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# Halal Water Filtration System: An Empirical Study of BERSUCI Product

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## ABSTRACT

In today's day and age, a water filtration system has been a popular household item to provide healthy and better-tasting drinking water. This method of water treatment is designed to purify and filter submicron contaminants directly from the tap while at the same time ensuring the important minerals are systematically retained. Therefore, this paper aims at investigating the process of water filtration complying with halal guidelines and standards while examining its sustainable impact. Consequently, the data obtained during this empirical study determines the role of Islam affecting the decision in creating halal water filtration, how using water filtration systems can bring health benefits to individuals as well as the relationship between using water filtration and the United Nations Sustainable Development Goals. Therefore, this paper provides some empirical insights and study looking into the harmonisation of *Shari'ah* and science in the end-product of the water filtration system.

**Keywords:** Halal; Sustainable; Water filtration

## 1 Introduction

Halal in Arabic can be defined as permissible, however, the term can be defined in a broader scope not only limited to food. where it does not simply focus only on food but on other aspects as well. Water plays a huge role in human life where it can be used for various things such as drinking, cooking, cleaning, use as a renewable energy, and many more. From the Islamic perspective, in terms of purification of the human body and ablution, water is considered a crucial element for the purpose to perform prayer [1].

In this study, it will be focusing on halal water filtration specifically towards BERSUCI products as they owned a halal-certified water filtration. This product is the first halal-certified water filtration in Brunei Darussalam. The Central Islamic Council of Thailand issued the official halal certification for this product. With the advancement of technology, halal matters are gaining more attention among Muslims. Similar to food, with respect to what is permissible and impermissible for Muslim consumption, the whole process from farm to fork of these goods must be taken care of in order to preserve the halal integrity of the halal goods and products. This is where the halal certification and label play a significant role in assuring the consumers, especially Muslim consumers that the product is halal as they went through a vigorous process to obtain the halal certification by adhering to the halal regulations



introduced by the authorities. It is to find out the halal guidelines and standards used and examine the sustainable impact. Furthermore, the data obtained will determine 3 different areas which are the role of Islam affecting the decision in creating water filtration, how it can bring health benefits to individuals, and the relationship between using water filtration and the United Nations Sustainable Development Goals. Understanding the definition of 'sustainability' is essential in figuring out the articulate concept of sustainability. This is because the word has often caused more confusion than it has been able to clarify, depending on the definition given.

## 2 Materials and Methods

By adopting a qualitative research methodology, an interview was conducted in March with the founder of the BERSUCI product. The authors chose to adopt this methodology to understand and delve deeper into information that supports or contributes to the research problem at hand. Through follow-up questions, researchers can acquire more details during an open and thorough interview. Furthermore, researchers can gather rich, nuanced information that helps them gain a deeper understanding of the topic [4]. This approach is also commonly used in a case study type of research as it allows the authors and respondents to have more personal interaction in terms of exploring views, experiences, and motivation to come up with the BERSUCI product. For the purpose of the interview, the authors had three main elements when designing the research questions. First, the question touched on the Islamic element of their decision to get halal certification. Second, exploring the health element of the product. And lastly the third, identifying the sustainable element in the water filtration.

## 3 Results & Discussion

The following section is the discussion based on the information given by the respondents. There is a clear agreement that water in its nature is halal. This means that there is no doubt of the hukm and status of water. However, in the case of a water filtration system, it is evident that a foreign component was added during the filtration process. This process makes the water contact with other materials in order to purify it for drinking.

### 3.1 The Role of Islam Affecting the Decision in Creating Water Filtration

In the Qur'an, Allah *Subhanahu Wa Ta'ala* mentioned that water is a blessing from Him that helps water life on this earth by saying:

*"And it is He who sends down rain from the sky, and We produce thereby the growth of all things. We produce from its greenery from which We produce grains arranged in layers. And from the palm trees - of its emerging fruit are clusters hanging low. And (We produce) gardens of grapevines and olives and pomegranates, similar yet varied. Look at (each of) its fruit when it yields and (at) its ripening. Indeed, there are signs for people who believe"* [2].

One of the interviewees from BERSUCI mentioned in the interview that one of the factors that led to the development of their water filtration system is due to most Islamic countries in the 3<sup>rd</sup> world nation are a war, in deficiency of supply and food security where these Islamic countries are not in contact with clean water. They had looked into the *Shari'ah* law where they found out there is an opportunity for Brunei's economy to become a global value chain. By this, it can help to develop the socio-economic status of Brunei.

The role of Islam also determined the halal guidelines and standards chosen by the company. There are many authorized halal certification bodies in this world and for the BERSUCI products they have used and referred to The Central Islamic Council of Thailand (CICOT). CICOT is chosen due to its recognition by The Unofficial of Religious Ministers of Brunei, Indonesia, Malaysia, and Singapore (MABIMS).

### **3.2 The Benefits of Water Filtration to Individuals**

The Centers for Disease Control and Prevention (CDC) claims drinking water itself has its own benefits to health as it can help cool down or maintain the body's temperature, help remove toxins or waste from human bodies, protect sensitive tissues and spinal cord, and others [3].

BERSUCI has a water filtration product called Dual Action Interchangeable Alkaline & Reverse Osmosis on which this water filtration uses a mineral pyrolusite (MnO<sub>2</sub>) as their filter instead of activated carbon or bone charcoal. Pyrolusite is one of the manganese minerals (MnO<sub>2</sub>) that compose an important ore that has light-grey to black, metallic, decent coatings, crusts, or fibres [4].

Pyrolusite is considered a better alternative to use as a filter as bone charcoal can be made out of pig bones. Moreover, it can help filter out 99% of iron, heavy metals, manganese, arsenic in water, radium, suspended particles, and hydrogen sulfide concentration [5]. Hence, individuals can drink water safely, away from being contaminated with unwanted minerals or particles.

### **3.3 The Relationship Between Water Filtration and the United Nation SDGs**

The halal water filtration can be correlated with one of the 17 development goals developed by the United Nation under their Sustainable Development Goals (SDGs). It is the 6<sup>th</sup> SDGs which is Clean Water and Sanitation: Ensure availability and sustainable management of water and sanitation for all.

The World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) stated there are around 2 billion people in the world who have a shortage of safe drinking water [6]. The lack of access to safe drinking water may lead to the worst scenario of health decline including death. WHO and UNICEF further stated that at least 1.4 million people die yearly of which most of them are children with the cause of unclean water and lack of sanitation [6].

With the creation of water filtration, it can be seen as one of the actions to reduce the number of people drinking unsafe or unfiltered water. Halal water filtration can give an access for people to have their own water filtration system at home like the BERSUCI product.

#### 4 Conclusion

Although water is naturally halal and does not contain any halal water filtration has gained more attention from Muslim consumers. With halal certification, there is a proof of certainty which gives assurance to Muslim consumers that the product has been checked and manufactured according to the halal standard. Halal-certified products ensure that ingredients meet high-quality standards set out by *Shari'ah* rules and regulations regarding animal welfare and environmental protection during production processes. Therefore, integrating the principles of the Sustainable Development Goal (SDG) into the halal industry could encourage consumers to make more mindful choices about what they drink.

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