owned by non-Muslims have been discovered to process products or offer food items to Muslim customers using items or equipment contaminated by mughallazah najs, including products confirmed to contain DNA pig. Additionally, the issue of contamination of products or premises with mughallazah najs is sensitive for Muslims (Mohd Salleh et al., 2020). The Islamic determination regarding sertu is drawn from various arguments outlined in the hadith documented by Imam Muslim in his sahih. For example, Sahih Muslim (279) narrates:

طَهورُ إنَاءِ أحَدكُمْ إذَا وَلغَ فيهِ الكَلْبُ، أنْ يَ غْسِلهُ سَبعَ مَراتٍ أولَاهنَّ بِالتُّرَابِ

> *"The cleansing of the utensil belonging to one of you, after it has been licked by a dog, is to wash it seven times, and using soil for cleaning at the first time."*
>
> Sahih Muslim (279)

Despite its importance, the interpretation and application of sertu principles have been subject to controversy, particularly considering modern scientific discoveries that have challenged traditional views on cleanliness and purity (Kamali, 2003). The discovery of germs and microorganisms has led some to question the validity of certain sertu practices, while others argue that Islamic teachings on cleanliness align with scientific principles (Yusoff & Danehsgar, 2011).

Islamic principles provide a framework for defining halal (permissible) and haram (forbidden) practices, shaping Muslim consumption habits, and guiding ethical decision-making. Meanwhile, scientific progressions offer fresh insights into purity and cleanliness, covering concepts such as hygiene, sanitation, and environmental sustainability (Said & Hanapi, 2019). This paper will concentrate on these topics, employing Islamic and scientific approaches, and will research the complex issues surrounding sertu, examining its interpretation and application from these two distinct yet potentially complementary perspectives.

LITERATURE REVIEW

RESEARCH METHODOLOGY

RESULT AND DISCUSSION

1. SERTU FROM ISLAMIC PERSPECTIVE

In Islamic belief, sertu goes beyond simple cleanliness, symbolizing life in harmony with Allah's guidance. The Quran and teachings of the Prophet (PBUH) outline the path to achieving purity, both outwardly for rituals and inwardly for the heart and soul. It is not just about physical cleanliness but also about ethical behaviour, dietary habits, and maintaining a positive mindset. By embracing sertu, Muslims aim to lead a balanced life, pleasing Allah and nurturing spiritual fulfillment.

In accordance with Islamic Shariah law, there exists a specific method known as Islamic cleansing, or "sertu" in Malay, designed to purify items contaminated by severe najs, such as those derived from dogs, pigs, and their offspring. This cleansing ritual involves washing the affected body parts, clothing, surfaces, utensils, and equipment seven times with pure, uncontaminated water, one of which includes water mixed with soil (Rahman et al., 2022). In the Malaysian Standard MS2400-1:2019 for Halal Supply Chain Management System - Part 1: Transportation - General Requirements, sertu is defined as a Shariah ritual cleansing process aimed at purifying items that have encountered severe najs, conducted by washing them seven times with pure water. One of it must contain soil.

There is disagreement among scholars regarding the purification method for items contaminated by dogs and pigs. According to Imam al-Shafi'i and Imam Hanbali view within his school of thought, purification involves washing the contaminated item seven times, with one of those washes involving water mixed with soil (Awang & Zaki, 2022). The cleansing procedures prescribed by the Shafi'i and Hanbali schools affirm that dogs are inherently impure. Both scholars concur on the inherent impurity of dogs, requiring a thorough washing of the entire body to eliminate impurities. Likewise, should one's hands come into contact with dog saliva, adherents of the Shafi'i and Hanbali schools mandate washing the hands seven times, with the initial wash incorporating water infused with soil. (Yusof & Zahari, 2023).

On the other hand, the Maliki school of thought asserts that dogs are not inherently impure except for their saliva. Cleansing after contact with dog faeces is viewed as an act of worship known as ta'abuddiyy (Awang & Zaki, 2022). Following this perspective, the Maliki school, guided by the ta'abudi principle, does not mandate washing the area licked by a dog or other impurities from dogs and pigs. According to the Maliki school, the way to clean mughallazah feces like a dog is to wash it seven times (Yusof & Zahari, 2023).

In contrast, the Hanafi school maintains that washing impurities from dogs and pigs follows the same procedure as other impurities, requiring washing once or multiple times depending on the degree of contamination (Awang & Zaki, 2022). According to the Hanafi school, cleansing after contact with dog faeces involves washing it three times. In this school of thought, dogs are not deemed entirely impure; rather, only their saliva is considered impure. Therefore, only the dog's saliva requires washing three times. If some clothing is touched by dog saliva, it should be washed three times to cleanse it (Yusof & Zahari, 2023). The Shafi'i and Hanbali scholars adhere to a washing method involving seven repetitions and insist on the use of soil during the washing process. They emphasize starting the washing procedure with water mixed with soil as it is deemed more effective and stricter in their perspective. Various schools of thought have differing stances on the requirements for sertu.

2. SERTU FROM SCIENCE PERSPECTIVE

Sertu is a process aimed at ensuring the cleanliness and hygiene of tools and equipment across various industries. From a scientific perspective, it involves thorough cleansing to eliminate contaminants, particularly severe najs (known as Najs Mughallazah) that may be present

on surfaces. These contaminants can originate from different sources, including animal-derived substances like pork or dog-related contaminants, posing risks to product integrity, safety, and quality. The scientific approach to sertu involves specific steps. Initially, the contaminated tool or equipment undergoes cleaning using a mixture of clay and clean water suspension to remove the bulk of impurities. Subsequently, the tool is rinsed six times with pure water (Mutlaq) to ensure the complete elimination of any remaining contaminants (Rahman et al., 2022). This thorough process adheres to scientific cleanliness principles, effectively preventing cross-contamination and preserving product quality.

Scientific viewpoints are often overlooked, but here, we will shed light on some aspects from a scientific standpoint. The inclusion of soil in the sertu cleansing procedure affects significant inquiries and considerations. Traditionally employed in sertu rituals to purify najs mughallazah, soil is often regarded as a medium that may harbour varied microorganisms, including bacteria and fungi, posing potential health hazards. This connection to potential pathogens necessitates a thorough examination of the rationale underlying soil usage in cleansing rituals, particularly concerning hygiene and safety standards in halal product production (Awang & Zaki, 2022). Although the religious significance of soil in sertu is well-established, its alignment with contemporary scientific perspectives on cleanliness and hygiene warrants further investigation and discourse.

For example, soil has been associated with bacteria and fungi that can cause illnesses like tetanus, botulism, wound infections, gastroenteritis, and respiratory syndromes. These health hazards linked to soil contamination raise doubts about their appropriateness for use in cleansing rituals, especially concerning the potential transfer of harmful microorganisms during purification. The scientific community may question the effectiveness of soil in adequately eliminating contaminants and dirt, as well as its contribution to hygiene and disease prevention (Awang & Zaki, 2022).

The sertu process is vital for maintaining the cleanliness and sanitation of tools and equipment across various industries. While deeply rooted in religious tradition, its significance extends to scientific principles, highlighting the importance of thorough cleansing to remove contaminants like severe najs, such as Najs Mughallazah. However, the use of soil in sertu rituals raises important questions from both religious and scientific viewpoints. Although soil holds religious significance for cleansing, its potential to harbour harmful microorganisms challenges modern hygiene standards. Further examination and discussion are needed to address these concerns and ensure the effectiveness and safety of the sertu process in contemporary settings.

3. THE USAGE OF NATURAL CLAY FROM SCIENTIFIC PERSPECTIVES

The demands for Halal clay from Muslim consumers are positively increasing in line with the growing number of halal industrial players. Currently, Green Islamic Cleaning Services, provided by MIFF Holding Sdn. Bhd., is recognized as one of the leading service providers for halal clay production and offers services according to Islamic cleaning requirements. This signifies that the production of halal clay has good market potential due to the huge number of

halal consumers.

Recently, the University of Putra Malaysia (UPM) has begun an effort to innovate halal claybased products. The product consists of natural clay (54%), silt (45%), and sand (1%), and the particle size is less than 2.0µm, compared to the commercial clay (less than 20.0µm). This technology shows an effective function that has anti-microbial capacity where it minimizes 99.9% of microbes in dog saliva and 98.6% of microbes in swine meat. This signifies its capacity to purify najs mughallazah in halal-based products or halal services such as cosmetics, pharmaceuticals, logistics, food, hotels, and premises, and abattoirs to maintain its halal compliance. The methodology using the clay is simple, economical, and free from harmful chemicals. Plus, its consumption is safe for use in manufacturing sectors, such as cleaning the contaminated machines while not affecting the products and users (Hashim, n.d).

The study conducted by Yusof and Subri (2022) highlights the adverse effects of incorporating soil in the sertu process, particularly when applied to machinery sensitive to soil. However, most research indicates that the use of soil is compatible with the sertu process. This compatibility arises from clay's effectiveness in cosmetics, attributed to its high absorption capacity for substances such as oil and toxins. Clay and clay soup are two types of soil deemed suitable for halal industry purposes. Scientific experiments have demonstrated their ability to eradicate bacteria and hydroxyl radicals, which damage bacterial cells by disrupting DNA.

Meanwhile, a study conducted by Norrahimah et al. (2021) elucidates five conditions regarding the physico-chemical properties of clay that necessitate consideration within the context of the halal industry. Firstly, the pH should remain at an acidic to neutral level. Secondly, clay's particle size distribution (PSD) should be small and devoid of particles that could potentially damage equipment. Thirdly, the humidity level must consistently remain low. Lastly, toxic metals and microbial loads should be maintained at minimal levels, adhering to the limit requirements outlined in the Malaysian Food Regulations 1985 to ensure the safety of consumers.

Research has been conducted by Hashim et al. (2013) noted the suitable PH value for clay content specifically to avoid the growth of microbes. Four samples of clay are prepared in the range of 5.016.71. Clay D (standard) demonstrated the neutral condition (pH 6.71). Meanwhile, clay A, B and C were slightly acidic. The result showed clay C possessed the highest clay content (89.00%) as compared to clay A (42.31%), B (53.95%) and D (36.00%). The particle size of clay was < 2 µm, silt and sand are 2-20 µm and >20 µm. All the clay samples were prepared in dry conditions to preserve the quality from humidity. Recently, there have been no standardized guidelines for preparing halal clay in accordance with both Islamic and scientific principles. Patterson (2009) outlined the standard moisture content for powder detergents, which ranges from 1.4% to 28.7%. This standard appears to be applicable for controlling microbial growth and maintaining lower levels of toxic metals (such as As, Sn, Cd, Pb) content, rendering it safe for consumers, particularly for external use. However, it is imperative to place greater emphasis on the aspects of halal and toyyib requirements to enhance safety considerations further.

Angkatavanich et al. (2009) have created clay-based samples using a combination of clay

water and liquid detergent in one medium called clay liquid detergent (CLD). This effort is part of the medium to develop a halal compliance cleansing method. Optimistically, the researchers have consulted Islamic scholars from Thailand regarding Islamic requirements for samples' preparations. This is to ensure the selected clays are safe for consumers and utterly free from any prohibited substances prior to being used to produce CLD. The required raw materials of CLDs were sodium lauryl ether sulphate, sodium chloride, citric acid, EDTA and deionized water without the mixture of colour or fragrance for safety purposes. The concentration of clay in the CLDs was not less than 10%. According to Islamic scholars, a high concentration of clay is required, specifically when diluted with other materials, which will produce a sufficient degree of turbidity. In addition, other additional raw materials or ingredients of the CLDs must be 'halal', or permissible according to Islamic law. Four types of pharmaceutical-grade clays were chosen as the primary samples for preparing materials for the CLDs (Clay-based Liquid Dosage Forms). Physical evaluations and stability tests were conducted to assess product quality. However, several product development attempts failed due to issues such as separation or sedimentation during material preparation. In terms of fragrance, researchers opted not to include any fragrance elements in the samples to prevent unfavorable changes in color, texture, or other sensory characteristics.

Scientific discovery has demonstrated that clay possesses the capability to combat parasites. Its natural composition includes antiseptic properties that make it suitable for cleaning apparatus or equipment contaminated by dog saliva, which may contain pathogens (Angkatavanich et al., 2009). This finding validates the Hadith of Prophet Muhammad, which recommends the application of sertu whenever in contact with najs mughallazah. (Kassim et al., 2014). For example, hookworms, tapeworms, and roundworms can potentially be transmitted in dogs' saliva or faeces if no proper cleansing activities are implemented. Hence, it can increase the potential risk of zoonotic transmission from dog to human such as tapeworms like Dipylidium caninum and Echinococcus spp. are types of parasites that can disseminate to dogs via the ingestion of infected fleas and infected animal tissues (CDC, 2015).

Other types of parasites that can affect dogs include Toxocara, which poses a significant risk of infecting children with toxocariasis (CDC, 2016). Additionally, dogs are prone to parasitic infections such as Sarcoptes scabiei, leading to skin diseases characterized by severe itching (CDC, 2015). The application of clay can effectively eradicate these parasites due to its natural physical and chemical properties. The elemental composition of clay, including 95% carbon, hydrogen, oxygen, nitrogen, phosphorus, and sulfur, aligns with the composition of human tissues. Overall, clay contains a total of 26 different elements. (Shoukfeh, 2006). In the Quran, Allah SWT mentioned the creation of human beings from an extract of clay based on Surah Al-Mu'minun verse 12. The essence of human creation contains the earth elements in human anatomy, as revealed in the Qur'an fourteen hundred years ago and currently discovered in scientific findings. Due to these physical properties, the clay has been processed as dermatological protectors, anti-inflammatories, and local anaesthetics (Londono & Williams, 2016).

Currently, the clay has been processed into medicinal clay that is typically used as an antiparasitic agent for proper cleansing and purification, specifically at the place or equipment that is easily contaminated by parasites as a result of low hygiene standards. Consequently, the use of clay can be applied as a potential tool for the removal of microorganisms, including parasites (Mat Yusof et al., 2017). Other scientific findings show that clay is applicable to treat diseases such as diarrhea and abscesses (Otto and Haydel, 2013). Moreover, clay exhibits potential in wastewater treatment and environmental bioremediation, serving as excellent adsorbents that are environmentally friendly (Yuan et al., 2013). Its usage facilitates the removal of heavy metal ions and organic pollutants from water, offering a safer alternative to chlorines over prolonged application periods. Various scientific detection methods, such as atomic force microscopy (AFM), X-ray photoelectron spectroscopy (XPS), and examination of exopolymers, intracellular organelles, or ultra-structures, are applicable for imaging clay mineral surfaces or microbial cells. This equipment enables the detection of nanoscale surface morphology of bacteria-clay mineral aggregates and force-distance curves for bacterial cells approaching and retracting clay-sized goethite (Mat Yusof et al., 2017).

An article published on the Medical News Today website (2023) highlighted the use of bentonite clay as a good source for cosmetics and medical-based products. In addition, some of the producers use this type of clay in supplements-based products to relieve digestive issues or remove toxins from the body. The writer has listed 11 advantages of bentonite clay as follows:

1. Removing toxins from the body.
2. Treating oily skin and acne.
3. Detoxifying the skin.
4. Treating poison ivy.
5. Aiding weight loss.
6. Relieving constipation.
7. Treating diarrhea.
8. Treating diaper rash.
9. Providing sun protection.
10. Removing lead and other heavy metals.

A systematic review by Moosavi (2017) discussed the function of bentonite clay (BC) as a natural remedy. Previous scientific studies proved the usage of bentonite clay as a detoxifying agent. Bentonite clay demonstrates the ability to absorb the negative charge of toxins, as evidenced by a pilot study conducted on rat samples to assess the efficacy of Bentonite Clay (BC) in treating digestive issues. Over a 2-week period of ingesting bentonite, the rats exhibited a significant improvement in faecal excretion, indicating a positive healing effect against T2 toxicosis. Furthermore, BC has been found to possess antibacterial properties, capable of absorbing coliphages T1 and T7 of Escherichia coli in vitro. When the clay-water mixture was incubated for 24 hours, it effectively killed the bacteria. These findings suggest that bentonite can modulate the body's immune response.

Taufikurrahmi et al. (2018) conducted research to investigate the effectiveness of three types of clay samples such as bentonite, talcum, and kaolin, towards antibacterial activities of dog's saliva through morphological observation and biochemical tests to isolate the bacteria of Staphylococcus haemolyticus, Micrococcus sp., Klebsiella pneumonia and Proteus mirabilis. These bacteria are classified as opportunistic pathogens that may cause infection in animals and humans, specifically those with weakened immune systems. These types of bacteria mostly cumulate from dogs' canine oral. With the application of the time adsorption assay technique, clay can adsorb bacteria quickly. This technique helps absorb bacteria in solution and can directly immobilize the cells and prevent replicating. The capability of clay to absorb the bacteria is because it has a good negative ion charge, particularly for bentonite clay.

A study conducted by Goel and Bhardawaj (2014) highlighted the benefits of clay for health and environment. The clays that are derived from black mud, mud from the Dead Sea, and moor mud have unique characteristics that are able to vacuum up many toxins, yeasts, moulds, and poisons from the body. In fact, the usage of clays is popular among the indigenous tribes before modernity period. They believed using bentonite clay could increase energy and neutralize the poisons, toxins, and yeasts in the human body. Ewis et al. (2022) confirmed that clay can effectively disinfect bacteria in water through various treatments and techniques. These include acid treatment and ion exchange to enhance the composite adsorption capacity of clay, such as modifying clay or minerals to form clay mineralpolymer composites. This technique effectively neutralizes mineral impurities through adsorption. Consequently, the utilization of clay presents a sustainable alternative for disinfecting microorganisms in water, particularly in combating health issues such as cholera (caused by Vibrio cholera), diarrhoea, dysentery (caused by Escherichia coli), food poisoning and typhoid (caused by Salmonella typhi) (Unuabonah et al., 2018).

Ihekweme et al. (2021) have innovated new samples of clays called clay aggregates multifunctionality for water purification to improve adsorption capacity to diffuse impurities. The researchers applied SEM, XRD, XPS, and BET to reveal their salient features and analyze the physicochemical characterizations, specifically the capability to disinfect E-Coli, nitrate, and phosphate. The result of the study demonstrated the feasibility of modified ECA to be effectively used in water treatment, specifically to reduce the risks of water impurities. The Langmuir and Freundlich models are employed to assess adsorption effectiveness, with the Langmuir model being favored for its suitability.

4. COMPARISON OF SERTU AND SAMAK

Many individuals confuse sertu with samak due to their shared role as purification rituals in Islam, causing them to mix up the two practices. Although both sertu and samak are aimed at cleansing oneself under certain conditions, they differ in their approaches, requirements, and objectives. It is essential for both practicing Muslims to fulfill religious duties correctly and non-Muslims, seeking to understand Islamic customs and beliefs, to grasp these differences.

According to Ahmad et al. (2023), the article entitled "The Concept of Samak and Sertu:

A Comparison According to Islamic Perspective", focused on the differences between Sertu and Samak from an Islamic perspective. Sertu entails purifying body parts tainted by impurities like those from dogs, pigs, and their progeny using water and soil. This cleansing procedure aims to uphold purity within Islamic rituals by removing contaminants from affected areas. It differs from Samak in both its objective and purification methods. Conversely, Samak involves cleansing an animal's hide of impurities using a sharp tool. This process focuses on rendering the skin fit for specific uses, such as tanning or dyeing, and eliminating impurities like carcasses with water and soil.

Furthermore, the distinction between sertu and samak is vital within Islamic purification practices. Sertu focuses on purifying body parts affected by impurities, like dogs, pigs, and their offspring. Its main aim is to cleanse areas contaminated by such impurities, ensuring adherence to Islamic purity standards. Specifically, sertu targets parts that have encountered these impurities, promoting cleanliness and compliance with Islamic guidelines. In contrast, Samak is geared towards cleaning an animal's skin for specific uses, such as tanning or colouring. It involves purifying the skin to ensure it is suitable for its intended purposes and free from impurities like carcasses (Ahmad et al., 2023).

The method of purification in Islamic customs varies between Sertu and Samak. Sertu focuses on cleansing body parts tainted by impurities like those from dogs, pigs, and their offspring, employing water and soil. According to Islamic teachings, this method ensures the cleanliness of areas contaminated by impurities to uphold purity. Water and soil play key roles in purifying parts that have encountered impurities, such as those from dogs, pigs, or their offspring. In opposition, Samak involves removing impurities from an animal's skin for specific purposes using a sharp tool. This process aims to cleanse the skin for uses like tanning or colouring, eliminating impurities like carcasses with precision (Ahmad et al., 2023).

The utilization of Sertu and Samak requires specific contexts where these purification rituals are applied within Islamic traditions. In Malaysia, Sertu holds significant importance in the Halal Certification process overseen by JAKIM. Sertu is employed to cleanse areas contaminated by impurities like dogs, pigs, and their offspring using water and soil. Various businesses and mosques in Malaysia undergo Sertu to ensure cleanliness, safety, and compliance with Halal standards (Ahmad et al., 2023). On the other hand, Samak involves using a sharp tool to purify an animal's skin from impurities for specific purposes. This process is essential for preparing the skin for various applications, such as tanning or colouring, ensuring it is devoid of impurities like carcasses. Samak's application is particularly crucial in industries requiring purified animal skin for further processing and utilization.

Table 1 highlights the differences between Sertu and Samak

Criteria	*Sertu*	*Samak*

Definition	Process of cleaning parts affected by impurities like dogs, pigs, and their offspring.	Process of cleaning an animal's skin from impurities.
Purpose	Purification from impurities like dogs, pigs, and their offspring.	Cleaning for specific uses.
Method	Uses water and soil for purification.	Uses a sharp tool for cleaning.
Application	Purifying parts affected by impurities.	Cleansing animal skin for specific purposes.

5. ISSUES ON SERTU

In this regard, Sertu causes serious problems, especially in situations when water is limited or using water for sanitation is impractical. Islamic laws and governance play an important role in Malaysia where it is located. Thus, these issues need to be addressed to guarantee the complete and legitimate enforcement of sertu in the legal and religious framework. The significance of awareness, confrontation and overcoming these barriers become imperative for ensuring religious tolerance, protecting individual rights, and strengthening the relationships among members of a diverse community.

Mohd Salleh, et al. (2020) discussed in detail the issues that arise in the implementation as well as the industry in Malaysia, first, regarding non-compliance of sertu operators with sertu guidelines and fatwas. This problem arises when the operator fails to adhere to the guidelines and fatwas established by authorities like JAKIM. Such non-compliance threatens the integrity of the process and raises concerns about the halal status of the purified product. Operators need to abide by the established guidelines to ensure that cooperation is conducted properly and in accordance with the law.

Furthermore, lack of practice as well as service provider companies. This problem encompasses several factors, including the production of liquids that do not align with prescribed fatwas and failure to comply with guidelines established by authorities. Inadequacies in severance practices can raise doubts about the cleanliness and legitimacy of the severance process conducted by the service provider company (Mohd Salleh, et al., 2020). And the third is about non-uniform and guided implementation. Despite JAKIM introducing sertu guidelines for the industry, sertu service providers often fail to comply with these guidelines. This highlights the necessity for stricter monitoring and enforcement of sertu guideline compliance at both the JAKIM and JAIN levels to foster the growth of the sertu industry. Identifying these issues underscores the need for improvement measures such as coordinating jurisdictions, enforcing guideline compliance, and raising public awareness to enhance confidence in Malaysia's halal industry (Mohd Salleh, et al., 2020).

Other than that, “The Legal Framework of Sertu for Halal Industry in Malaysia” written by Abdul Halim et al. (2020), focuses on examining the legal structure of the Halal industry in Malaysia. The findings reveal several issues, including non-compliance by sertu operators with

sertu guidelines and fatwas, lack of a standardized operating procedure for managing sertu by the Department of Islamic Development Malaysia (JAKIM) and the State Department of Islamic Religion (JAIN) / State Islamic Religious Council (MAIN), and challenges related to inter-state authority in collaborative implementation efforts.

There are also researchers Mohd Salleh et al. (2024) which is titled "Issues in the Implementation of Industrial Sertu in Malaysia" addresses various issues encountered in the sertu process, covering aspects such as adherence to guidelines, knowledge and understanding, utilization of modern equipment and materials, management of sertu procedures, incorporation of religious practices, and confidence in the competence of governing authorities. Additionally, it underscores the importance of enhancing understanding and awareness among the community and sertu operators to ensure proper implementation of the sertu process in accordance with established guidelines. The implementation of the halal industry in Malaysia faces several key issues that require careful consideration. Noncompliance with established guidelines and fatwas is an important concern, emphasizing the need for operators to adhere strictly to regulatory standards (Mohd Salleh et al., 2024). Additionally, enhancing understanding and knowledge among operators regarding the process is crucial for accurate implementation.

Furthermore, challenges arise from the utilization of modern equipment, particularly in ensuring compatibility with sertu procedures, especially in water-sensitive equipment and challenging areas such as carpets. Addressing the use of additives in the purification process is imperative to ensure compliance with prescribed conditions for mughallazah purification. Effective management of guidelines for each halal scheme is essential, requiring tailored and specific guidelines to accommodate different industry needs. Moreover, avoiding the incorporation of religious practices in the sertu process is vital to maintain alignment with established guidelines (Mohd Salleh et al., 2024). Lastly, building industry trust in the competence of authorities such as the State Islamic Religious Department (JAIN) is crucial for ensuring smooth and reliable implementation of the halal process, fostering confidence within the halal industry.

CONCLUSION

The complexity and importance of sertu are underscored by examining it through both Islamic and scientific lenses. From an Islamic standpoint, sertu embodies moral conduct, purification rituals, and a dedication to spiritual purity and religious principles. Conversely, scientific research sheds light on the practical benefits of sertu in maintaining environmental sustainability, public health, and hygiene, especially in areas facing water scarcity or health challenges. Sertu, symbolizing a comprehensive approach to cleanliness and spiritual well-being, holds profound significance in Muslim practice, albeit with variations in interpretation among different Islamic schools. By integrating scientific insights with religious convictions, we can achieve a deeper understanding of sertu and its relevance in contemporary contexts.

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