



# **REINFORCEMENT OF THE HALAL INDUSTRY FOR GLOBAL INTEGRATION REVIVAL**

Edited by  
Heri Pratikto, Ahmad Munjin Nasih, Zawawi Isma'il  
and Adam Voak



## REINFORCEMENT OF THE HALAL INDUSTRY FOR GLOBAL INTEGRATION REVIVAL

The emergence of a Halal industry in the past decade in the fields of food, beverages, and services, emphasizes the importance of providing a more complete understanding of Halal products, current Halal developments and other topics of Halal development. This groundbreaking volume provides theoretical and empirical studies on the Halal industry. This book explores critical issues, best practice examples, and draws on a range of international case studies to demonstrate theory in practice of the Halal industry. Emphasizing the Halal industry, the chapters address a number of important issues such as Halal assurance system, Halal product certification, Halal tourism, Human Resources of Halal Certification, supply chain of Halal products, and other related subjects.

This book will be of interest to students, scholars, and practitioners who have a deep concern and interest in the Halal industry. It is futuristic with a lot of practical insights for students, faculty members, and practitioners. Since the contributors are from across the globe, it is fascinating to see the global benchmarks.



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PROCEEDINGS OF THE 2ND INTERNATIONAL CONFERENCE ON HALAL  
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# Reinforcement of the Halal Industry for Global Integration Revival

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## Preface

The growing trend of the Halal industry has transformed the shifting in perception of the Muslim community and has changed the Moslem customers paradigm around the world. There are two reasons for the Halal product transition: first, the development of the Halal industry is beyond what is seen historically. Second, the Moslem market share is currently being considered by the world, therefore Halal market recently is not exclusively for Moslem Countries. The increasing demand for Halal products, including goods and services, especially for food, beverages and ready-to-use products, has affected in a growing need for products with Halal guarantees or certification. Due to the increasing demand from consumers for Halal products, producers are forced to produce food products, beverages and goods that must meet the provisions of Islamic law.

Furthermore, in 2020, around 205 million people from 268 million total population, or about 80% are Moslem. This makes Indonesia the largest Muslim population in the world. Considering that Indonesia is a country with a huge Moslem majority population, the Halal industry in Indonesia has to be developed rapidly. The Halal industry is one of the priority sectors through the 2019 The Indonesia National Islamic Finance Committee (KNKS) master plan. However, Halal awareness for consumers as well as producers considered to be crucial issue. For instance, many restaurants, hotels or food station are not Halal-certified, and there are also many food products, medicines and cosmetics that are not Halal-certified.

In the future, Halal industry should contribute more to economic growth, considering the numerous Indonesian Moslem population. Thus, the Halal industry is easier to find domestic consumers through Halal product and international consumers through Halal tourism. However, considering the COVID-19 pandemic which has caused mobility restriction and has limited access to local tourist destinations, Halal industry should take a part in economic recovery. Therefore, it is essential to understand the role of the Halal industry in restoring the Indonesian economy during the COVID-19 pandemic.

According to the previous discussion, it is essential to arrange International Conference in providing a more complete understanding of Halal products, current Halal development as well as discussing the research results on the topic of Halal development. The 2021 International Conference on Halal Development (ICHAD) invites some prominent speakers who have a focus on the Halal field from several countries.

The first International Conference on Halal Development (ICHaD) 2021 was held at Universitas Negeri Malang, East Java-Indonesia on October 5, 2021. This Conference was brought by Halal Center, Institute for Research and Community Service (LP2M) Malang. There were six main speakers in this conference including Assoc. Prof. Dr. Adam Voak James Cook University, Australia; Prof. Dr. Nurdeng Deuraseh, Ph.D, University Islam Sultan Sharif Ali (UNISSA), Brunei Darussalam; Prof. Satomi Ohgata, Kyushu International University, Faculty of International Studies, Japan; Asst. Prof. Dr. Asman Taeali, Director of Halal Institute, Prince Songkla University, Thailand; Afdhal Aliasar, MBA, Director of Halal Industry Product, Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS), Indonesia; Prof. Dr. Heri Pratikto, Head of Halal Center, Universitas Negeri Malang, Indonesia.

The organizers wish to acknowledge the keynote speakers for their presentation on ICHaD 2021. We also acknowledge publicly the valuable services provided by the reviewers for their time, hard work, and dedication to this Conference. In addition, many thanks given for all persons who help and support this conference. Furthermore, we also invite the presenters around the world to participate in the 3<sup>rd</sup> ICHaD that will be held in 2022. Finally, we hope that the future event will be as successful as indicated in this proceeding.



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### **Conference on Halal Development (ICHaD): Reinforcement Halal Industry For Global Integration Revival 2021 Acknowledgement**

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The organizers also wish to acknowledge publicly the valuable services provided by the reviewers. On behalf of the editors, organizers, authors and readers of this Conference, we wish to thank the keynote speakers and the reviewers for their time, hard work, and dedication to this Conference. Without their services, the editors could not maintain the high standards of Halal Development Research.

The organizers also wish to acknowledge the speakers and participants who attended this seminar. Many thanks given to all persons who helped and supported this conference.

The organizers wish to apologize to the speakers who cannot publish their paper in this Conference Proceeding. Our apology also given to all participants for all shortcomings in this conference. See you in the next ICHaD 2022 at the Universitas Negeri Malang.

Malang, December, 2022  
Local Organizer of ICHaD 2022  
The Halal Centre, Institute for Research and Community Service (LP2M)  
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# Halal logo on culinary stalls: Implications and importance for sellers in Denpasar, Bali

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**ABSTRACT:** The article discusses the decision and rationality of sellers (both Muslim and non-Muslim) in installing a halal logo at their food stalls in the midst of an Islamic minority, namely in the city of Denpasar, Bali. This study used a qualitative method with data collection carried out through fieldwork consisting of interviews and non-participant observations of the main food stall sellers who placed halal logos at their place of sale. The results of the study show that the halal logo is very important to be installed in the midst of Islamic minorities, especially for sellers of culinary stalls due to four reasons. First, the installation of the logo is a form of representation of Islam. Second, the needs and lifestyle of Muslims to eat only halal food. Third, the halal logo is general in the sense that it is not hegemonic for one religion. Fourth, as part of marketing strategy for attracting a majority of buyers in the midst of a minority.

*Keywords:* halal logo; Hinduism; representation; culinary; tourism

## 1 INTRODUCTION

Currently, tourism is one of the main contributors to Indonesia's foreign exchange. The country's natural and cultural wealth is the main attraction for tourists from all over the world. This is evidenced by the increasing number of tourist visits to Indonesia, which is expected to be growing in the near future. The growth in the number of tourist visits has a positive correlation with the contribution of the tourism sector to state revenues, which has an impact on the country's economic growth (Brida et al. 2010). At the same time, it is also related to improvements in the Indonesian Tourism Competitiveness Index

A number of multiplier effects are expected when economic growth continues to strengthen. First, this growth is expected to encourage capital expenditures in the production process (McKinnon 1964; Spurr 2006). Second, tourism activities trigger the growth of tourism-supporting sectors in Indonesia, such as hotels, travel agencies, transportation services, restaurants, MSME services, and others. The growth of this sector has an impact on increasing people's welfare and reducing unemployment (Jaffe & Pasternak 2004; Lee & Chang 2008). Third, tourism leads regional economies of scale toward a positive direction (Weng & Wang 2004).

Large tourism potential makes the government prioritize developments in tourism through improved infrastructure, easy accessibility to tourist areas, as well as better offerings and marketing to attract tourists. The widespread interest in tourism has led to many new trends (Subanti 2011). Tourists seek real experiences with regard to education and lifestyle, including a halal lifestyle for Muslim tourists. The discourse and lifestyle regarding halal tourism seems to have become a new trend in the tourism sector and has even been developed by many countries (Pratiwi et al. 2018).

As the country with the largest Muslim population in the world, Indonesia does not want to be left behind for developing halal tourism. Halal tourist destinations are prepared. On the one hand

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there are those who accept it, on the other hand there are those who firmly reject it, one of which is the Province of Bali. This refusal is understandable in the midst of Hinduism, which is the lifestyle of the majority of local people. Halal construction in local communities has an impact on the local community's response to halal and all its derivatives, whether it is constructive, productive, or counterproductive (Wilson & Liu 2010). In the midst of the rejection of the development of halal tourism, culinary stalls with the halal logo can be easily found in Denpasar (Perguna et al. 2021).

The existence of halal culinary stalls in the city of Denpasar means that halal can be accepted when it changes shape and has a positive meaning. Research on halal tourism has indeed widely been carried out by academics through economic or biological perspectives, such as marketing, ingredients in products, services, and others (Ali et al. 2012; El-Gohary 2016; Khan & Callanan, (Hisam et al. 2021). Meanwhile, halal publications related to culinary stalls and the rationale for why sellers install them are almost non-existent, especially in people who are Muslim minorities. The installation of this halal logo also has various interpretations with different aims and objectives. The rationale of halal labeling in the informal sector, particularly culinary stalls in Denpasar, Bali Province, is the subject of this essay.

## 2 METHOD

Qualitative research is used in this study comprising the approach of rationality (*verstehen*) and Max Webber's version of social action. The rationale of the informal sector-based culinary stall merchants that utilize halal logos for both Muslim and non-Islamic sellers was investigated in an exploratory qualitative study. The research location was in the center of Indonesia's tourist destination, namely the city of Denpasar, where the majority of the population is Hindu. Data was collected through non-participant observation by interviewing food stall sellers with halal logo. The main question in this study is about why the seller puts up a halal logo that represents the teaching of Islam in the midst of the majority of its citizens who are actually non-Muslims. The study was conducted from June 2021 to August 2021. The snowball technique was used in the selection of informants. This approach is used to ensure that the acquired data depict relationship between one person and another, and that one case and another case have the same relationship and procedure as part of Denpasar's tourist growth.

## 3 RESULT AND DISCUSSION

### 3.1 *The rationality of installing halal labels for culinary stall sellers*

Food and drink are the basic needs of an individual, and it is part of survival to carrying out activities, including when engaged in tourism activities. The culinary tourism in every region continues to grow with the uniqueness of each product. Particularly, for Muslim consumers, food and beverages must meet the halal standards (allowed or permitted) that have been set by the holy book Al Quran (Isa & Ismail 2015). Usually there are four aspects that deem a food or drink halal. First, it is obtained in a halal way, made with halal compositions/ingredients, processed in a halal manner, and packaged in a halal process (Ali & Suleiman 2016).

Unfortunately, not all culinary products meet the halal standards that have been set by the government based on Law number 33 of 2014 concerning Halal Product Guarantees, especially in tourist destinations. Whereas in the halal certification there is a responsibility toward consumers, especially Muslims (Fahmi 2017; Hudaefi & Jaswir 2019). Not more than 3% of eateries or restaurants have an official halal certificate from the Indonesian Ulema Council (MUI) as the holder of the halal label authority throughout Indonesia. Even consumers do not really know if the food ingredients used by producers, the processing, or serving of food and others is halal (Lazuardi & Triady 2015).

The market potential for halal culinary tourism and MSMEs can be developed in Indonesia, even on the world stage. Keeping halal is a separate challenge for halal culinary tourism (Majid et al.

2015). The sustainability of culinary tourism and halal MSMEs is influenced by three important things in culinary tourism. Halal culinary tourism is able to increase the purchasing power of tourists in an area (tourist spending), the time of tourist visits (tourist season), and can analyze the typical tourist destinations for the sake of sustainability (Lu & Nepal 2009).

The development of culinary-based halal tourism is also witnessed in the city of Denpasar, which is majorly inhabited by non-Muslim residents. However, there is a massive rejection of halal tourism through political figures and community leaders in Bali. The reality is that culinary growth with a halal logo is difficult to contain. The number of halal stalls is four times higher than culinary stalls that do not have a logo or are even prohibited for Muslims, such as those offering pork-based food or liquor. The large number of halal culinary stalls is not directly proportional to the official halal certifications from MUI. There are still many culinary stalls, MSMEs, and restaurants taking shortcuts by using the illegal halal logo. The installation of an illegal halal logo is part of a marketing strategy as well as dramaturgy (front stage) in an effort to attract as many consumers as possible. The presence of the emblem is considered prohibited because it is not based on the MUI's certified halal certificate (Sari & Nafisah 2019). In this case, I show that business actors are trying to convince consumers to buy the products/services they produce halal. These consumers are not limited to Muslims but to non-Muslims who are without food restrictions under the teachings of religions outside of Islam.

The shortcut taken by the seller is due to three reasons; first is about the limited knowledge of the halal labeling process. Halal labeling is a comprehensive process starting from the process, presentation, to the criteria. However, for sellers, they do not look at the process but the form of the food. If the consumer is given chicken or beef, then the food is included in the halal category, regardless of the process and method of serving the food. Second, the process of official halal labeling takes quite a long time, around 1 month or more. At the same time, for the informal sector, limited fund is also an essential factor. The informal sector including the food stalls at the end do not apply for an official halal label.

For sellers, showing the magic word "halal" is essential. They think that because Indonesia is a Muslim-majority country, halal certification is adequate even though it is not halal, either in the processing or serving of food. Moreover, the logo becomes very important because the majority of the Balinese population is Hindu. If the halal logo is difficult to find, it will have implications for the image of a global tourist destination in Bali. Given the urgency of this label, there are more than 600 culinary stalls in Denpasar using this halal logo with various variants. Some use the word "halal", some use the word "Islam" or "Muslim", some people prefer to use the names of Muslim-majority localities, such as Madura, Banyuwangi, Lamongan, Solo, and others. Behind the labeling, there are various reasons why they put the halal logo and its variants on their food stalls.

The first rationality that the researcher encountered was that the representation of halal in the form of labeling in culinary stalls was part of Islamic identity. This identity is important for most adherents of Islam, although it is contradictory because its origins are not clear. Sellers are conducting small negotiations on their religion, culture, and beliefs. Halal, which is something sacred, begins to shift to something between sacred and profane. Halal labeling, which cannot be given carelessly, ultimately negotiates with the conditions of the local community.

Second, awareness of halal choices depends on the extent of the individual's understanding of the halal concept. This knowledge construction is a basic requirement for consumers to consume a product and for producers to produce products that are suitable for consumption by Muslims (Ahmad et al. 2013). At another stage, consumers as well as connoisseurs of halal food are strongly bound by the consumption culture and Muslim lifestyle. This halal culture and lifestyle constructs the rational choices of Muslim consumers (especially tourists) in choosing halal food. Material rational choices shift slowly to theological rational choices. In the end, the seller takes advantage of this condition by carrying out "halal" deconstruction to build and carry out business marketing practices to gain maximum profits.

Another rationale is that Bali, which is indeed a popular tourist attraction because of its beauty and local wisdom concerning Hinduism as a guide and life guide, requires it to prepare adequate

facilities and infrastructure. This facility is not only for foreign tourists but also for the domestic. Domestic tourist visits also continue to increase from year to year. In 2018, almost 9 million visitors to Bali were reported. Tourist visits to Bali must be positively welcomed by providing optimal services, so that the image of Bali's tourist destinations remains popular. One of them is the provision of halal culinary stalls for tourists. Minority Muslims, both as tourists and Muslims, try their best to not be careless in choosing a place to eat. They make every effort to avoid things that are forbidden in Denpasar by Islamic law, like dog meat, pork, and others. Interestingly, this halal logo is not hegemonic to one religion. Halal underwent a redefinition when it arrived in Bali. This halal redefinition and repositioning occurs because of the habitus that keeps on repeating.

Another key reason is the part of the marketing strategy carried out by the sellers to attract buyers (Muslims) in the midst of this minority. Sellers target the market indeed focused on Muslim tourists, although it is not rigid. Because the reality is that there are Hindu customers who make transactions also. The seller to run his business does this positioning to be accepted by the customers. Positioning is important because this part comprises building a suitable value in the eyes of consumers. If this value is suitable, it will eventually encourage them to buy the products offered by the culinary stall sellers. Halal marketing and labeling is one form of positioning with the target market being the Muslim community, both local residents and tourists, by instilling that the products sold are safe and halal, and do not contain pork. Hence, do not be surprised if more and more sellers see this opportunity by applying positioning with the halal logo simultaneously.

In addition to the Muslim community, it turns out that there are also those who choose products with halal labels because the content is more preferred and does not include certain ingredients and processes that are actually quite dangerous. With this halal label, sellers will get additional market reach that is not only specifically for Muslims but also for other consumers. Muslims who see the label will choose to eat at the place because they feel safe and according to the Sharia law. This label also reaches a market that does not care about halal labeling so that it will get additional customers. The reason for non-Muslim consumers is simple. Halal items, they believe, are both healthy and delightful. This is inextricably linked to the notion of processing halal items, particularly food, which is halal both in essence (by materials) and in method. Halal items must also be *thayyib*, which indicates they are clean, of high quality, and healthy.

#### 4 CONCLUSION

The most essential component of food/beverage, as well as the developing halal lifestyle in Indonesia, is the halal label, which is widespread in the city of Denpasar, Bali, as one of the most popular tourist destinations in Indonesia. Support from all aspects, including the service of halal food booths, is required for development of tourism. For four reasons, the halal mark should be prominently displayed in the presence of Islamic minority, particularly among food vendors. To begin with, the logo's placement is a type of Islamic expression. The second factor is Muslims' preference to eat halal cuisine and their lifestyle. Third, the halal logo is universal in that it is not dominant to any one religion. Finally, fourth, the halal logo is seen as a marketing strategy to attract maximum buyers.

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## **Qur'an learning innovation business based on personalized integrated technology**

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**ABSTRACT:** The COVID-19 pandemic has hit various countries with major impact on various aspects, such as not only formal education as in schools but also non-formal education, such as preaching at holy places. The country with the largest number of Muslims in the world is Indonesia. However, Qur'an illiteracy is still high. This innovation is designed using a personalized learning approach that adapts to the needs, strengths, and interests of each learner. This learning accommodates the interest of learners toward teachers according to the needs of time, various learning methods, and emphasizes the age level of learners in the learning process. The purpose of this research is the development of learning media services in the form of text, animation, and video by utilizing websites and applications tailored as per the learning needs of the students. This technology can be integrated with physical games, board games, and books. The Qalifa opened the Q-Academy scholarship program, which is a free learning program for 1 week. A total of 150 applicants participated in the inaugural learning program. In addition, at the end of the activity positive response from customers was received after using learning services.

**Keywords:** Learning innovation, technology, Q-Academy

### **1 INTRODUCTION**

The COVID-19 pandemic is currently a challenge for humans. From various aspects, not only formal education in schools but also non-formal education such as preaching at holy places was affected. Indonesia is the country with the highest Muslim population in the world. However, illiteracy rate with regard to Qur'an is still high. According to data from PTIQ (College of Qur'anic Sciences), Jakarta, 65% of Indonesians were still illiterate in Qur'an in 2017. A total of 225 million Muslims (i.e., 54%) fall in the category of illiteracy of the Qur'an, so only 46% of Muslims are literate with regard to Qur'an and are able to read the Qur'an. Various efforts are undertaken to overcome this problem. A number of studies show that the innovation of learning methods using Android or other electronic media produces quite encouraging results. Some of the Qur'anic learning applications developed are ANIS and Noor Al-Qur'an for Android users. The next innovation is to present the interactive media board game Ilman Nafi'an for children as one of the efforts to learn without getting bored and to boost understanding of the material. This innovation is still not effective because it only focuses on certain users and the learning of the Qur'an majorly relies on self-learning, which literally this technology cannot provide. So far, existing self-learning apps have not applied the talaqqi method recommended in Islam.

The talaqqi method, also often called mushafahah, is a teaching method in which teachers and students interact face-to-face. A teacher is a must for learning the Qur'an because the learner must be able to recite well and his readings must be evaluated. A Muslim should read in a tartil manner

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and perform the method of talaqqi according to the word of Allah in the Qur'an surah Al-Qiyama verse 18: "When We have read it then follow it".

In this context, this innovation comes as one of the innovative solutions that integrate several existing learning methods through various media, such as websites, teaching books, and boardgames that have been adapted as per age level. This innovation is designed using a personalized learning approach, which is personal learning that adapts to the strengths, needs, and interests of each learner. This learning accommodates the interest of learners toward teachers according to the needs of time, various learning methods, and emphasizes the age level of learners in the learning process. The purpose of this research is development of learning media services in the form of text, animation, and video by utilizing website technology and applications tailored to the learning needs of learners. This technology can be integrated with physical games, i.e., board games and books. The website can be utilized for learners in helping the learning process as an optimization of learning media-based curriculum tailored to the needs and learning stages of learners that have been applied in the Learning Management System integrated with learning books.

Researchers have developed learning management system for learning the Qur'an, e.g., the application of the Guidelines for Reading the Qur'an (Learning to Read the Qur'an). This led to the development of a Learning Management System (LMS), specifically for the learning of the Qur'an-BBQ. The results showed that although the ability to read the Qur'an in both groups increased significantly in the e-BBQ group higher than in the group without e-BBQ. In conclusion, e-BBQ is able to improve the ability to read the Qur'an for students. The usefulness and ease of use experienced by students became a major factor in the acceptance of this LMS, and helped them improve their Qur'anic reading skills.

## 2 LITERATURE REVIEW

### 2.1 *Application of Qur'anic learning with self-learning methods*

Information technology is increasingly becoming sophisticated and has both positive and negative impacts. One of them is Android, which is one of the mobile operating systems developing very quickly. This leads developers to create applications that make it easier for users. Technological developments bring changes, including the learning process that penetrates into the digital realm. Research shows that interactive multimedia applications are proving to be more effective and efficient than conventional learning. There is continuous development of learning media for learning of the Qur'an. This medium was developed with self-learning methods. Previous research on the application of learning the Qur'an Tajwid has been widely done. Research in the form of Android-based Tajwid educational games by Mildayanti, et al in 2016, Abidin and Listyorini in 2018, and Android-based Tajwid learning developed specifically for children. The results of Mildayanti, et al. study showed a response in a good range and tests on content saw a 100% result, usability tests 87%, and child respondent tests 88%. Abidin and Lityorini's research resulted in a Tajwid educational game that can be used by all smartphone users with Android OS and Ashadiqi's research increased children's interest in apps by 80%.

Furthermore, Jumarlis in 2018 conducted research on the application of hijaiyah letter recognition material based on augmented reality. Another research is on the development of applications for memorization of the Qur'an, namely research by Mulyana in the form of interactive electronic hijaiyah puzzles and games with a combination of software and hardware that help learning in early childhood by the introduction of hijaiyah letters of the Qur'an.

### 2.2 *Qur'anic learning media board games for children*

Learning media is an intermediary form used to convey learning both in the form of ideas and opinions by bringing messages or information to achieve learning goals. Games as a learning medium can make the learning atmosphere more fun and can reduce saturation to the information

provided. Board games are an attractive media choice as a medium of learning, especially children to teenagers, because their interest in games is high. The material taught is easier to understand because it is through the method of playing while learning. The implementation of the method of playing while learning is quite familiar to be used in religious fields, especially the learning of the Qur'an, because the material taught will be easier to understand and remember when learned while playing. Development of board game learning media for Qur'anic learning is ongoing, such as Oktaviani's research in 2017 on media board games that help memorize Asma-ul-Husna as a learning tool at TPQ Al-Huda Babadan Baru Ungaran, which showed that learning using tools in the form of games will be more interesting and effective for children. Another similar study was conducted by Simanjuntak (2019) on the use of board games as a medium of daily learning for children, with results of trials of children in landfill who are very enthusiastic about learning processes using board game media. Further research by Sasmita in 2019 on the design of board games as a medium of hijaiyah letter learning for early childhood (ages 3–6 years) showed as many as 80% of respondents increased knowledge about hijaiyah letters.

### 2.3 *Learning of the Qur'an integrated technology based on personalized learning*

Personalized learning is a new technique in the world of Qur'anic education. Learning innovations developed by researchers are also a combination of several technologies that have been applied before, so their use is expected to be more effective solutions than the previous ones. This type of learning media was chosen in the field of Qur'anic education because it strongly supports the learning atmosphere in an effort to adjust the needs of learners, materials made according to the age level of learners, and learning experiences.

Researchers have been developing Qur'anic learning applications. Qalifa application is designed as a medium of learning to read the Qur'an. Through innovation formulated into a compact application, this application using the concept of personalized learning style can be facilitated through learning methods tailored to the needs of students with Qalifa Certification of Mixed Learning Methods (Qalifa CBL). User needs is a major aspect in human-centered design. User interface design are tested by Heuristic Evaluation (HE) related to user ergonomics when using applications particularly in terms of visual literacy in symbols and designed layouts. In addition, researchers have developed an app called QUR'ANI to teach the reading of the Qur'an smoothly and precisely to students with hearing disabilities. The effectiveness of this application in teaching Qur'an to such students has been tested with positive results. In addition, the subjective point of view of the teacher in this application has been consulted. The study found that there is a strong correlation between the two components of reading fluency.

Researchers have developed a precise measuring tool for perception of students' learning to read the Qur'an. Students' perceptions of the teacher's effective communication affect the learning atmosphere. Perception measurements show how students perceive the quality of learning. The results identified four dimensions that explained 64.6% of the variation. The instrument consists of 13 items with satisfactory reliability and validity. The dimension with the highest coefficient path is "understanding and friendliness" (UF), while the dimension of "learning media" (LM) is the lowest. There is a significant influence of gender on the UF dimension, as well as verbal (V) and non-verbal communication (NV), whereas there is no difference in LM dimensions. Questionnaires can be used effectively in dimensional measurement devices related to students' perceptions of the teacher's effective communication in Qur'anic learning.

## 3 RESEARCH METHODS

The implementation of this learning media helps researchers in using the methods during Startup Development Phases. Here is the explanation of the methods used by researchers:

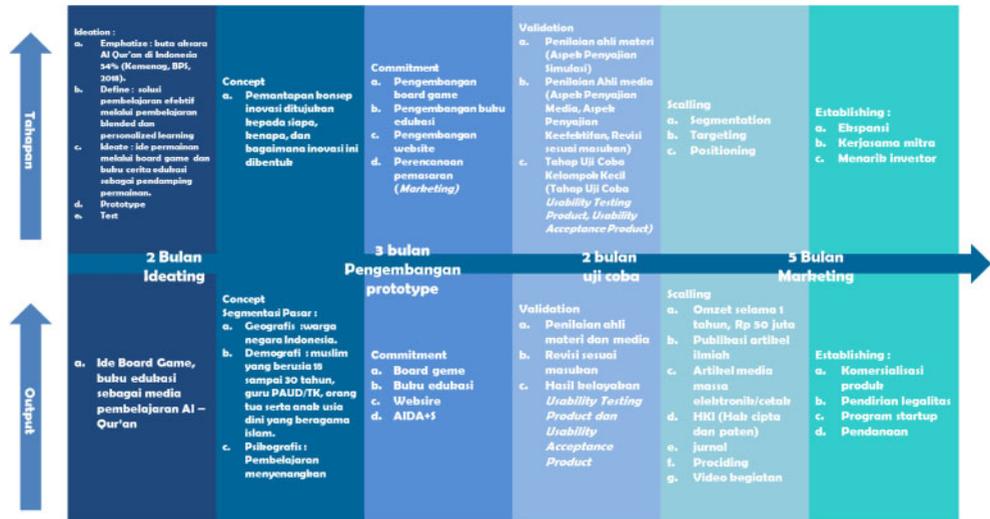


Figure 1. Startup development phases system.

### 3.1 Pre-production stage

The activities are carried out aimed at maturing all concepts, among others:

1. Ideation: Researchers use Design Thinking. Here are the stages:
  - a. Emphasize: the ability to understand and feel the problems that exist.
  - b. Define: forms the user's point of view to be used during creation.
  - c. Ideate: a phase to explore the various solutions that may be produced in large and diverse quantities.
  - d. Prototype: a phase to convert ideas into physical forms.
  - e. Test: learn more about the user, and improve the original point of view in understanding all conditions.
2. Concept: the establishment of the concept of innovation is addressed to who, why, and how this innovation is formed. Researchers determine market segmentation as follows.
  - a. Demographics: market division according to age, gender, education, religion, etc.
  - b. Psychographic: market division on the basis of social class, lifestyle, or personality.
  - c. Geographical: market distribution according to the region.

### 3.2 Stage of production

Activities are carried out aimed at manufacturing business innovation products, among others:

1. Commitment: determination of product development methods. Researchers plan marketing with AIDAS methods including:
  - a. Attention: attracting the attention of the target audience, whether readers, listeners, or viewers. This stage includes three aspects: (1) Meaningful, (2) Believable, and (3) Distinctive.
  - b. Interest: the emergence of consumer buying interest is attracted to objects introduced through marketing.
  - c. Desire: mobilizing people's desire to own or enjoy the product.
  - d. Action: persuading prospective buyers to immediately take the purchase action.
  - e. Satisfaction: the consumer is satisfied with the product and will decide to buy again.

2. Validation: a level of validity of an instrument that is carried out, among others.



Figure 2. Validation system.

### 3.3 Stage of development

Aim to obtain the legality of the business, and expand the potential of development, including:

1. Scaling: the process of production and validation begins to be marketed in the implementation of researchers using nine cores of marketing, as following [38]
  - a. Segmentation: identifying opportunities.
  - b. Targeting: putting the company into that segment.
  - c. Positioning: putting the product in the customer's mind.



Figure 3. Scaling process.

2. Establishing: after conducting business and business processes, the company is established as one of the business achievements to continue in the next business class on a wider scale. Furthermore, product commercialization, legalization, startup development, and funding search can be implemented.

## 4 RESULT AND DISCUSSIONS

Based on the methods and objectives of research, the activity starts with ideating of business ideas and market environment analysis and ends with the establishing stage, among others, market expansion, IPR creation, and business legality. Here is an explanation of each stage in this study.

### 4.1 Ideating stage:

At this stage, it is very important to determine the success of the next stage. The ideating stage starts from the identification of problems by collecting data and related information, until finally

there are solutions/ideas needed in solving the problem of low level of knowledge of reading the Qur'an in some circles.

Based on the results of Focus Group Discussion (FGD) that was done, the results are obtained, among others, as follows.

- a. Students are less able to read the Qur'an because of the difficulty in dividing time and accessing learning that is usually done in the afternoon.
- b. Students want a medium of learning and methods that is fast and easy to access. In addition, students also want a variety of learning media.
- c. The needs of students in the ease of accessing materials and flexible time with the calcification of knowledge levels.
- d. The innovation of Qur'an based on integrated technology with personalized learning is expected to help students in learning the Qur'an intensively in accordance with their needs.

In addition to conducting empirical studies at several levels of education in East Java, researchers conducted competitor analysis to build differentiation of Qur'an-based integrated technology with personalized learning. The following are the results of comparative studies with products that are already on the market.

Indikator	qalifa	umma	isRA
Personalized Learning	✓	✗	✗
Blended Learning	✓	✗	✓
Bookstore	✓	✓	✗
Webinar	✓	✓	✗
Private Mentoring	✓	✓	✓
Pembelajaran untuk kompetisi (MTQ)	✓	✗	✗
Grup diskusi	✓	✗	✓

Figure 4. Competitor comparison.

From the table above, it can be known that Qalifa Indonesia has a more diverse and personalized learning-based media. So, the students can learn flexibly and as per their needs. The existence of board games and learning books will increase product differentiation in Qalifa.

#### 4.2 Concepting stage

Based on the results of FGD with the school and students, a design for the development of Qur'anic innovation based personalized learning. The following are the basic specifications as guidelines in product development.

- a. The concept of personalized learning

PAKET PEMBELAJARAN QALIFA INDONESIA				
No	Jenis Kelas	Tingkat	Jenis Personalisasi	Waktu
1.	- Kelas Baca Al-Qur'an - Kelas Tartil - Kelas Tilawah - Kelas Tahfidz	- Dasar - Menengah - Mahir	- Privat - Kelompok	- 1 Bulan - 3 Bulan - 6 Bulan - 1 Tahun

Figure 5. Qalifa learning package.

The concept of personalized learning, Qalifa, provides several learning packages consisting of several options about class type, level, type of personalization, and time. It then provides personalization for students in that it offers choices for using learning media that can make it easier for students to absorb the learning materials.

b. Board game concept



Figure 6. Al-Quran learning board game.

Board game is a learning concept in Qalifa that helps children learn to read the Qur'an through games. Hijaiyah letter recognition learning material is designed as attractive as possible.

c. Concept of Eksiklopedia Book "Great Muslim Child"



Figure 7. Quran learning book.

In the process of making it, the chatbot will be integrated with Telegram so that for easy access of students. Next, students will register by choosing a learning package and making payments. Furthermore, students can learn to use this chatbot by accessing materials, working on problems, and seeing learning outcomes when the learning period has run out.

4.3 *Committing stage*

The third stage of this research is to build a website and application of Qur'anic learning based on personalized learning including ideating and concept activities. Here is a look at the Qalifa website and app.

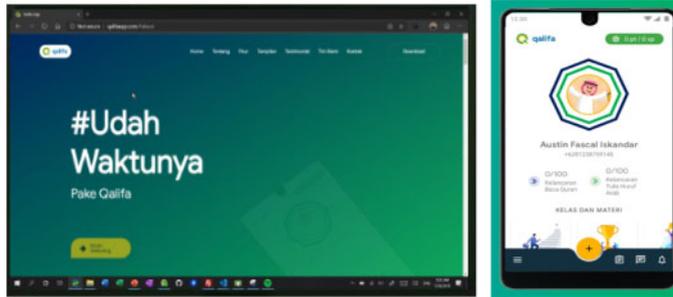


Figure 8. Landing page of learning website.

The landing page contains Qalifa profile, Qalifa feature information, and there is information related to Qalifa learning packages. In addition, on this front page, there is sign-in and sign-up access.

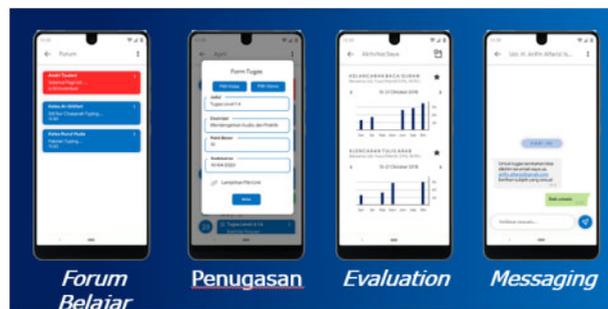


Figure 9. Al-Quran learning flow.

Here is a more detailed explanation of the main menu: a) Forum and cloud messaging provides convenience to teachers and students allowing communication with each other and provides assignments. b) Mentor schedules and assignments can directly assign assignments when looking at the schedule on the dashboard, and students can review existing schedules. c) Access materials and teaching materials using levels, where each level requires certain points to be able to continue learning, so that learning outcomes will be measurable. d) Evaluation of learning outcomes.

On Qalifa's website, there are course features, stores, and articles. In the course feature, users can access learning materials in the form of videos, PowerPoint presentations, or PDF. In addition, students can access learning through interesting webinars. There is also a store feature that can be used to buy worship equipment, books, and Qur'anic learning media in the form of games. The article features that can be accessed by both users and non-users contain articles on Qur'anic education or events held by Qalifa. Here is a look at some of the features in Qalifa.

Board games and books on Qalifa are integrated with the website. Early age students can use board games to learn hijaiyah letters and can access learning materials, and take on quizzes. In addition, learning books filled with images are interesting to read. However, before using it, students must first register in the application account to choose the learning package and the learning media to be used. After registering and making payments, users will be able to access learning according to the duration of the selected package.

Qalifa's learning process opens several learning packages for free. This aims to find out the customer's response to the learning package offered. Qalifa opened the Q-Academy scholarship program, which is a 1-week lightning learning program for free. A total of 150 applicants participated

in the inaugural learning program. In addition, at the end of the activity positive responses were received from customers after using learning services.



Figure 10. Teaching and learning activities.

## 5 CONCLUSIONS AND SUGGESTIONS

This research has been carried out on the development of Qur'anic learning applications. Qalifa application is an application designed as a medium of learning to read the Qur'an. Through innovation formulated into a compact application, using the concept of personalized learning can be facilitated through learning methods tailored to the needs of students as per their age. The Qalifa Certification of Mixed Learning Methods (Qalifa CBL) leads to the development of Learning Management System (LMS), specifically for learning the Qur'an through e-BBQ. The results showed that the ability to read the Qur'an in both groups increased significantly in the e-BBQ group than in the group without e-BBQ. It can be concluded that e-BBQ is able to improve the ability to read the Qur'an. The usefulness and ease of use experienced by students became a major factor in the acceptance of this LMS, and helped them improve their ability to read the Qur'an. Perception measurements show how students perceive the quality of learning. The results identified four dimensions that explained 64.6% of the variations. The instrument consists of 13 items with satisfactory reliability and validity. The dimension with the highest coefficient path is "understanding and friendliness" (UF), while the dimension of "learning media" (LM) is the lowest. There is significant influence of gender on the UF dimension, as well as verbal (V) and non-verbal communication (NV), whereas there is no difference in LM dimensions. Questionnaires can be used effectively in dimensional measurement devices related to students' perceptions of the teacher's effective communication on Qur'anic learning.

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## Characterization of crude extract of protease from *Bacillus megaterium* TR-10 as efforts to support halal collagen production process from waste fish

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**ABSTRACT:** The purpose of this study is to determine the characteristics of crude protease extract from *Bacillus megaterium* TR-10, by determining the type of protease based on pH and the addition of EDTA, determining the effect of temperature, and the effect of adding metal ions ( $\text{Fe}^{2+}$ ,  $\text{Mn}^{2+}$ ,  $\text{Mg}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Cu}^{2+}$ ) on protease activity, and its selectivity toward milkfish waste. The results showed that crude protease extract had neutral proteases, basic proteases, metalloproteases, and proteases that were inhibited by metal ions. Their activity increased from 37°C to 40°C, also in the presence of  $\text{Mn}^{2+}$  and  $\text{Mg}^{2+}$  ions, but the activity decreased in presence of  $\text{Fe}^{2+}$  ions, and even lost activity on addition of  $\text{Zn}^{2+}$  and  $\text{Cu}^{2+}$ . The crude protease extract has selectivity toward various parts of milkfish waste with the order of scales > skin > bone > tail. Results show that the crude protease extract from *B. megaterium* TR-10 has the potential to replace porcine pepsin in the process of extracting collagen from milkfish waste.

**Keywords:** Halal collagen, *Bacillus megaterium*, Waste fish

### 1 INTRODUCTION

Collagen extraction can be carried out by chemical and enzymatic methods (Kiew & Don 2013). The yield of collagen obtained by chemical processing is lower than that obtained enzymatically (Nagai, Izumi & Ishii 2004). Enzymatic collagen extraction makes use of the activity of protease enzymes that catalyze the cleavage of peptide bonds of connective tissue as a source of collagen at certain positions, so that the resulting collagen product obtained is uniform. Porcine pepsin from stomach of pigs is a protease that is used in the collagen production process (Yang & Shu 2014). This causes the collagen produced to be forbidden to be consumed by Muslims (Susanti et al. 2021). The solution to this problem is to replace porcine pepsin with other types of proteases. Protease from *Bacillus megaterium* TR-10 is a potential source of protease substitute for porcine pepsin from pig stomach. *Bacillus megaterium* TR-10 is one of the proteolytic bacteria isolated from Sidoarjo shrimp paste, which has a moderately high proteolytic index of 3.0, can produce a crude protease extract with high activity on casein substrates and is selective of milkfish scales (Chusniyah 2013), and it is not pathogenic (Fitri 2019).

The process of enzymatic collagen extraction is influenced by the type of protease used and the reaction conditions maintained. The types of proteases based on pH are known to be acidic, basic, and neutral protease groups, wherein each protease has a different optimum pH. Acid proteases exist in the pH range of 3–5; neutral proteases exist in the pH range of 6–7; while basic proteases exist in the pH range of 8–12. Based on the amino acid residues that play a role in the active center

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of the enzyme, serine, cysteine, metallo, and aspartate proteases are known. The need for metal ions is known to have metallo and nonmetallo proteases. Each of these proteases has a different catalytic mechanism leading to different reaction conditions. In general, enzyme reactions are influenced by pH, temperature, and metal ions that contribute to increasing enzyme activity (activator) or vice versa, which can inhibit enzyme activity (inhibitor). Enzymes function optimally at a certain pH and temperature (Pelczar 2010), and are strongly activated by metal ions in case of certain enzymes (Yossan et al. 2006).

Proteases from several *Bacillus* groups showed optimum conditions for protease production and different characteristics for each type of proteolytic bacteria. Protease from *Bacillus megaterium* isolated from Thai fish sauce fermentation had optimum activity at optimal pH of 10 and temperature of 50°C (Yossan et al. 2006). The protease of *Bacillus circulans* BM15 has an optimal pH of 7 and an optimal temperature of 50°C (Venugopal & Saramma 2007). Protease from *Bacillus megaterium* isolated from red seaweed in India had the highest activity at pH 9 with a temperature of 40°C. (Rajkumar et al. 2010). The characterization of the crude protease extract from the bacterium *Bacillus megaterium* TR-10 is not yet known, so it needs to be characterized, which includes the type of protease, the effect of temperature, and the effect of several metal ions including Fe<sup>2+</sup>, Mn<sup>2+</sup>, Mg<sup>2+</sup>, Zn<sup>2+</sup>, Cu<sup>2+</sup> on protease activity. Each connective tissue has a characteristic structure. On the other hand, proteases are known to have specific cutting sites. In this regard, it is necessary to explore the protease selectivity of *Bacillus megaterium* TR-10 for collagen raw materials from various parts of milkfish waste, namely scales, skin, bones, and tails, to increase its potential as a substitute for porcine pepsin.

## 2 MATERIAL AND METHODS

### 2.1 Equipment

This research uses glass equipment in the form of a Petri dish, 5 mL volumetric pipette, spirit lamp, stirring rod, spreader rod, test tube, glass funnel, measuring flask, Erlenmeyer flask, centrifuge tube, beaker glass, measuring pipette, thermometer, and watch glass. Other equipment used were cuvettes, magnetic stirrer, micropipettes with capacities of 100 µL and 1000 µL (*vitlab*), microtubes with volume capacities of 1.5 mL and 2 mL, blue tips, yellow tips, loop end wires, glass slides, cotton, tissue, rubber bands, plastic, matches, brown paper, Whatman filter paper number 40, fine filter paper, pH meter, hot plate, universal indicator, refrigerator, autoclave (*Tony*), oven (*Memmert*), Eyela Soft Incubator SLI-600ND, water bath incubator (*Memmert*), Eyela Uni Thermo Shaker NTS 1300, analytical balance (*Precisa XT 120 A*), vortex (*Dargon Lab MX-5*), Thermo Scientific Waterbath (*Shaker Incubator*), centrifuge (*Tomy MX-105 High Speed Refrigerated Microcentrifuge*), Thermo Scientific Hot Plate Stirrer, and spectrophotometer (*Spectrophotometer Spectronic 20 50DA*), Microscope (*Olympus*).

### 2.2 Research materials

The materials used in this study were p.a. (pro analysis), namely: sodium chloride (NaCl), sodium hydroxide (NaOH), sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>), Folin Ciocalteu, BSA (Bovine Serum Albumin), glucose, magnesium sulfate hexahydrate (MgSO<sub>4</sub>.7H<sub>2</sub>O), potassium dihydrogen phosphate (KH<sub>2</sub>PO<sub>4</sub>), iron (II) sulfate hexahydrate (FeSO<sub>4</sub>.7H<sub>2</sub>O), copper (II) sulfate pentahydrate (CuSO<sub>4</sub>.5H<sub>2</sub>O), sodium citrate dihydrate (Na<sub>3</sub>C<sub>6</sub>H<sub>5</sub>O<sub>7</sub>.2H<sub>2</sub>O), tyrosine, TCA (trichloroacetic acid), and casein. Materials with a technical level include tofu liquid waste, scales, skin, bones, tail from milkfish, skim milk, nutrient agar, nutrient broth, distilled water, hydrochloric acid (HCl), alcohol, spiritus, and bacto agar.

### 2.3 Preparation of crude protease extract

One ose of pure culture of *Bacillus megaterium* TR-10 was inoculated in nutrient broth medium, incubated at 37°C and 100 rpm for 4–6 hours to obtain a starter inoculum at OD 660nm = ±0.3. A

total of 20 mL of starter inoculum was inoculated on 100 mL of production medium in a 250 mL Erlenmeyer flask containing 0.5 MgSO<sub>4</sub>·7H<sub>2</sub>O; 0.01 FeSO<sub>4</sub>·7H<sub>2</sub>O; 0.5 KH<sub>2</sub>PO<sub>4</sub>; 0.5 glucose, and few mL of tofu liquid waste with a protein content of 115 mg/L. The inoculum in the production medium was incubated for 43 hours at 37°C for 100 rpm. The growth products were centrifuged at 10,000 rpm for 10 minutes. The supernatant obtained was a crude extract of the protease enzyme.

#### 2.4 Collagen raw material preparation

The source of collagen used is the scales, skin, tail, and bones of milkfish. The collagen source was cleaned of impurities with hot water for 3–5 repetitions and dried in the sun for 6–9 hours or dried in an oven at 60°C for 4–5 hours. The cleaned collagen source was then soaked in 0.1 M NaOH (1:10w/v) for 6 hours (every 2 hours the NaOH was replaced), then washed with sterile distilled water to pH 7.

#### Protease assay

A total of 0.5 mL of casein substrate (% w/v) in buffer was mixed with 0.2 mL of crude enzyme extract in a test tube. The solution was incubated for 20 minutes. Next, the reaction was stopped by adding 1 mL of 10% TCA solution and left at room temperature for 15 minutes. After that, the solution was centrifuged at 10,000 rpm for 10 minutes. The centrifuged supernatant was added with 2.5 mL of 0.5 M Na<sub>2</sub>CO<sub>3</sub> and 1 mL of Folin-Ciocalteu reagent. The solution was incubated for 30 minutes at room temperature in a dark room. The absorbance of the product was measured at 660 nm with a blank using a standard tyrosine solution.

#### Determination of the type of protease using pH

The crude protease extract was tested for its activity using 1% casein substrate, which was dissolved in buffer at various pH, namely pH 5–7 using phosphate buffer while pH 8–9 using Tris-HCl buffer.

#### Determination of protease types using EDTA

The inhibitor substrate tested was ethylenediaminetetraacetate (EDTA). The crude protease extract was tested for its activity using 2% casein, which was added with various concentrations of EDTA and yielded a final concentration of 10 mM EDTA; 25 mM; 50 mM; and 100 mM.

#### Effect of temperature on enzyme crude extract

A total of 0.5 mL of casein substrate (% w/v) in tris buffer mixed with 0.2 mL of crude extract was tested for activity at incubation temperatures of 37°C and 40°C for 20 minutes.

#### Effect of metal ions on enzyme crude extract

Several metal ions were added using metal salts such as ZnSO<sub>4</sub>, MgSO<sub>4</sub>, MnSO<sub>4</sub>, FeSO<sub>4</sub>, and CuSO<sub>4</sub>. The crude protease extract was tested for its activity using 2% casein added with metal ions to produce a final concentration of 10 mM.

#### Selectivity to various types of collagen raw materials

1.56 U/mL of crude protease extract was contacted with 5 g of fish waste, then suspended in a phosphate buffer solution of pH 6 to a total volume of 36 mL. The suspension was stirred using a shaker at 100 rpm at room temperature for 30 hours. Then it was centrifuged at 10,000 rpm for 1 hour. The supernatant obtained was Protease Soluble Collagen (PSC), then the levels were measured using the Lowry method.

### 3 RESULTS AND DISCUSSIONS

#### Determination of protease types based on pH

The activity of the crude protease extract of *Bacillus megaterium* TR-10 was affected by the pH of the reaction (Figure 1). There was an increase in protease activity from 6.243 U/mL at pH 5 to 8.109 U/mL at pH 6. Then there was decrease at pH 7 with an activity of 6.925 U/mL and at pH 8 with an activity of 3.477 U/mL. However, at pH 9 there was again an increase to 5.677 U/mL.

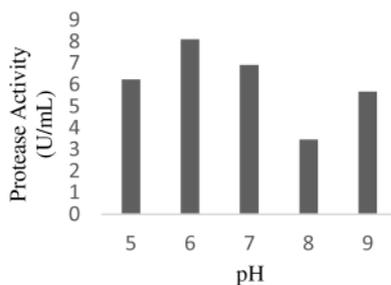


Figure 1. Protease activity at various substrate pH.

The results of this study indicate that there are two optimum pH with high activity, namely pH 6 and pH 9. The crude extract of the protease *Bacillus megaterium* TR-10 not only consists of one type of protease but also two other types of protease, namely neutral protease and alkaline protease. These results are different from similar studies. In other studies, only one optimum pH was produced, while in this study two optimum pH were produced. Yossan showed that the protease produced by *Bacillus megaterium* from the Thai fish sauce fermentation process had an optimal pH of 10 (Yossan et al. 2006). Rajkumar showed that the protease produced by *Bacillus megaterium* from red seaweed has an optimal pH of 9 (Rajkumar et al. 2010) and *Bacillus megaterium* isolated from the soil had an optimal pH of 7.5 (Asker et al. 2013). This indicates that the protease of *B. megaterium* TR-10 is different from that of *B. megaterium* previously studied.

#### Determination of protease types based on the influence of EDTA

The test involving the determination of the effect of adding EDTA on protease activity is often used as a test to identify the presence or absence of metalloenzyme groups, namely enzymes whose catalytic ability requires metal ions. EDTA is a chelating agent that will bind various metal ions in a reaction mixture. Metalloenzyme activity will be significantly reduced or even completely lost in the presence of EDTA (Fathimah & Wardani 2014). The results of this study showed a loss of protease activity in the crude protease extract of *B. megaterium* TR-10 with the addition of 10 mM EDTA (Figure 2). This indicates the presence of metalloprotease in the crude extract. But then there was gradual increase in activity from the addition of EDTA 25–100 mM with the activity being 0.878 U/mL to 1.277 U/mL, although the activity value did not exceed the activity without the addition of EDTA with an activity value of 2.563 U/mL (Figure 2). This is probably because there is a type of protease whose activity does not depend on the addition of metal ions, there is even a possibility that the presence of these metal ions inhibits its activity. This type of protease is thought to be non-dominant compared to metalloprotease so that with the addition of a small amount of EDTA, the dominant metalloprotease activity is lost, but the addition of EDTA will then bind more with metal ions, eliminating the inhibitory effect thought to be due to other types of proteases so that their activity gradually increases. This result is different from Asker (2010), which showed that the protease of *Bacillus megaterium* is a metallo protease (Asker et al. 2013). But similar to Sumardi's study, which showed that the addition of EDTA to *Bacillus* sp. UJ132

decreased activity with low addition of EDTA but increased activity when EDTA concentration was increased (Fathimah & Wardani 2014; Sumardi et al. 2019).

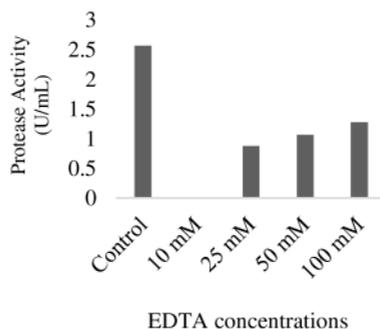


Figure 2. Effect of EDTA Concentrations on the Activity of the Protease Crude Extract of *Bacillus megaterium* TR-10.

#### Effect of Temperature on Protease Activity

In this study, the activity of crude protease extract from *B. megaterium* TR-10 was observed at 37°C and 40°C since the optimal temperature for proteases from Bacillus is in the range of 37°C–45°C. The results showed an increase of 50.96% from 5.098 U/mL at 37°C to 8.110 U/mL at 40°C (Figure 3).

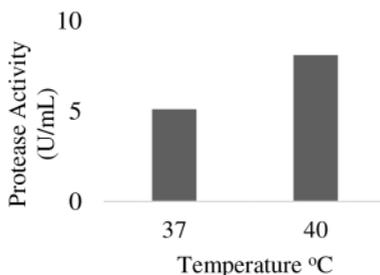


Figure 3. Effect of temperature on protease activity.

#### Effect of metal ions on enzyme crude extract

Metal ions can be said to be activators if they increase enzyme activity, while metal ions can be said to be inhibitors if metal ions inhibit protease activity with a marked decrease in enzyme activity. Comparison of metal ions as activators and inhibitors can be seen by comparing the activity of protease with and without the addition of metal ions. The results showed that  $Mn^{2+}$  and  $Mg^{2+}$  ions became activators for the protease of *B. megaterium* TR-10 with a marked increase in activity from 2.563 U/mL to 2.628 U/mL for  $Mn^{2+}$  ions and 5.227 U/mL for  $Mg^{2+}$  ions, while  $Fe^{2+}$  ions,  $Zn^{2+}$ , and  $Cu^{2+}$  were inhibitors with a marked decrease in activity to 0.968 U/mL on the addition of  $Fe^{2+}$  ions and loss of activity on the addition of  $Zn^{2+}$  and  $Cu^{2+}$  ions at the same concentration in all treatments. These results support that *B. megaterium* TR-10 produces a protease that is inhibited by the presence of metal ions as described in the section on determining the type of protease with the addition of EDTA and further shows that it is different from the proteases of *B. megaterium* in other studies.

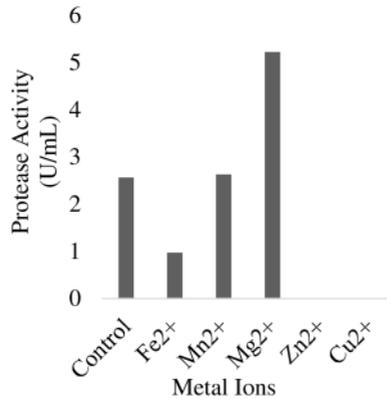


Figure 4. Effect of metal ions on protease activity.

#### Enzyme selectivity on collagen source

Fish waste is a promising source of collagen, in the form of scales, skin, bones, and tails. Each of these connective tissues has a different texture even though they both have a constituent unit in the form of collagen. Hence, they are thought to have different specific structures. The results showed that the protease of *Bacillus megaterium* TR-10 had the highest substrate selectivity in scales because it produced the highest soluble collagen protease at 0.042 mg/mL, then skin at 0.030 mg/mL, bone at 0.028 mg/mL, and the last tail at 0.018 mg/mL. This is because the protein component in milkfish scales is quite high  $\pm 70\%$  compared to bone and skin (Nagai et al. 2004; Ogawa et al. 2004), while the tail has the thickest structure so that it is thought to be the most difficult to degrade into collagen.

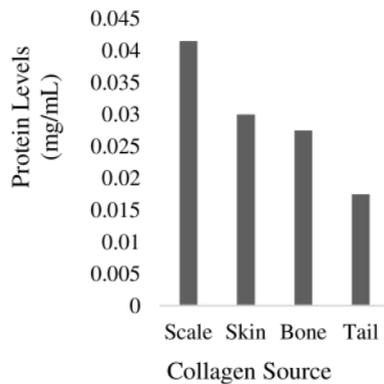


Figure 5. Protein levels in various types of collagen sources.

## 4 CONCLUSIONS

The characterization of the crude protease extract produced from *Bacillus megaterium* TR-10 showed that the crude protease extract had different characteristics from the crude protease extract from *Bacillus megaterium* that had been found previously, which contained several types of proteases, including neutral proteases, basic proteases, metalloproteases, and proteases that are inhibited by metal ions such as Fe<sup>2+</sup>, Zn<sup>2+</sup>, and Cu<sup>2+</sup>. The crude protease extract showed increased

activity from 37°C to 40°C, also in the presence of Mn<sup>2+</sup> and Mg<sup>2+</sup> ions. The crude protease extract has selectivity to tested substrate in order from largest to smallest, namely scales, skin, bones, and tail. Based on these results, the crude protease extract from *B. megaterium* TR-10 has very good potential to replace the use of porcine pepsin in the process of extracting collagen from fish waste.

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# The role of the national Sharia economic and finance commission (KNEKS) in improving financial literacy and investment in the Sharia Capital Market

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**ABSTRACT:** The level of financial literacy in Indonesia is still relatively low; there still are many people not familiar with investing in the Islamic capital market. Lack of financial literacy and investment is still one of the challenges in developing the Islamic economy and finance. The distribution is not carried out evenly to various regions in Indonesia in an educative and informative manner. This lack of literacy skills is shown by how well the Indonesian people understand Islamic financial and investment products. On the other hand, over time, the number of Islamic capital market investors has grown very rapidly from year to year, making it a popular investment choice for Muslim and non-Muslim investors in Indonesia. The growth rate of financial literacy and Sharia investment in Indonesian society cannot be separated from several roles of KNEKS in it. Therefore, this study aims to examine the role and progress of KNEKS in improving financial literacy and investment in the Islamic capital market with descriptive qualitative methods. The data collection technique used is the documentation method. The source of data in this study is secondary data obtained from the website of the agency tasked with supervising, accelerating, expanding, and advancing the development of Islamic economics and finance to support national economic resilience, namely KNEKS (National Commission on Sharia Economy and Finance). The results of this study indicate that KNEKS has many roles in increasing the financial literacy of Muslim millennials. One of them is by outlining the material phases of socialization of financial literacy and Sharia investment in every stage of people's lives. The mapping in the material socialization phase, it will facilitate the understanding of the community according to the age range in the category of thinking and understanding.

**Keywords:** Financial literacy and investment, Islamic capital market, KNEKS

## 1 INTRODUCTION

The financial sector in Indonesia is experiencing a significant growth. This is caused by several indicators that influence it, such as the community's need for various benefits from financial instruments, both non-bank financial and bank financial institutions. One of these indicators is the capital market. Economic development in Indonesia cannot be separated from the influence of the existence of the capital market. The government undertakes several efforts to continue growing the economy by campaigning for the capital market to the public. The origins of the capital market itself can be known by tracing sources in the economic history of medieval Italy. At that time, several city-states in Italy, such as Venice, Genoa, and Florence, emerged as financial centers between the East and the West.

Basically, the capital market consists of two words, namely market and capital. Thus, the capital market is defined as a meeting place for supply and demand for capital, both in the form of equity

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and long-term debt. Capital market activities in Indonesia began in 1912 in Jakarta. The securities traded at that time were shares owned by Dutch companies and the bonds traded were bonds owned by the Dutch East Indies government.

As a country with a majority Muslim population, Indonesia has the potential to become a center for Sharia finance and investment both locally and internationally. To realize this potential, a good understanding and sufficient literacy in Islamic finance and investment are required. In this way, Indonesia is not only a target market but also a pioneer and driver of the world's Islamic economy. The first thing to do is to increase financial literacy and Sharia investment equally. Reflecting on data from the Financial Services Authority (OJK) in 2016, Islamic financial literacy and investment in Indonesia was only 8.11% of the total amount of financial literacy, and conventional investment of 29.7%.

Financial and investment activities are based on religious regulations nowadays, because as a form of state that is based on the One Godhead. Therefore, the main purpose of this study is to determine the role of the National Sharia Economic and Finance Commission (KNEKS) in improving financial literacy and investment in the Sharia capital market.

## 2 THEORETICAL FOUNDATION

### 2.1 *Financial literacy and investment*

Seeing the level of public financial literacy is still low. In 2013, OJK surveyed the level of financial understanding literacy, only 21.8% of 9000 respondents throughout Indonesia, indicating that very few Indonesians understand finance. It is clear that OJK has three main functions, namely regulating, supervising, and protecting, Director of Literacy and Education at OJK Finance also wants the capital market to be better known (Situmorang 2016). Fundamental to Islamic financial literacy and investment are knowledge and education. These two components have an important role in a level of public understanding.

### 2.2 *Islamic capital market*

Sharia Capital Market has all activities in the capital market that do not conflict with Islamic principles. The Indonesian Islamic capital market is part of the Islamic finance industry, which is regulated by the Financial Services Authority (OJK), particularly the directorate of the Islamic capital market.

The institution that regulates the application of Sharia principles in the Indonesian capital market is the National Sharia Council of the Indonesian Ulama Council (DSN-MUI) in the form of issuing fatwas related to investment activities in the Indonesian Islamic capital market. The first fatwa on the Islamic capital market issued by the DSN-MUI in 2001 was fatwa no. 20 concerning the issuance of Sharia mutual funds. In 2003, DSN-MUI issued fatwa no. 40 concerning the capital market and general guidelines for the application of Sharia principles in the capital market sector. Then, in 2011, DSN-MUI issued fatwa no. 80 concerning the Application of Sharia Principles in the Equity Securities Trading Mechanism in the Stock Exchange Regular Market.

### 2.3 *National committee of Sharia economy and finance (KNEKS)*

The National Committee for Islamic Economy and Finance (KNKS), which previously had the name KNKS, was formed with the aim of increasing the development of the Islamic economic and financial ecosystem and making Indonesia a World Halal Center. The declaration of a starting point to position Indonesia as one of the main actors and world Sharia economic relations were carried out in line with the launch of the Indonesian Sharia Economic Masterplan in May 2019 (KNEKS 2021).

### 3 METHODS

#### 3.1 Research design

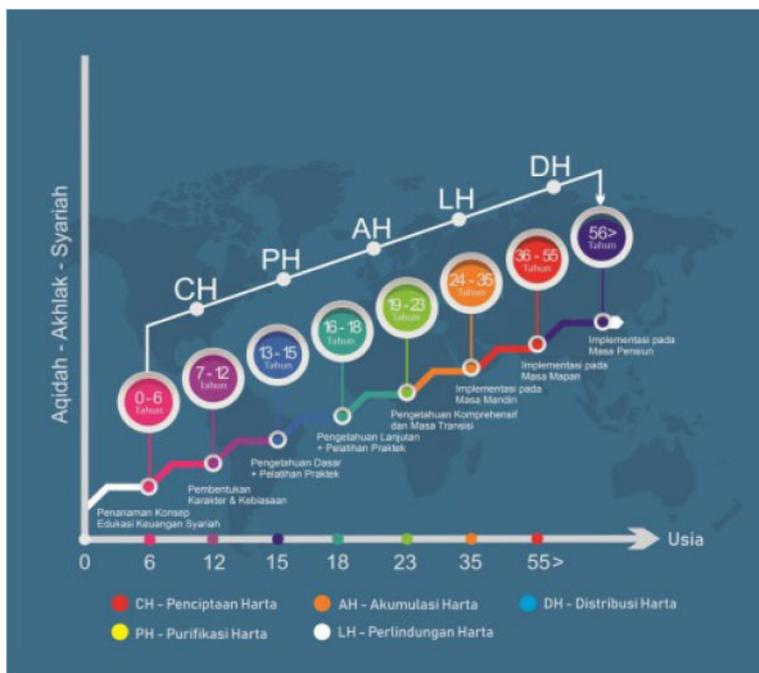
This research is qualitative and uses secondary data. Data collection was obtained from the website of the agency tasked with supervising, accelerating, expanding, and advancing the development of Sharia economics and finance to support national economic resilience, namely the National Commission for Sharia Economics and Finance.

#### 3.2 Data analysis and processing

The type of analysis used by the researcher in this research is a case study from documentation, in which secondary data collection is carried out through library research to obtain the documents needed as references, such as the Indonesian Islamic Economic Masterplan (MEKSI) 2019–2024, digital books, and other literacy materials that have been issued by the OJK as well as from the KNEKS website and journal.

### 4 RESULT AND ANALYSIS

The National Commission for Islamic Economics and Finance divides several phases of the age range in applying Islamic financial literacy and investment materials. As follows:



Source : [www.knks.go.id](http://www.knks.go.id).

#### 4.1 First phase (Age 0–6 years)

This phase involves instilling the concept of Islamic financial education through the nurturing process of daily activities that can be done by parents, supervising teachers, or families. The materials

that will be given are materially related to aqidah, morals, and mild Sharia, which can be directly linked to Islamic economic and financial literacy. The material contained is not given formally in a teaching and learning forum process, but needs to be embedded in the parenting process. This phase applies to people aged 0–6 years.

#### 4.2 *Second phase (7–12 years)*

In this phase, the character and habits of the community begin to form through daily routines. At this time, faith can be taught explicitly and equipped with knowledge of Allah SWT through an understanding of Asma'ul Husna, the attributes of Allah SWT, and having faith in Allah SWT the truth of the Qur'an and Hadith as part of the pillars of faith, equipped with other pillars of faith (Kemenag 2013). Habits in proper economic and financial activities should be inculcated at this time. Among the habits that need to be built is the habit of setting aside money before buying something, distinguishing between needs and wants, and building the habit of sharing with others and knowing the things that make something halal or haram in consumption. This phase is called the second phase, with an age range of 6–12 years.

#### 4.3 *Third phase (13–15 years)*

This phase involves the practice of basic economic and Sharia learning activities accompanied by practical exercises. It is necessary to develop skills and practice to make long-term or short-term financial planning so that people in that age range can begin to recognize the possible risks faced in financial and economic terms. Whereas the material that guides on Sharia is studying the provisions and laws in Islamic law economics and finance through the understanding of the basics of contracts and activities practiced directly. This phase is called the third phase, which includes people who have an age range of 13–15 years.

#### 4.4 *Fourth phase (16–18 years)*

This phase is a learning phase and uses advanced knowledge from the previous phase of Islamic economics and finance accompanied by intensive practical training. In this phase, learning and practice to improve financial literacy and investment in the capital market are carried out by providing more intensive socialization and debriefing. The scope of which discusses about taxes and zakat, Islamic law and positive law, sacrifice and aqiqah, as well as understanding various kinds of contracts that are lawful and unlawful in Islam such as usury, gharar, maysir, dzalim, and so on. At this age, independence must begin with a financial management approach adolescent personality. And this phase includes people aged 16–18 years.

#### 4.5 *Fifth phase (19–23 years)*

The fifth phase involves a comprehensive review of economics and finance. Sharia is practiced in transition from a period of study to a period of independence (practice and self-determination). In Indonesia, this age range is of students who begin directly contributing to the world economy. At this time, individuals already can apply their knowledge in their personal lives, meaning that they start participating in efforts to improve the economic community and protect the environment through a sharia-compliant lifestyle. As with the concept of maqosid sharia, this phase applies to individuals who are in the age range of 19–23 years.

#### 4.6 *Sixth phase (24–35 years)*

This phase involves the implementation of knowledge of Islamic finance and economics in life at an independent age (can make their own money). Understanding of financial literacy and Islamic economics can be implemented in the form of self-reliance to earn a living from lawful work both

for himself and for his family. In this phase, individuals tend to have small families that have just been formed and can manage personal and family finances well considering maqosid Sharia as a priority scale, besides that it can be uniform lifestyle between husband and wife. Examples of implementation of financial and economic knowledge Sharia in the sixth phase of life is to plan and work on short-term dreams such as preparing for the cost of the birth of a child, getting a place for decent living, bearing the cost of children's necessities, etc. Individuals in this phase have an age range of 24–35 years.

#### 4.7 *Seventh phase (36–55 years)*

The seventh phase is a phase that discusses about the implementation of knowledge of Islamic finance and economics in life at an established age. Knowledge implementation of Islamic finance and economics in life at an established age begins with achievements that support this to happen including starting to prepare for long-term dreams in the future such as preparing for retirement funds, preparing for child marriage, children's college costs, and so on. Individuals in this phase have an age range of 36–55 years.

#### 4.8 *Eighth phase (above 56 years)*

The eighth phase and at the same time the last phase includes the implementation of knowledge of Islamic economics and finance in life at the age of pension. This phase starts from the age of 56 years onwards which is based on the reality and existing regulations, most of the retirement age from formal work begins at this time. Individuals in the age range begin to instill the right aqidah, evaluate past mistakes, and keep faith until the end of life. Good investment choices at this time aid in having funds during retirement in a commercial financial institution, having passive income, become an investor who no longer thinks about how to make money by working.

## 5 CONCLUSION

The role of the National Islamic Economics and Finance Commission (KNEKS) in improving Islamic economic and financial literacy has a different approach if it is aimed at people of different ages. In Indonesia, the tiered school system that has been established by the government is an asset owned by the state to develop the knowledge of its people and has a certain age limit for each level. The age limit is set by Ministry of Education and Culture and Ministry of Religion of the Republic of Indonesia. Therefore, to improve financial literacy Sharia investment is divided into child and adolescent age groups based on age to the education level of early childhood, elementary school, junior high school, and senior high school.

Each layer of society has its understanding according to its age range. Therefore, KNEKS divides the distribution of understanding into eight phases, including the first phase (ages 0–6 years), the second phase (ages 7–12 years), the third phase (ages 13–15 years), the fourth phase (ages 16–18 years), the fifth phase (ages 19–23 years), the sixth phase (ages 24–35 years), the seventh phase (ages 36–55 years), and the eighth phase (ages over 56 years).

Based on the strong influence of the National Commission for Islamic Economics and Finance (KNEKS) on increasing financial literacy and investment in the Islamic capital market, it can be concluded that to get a higher level of increasing Islamic financial literacy and investment, education and knowledge are needed, which are socialized according to their age range and his needs.

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# Implementation of the product assurance regulation and halal tourism destination program to support the readiness of Indonesian halal hotels

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**ABSTRACT:** Increased awareness and knowledge of halal products contributes to the halal industry's growth. The growth of the halal industry has resulted in the emergence of halal tourism. The purpose of this study is to ascertain the readiness of Indonesian halal hotels to support the implementation of a halal tourism destination program in accordance with the Halal Product Assurance Regulation. This study employs a qualitative case study approach with a sample of 64 hotels located in ten regions designated as Indonesian halal tourism hotspots. The study's findings indicate that the existence of halal tourism, which is backed by the Halal Product Assurance Regulation, requires halal hotels to be prepared to adapt to the provisions of halal tourism. Apart from being able to support a program aimed at introducing tourism potential in ten regions across Indonesia, the hotel is also a popular destination for those seeking facilities, comfort, halal food, and satisfaction for Muslim tourists. Of course, by designating it as a halal hotel, it can have an effect on increasing tourist visits and improving tourist comfort while traveling.

**Keywords:** Halal tourism destinations, Halal hotels, Halal product assurance regulation.

## 1 INTRODUCTION

Halal is derived from the Arabic words “*halla, yahillu, hillan, wahalalan,*” which mean “justified or permitted by sharia law.” It further has a meaning as something that God permits or allow to take or to do. The term is a significant source that is not only associated with food or any edible products, but also pervades all facets of life, including banking and finance, cosmetics, employment, and tourism. Meanwhile, halal tourism is a relatively new concept in the world of halal and has been defined in a variety of ways by numerous experts. Halal tourism is defined differently by some experts. Halal tourism, in its simplest form, is a concept that carries out services and meets tourism needs according to Muslim halal standards. Therefore, each tourist destination must adhere to Islamic values, which include providing halal cuisine, praying facilities, clean facilities and infrastructure, and polite tour guides, as well as sharia hotels with separate swimming pools and spa facilities for men and women. Including, halal tourism has no room for night entertainment or prostitution. Additionally, all tourism activities adhere to Islamic principles, protecting tourists from immoral behavior.

Thus, tourist destinations that are welcoming to Muslim tourists can help strengthen faith and Islam while also providing tourists with comfort and security. According to Adinugraha et al, (2018), while the halal concept has become a way of life for the majority of Indonesians, halal tourism is still in its infancy. According to Lee Hi, (2017), Malaysia, which has a majority Muslim population, has developed a halal tourism industry, which has resulted in an increase in visitors year after year. Meanwhile, Muslim minority countries such as Japan, according to Soebagyo, (2012), continue to promote halal tourism in order to provide assurances to Muslim consumers. Tourism, according to Weaver and Opperman (in Pitana & Diarta, (2009)), is a phenomenon and relationship that results from interactions between tourists, business suppliers, host governments, local communities,

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governments of origin, universities, college communities, and non-governmental organizations. in attracting, transporting, hosting, and managing travelers and other visitors.

## 2 METHOD

This was a qualitative study that aims to elucidate the state’s role in the development of halal tourism objects and in ensuring legal protection for Muslim tourists. According to Bogdan and Taylor’s opinion in Moleong, (2017:4), qualitative research seeks to describe events or phenomena in terms of what is occurring in the field, and data is generated in the form of written or spoken words from people and observed behavior. The research method is descriptive, i.e. research approach that elaborates a description of an object as it exists at a particular time, in order to detail a series of data obtained through observations and interviews conducted (Riris 2014). The data for this study were gathered in the field through observations and also through direct interviews with key stakeholders such as the Public Relations Officer. Additionally, supporting data were used to enhance the research findings, which were derived from related documents. Informants were identified using data from ten regions designated as Indonesian halal tourism hotspots.

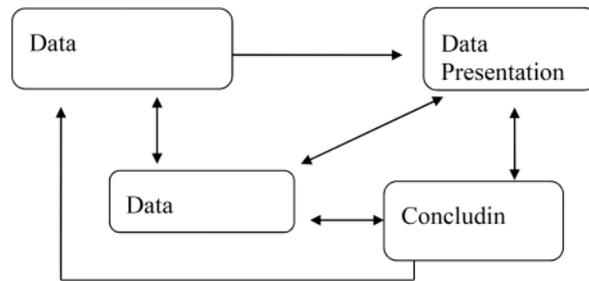


Figure 1. Analisis data model interaktif miles dan huberman.

## 3 RESULTS AND DISCUSSION

### 3.1 Halal hotels as halal tourist destinations

In Indonesia, developing new halal tourist destinations is relatively possible, as there are numerous untapped potentials. Among them are aspects of population, natural resources in all its forms, ethnicity, language, religion, and culture, all of which, if professionally managed and organized well and attractively, will undoubtedly add significant economic value and are more promising for the nation’s future. Indonesia. This study was conducted in ten Indonesian halal tourism areas, including Banda Aceh, Riau Islands, West Sumatra, DKI Jakarta, West Java, East Java, Central Java, Yogyakarta, West Nusa Tenggara, and South Sulawesi. The ten regions designated as Indonesia’s halal tourism areas already have halal hotels, as illustrated below:



Figure 2. Jumlah hotel halal hotel numbers in ten major areas.

Indonesia is currently ranked first among the top ten holiday destinations, with a GMTI 2019 index of 78. Indonesia is regarded as capable of developing tourism that caters to the specific needs of Muslim tourists, who are known to be more discerning than general tourists. Additionally, the Indonesian government is pursuing various halal tourism development strategies aggressively. However, the development of Halal hotels in Indonesia has lagged behind Malaysia and even Thailand. This requirement is what sets it apart from other forms of tourism Andriani, (2015). According to Mastercard & Crescentrating, (2016), Muslim tourists have four distinct needs that are not shared by other tourists: 1) the need to purify themselves before praying, 2) the need for prayer facilities and infrastructure, 3) the need for halal food, and 4) the need to adhere to and enjoy tourist attractions that do not conflict with Islamic values. Initially, the term religious tourism was used to refer to global developments Raj & Griffin, (2015), but the term spiritual tourism was later coined to refer to religious tourism activities specifically for non-Muslim tourists Sucipto & Andayani, (2015). Then the term sharia tourism was coined. The term sharia was initially considered more appropriate because it demonstrated the application of Islamic sharia values Sucipto & Andayani, (2015), and even gained enough traction to become the official terminology of the Ministry of Tourism in 2011 Nirwandar, (2012), but later drew criticism and debates. Because the term sharia is less widely accepted and extremely exclusive, the term halal tourism is used, which is gaining popularity today Andriani et al, (2015). Diverse government policies, both direct and indirect, also contribute to the development of halal tourism in Indonesia. Government support for halal tourism is evident in the passage of Law No. 33 of 2014, which establishes the government's obligation to provide consumers with Assurances regarding products on the market. Additionally, the law establishes the Central Halal Product Assurance Agency (BPJPH).

### *3.2 Readiness of halal hotels in supporting the halal product assurance regulation*

Halal destinations are prepared on three elements: products, human resources (HR) and institutions, and promotion (Andriani et al. 2015). In 2017, the Indonesian government established ten halal destinations. The ten destinations are located throughout Indonesia. Three of the ten destinations are designated as priority halal, including Aceh, West Sumatra, and West Nusa Tenggara (NTB). Along with the three main destinations, Makassar and West Java have been consolidated into five major destinations. Along with the top five halal tourist destinations, DKI Jakarta, Riau Islands (Batam), Special Region of Yogyakarta, East Java, and Central Java are also halal tourist destinations. Indonesia has a sizable market for halal destinations. There are 250 million Muslims in the country alone, who require the fulfillment of four Muslim tourist needs. If it is projected that 242 million trips will be made in 2019, this opportunity will grow even larger. The low level of socialization of sharia hotel certification is cited as a reason for the tourism industry in Indonesia's lack of interest in implementing the concept of halal tourism. At the moment, the development of halal tourism in ASEAN countries, both Muslim and non-Muslim majority countries, is still ahead of Indonesia. The following is a summary of halal tourism development in several ASEAN countries in 2013. Policies establishing standard criteria for sharia-compliant hotels can be used to gauge the disconnect between industry perceptions and tourist perceptions of the concept of halal tourism. Thalib et al. (2015) discovered that at least four gaps exist as a result of the impediment to the operationalization of the halal concept in the tourism industry. Internal barriers, inter-firm barriers, firm-government barriers, and firm-authority barriers are the four gaps. Additionally, this study examines the communication and dissemination of information about Sharia hotels, particularly from the government, through the implementation of the law on halal product Assurances.

Theoretically, this research will contribute to the tourism communication model, particularly mass and public communication, through activities such as promotion, socialization, and campaigns aimed at increasing understanding, awareness, trust, and cooperation among the broader community. (2007) (Kim). Individual interest is theoretically influenced by perception Sweeney

& Soutar, (2001), and communication is one of the factors that influence a person's perception. Tourist perception is critical in determining which destination will be chosen by tourists, as a person's perception is strongly influenced by his or her personal characteristics, motives, interests, prior experiences, and expectations received via the five senses Stephen, (2015). The outcome of this initial impression will have a significant impact on the tourist's decision to travel.

To foster a favorable perception, a tourist attraction must fulfill the wishes of visitors Pitana & Gayatri, (2005). This perception of Muslim tourists must be a critical factor in the development of a tourist destination, given the significant potential of Muslim tourists in today's tourism development. This is because the perceptions of individual Muslim tourists can be aggregated to create a collective perception that contributes to the competitiveness of tourist destinations and increases repeat interactions between tourists and these destinations Chen et al., (2016); Harrigan et al., (2017). Numerous studies have also discovered that the halal concept is acceptable to all groups, including non-Muslims, due to its reputation for producing safe, healthy, and wholesome products (Ambali & Bakar, (2013); Wilson & Liu, (2011)). In light of the aforementioned fact, it becomes less rational to regard halal tourism as a distinct form of tourism. From the tourist perspective, traveling is a pleasurable activity, with the added benefit of seeking pleasure and relaxation in addition to security and comfort. Halal tourism standards, as well as what tourists truly expect, must be investigated. It emphasizes religious values and caters to the needs of Muslim tourists who adhere to sharia law Bozorgaghideh, (2015). Halal tourism has enormous potential to boost a country's revenue significantly. According to Akyol's research, Muslim tourists spent 102 billion euros in 2011, and it is hoped that by 2020, this figure will reach 158 billion euros, indicating that religious beliefs have a significant impact on Muslim tourists' travel Akyol & KILINÇ, (2014).

### 3.3 *Barriers to the halal assurance regulation on halal tourism destinations*

Numerous studies have revealed a number of factors impeding the growth and development of the halal tourism market. One of the reasons for this is that the definition of halal is inconsistent—the halal logo is problematic; there is antipathy toward terms associated with Arabic or Islam, and existing halal institutions provide scant support Shafie & Othman, (2006). Thalib et al, (2015) conducted a study on the logistical challenges associated with halal product distribution. External barriers include those between industries (unfair competition), unsupportive government policies, and technical barriers imposed by regulatory agencies. Strict halal standards promulgated by halal authority organizations Expensive and lengthy certification process for halal products Aspects of communication barriers between government and industry. (Observation by a researcher, 2018).

### 3.4 *A strategy for improving the regulation on halal assurance's readiness in halal tourism destinations*

Communication is critical in the organization as a means of conveying information. However, communication is hampered by a number of obstacles, resulting in the failure to achieve the desired results. Physical, psychological, organizational, and language barriers all contribute to communication barriers. This communication strategy is a type of communication that serves a specific purpose in order for the organization to accomplish its mission Hallahan et al., (2007), and it serves as the foundation for developing communication programs and activities that align with the organization's objectives Holtzhausen & Zerfass, (2015). External communication, between organizations and related stakeholders such as consumers, related institutions, and the general public, is one of the studies on communication strategies that is critical for research. This communication strategy can act as a link between the organization and its stakeholders or as a buffer for the organization, ensuring that the institution's position and reputation are maintained Wonneberger & Jacobs, (2016).

## 4 CONCLUSION

The purpose of this study is to ascertain the readiness of Indonesian halal hotels to support the implementation of a halal tourism destination program in accordance with the Halal Product Assurance Regulation. This study employs a qualitative case study approach with a sample of 64 hotels located in ten regions designated as Indonesian halal tourism hotspots. The study's findings indicate that the existence of halal tourism, which is backed by the Halal Product Assurance Regulation, requires halal hotels to be prepared to adapt to the provisions of halal tourism. Apart from being able to support a program aimed at introducing tourism potential in ten regions across Indonesia, the hotel is also a popular destination for those seeking facilities, comfort, halal food, and satisfaction for Muslim tourists. Of course, by designating it as a halal hotel, it can have an effect on increasing tourist visits and improving tourist comfort while traveling.

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# A User-Centered Design (UCD) approach to designing and building halal tourism application to advance halal tourism in East Java

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**ABSTRACT:** The tourism industry became one of the solutions to amplify Indonesia's foreign exchange and reduce redundancy. In accordance with technological developments in the 4.0 industrial revolution, digital technology induced all human aspects, including Halal tourism. The aim of this study was to confer user experience with User-Centered Design (UCD) method. The research dealt with defining ideas, prototyping and testing by using data analysis from User Experience Questionnaire (UEQ). The purpose of this data analysis was to perform an assessment or evaluation of the website and application. These analytical tools as well as the UCD method was used to produce applications that were easy to understand, use, and could be developed into high-value applications.

**Keywords:** Halal Tourism, User-Centered Design, Islamic Halal Industry

## 1 INTRODUCTION

The tourism industry became one of the solutions for developing countries, such as Indonesia, to amplify foreign exchange and reduce redundancy (Rid et al. 2014). In accordance with technological developments and the 4.0 industrial revolution, digital technology induced all human aspects, including Halal tourism (Achyar 2015). Tourism has been developed over recent times, in that the use of smart technology-based application or a website is increasing. It utilizes various communication tools and gadgets. Recently, Muslim travelers could retrieve information when they went to halal tourism by using an application or website. Through applications and websites, Muslim travelers could access and discover destinations that accommodate Halal tourism (Herdiansah et al. 2018).

The tourism industry went through a transformation following social, political, and economic developments, including Halal tourism. Technological developments upshot the concept of smart tourism based-applications and websites with the aim to facilitate Halal tourism for Muslim travelers. This transformation presented opportunities for Halal tourism to develop applications that made finding information easier for Muslim travelers. The application could be equipped with search tools and social media platforms that allocated interaction with travellers who had previously visited the destinations, so that they could make smart decisions (Ferrás et al. 2020).

Many travel, tourism, and hospitality companies were starting to take advantage of information and communication technology by developing applications, websites, or artificial intelligence-based platforms to present information about self check-in counters, robotic pool cleaner, and chatbots. The goal was to improve services and increase customer satisfaction (Ivanov 2019). Several travel agencies and air transportation companies make use of chatbots and artificial intelligence-based platforms to increase customer service efficiency (Zsarnoczky 2017).

Based on this phenomenon, this study proposed to analyze the design of Halalan.id smart tourism based-applications and websites to advance Halal tourism in East Java. The application was built using the UCD application development model, such that the application was designed in line with

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the user needs. The operation of the UCD method designs applications that were easy to understand by users. This research was significant in making it easier for Muslim travelers to seek information related to destinations and Halal tourism. Hence, it could increase local foreign exchange in the East Java.

## 2 LITERATURE REVIEW

### 2.1 *Halal tourism*

Sharia Tourism Destination is a geographical area that administratively includes travel attractions, accessibility, tourism, worship, and public facilities that are relevant and complement the accomplishment of tourism in compliance with Sharia principles (Syariah et al. 2016). According to Global Muslim Travel Index (GMTI), which was reported on July 14, 2021, Indonesia was ranked as the fourth Sharia tourism destination in the world. However, the CEO of CrescentRating and HalalTrip stated that Indonesia was still consistently hold position in the top six. Indonesia and the United Arab Emirates had a close score and hence closely competitive.

Indonesia scored 73 while United Arab Emirates scored 72 in GMTI. Saudi Arabia was higher with a score of 76 and Turkey scored 77 and Malaysia 80. The assessment included access (10%), communication (20%), environment (30%), and services (40%). Furthermore, the comprehensive assessment included connectivity, transportation infrastructure, communication, promotion, stakeholder collaboration, airport services, visitor arrivals, security, accommodation, and weather conditions (GMTI 2021).

The concept of Halal Tourism is a process of integrating and interconnecting Islamic values in all aspects of tourism. The value of Islamic law as a belief of Muslims becomes an essential recommendation to construct tourism activities. Sharia tourism considers the Islamic law in its completion. It could be seen by the accommodation, restaurants, and activities, which refer to the Islamic norms of *halalan thayyiban*. The facilities and activities were also appropriate for non-Muslim communities without any restrictions. *Halalan thayyiban* means that the object of Halal Tourism is protected from excrement, subahat, which does not violate ethics and politeness (Adinugraha et al. 2018).

### 2.2 *User-centered design*

UCD is identified as a human-centered design. Human-centered design is a method used for interactive system development that aims to create a software or system (Rahman et al. 2020). UCD includes stages of interface design that focus on the usability, user requirements, environment, tasks, and design workflows. Please note the following when employing UCD:

- The target of application development is users
- The design is structured or integrated
- The testing process involves users from beginning to end
- Interactive design

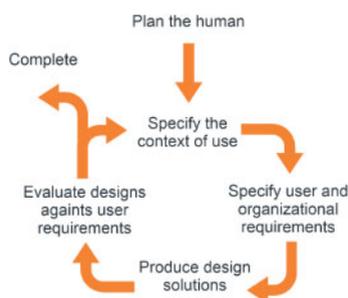


Figure 1. Stages of user-centered design (L. Albani & G. Lombardi (FIMI) 2010).

In the research conducted by Paramadani et al. (2020), they explained that the user interface was a medium that allocated users to interact with the desired system. Ramadan et al. (2019) stated that there were several principles in designing the user interface, namely user familiarity, consistency, minimal surprise, recoverability, user guidance, and user diversity (Huda et al. 2017).

User Experience (UX) deals user experience about every interaction between their sense and the tools. There were three aspects to good user experience. First, the product must be easy to operate to obtain what the users wanted. Second, the product was suitable with product features and user needs. Third, the product must be easy to find and easy to operate in the first time, so that it will give a good impression to the user. Therefore, the user wanted to operate it again (Munthe et al. 2018).

### 3 METHOD

This study employed the UCD method. This method applied for interactive system development that intended to create a software or system (Rahman et al. 2020).

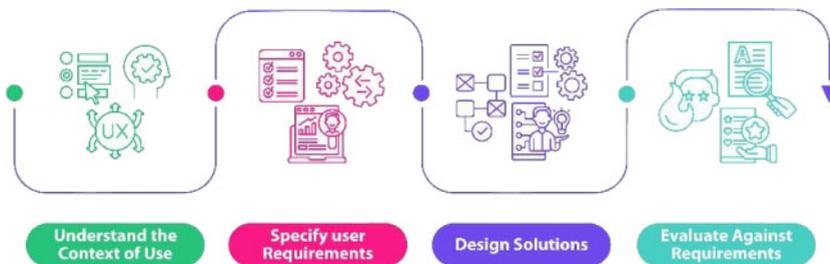


Figure 2. The stages of user-centered design.

In Figure 2, the UCD stages comprised four stages, namely, understand the context of use, specify user requirements, design solutions, and evaluate against requirements. If deficiencies were found at the evaluation stage, the process must return to the initial stage.

#### 3.1 Understand the context of use

This stage was purposed to identify the users who would operate the Halalan.id web application.

Table 1. The users of web application system.

User	Description
1. Department of Culture and Tourism	Department of Culture and Tourism is the organizer of government regarding culture and tourism in the region
2. Travelers	Travelers are people who visit certain destination
3. Tourism Entrepreneurs	Tourism entrepreneurs are people or groups who perform tourism business
4. Tourism Employees	A person or group who work in tourism business

Table 1 was a user of the Halalan.id web application system with their respective functions. It consisted of four users, specifically the Department of Culture and Tourism, travelers, tourism entrepreneurs, and tourism employees.

### 3.2 Specify user requirements

Table 2. The user needs of web application.

No	User Needs
1.	The Halalan.id web application system could be accessed from various computers, laptops, and mobiles.
2.	The web application that is dynamic and provides complete information.
3.	The web application that has an online booking feature and perceives the halal factor at the destinations.
4.	The web application that provides complete destination information, such as places to eat, halal tourism, transportation, and sharia accommodation.
5.	The web application has rating features, testimonials, and comments to support addressed destination.

From the table above, we can see the user needs obtained from responses when using and reviewing the Halalan.id web application.

### 3.3 Design solution

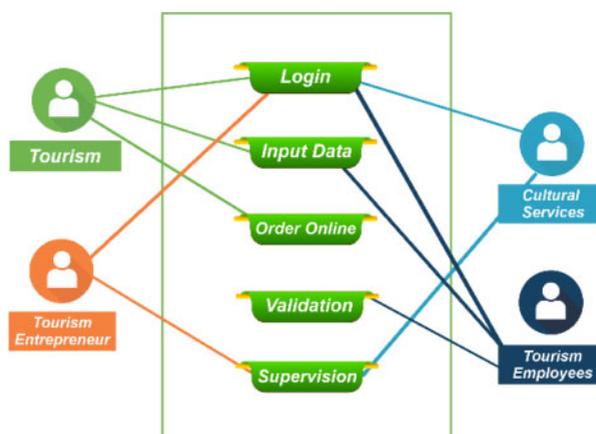


Figure 3. Use case diagram of web application.

### 3.4 Evaluate against requirements

At this stage, testing is carried out by users and a team of experts to see the effectiveness of the application (Lauesen 2004). The expert team is expected to be able to find potential problems in the prototype, so that these problems will no longer arise in the future (Tan et al. 2009).

At this stage, evaluating the application of the user interface design, from the questionnaire given, users gave very diverse opinions about this application using the analysis tool from UEQ. The aim of this tool is to make analyzing UEQ data as easy as possible. You simply enter the data obtained from your respondents into the data worksheet. The tool then automatically calculates all the statistics needed to interpret the results. In addition, several charts are displayed that you may want to use in the presentation of your results (Sabukunze & Arazaka 2021).

## 4 RESULTS AND DISCUSSION

The design of Halalan.id employed the concept of UCD, which is a method that focuses on user experience and knowledge. Thus, human needs and desires turn into the main factor in the development of this application. Every application with UCD concept is required to involve users in the design and development process. The UCD method is considered very vital to enhance user satisfaction, making the application system comfortable and easy to operate.

The user experience is also an essential factor in the UCD concept, which includes how an application looks, operates, and provides the functions. It also comprises user element, which is divided into: (1) the purpose of the product derived from user needs; (2) the application specifications; (3) the design of interaction application; (4) the design of interface, information, and navigation; (5) the design of sensor application (Garrett 2010).

Muslim travelers who travel to place where they never visit would use gadget to discover Islamic accommodation. These various applications—founded in gadget—will connect to a map. Then, it would reveal mosques, traveler attractions, hotels, or halal places to eat. Smart tourism also allows Muslim travelers to read reviews posted by previous visitors so that they could make decisions based on the obtained information. In addition, available applications or websites would discover similar places. Thus, travelers could decide the places based on recommendations.



Figure 4. The front page of the Halalan.id web and android apps.

The application or website was suitable to discover halal food. For instance, if a Muslim traveler is in non-English-speaking countries, they could scan the ingredients and the application would reveal whether the food is halal or not. By using this app, travelers would spend less time typing and utilizing other translation applications. Halal tourism also used the advances in information and communication technology to provide recommendations for halal destinations based on user reviews and preferences. It was anticipated that the Halalan.id turned into applications, which is important for local and foreign Muslim travelers. Hence, the user was satisfied and they would operate this application when they go for Halal tourism.

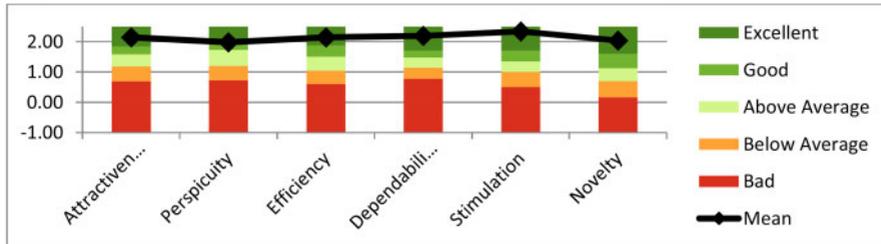
### 4.1 Analysis user experience

For user experience analysis using the UEQ data analysis tool, by asking 26 questions related to the appearance of the web application created, the results from the following categories appear.

The data obtained shows that from the results of the questionnaire obtained using the UEQ data analysis tool, 5 out of the 6 scales are in the Excellent category, namely Attractiveness, Efficiency, Dependability, Stimulation, and Novelty. Only 1 category is included in the Good category, so it can be concluded that the user experience of this application is very good.

Table 3. UEQ (User Experience Questionnaire) benchmark halalan.id.

Scale	Mean	Comparison to benchmark	Interpretation
<b>Attractiveness</b>	2.15	<b>Excellent</b>	In the range of the 10% best results
<b>Perspicuity</b>	1.98	<b>Good</b>	10% of results better, 75% of results worse
<b>Efficiency</b>	2.14	<b>Excellent</b>	In the range of the 10% best results
<b>Dependability</b>	2.19	<b>Excellent</b>	In the range of the 10% best results
<b>Stimulation</b>	2.34	<b>Excellent</b>	In the range of the 10% best results
<b>Novelty</b>	2.04	<b>Excellent</b>	In the range of the 10% best results



## 5 CONCLUSION

The paper studies the application and web design based on user interface and user experience of Halalan.id. The research using UCD has yielded good results. This method allows a user to use the application as per the needs that exist in the application and the web. With excellent category in each category of testing the UEQ analysis tool, 5 out of the 6 scales fall into the Excellent category, namely Attractiveness, Efficiency, Dependability, Stimulation, and Novelty. Only 1 category is included in the Good category, hence concluding that the user experience of this application is very good. For the development of this application and website, hopefully, this study can have an impact on the community, especially to advance halal tourism in East Java in particular and more for the people in Indonesia, so that it can increase the country's local foreign exchange.

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## Assessing the impact and challenges of ZISWAF in empowering local enterprises: A case study of Gumelem Kulon village, Banjarnegara

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**ABSTRACT:** Local enterprises empowerment is a concept in economic and political development that comprises various social values. This concept reflects a new paradigm of development, which enhances the local actors in strengthening their capacity in alleviating poverty and inequality. The purpose of this study is to understand the impacts and challenges of Zakat, Infaq, Shodaqoh, and Waqf (ZISWAF) conducted by Rumah Zakat Indonesia through Empowered Village Program in Gumelem Kulon Village, Banjarnegara, Central Java. This study is conducted using phenomenological approach wherein the data are collected through in-depth interviews with prominent informants from the village. The results of this study indicate that ZISWAF has played a crucial role in enhancing the local enterprises in increasing their financial, physical, social, as well as institutional capital. Through community participation in community-owned enterprises financed from the ZISWAF program, rural communities now have wider access for their agriculture products to the international market.

**Keywords:** ZISWAF, Local Enterprises, Gumelem Kulon, Empowerment.

### 1 INTRODUCTION

Poverty and unemployment are problems in every country; especially in the rural areas where economic institutions are less developed. These problems have become the reasons why a village's poverty and unemployment rates are higher than those in the urban areas. According to Hansen et al. (2019), rural inhabitants exhibit persistent poverty due to inability to access market. During the pandemic, restrictions on movement within the countries as well as local transportation limitation adversely affected agricultural productivity, as they significantly constrain farmers' access to critical agricultural inputs and markets. In addition, rural populations also have less access to education, healthcare, and other services. In some countries, these rural–urban disparities also contribute to rural discontent and grievances, polarization in society, and unrest (United Nations 2021). Furthermore, those structural problems could potentially push rural communities in a vicious cycle of poverty. The imbalance development, unequal resources ownership, unequal community capabilities, and opportunity gap in doing business had led unequal villagers' participation in development. Therefore, poverty rate in rural areas is higher than in the urban regions.

In terms of institutional development, the existence of “middlemen” in rural agriculture sectors could increase moral hazard and asymmetric information through local institutional inability to strengthen their capacity in accessing competitive market. In case of Gumelem Kulon Village, the existence of brokers had strangled rural farmers through controlling palm sugar price from the farmers at the lowest price, even though it is below the cost of goods manufactured. The

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“unfair” price set by these middlemen had led to decline in agricultural productivity reaching the worst situation. In the worst case, farmers were trapped in debt that accumulates without any hope of being able to pay it off. Whereas, in marcoeconomic point of view, lower price tend to decrease productivity, because an increase in agricultural prices has a long-term, persistent effect on agricultural labor productivity through both capital deepening and increase in total factor productivity; the latter of which includes accumulation of knowledge and technology (Dieppe 2020). Knowing that poverty and unemployment were worsening due to presence of middlemen, one of the philanthropic institutions, the Rumah Zakat, began to intervene through the allocation of Zakat, Infaq, and Shodaqoh funds. In developing effective and inclusive institution for farmer group, it was a long and challenging journey.

The findings provide evidence that zakat stimulates the country’s growth (Jedidia & Guerbouj 2020). The problem is its implementation on a local level. This study aims to explain the role and challenges of Zakat, Infaq, Shodaqoh, and Waqf conducted by Rumah Zakat Indonesia through Empowered Village Program in Gumelem Kulon Village, Banjarnegara, Central Java. The village definition in this study refers to Andini et al. (2015): village is an area that has the potential of very abundant natural resources. From this potential, it can be used as a driving force to increase national economic development. This is because Indonesia is known for its mutual cooperation system, which has been proven to be able to support critical economy. However, there are still many villages out there that are categorized as “underdeveloped villages”. This study can become a lesson learned for all stakeholders who want to understand the role of Zakat fund in developing rural economy.

This study starts with the socioeconomic mapping of the community in Gumelem Kulon Village as an initial step in understanding the community situation. Understanding the existing condition can act as powerful resource in the implementation of a comprehensive, sustainable, and integrated empowerment program involving the participation of the local community. Furthermore, a clear map of intervention can be used as a reference for the approach of the empowerment program as well as the basis for preparing a tactical work plan in changing attitudes and behavior of target community. Then, the role of ZISWAF in developing Gumelem Kulon local enterprise and farmer group was studied. In this study, ZISWAF is defined as an Islamic economic instrument, which is a form of obedience to Allah SWT as well as a form of obligation to share goodness with others. It has a crucial role in ensuring socioeconomic justice among other Muslim communities (Khambali et al, 2016).

## 2 METHOD

This research analyzed the role of ZISWAF through qualitative method with phenomenological approach in understanding how they performed a crucial role in inhancing the rural institution to develop village-based sugar palm industry. Data collection techniques were carried out through in-depth interviews and observations. To broaden the scope of analysis, this study used secondary data, including notes, results of studies, publication results, regulations, and policy documents from related agencies. In addition, this secondary data also included the results of the literature review and documents related to the results of previous activities. The scope of this secondary data included population social, economic, natural and built physical data, activity area profiles, and institutional aspects.

Furthermore, this study focused on capturing the development of society-owned enterprise (BUMMas) as a collective action in strengthening the capacity of rural farmers in increasing the agricultural productivity. The enterprise is a forum for gathering all coconut sugar craftsmen who have superior products but have not been achieved to the maximum in processing. The enterprise is a self-help group that is incorporated and grows based on familiarity, harmony, and common interests in the use of agricultural resources to work together in increasing business productivity in the agricultural sector, especially for community empowerment.

### 3 RESULT AND DISCUSSIONS

Gumelem Kulon is a village in Susukan District, Banjarnegara Regency, Central Java Province. Based on BPS classification, Gumelem Kulon is categorized as a poor village in Susukan District because a large number of residents are living below poverty line. In terms of population, the village has the largest population in Susukan District. The other existing problem in Gumelem Kulon is low level of schooling among the inhabitants of the village. Many residents do not have adequate health facilities, such as sanitary facilities and there is no independent household sewer collection.

Albeit the village residents have experienced so many problems in their life due to the economic conditions, the village actually has a lot of potential commodities, which can be developed more. There are some business potentials in Gumelem Kulon Village. For instance, batik products, goat and rabbit poultry, the development of blacksmiths, and palm sugar production. The last product mentioned has been recognized as the featured product from Gumelem Kulon. There are around 1,114 families of traditional coconut sugar craftsmen who have the potential to be fostered and developed into crystal sugar craftsmen.

#### 3.1 *The impact of ZISWAF fund in empowering rural enterprise*

Empowerment is a process of giving power to weak parties, and reducing the power of those who are already powerful, so that a balance is created (Hulu et al. 2018). In this case, Rumah Zakat Indonesia as a party that cares about the importance of supporting community empowerment, rolls out a community empowerment program that is based on the local potential of the community. The potential itself is explored through social mapping. It is an activity carried out to identify and analyze the socioeconomic and cultural conditions of the local community or also known as a social orientation activity and program target area. The target of this empowerment concept is to change a completely centralized condition into a more autonomous situation by providing opportunities for poor community groups to plan and implement development programs that they have chosen for themselves. The poor are also given the opportunity to manage development funds, both from the government and from outside parties.

In strengthening the farmers' capacity, society-owned enterprise (BUMMAs) was established in the late 2017. BUMMAs is a community-owned business entity as a form of socio-enterprise initiated by Rumah Zakat to strengthen the community's economy and become the backbone of the program in Empowered Villages. "BUMMAs Berdaya" was born when BUMMAs was running a stable business, receiving funding sources from external parties that still prioritized the potential and capabilities available in the village. The joining of farmers in BUMMAs increased the bargaining value on the products they produce. The big collectors or brokers of the palm sugar can no longer intervene in pricing because farmers can sell their own products through BUMMAs at fairly good prices. BUMMAs in practice does not necessarily take the collector's market, but still invites collectors to join and buy sugar from farmers, but at a price that has been determined by BUMMAs, so they cannot take profit as they wish without paying attention to the farmer's aspect.

The Empowered Village Program is an empowerment process in the target area based on local potential mapping through the utilization of ZISWAF funds by Rumah Zakat. This program is one of the ways that Rumah Zakat contributes to empowerment in Indonesia in an integrated manner in rural areas based on local mapping potential in the fields of economy, education, health, environment, and disaster preparedness (Bahri & Arif 2020). Each Empowered Village has one companion from Rumah Zakat who does service. The assistants in the assisted areas of the Zakat House Empowered Village are called Inspiration Volunteers. Efforts to realize the Empowered Village program are carried out through four main clusters, namely: Mandiri Smiles (economy), Champion Smiles (education), Healthy Smiles (health), and Sustainable Smiles (environment) (Ridwan et al. 2020).

After more than one year of intervention by Rumah Zakat, palm sugar farmers in Gumelem Kulon currently can access better price through BUMMAs institution. Illicit collector who had

strangled rural farmers through controlling palm sugar prices had no power in playing the sugar palm price. ZISWAF is proven to play a crucial role in enhancing rural farmer group in increasing their financial, physical, social, as well as institutional capital. Through community participation in community-owned enterprises funded by the ZISWAF program, rural communities currently have wider access in increasing the acceptance of village's agriculture products to the international market. This finding is in line with some studies conducted by Azman et al (2012); Jamaliah et al (2012); Ahmad et al (2015) that Zakat institution may give a safety-net, particularly during economic slowdown or recession. As stated by Barrett, Christian, and Shiferaw (2017), the higher are the incomes from agriculture, the lower is rural household poverty, and more prosperous are rural communities.

### 3.2 *Challenges in developing BUMMAs*

The current obstacle experienced by BUMMAs is the limitations in marketing and production facilities, in that it has not been able to serve the farmers optimally. Many prospective buyers are still unsure because the production houses and equipment owned by BUMMAs are not sufficient. Together with members and teams within BUMMAs, they always try to find and add new market opportunities so that when production is in abundance there will be no difficulties. Another challenge is to produce better quality palm sugar, including introducing innovation in packaging, equipment purchases, and so on. The specific goal with the business development is to be able to present a higher selling value. If the selling price is high, then the income of the farmers increases. Then, this can create a more prosperous life. In line with Naradda et al.'s (2020) findings, rural enterprise has substantial challenge in expanding local development toward eradicating poverty, inequality, and unemployment in rural sectors.

## 4 CONCLUSION

According to the study, ZISWAF has played a crucial role in enhancing the local enterprises in increasing their financial, physical, social, as well as institutional capital. The development of society-owned enterprises funded by Rumah Zakat, rural communities have wider access in increasing the acceptance of village's agriculture products to the international market. In enhancing the rural palm sugar farming, appropriate institutional design for rural farmer group is essential to access broader market, develop knowledge sharing platform, and increase quality as well as quantity of palm sugar production among rural palm sugar farmers in Gumelem Kulon village. Collective action in developing broader palm sugar market has transformed the inability of the rural farmers to access international market then become a global leader. To enhance rural palm sugar industry, stakeholders should collaborate in empowering the local enterprise, developing new market channel, and implementing sustainable production.

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## Halal tourism: Concepts, challenges, and opportunities

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**ABSTRACT:** The concept of halal tourism in recent years has become a concern among scholars in the world. The high tourist interest in halal tourism has significantly provided many opportunities for tourism stakeholders to improve their services and challenges for future development. This study explores the concepts, challenges, and opportunities of halal tourism from various theoretical and empirical literature to gain a comprehensive understanding of the implementation of concepts and different relevant issues in halal tourism. This study showed conceptual differences among researchers related to the concepts of halal tourism, such as the form, purpose, and limitations. The high demands practically lead to an increase in the number of halal tourism products and services in the world, which in terms of implementation requires strategic orientation and development areas in halal tourism such as marketing strategies, technology adaptation, and development priorities. Implementation, challenges, and opportunities in halal tourism are also a concern in this study.

**Keywords:** halal tourism, marketing strategy, concepts, challenges, and opportunities

### 1 INTRODUCTION

The halal tourism industry has recently emerged as an iconic industrial sector that attracts global tourists (Vargas-Sánchez & Moral-Moral 2019). Halal tourism is currently continuing to develop with the escalation of Muslim tourists universally (Boğan & Sarıışık 2019; Wannasupchue et al. 2019). According to data from the Pew Research Center, the growth of Muslims has reached 1.8 billion, which is a quarter of the world's population (Adel et al. 2021). By the end of 2020, the world's Muslim population grew significantly, reaching 13% of the world's total population (Rashid et al. 2020). The halal tourism industry is also predicted to experience growth with a 70% jump in 2060 (Rashid et al. 2020). The increase in the Muslim population is the main driving factor for the growth of the Muslim tourist market in the global tourist market. It starts with the rise in the middle class by Muslims, income, population, and increasing availability of access and facilities for halal tourism travel. Muslim tourists have become the largest market share in global tourism, which provides many business profit opportunities (Boğan & Sarıışık 2019).

The development of halal tourism has become a recent issue in recent years (Boğan & Sarıışık 2019). The concept of halal tourism is substituted with Muslim-friendly tourism, sharia tourism, halal hotels, halal culinary, halal travel, and halal health (Adel et al. 2021; Boğan and Sarıışık 2019; Huda et al. 2021; Jeaheng et al. 2019; Pamukcu & Sariisik 2021; Ratnasari et al. 2021; Sarinastiti & Uljanatunnisa 2020; Zailani et al. 2015). In addition, many perspectives have emerged from researchers and practitioners regarding halal tourism, such as how to form a halal tourism strategy, halal tourism development, facilities, completeness, and halal tourism services in Islamic and

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non-Islamic contexts (Carboni et al. 2016; Haq & Wong 2010; Hsu et al. 2020; Joeliaty et al. 2020; Kasdi et al. 2019; Shah et al. 2020; Yousaf & Xiucheng 2018).

Having halal status can provide a competitive advantage to expand market networks in the tourism sector (Hanafiah & Hamdan 2020; Wannasupchue et al. 2019). Thus, it is necessary to have a halal tourism concept used as a guide in the strategy and development of halal tourism. However, the assimilation of the concept of halal tourism from various literature has not been studied in depth (Boğan & Sarıışık 2019; Kasdi et al. 2019). This study aims to explore the concepts, challenges, and opportunities of halal tourism by providing a practical context for strategies in the development of halal tourism fundamentally based on theoretical and empirical literature that can provide an overview of future concepts, challenges, and opportunities that will provide recommendations and guidelines for sustainable halal tourism.

### 1.1 *Halal tourism: General concepts*

The perception of halal tourism is still disharmony between one country and another. According to Vargas-Sanchez and Moral-moral (2019), the cause of these different halal tourism practices is the heterogeneity of cultures that exist throughout the world. However, this does not mean that halal tourism does not have an essential consistency of meaning. Halal tourism is a term that has the concept of Muslim travel and tourism with hospitality by Islamic law (Boğan & Sarıışık 2019; Pamukcu & Sariisik 2021; Vargas-Sánchez & Moral-Moral 2019; Wardi et al. 2018). Islamic law is identified as a perspective that deals with everything that is allowed based on Islamic teachings. Hanafiah and Hamdan (2020) defined it as a type of tourism that motivates visitors by referring to the Qur'an and sunnah. Vargas-Sanchez dan Moral-moral (2019) described halal tourism as a journey carried out with the motivation for recreation or carrying out social activities under what is allowed in Islam.

Halal tourism has a different context from religious tourism (Boğan & Sarıışık 2019). Halal tourism does not always mean spiritual motivation. There is a barrier that distinguishes halal tourism from religious tourism. The difference is, religious tourism or Islamic tourism is an activity that aims to carry out religious activities or pilgrimages, while halal tourism aims for recreation, vacation, or social reasons (Vargas-Sánchez & Moral-Moral 2019).

Halal tourism focuses on halal facilities and services provided for Muslim visitors, such as worship facilities balanced with the availability of ablution water service facilities, prayer tools, and Qibla direction (Wardi et al. 2018). It is supported by Yousaf & Xiucheng (2018) that halal food or beverage facilities also need to be considered by improving the quality of services such as the sanctity of the kitchen, food ingredients, and cooking methods or how to produce food that is allowed in Islamic law. In addition, Aji et al. (Aji et al. 2020) emphasize how to dress, the hospitality served by service providers, a polite appearance by adhering to Islamic law. Muslims believe that sharia is a solution to all human problems. By providing a tourism hospitality service in the tourism sector for Muslims, the guarantee is packaged through the embodiment of a tourist trip that carries the concept of halal in it.

### 1.2 *Halal tourism: An orientation strategy and development areas*

The prediction of increasing the percentage of halal tourism continuity that is promising for the tourism industry requires updating tactical strategies to develop sustainable halal tourism. Aji et al. (Aji et al. 2020) stated that the development of halal tourism needs to have a halal tourism guide that can be implemented by referring to the orientation of the strategic needs and development of halal tourism. More profoundly, a strategy of continuity focusing on expanding the market share of Islamic tourists can be done, including marketing and positioning strategies (Shah et al. 2020). The participation of the government with the manifestation of a regulation that regulates halal tourism is also a contributory effort (Haq 2014; Palupi et al. 2017). Strategies to attract other consumers by ensuring the availability of attributes or services in halal tourism by paying attention to the friendliness aspect (Kasdi et al. 2019).

The importance of halal tourism branding strategy can be done through promotions through mass media, such as the procurement of websites or official accounts for halal tourism (Adel et al. 2021; Yousaf & Xiucheng 2018). This can also be strengthened by upgrading the e-branding system that promotes more attractive names or brands, logos, web designs through online media. (Sarinastiti & Uljanatunnisa 2020). This vital role of branding through digital media has become a more contemporary promotional culture as a form of imaging halal tourism service providers in attracting tourists.

The implementation of the strategy and development of halal tourism has a surplus for the orientation of Muslims. By marketing halal tourism, it is also indirectly tied to spiritual tourism and an effort to introduce Islam (Haq 2014). However, this must also be accompanied by non-Muslim tourism consumer satisfaction with halal tourism services (Rahman et al. 2020). Starting from the price offered, the availability of worship facilities, and other product and service promotion management systems (Aji et al. 2020; Pamukcu & Sariisik 2021) and what is more important is that there is a vital role for halal tourism managers to understand what makes customers loyal to the tourism destinations offered (Rashid et al. 2020).

### 1.3 *Halal tourism: Implementation, challenges, and prospects*

Visits to halal tourism are not always religious tourism. Sometimes Muslim tourists have the motivation to visit non-Islamic tourism (which provides halal services). The basis of Muslim tourists on halal tourism is influenced by their intention to take a vacation or do social activities. The interest of Muslim tourists to visit is influenced by elements in halal tourism in each region with application standards according to Islamic law (Aji et al. 2020). However, not all areas have the same standard of halal tourism. This can trigger discomfort for Muslim visitors. So there needs to be strong support from the government and awareness of local communities around the world to apply halal standards that meet the requirements (Al-Ansi et al. 2021). There is no universal formal standardization in using halal tourism under Islamic religious law (Junaidi 2020).

Halal tourism in practice also requires certification as halal tourism to increase consumer confidence (Pamukcu & Sariisik 2021). Consumer trust is obtained by providing excellent and friendly facilities, services, and communication (Jeaheng et al. 2020). The provision of facilities and services can also be varied by applying religious tourism branding in various spiritual product offerings such as religious traditions, spiritual festivals, and other religious tourism products (Haq & Wong 2010). The implementation of halal tourism has not yet received formal standardization. Therefore, the application of halal tourism guidelines in each region is different, such as in Korea, where the perspective of Muslim visitors has not reached the point of satisfaction (Al-Ansi et al. 2021; Han et al. 2019). This needs to be anticipated with a solution that requires stakeholders to increase tourist satisfaction (Wardi et al. 2018).

The main factor that highlights the attention of halal tourism service providers is customer satisfaction. Stakeholders must think about the satisfaction of both Muslim and non-Muslim tourists towards halal tourism (Hanafiah & Hamdan 2020). Rahman et al. (2020) revealed inconveniences with halal tourism services, such as the sound of the call to prayer installed with loudspeakers which still cannot be accepted by all non-Muslim tourists. In addition, the challenge in halal tourism is regarding the perception circulating in the community. There are still many public perceptions that think that halal tourism is religious tourism that focuses on providing tourism that is limited to Muslims (Adel et al. 2021; Boğan & Sarışık 2019; Vargas-Sánchez & Moral-Moral 2019; Wardi et al. 2018). Most Muslims, even though they are considered the largest market segment, are ignored by the community due to the assumption that their income is still middle to lower, not suitable for branding a product. Muslims are still considered traditional and rigid people; this is seen from the perspective of western people (Shah et al. 2020).

The perception of positive suggestions for tourist satisfaction with halal tourism is a strategy for optimizing sustainable halal tourism (Rahmawati et al. 2021). The transformation from a conventional business to a halal tourism business requires stakeholders to prepare new, solution-based strategies to expand the halal tourism market segment (Junaidi 2020) and maintain and increase customer retention of halal tourism as long-term development halal tourism (Han et al. 2019).

In addition, it is necessary always to update the development of halal tourism and conduct a more comprehensive survey, not only limited to Muslim countries but also involving non-Muslim countries (Zailani et al. 2015). Muslim tourists, empirically, have a lot of interest in non-Muslim countries. Therefore this is an excellent opportunity for non-Muslim countries to improve the quality of halal tourism services (Wibawa et al. 2021).

## 2 CONCLUSION

The difference in theoretical conceptions of halal tourism encourages academic recommendations for the preparation of basic conceptual formulations that become a reference for policymakers and halal tourism stakeholders in developing future and sustainable halal tourism. So that the various products and services offered are not far from Islamic values. Tourists get excellent service in the various tourist amenities provided, such as lodging, restaurants, places of worship, travel, even media or website content. Because the assumption of halal tourism shows the face of Islam in the eyes of both local and international tourists, of course, these two aspects are very urgent to pay attention to. On the other hand, consumer perception regarding the context of halal tourism is one of the benchmarks for the satisfaction of Muslim and non-Muslim tourists. This certainly affects the development of the halal tourism industry. Responding to these challenges, dynamic strategic planning by adjusting to the current developing conditions as a form of sustainable halal tourism development. In addition, the increase in the number of Muslim tourists in the world every year is the standard of prediction for the development of the halal tourism industry in the next few long years. Thus, researchers and practitioners need to deeply review the broader perception of halal tourists in various countries to get more comprehensive results related to developing sustainable halal tourism industry.

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## Critical identification and evaluation of food and beverage safety: A preliminary study

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**ABSTRACT:** Indonesian Muslims spend US\$173 billion annually on halal cuisine, making it the world's top spender. Everything imported, distributed, and sold as halal goods must first be certified halal by the country's regulatory bodies. Product labels must clearly state that they contain non-halal ingredients. Located in East Java Province, Malang City is one of the locations that plays a significant role in the development of the province's economy, tourism, culture, and education. A study was conducted to analyze the general pattern of food stalls near the university area of Malang in managing the production, storage, and ensuring the safety of food and beverages. The data collection took place at several food stalls near the university area in Malang. This study developed several instruments in the form of interview questions to determine the description of workers or food stall owners who were involved in processing food. Indicators included the location, surrounding environment, building conditions, and facility of the food stall; worker hygiene; food preparation and the quality of the cupboard or food storage room; and worker hygiene. The results showed that the food stall workers or owners have been practicing several good food management and processing standards. However, we also found some points that need to be reviewed by the workers or owners such as hygiene issues for both workers and environmental aspects. From this study, we suggested that the food stalls near the university area in Malang have demonstrated good performances in how they manage good food processing, however, several points related to the cleanliness of workers or environment of the food stalls need to improve.

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## 1 INTRODUCTION

Indonesia has one of the world's largest Muslim populations, of over 270 million people in 2021. Muslim customers are increasingly looking for assurances about halal items they eat, in addition to understanding the origin, ingredients, and safety of food and beverage products. Halal food consumption is also rising in Indonesia, with the country spending US\$173 billion annually on halal cuisine, making it the world's top spender. The Indonesian National Agency of Drug and Food Control (BPOM) regulates the safety and acceptability of food for end-consumers in Indonesia. In its capacity as food and drug regulator, BPOM's job is to ensure food and beverage imports, distribution, and sales in Indonesia, satisfy Indonesian law's minimum standards and criteria by checking, testing, approving, registering, and monitoring them (Dinar Standard 2019; Hasan 2021).

For some time now, the government of Indonesia has been working to develop Indonesia's halal food industry, starting with Islamic finance and moving on to the real sector, which now includes halal food and beverage production (Peristiwa 2019; Selvarajah et al. 2017). These efforts are characterized by government efforts to promote the growth of the halal industry. The halal business represents a new potential for countries around the world in the industrial sphere. The halal sector can be better understood if one first understands the halal community. Muslims now make up one-third of the global population, and the needs of future generations of Muslims are driving governments all over the world to enter the halal industrial sector. In this situation, the halal industry's expansion involves countries with a Muslim majority as well as Muslim minority populations. These figures show a possibility for increased economic growth and development to come from the halal industrial goods sector. To put it another way, the food business is becoming increasingly worried about the creation and sourcing of halal products (Abdalla et al. 2018; Krishnan et al. 2017).

Malang City, in East Java Province, has played a significant role in the development of the province's economy, tourism, culture, and education. Although Malang is a popular tourist destination, it is also a hub of educational excellence (Sukmana et al. 2014). Many national and private universities, including Universitas Negeri Malang, Universitas Brawijaya, and Universitas Muhammadiyah Malang, are located in the area. Malang's large number of campuses indirectly draws newcomers who are students at the time of their arrival. The presence of these students also has an indirect impact on the local economy, since they benefit from the renting of housing and the selling of food and beverages.

In Indonesia, the world's most populous Muslim country, the subject of halal food is still not given the urgency and seriousness it requires, especially among the general public. The term halal does not only relate to particular animals or foods that are forbidden to eat, but also to how the product is stored and made to preserve it in the optimum shape and condition (Halim et al. 2014). Therefore, this study aims to discover and evaluate the food and beverage safety around campuses in Malang city.

## 2 MATERIALS AND METHODS

### 2.1 *Research location*

The data collection took place at several food stalls in several university areas in Lowokwaru District, Malang with the majority of the information being collected verbally. The area's data collection is based on the number of residential areas, as well as the fact that it is a popular student dorm rental location, which means that there are many food stalls selling food.

### 2.2 *Research approach*

Direct interviews with correspondents were used to gather information for this study. Correspondents were chosen randomly from the area surrounding the university area of Malang. The correspondents were either employees or owners of food stalls in the area.

### 2.3 Research indicator

This study developed several instruments in the form of interview questions to determine the description of workers or food stall owners who were involved in the processing of food. The indicators are also broken down into several questions, including the following: the location, surrounding environment, building conditions, and facility of the food stall; worker hygiene; food preparation, and the quality of the cupboard or food storage room; and worker hygiene.

### 2.4 Data analysis

Following the tabulation of the results of the interviews with correspondents, the data analysis process began. After that, the interview data were quantified to conduct further research.

## 3 RESULTS AND DISCUSSIONS

The study was carried out at various food stalls near the university area. This has something to do with the number of students who live on or near the university's grounds. To put it another way, students who live in the university area will go to many food-stands in the region to meet their food and drink requirements.

The debate over halal food has waned in the country with the greatest Muslim population because many people, including the broader public, assumed that any meal sold by a Muslim was automatically halal. However, the halal notion takes a more holistic approach, considering not just the food itself but also how it is produced and processed. This means that when food is made with inferior ingredients, or the manufacturing method or storage is subpar, the food or drink will eventually be deemed inappropriate for human ingestion due to its unappealing appearance, unfit human consumption due to unsanitary conditions, bacterial contamination, or malnutrition.

Surveys have shown that the majority of the food stalls meet standards related to hygienic location, distance from garbage disposal, well-sized food production room (easy to clean), cleaning schedule for food production room, sufficient air circulation, and lighting, as found in the findings of a survey conducted on the indicators of "location, environment" and "building condition" (Figure 2).

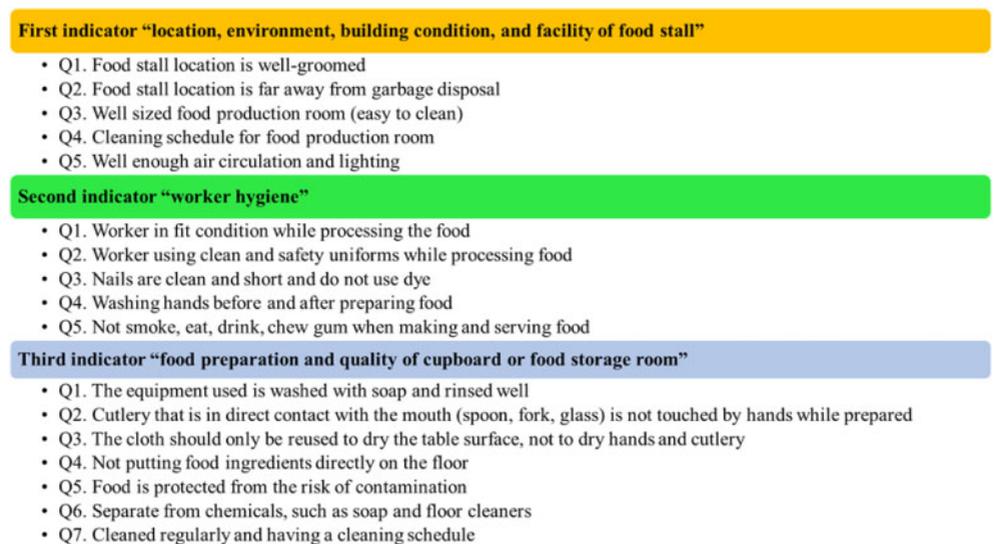


Figure 1. Questions instrument used to interview the owners or workers of the food stalls near the university area of Malang.

There are several significant initiatives taken by the owners or employees of food stalls in points 2 and 5 listed above, including food stall sites far from landfills, air circulation, and lighting composition on the building housing the food stalls. It is also important for workers and owners of food stands to pay attention to the cleaning schedule of the kitchen, which requires efforts from both. Cleaning up the food production process is crucial since it can degrade the final product's overall quality.

The by-products of solid waste disposed of in landfills have negative consequences for the surrounding ecosystem as well as for persons who live in close to landfill sites (Njoku et al. 2019). Landfills can produce a wide range of harmful trace elements, such as carbon monoxide, hydrogen sulfide, xylene, and other poisons. Some examples of poisonous organic micropollutants are polychlorinated dibenzo-paradoxins, polychlorinated dibenzofurans, and various dioxins and PAHs. The presence of chlorine-containing compounds in landfills can produce dioxin, as can landfill fires, both of which are harmful to human health (Durmusoglu et al., 2009; Kampa et al. 2007). In addition to being a pollution risk, landfills also provide a safety risk. Landfilling can provide short-term gas while simultaneously supplying long-term carbon supply from challenging waste flow. Transportation of waste materials to the landfill site; emissions from transportation; garbage blown by the wind; dust formed from the landfill surface; landfill gas generated; and leachate produced are the key causes of landfill site emissions (Vaverková 2019).

Infectious diseases including measles, influenza, and Legionella outbreaks have been connected to buildings, to name a few examples. Minimizing infectious disease dissemination through the air requires controlling indoor respiratory aerosol concentrations, which can be achieved through source management (masking, physical separation) and engineering controls (ventilation and filtration) (Allen et al. 2021). Outside air is brought into a building or a room, and that air is then distributed throughout the building or room. The general goal of ventilation in buildings is to create clean, healthy air for people to breathe by diluting and removing contaminants that originate in the structure (Atkinson et al. 2009).

On the other hand, based on the results of a survey that was done on indicators of worker hygiene, it was possible to acquire results that were practically identical (Figure 2). Some of the points that can be gleaned from these indications are as follows: Employee in good physical shape while processing the food makes sure that nails are clean and short, and don't use any dye on them. The employee should also avoid smoking, eating, drinking, and chewing gum when preparing and serving food. However, two areas should be revisited: workers wearing clean and

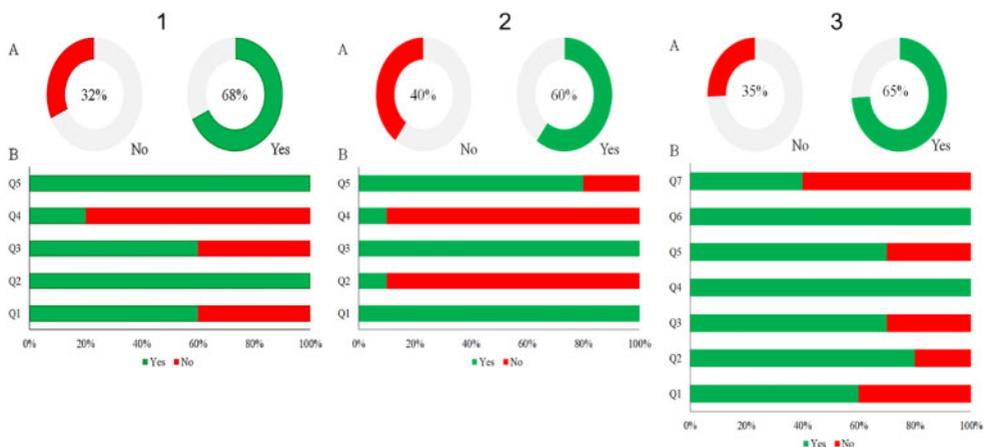


Figure 2. 1). Food processing indicator “location, environment, building condition, and facility of food stall”, 2). “Worker hygiene”, 3). “Food preparation and quality of cupboard or food storage room” for ensuring the quality of food as one of halal criteria.

safety-compliant clothes while processing food and washing hands before and after preparing food. The use of protective equipment when cooking is extremely important; not only to protect employees from potentially hazardous substances but also to prevent contaminated processed foods from reaching the consumer. Meanwhile, hand cleaning is a crucial indicator that should be taken into consideration, particularly before and after serving meals to consumers. Many diseases begin with contamination and spread, and one of the most common causes is the failure to wash hands.

A satisfactory result was attained in the third indicator, which included food preparation and the quality of the cupboard or food storage area. This was achieved because the workers or proprietors of food stalls had executed various elements from indicator three rather effectively (Figure 2). Several points on the indicators have yielded excellent outcomes, particularly points 4 and 6, which refer to not placing food items directly on the floor and keeping chemicals such as soap and floor cleaners separate from food ingredients. However, one important element must be considered, and that is the importance of cleaning regularly and following a cleaning schedule, which is still not being adequately done at numerous food stalls.

When disease-causing bacteria, viruses, or parasites infect food, they can cause food-borne diseases to spread. Because food-borne infections can be life threatening, if not fatal, it is vital to learn and follow safe food-handling techniques in order to limit the chance of falling unwell as a result of contaminated food consumption. It is the assurance that food will not hurt the customer when it is cooked and/or consumed as intended that is referred to as “food safety.” Food that is healthy is food that has not lost its nutritional value, that is clean in terms of physical, chemical, and microbiological cleanliness, and that has not gone bad in terms of aging. Because of the variables that contribute to food contamination, the foods may become unsafe to consume and, as a result, damage human health (Ashı Uçar et al. 2016).

#### 4 CONCLUSION

According to our findings, we concluded that food stalls near the university area in Malang have demonstrated good performances in how they manage food processing, however, several points related to the cleanliness of workers or the environment of the food stalls need to improve.

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## Indonesian halal tourism trend in Islamic perspective, global, and local context

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**ABSTRACT:** This article discusses based on a critical assessment of various literature to find concepts and discuss trends in halal tourism in Indonesia. The authors found several references, documents, and other relevant data derived from previous studies and personal observations to provide insight into the subject under study. The findings using ACES as basic evaluation indicators used in GMTI reveal that: (1) Halal tourism in an Islamic perspective is contained in QS. Ali Imran: 137, QS. Ar Ruum: 42, QS. An Nahl: 36, QS. Al An'am: 11, QS. Al-Ankabut: 20, QS. Al An'am: 11, QS. As Saba': 11 and reinforced by the hadith, (2) Indonesia occupies the top global position in communication and services. It is not included in the top ten in terms of Access and environment. Based on Indonesia Muslim Travel Index (IMTI) score 2018 and 2019, the regions of Lombok, Aceh, and Riau are in Indonesia's top three halal tourism destinations.

### 1 INTRODUCTION

Halal tourism is a growing component of the global tourism market due to its size and expansion. However, the phrase remains perplexing, and considerable work is required to clarify its meaning and concepts and comprehend its implications from a marketing standpoint and the strategic definition of a destination portfolio (Vargas-Sánchez & Moral-Moral 2020). In this case, Muslim tourists are very influential in their participation in halal tourism activities, one of the most significant market niches in the global tourism industry, thus providing Muslim and even non-Muslim countries opportunities to manage and develop it (Boğan & Sarıışık 2019). Muslim women in Asia travel without abandoning their cultural or religious beliefs, which view that gender interpretation of religious texts promotes a patriarchal orientation in Muslim communities (Poopale Raththian & Selamat 2018).

In a changing environment, the Muslim travel market grows and thrives. Locations, corporations, and travel-related entities must adopt proactive strategies to target and attract this sector to their travel destinations, as it is one of the world's highest-spending travel segments. The Muslim tourism market is expected to increase rapidly, reaching \$220 billion by 2020. It is predicted to increase by another US\$80 billion by 2026, bringing the total to US\$300 billion. In 2017, an estimated 131 million Muslim travelers traveled worldwide, up from 121 million in 2016. By 2020, it is predicted to reach 156 million people, accounting for 10% of the worldwide travel market (Mastercard & CrescentRating 2018).

Meanwhile, the fifth edition of the Mastercard-CrescentRating GMTI 2019 annual report tracks the overall growth of the Muslim travel market. In 2018, there had been a predicted a hundred and forty million global Muslim visitors. It is predicted to attain 230 million by 2026. The Mastercard-CrescentRating 2018 digital Muslim travel report estimates that Muslim Travelers will spend USD one hundred eighty billion through 2026 (Mastercard & CrescentRating 2019).

In the Indonesian context, Judging from its geographical condition, Indonesia is an archipelagic country with more than 17,000 islands and more than 300 ethnic groups. Currently, the government has 35 provinces, and each province has its own culture, language, and ethnic food (Chairy &

Syahrivar 2019; Sismanto & Riswadi 2021). Indonesia covers a total land area of 1,905,000 square kilometers and has 261 million people who speak over 700 languages as of 2017 (Sismanto *et al.* 2022). It is the largest archipelagic country globally, with about 17,000 islands stretching from the Thousand Islands of the Pacific Ocean to the Indian Ocean. The many exotic islands, pristine tropical climate, and cultural diversity make it a popular tourist destination worldwide. Especially in Southeast Asia. Indonesia is the fourth most populous country globally. It has the largest Muslim population globally, and an estimated 225 million people, or 87% of Indonesia's population, are currently Muslim (Mastercard-CrescentRating 2019).

Therefore, this paper focuses on studies to show the definition of halal tourism from an Islamic perspective and how the trend of halal tourism in Indonesia is in global and local contexts. What is unique in the study of halal tourism is that it is included in the latest study, which specializes in researchers and journey enterprise practitioners in Indonesia. However, it has been practiced for a long time; the information displays that halal tourism in numerous visitor locations in Indonesia is considered, making it a visitor center.

## 2 REVIEW OF LITERATURE

The definition of halal tourism has a spiritual and social purpose. Its spiritual purpose is to strengthen one's obedience to God's ways. The following social goal is to encourage and reinforce Muslim ties to Muslims and the ummah (Muslim community). Spiritual goals are fulfilled by reading the verses mentioned by Allah in the Qur'an, remembering and worshipping Allah for order and balance in the universe (Sirak, 2005).

Halal tourism refers to tourism products that provide hotel services according to Islamic beliefs and practices, serve halal food, have separate swimming pools, spas, recreational activities for men and women, alcohol-free dining areas, and prayer facilities (Elasrag 2016). Djakfar distinguishes the term halal tourism from secular tourism. The main characteristic of halal tourism is that it is inseparable between worldly and hereafter values, in contrast to secularistic tourism, which completely separates the profane material aspects from the transcendent hereafter aspects (Djakfar 2017, p. 30).

Halal tourism is rooted in Islamic law as every Muslim must travel for diverse reasons, a few without delay associated with Islamic regulation (e.g., hajj and umrah). While many journeys for education, treatment, knowledge, and others (El-Gohary 2016). The fundamental goal of halal tourism is to reflect the individual on his weakness and poverty before the power of Allah. On the other side, another goal is to promote Muslims' sense of brotherhood. Visits to friends and family are included in this category. The main purpose of both goals is to gain God's approval. Despite the reality underpinning Islamic tourism, the current definition stresses the joys and hedonistic aspirations that drive modern tourism.

Based on the search for research on tourism studies such as Abror *et al.*, halal tourism and customer engagement significantly impact tourist satisfaction. Religiosity is a significant moderating variable, and the research contributes to the tourism sector and customer satisfaction (Abror *et al.* 2019). Good tourism development can impact improving welfare in densely populated developing countries. It means that tourism development increases economic growth and welfare. However, population growth and political instability show a negative relationship with welfare. Besides, political stability determines tourism activities (Khan *et al.* 2021).

From a marketing perspective, Jordan's established halal tourism needs more improvement and promotion. Jordan evaluated definitely in 14 Halal offerings and became unsuccessful within the different ten. The reasons for Jordanian Muslim travelers who need to conform with Islamic regulation journey to halal locations are locations that provide halal-pleasant offerings to discover Islamic religious sites and find out about Islamic history (Harahsheh, Haddad & Alshorman 2019). Social media and the virtual era considerably contribute to the hospitality and lodging business. Online visitor critiques have emerged as a wealthy supply of statistics for traveler decision-making procedures on social media websites (Nilashi *et al.* 2019). As a result, industry players should seize

the opportunity to use social media for advertising their halal tour packages because it is a powerful communication tool in this decade (Feizollah *et al.* 2021). The significance of numerous halal advertising techniques, including halal seek and availability, halal certification and assessment, halal airports, and halal hotels, shows the factors influencing non-Islamic destinations regarding halal issues for Muslim tourists (Adel *et al.* 2020). Marketing strategy shows that historical context and business history play an important role over time (Ramli 2017).

Muslim tourists' needs and concerns when visiting Muslim minority countries (Said *et al.* 2020). Conversely, The perception of non-Muslim vacationers toward halal tourism in Malaysia and Turkey. It additionally investigates the quantity to which non-Muslim vacationers are inclined to shop for halal forms of merchandise and services (Battour *et al.* 2018). The list of halal attributes requested by Russian Muslim tourists shows that the attribute list shows the difference in characteristics requested between gender and type of traveler (Shnyrkova & Predvoditeleva 2019). Halal certification for halal culinary, destination brand and emotional experience provides customer satisfaction and behavioral intention (Ratnasari *et al.* 2020). Food operators' attributes and attitudes towards halal certification in Indonesia show that halal certification can be characterized by the number of branches, halal tourism knowledge, and market segments (Katuk *et al.* 2020).

There is still a lack of theoretical publication research in halal tourism. In addition, there is nonetheless a loss of studies carried out in presenting and figuring out the real concept of halal tourism within the context of Islam (Samori *et al.* 2016). In the existing literature, concepts such as halal tourism, Islamic tourism, Muslim-friendly tourism, sharia tourism, and Islamic tourism often change (Battour & Ismail 2016; Djakfar 2017; Khan & Callanan 2017; Razzaq *et al.* 2016; Sismanto 2021). According to (Khan & Callanan 2017), there is no apparent difference in terminology between the various terms halal tourism, Islamic tourism, and Muslim friendly. The current definition of halal tourism is based on exploring the innovative business opportunities available in the halal tourism industry that can be exploited by halal entrepreneurs (Battour *et al.* 2021).

### 3 METHODS

The research steps that the researchers carried out were as follows—first, tracing information sourced from books and journals related to the topic under study. Second, collect the Global Muslim Travel Index (GMTI) and the Indonesia Muslim Travel Index (IMTI) data from <https://www.crescentrating.com>. Third, examine to explain and interpret the data. In particular, the observation of halal tourism as a part of the spiritual exercise of Muslims methodologically could be defined primarily based totally on the perspective of the Qur'an and hadith. Fourth, conclude the discussions that have been carried out.

### 4 RESULT AND DISCUSSIONS

#### 4.1 *Halal tourism in islamic perspective*

The academic studies conducted on halal tourism from the verses of the Qur'an as a holy book for Muslims in which Allah motivates individuals to travel been done a lot (Bon & Hussain 2010; Battour & Ismail 2016; Namin 2013; Samori *et al.* 2016; Zamani-Farahani & Eid 2016). Tajzadeh Namin conducted a conceptual study of tourism derived from the Koran. According to him, tourism means studying the life of the people of the past (QS. Ali Imran: 137), studying the fate of the people of the past (QS. Ar Ruum: 42), studying how the Prophet was resurrected (QS. An Nahl: 36), studying the lives of the people of the past The wrongdoer (QS. Al An'am:11), thinks about creation (QS. Al-Ankabut: 20), thinks about what happens to wrongdoers (QS. Al An'am: 11), visits cities safe and prosperous (QS. As Saba': 11). The Qur'an calls humans to tour and research training from what occurs to the disbelievers and liars of divine signs; In general, traveling enables humans

to acquire theoretical and sensible causes and to reaffirm their Faith at the Day of Judgment. Travelling enables humans to research from the beyond and stops tyranny and oppression, and traveling improves sight, hearing, and internal expertise and saves humans from the state of no activity and torpor (Namin 2013).

Besides being sourced from the Koran, halal tourism can also be traced to the hadith of the Prophet Muhammad as recorded in Sahih Bukhari, Vol. 4, book 52, hadith 239 quoted by Jaelani. For example, Ibrahim Abu Isma'il As-Saksaki narrated the Prophet's hadith that he said: "I heard Abu Burda was accompanying Yazid bin Abi Kabsha on his journey. Yazid used to fast on the way. Abu Burda said to him: I heard Abu Musa say several times that Allah's Apostle said: If an enslaved person falls ill or travels, he will have a reward similar to that which he gets for good deeds done at home; when in good health." (Jaelani 2017).

There are many terms and meanings of tourism travel in the Qur'an. An important question is whether the objective factors in the Qur'an motivate individuals to travel. By examining the meaning of these verses, the main motivational factor for traveling is that individuals must understand what happens to others who deny Allah's verses, so they must learn from the mistakes of others (Battour & Ismail 2016). Motivating factors for tourism include prayer (pilgrimage and umrah), awareness of human weakness in the face of the eternal power of God, visiting friends and relatives called friendship in Islam, trade, reading verses of the Koran, and meditation. Therefore, tourism activities conducted with this motivation can be considered Islamic tourism. However, understanding from the sector's practice that the activities carried out within halal tourism attempt to Islamize modern tourist activities or make them halal (Sirak 2005).

The category of travel in Islam is characterized by having a purpose and is different from the definition of tourism in general, which is the pursuit of pleasure and hedonism. In Islam, a person who travels during the pilgrimage season is strongly encouraged to trade (work). At the same time, tourism in the general context is not included in those who work. Tourism in a secular context also implies vacations or non-work engagements, a form of diversion from work situations. Vacation trips are meant to be a relaxing, relaxing, and invigorating experience (Sirak 2005). The lesson of the Quran verses above is the possibility of complete submission to God by seeing the beauty and bounty of His creation, understanding the smallness of man and magnifying the greatness of God, and spending it according to the pleasure of Allah. SWT. On the other hand, traveling, to some extent, symbolizes the elements of patience and perseverance (Zamani-Farahani & Henderson 2010). A similar point of view out that the ultimate goal of travel is to impart awareness, human frailty, and an appreciation of God's greatness and oneness through observing historical sights and fabricated wonders, all of which are God's gifts (Sirak 2005).

Departing from some of the views above, tourism in Islam has meaning; (1) the joy of traveling helps relieve sorrow and pain. At least the human soul suffering from this pain will be relieved temporarily and will experience joy. (2) intelligent people will make tourism a livelihood that makes money. There is a possibility that someone who travels can seek and find opportunities to achieve a better life in a new environment. (3) generate money and knowledge. Tourism helps increase knowledge and gain more by learning new things and acquiring new forms of knowledge. (4) customs and traditions. Tourism makes it possible to discover and learn new traditions and customs, compare them with one's own, and improve habits. Traveling helps to learn from new cultures and gives people more options.

#### 4.2 *Indonesian halal tourism trend*

Since the release of the first Global Muslim Travel Index (GMTI) in 2015, a report jointly developed by Mastercard and CrescentRating, the Indonesian government has set tourism targets to become the world's top destinations. Meanwhile, Indonesia has consistently increased its ranking in the GMTI report every year for halal tourism. At 6th in 2015 to 2nd in 2018, and in 2019 since the first launch. Global Muslim Travel Index (GMTI), Malaysia should share the top spot with another destination, Indonesia, with a GMTI score of 78. The improvement in Indonesia's ranking reflects the efforts

made in educating tourism as an industry about the opportunities presented by the Muslim tourism market. Turkey is in third place with a GMTI score of 75. At the same time, the top three positions for non-OIC tourism destinations are occupied by Singapore, Thailand, and the UK with 10, 18, and 25 global positions, respectively, with a GMTI score of 65, 57, and 53. Singapore continues its top position among non-OIC destinations. Japan, Taiwan, South Africa, and South Korea continue their upward movement (Mastercard & CrescentRating 2019). It indicates that all the destinations they offer are increasingly friendly to Muslim tourists. The following is a comparison based on the Global Muslim Travel Index (GMTI) measurement, as shown in the following table.

Table 1. Differences in the world's top 10 rankings based on GMTI measurements.

No	Destinations	GMTI Score 2018	GMTI Score 2019
1	Malaysia	80.6	78
2	Indonesia	72.8	78
3	Turkey	69.1	75
4	Saudi Arabia	68.7	72
5	UAE	72.8	71
6	Qatar	66.2	68
7	Morocco	61.7	67
8	Bahrain	65.9	66
9	Oman	65.1	66
10	Brunei	60.5	65

\*Source processed from (Mastercard-CrescentRating 2019)

The measurement indicators used in GMTI use the ACES Model, which includes four areas: Access (Access), Communication (communication), Environmental (environment), and Services (services). The ACES measurement criteria used in the GMTI were later adopted by the Indonesia Muslim Travel Index (IMTI). This tool helps evaluate the halal position of each province against global standards so that it can provide strategic recommendations in the development of halal tourism. These four areas represent important components that destinations need to focus on to scale up and become more Muslim-friendly. The ability to fulfill each of the four regional strategies is critical for Muslim-friendly travel and will have a distinct impact on Muslim destinations and tourists (Mastercard-CrescentRating 2019). The following is a comparison based on the Indonesia Muslim Travel Index (IMTI) measurement, as shown in the following table.

Table 2. Differences of top 10 rankings provinces based on IMTI measurements.

No	Destinations	IMTI Score 2018	IMTI Score 2019
1	Lombok	58	70
2	Aceh	57	66
3	Riau	50	63
4	Jakarta	56	59
5	West Sumatra	55	59
6	Yogyakarta	51	52
7	West Java	51	52
8	East Java (Malang Area)	48	49
9	Central Java	47	49
10	South Sulawesi	30	33

\*Source processed from (Mastercard-CrescentRating 2019)

#### a. Accessibility aspect

Indonesia is not included in the top 10 world destinations in the credit component. Qatar, the United Arab Emirates, and Switzerland are the top three world destinations, with 50, 65, and 62. At the same time, the visa request scores are 92, 73, and 63, respectively. Transport infrastructure is 85, 88, and 97. The ease of Access of a destination is calculated based on visa requirements and connectivity to the top 30 entry markets and transportation infrastructure at the destination. Connectivity scores are based on air connectivity, and two new criteria were added this year; flight times and land borders to the top thirty destinations. Qatar is top of the table, with the UAE, Switzerland, Malaysia, and Hong Kong completing the top five destinations. Six of the top ten destinations for Ease of Access are non-OIC destinations.

Meanwhile, based on Table 2 above, Lombok, Aceh, and Jakarta became the top three leading destination regions in 2018, with 58, 57, and 56, respectively. The average score in 2018 was 50 out of 10 provinces, with only six provinces scoring above the average while the rest were below the average. The six regions are Lombok, Aceh, Riau, Jakarta, West Sumatra, and Yogyakarta. Riau, East Java, Central Java, and South Sulawesi are among the bottom 40% designated for Halal Tourism. An access component considers the following sub-criteria: air access, rail access, sea access, and road infrastructure. This component measures the ease of accessibility of a destination through several modes of transportation. Islamic tourists will not consider destinations that are not easily accessible.

#### b. Communication aspect

Indonesia is at the top for overall communication with Muslim tourists. Indonesia scored the strongest in terms of reach. Malaysia scores highly in digital presence and ease of communication. Meanwhile, Indonesia still needs to increase its digital marketing strategy in digital communication. Several studies have stated that social media and digital technology significantly contribute to halal tourism (Harahsheh *et al.* 2019; Nilashi *et al.* 2019). The importance of several halal marketing strategies such as halal search and availability should also be carried out by halal tourism actors (Adel *et al.* 2020; Feizollah *et al.* 2021).

Meanwhile, based on Table 2 above, it can be seen that Lombok, West Sumatra, and Yogyakarta rank in the top three in communication with scores of 59, 51, and 50, respectively. The communication component considers the following sub-criteria: Muslim visitor guide, stakeholder education, market reach, tour guide language skills, and digital marketing. This component measures the level of awareness and market reach for the needs of Muslim tourists. It also considers the ease of communication between tourists and destinations so that a destination with poor communication will remain relatively foreign to Muslim tourists.

#### c. Environmental aspect

Indonesia is not included in the top 10 world destinations on the environmental aspect. The top three average world destinations based on environmental components are Singapore, Turkey, and the United Arab Emirates, with tourism climate scores of 98, 50, and 70, respectively. Meanwhile, security scores are 97, 94, and 94, respectively. -100, and inbound economy scores of 37, 87, and 52, respectively. As was the case in the previous GMTI 2018, Singapore scored the strongest for having a sustainable environment favoring Muslim travelers. The majority of destinations with a supportive environment come from countries that are members of the OIC.

Meanwhile, the environmental aspects of regions in Indonesia based on Table 2 above show that Lombok, West Sumatra, and Aceh are in the top three with scores of 80, 73, and 70, respectively. The assessment of environmental aspects considers the following sub-criteria: Tourist arrivals, domestic tourists, international tourist arrivals, Wi-Fi coverage at airports, and commitment to halal tourism. This component measures the travel climate of Muslim destinations, overall environmental safety, and comfort. An environment that is hostile and foreign to Muslim tourists will generally create an unpleasant experience.

#### d. Service aspect

Indonesia is in the top rank of all destinations in the top ten list on service criteria. All of the top ten lists are country destinations included in the OIC. However, most of these destinations still lack a unique experience. Meanwhile, the service aspect of regions in Indonesia based on

Table 2 above shows that Central Java, West Java, and Aceh are in the top three with 58, 54, 50 respectively. In calculating the service aspect, the following sub-criteria are considered: restaurants halal, mosques, airports, hotels, and attractions. This component measures the religious-based needs services provided by tourist destinations. This service is essential to enable Muslim travelers to travel freely while still complying with their religious requirements even when they are traveling.

## 5 CONCLUSION

In the context of Islam, tourism is mentioned a lot in the Qur'an. including studying the lives of past people (QS. Ali Imran: 137) studying the fate of people in the past (QS. Ar Ruum: 42)., exploring how the Prophet was resurrected (QS. An Nahl: 36), studying the lives of the wrongdoers (QS. Al An'am:11), thinking about creation (QS. Al-Ankabut: 20), thinking about what happened to wrongdoers (QS. Al An'am:11), and visited safe and prosperous cities (QS. As Saba':11). Tourism in Islam is also strengthened by the hadith of the Prophet as recorded in Sahih Bukhari, Vol. 4, book 52, hadith 239. Halal tourism in Indonesia has good economic prospects as part of the national tourism industry. Halal tourism emphasizes Sharia principles in tourism management and courteous and friendly service to all tourists and the surrounding area. There are deficiencies in several aspects assessed by the Global Muslim International Index (GMTI), which makes Indonesia not included in the top 10 destinations. The need for the Indonesian government, together with stakeholders, to improve Access and environmental aspects. Ease of Access at tourist sites through enhanced connectivity, visa issuance, and infrastructure. In addition, by giving complete information to potential visitors, it is also vital to raise public awareness about attractions, resources, and existing tourist facilities to encourage Muslim tourists to visit other Indonesian tourist destinations. The most efficient strategy to tell Muslims about the potential for halal tourism in Indonesia is to develop marketing tactics through programs and facilities via social media and websites.

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## Problem analysis of special school food products in halal certification

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**ABSTRACT:** Halal food is a profitable business not only in Muslim-majority countries but also in non-Muslim countries. Indonesia is a country with the largest Muslim population in the world; however, Indonesia is only a market and not yet a perpetrator. According to Perry, such an industry is the result of the development of a halal supply chain or an already present halal supply chain. It means the production of goods or services from upstream to downstream has halal standards and certification. Special schools have a curriculum that focuses on student independence and have produced many products, one of which is food; however, unfortunately, these products do not have a halal certificate. Thus, they cannot produce it in large quantities due to the difficulty and limited marketing of their products. The purpose of this study is to find out the problems that arise related to the procedure for obtaining halal certificates for small-scale products produced in special schools, keeping in mind the importance of halal certification for food production. The research was carried out by observing secondary data and conducting interviews with special schools concerned. The results showed that the reason for special schools not having the halal certificate is lack of interest and understanding. These institutions prioritize only the taste of the product for marketing, which is enough to obtain a permit from the health department without fees and aids in avoiding the long and complicated process. The validity period of the halal certificate is only 2 years. Subsequent research results show that the most dominant causative factor is the lack of understanding and awareness about the institution regarding the halal certificate.

*Keywords:* Halal food, certification, special school

### 1 INTRODUCTION

The halal market is growing fast and increasing about 25% per year. Halal food is a profitable business not only in Muslim-majority countries but also in non-Muslim countries. From an Islamic perspective, the concept of halal is obligatory for a Muslim (Mathew 2014 ; Soesilowati 2010). In Indonesia, the majority of the population is Muslim, therefore, Muslims will seek products to be consumed in accordance with accepted religious teachings. This is marked by a large number of requests for halal products that already have halal certificates in the world. Thus, global awareness of the importance of halal and quality goods by Muslim consumers' needs to be increased, thus causing a new perception of halal. Halal is no longer limited to religious teachings, millennia consider halal as a healthy and cool lifestyle, thereby increasing its global acceptance (Baharuddin et al., 2015; Golnaz et al. 2010).

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Competition in the market can be observed based on the number of producers (both from majority countries and Muslim minorities) who are competing to present halal products to fulfill consumer demand. Indonesia also aims to become the center of the world's halal products. Indonesia is a country with the largest Muslim population in the world. This matter makes Indonesia the largest market in the world for halal products (Hamid et al. 2019; Izberk-Bilgin & Nakata 2016). The global halal food industry is ruled by Thailand, which only has 5% Muslim population. Thailand has confirmed itself as the world's halal kitchen. Meanwhile, Australia has started producing and exporting halal beef. South Korea is famous for its industry and the beauty sector dominates the world's halal cosmetic industry. As for the industry, halal textiles are dominated by China.

According to Perry, such an industry is the result of the development of a halal supply chain or an already present halal supply chain (Fauziah et al. 2019). It means the production of goods or services from upstream to downstream have standards and halal certification. Halal supply chain is a networking and economic activity that can produce and fulfill various needs of halal products and services. For Indonesia to develop the halal supply chain it should learn from the experience of other countries by focusing on the sectors with a competitive advantage. In the case of Indonesia, the sector that has the most competitive advantage is halal food (Ali 2016; Waharini & Purwantini 2018). Therefore, supply chain development for halal needs to be accelerated. This halal supply chain must also be integrated, from the side of large, medium, and small businesses, including economic empowerment boarding schools and other Muslim groups. Indonesia needs to compile and implement programs to establish a halal supply chain to compete in superior halal products that are present worldwide.

Other empirical evidence in Indonesia shows that in the population of the country the majority are Muslims, so it is natural for the state to protect Islam from consuming food, medicine, and cosmetics that come from of types and substances that are not halal (Ferdiansyah 2020; Pratiwi & Andarini 2020). Protection against consumers has been regulated through Law No. 8 of 1999 with an explanation as referred to in Article 4 which among other things states that: consumers have the right to comfort, security, and safety for the consumption of goods and/or services, and have the right to correct information, clear, and honest opinion regarding the conditions and guarantees of goods and/or services. That is, in terms of the halalness of a food product, the producer is obliged to guarantee the halalness of its products. Even in chapter 8, which among others, regulates the prohibition against business actors from producing and/or trade in goods and/or services that are not in accordance with the promises stated in labels, etiquette, descriptions, advertisements, or promotions the sale of such goods and/or services, also may not violate the provisions produce halal, as stated in the "halal" statement in labels.

The level of understanding of special school administrators regarding the importance of halal certificates in a food product, in particular, is quite good but the low interest in administering the certificate is due to understanding related to the management mechanism or procedure, which is an important note to know. Special schools apply a curriculum where learning is dominated by the independence of the students. A special school (SLB) is a school that is intended for children with special needs to get basic services that can help them gain access to education (Pradipta & Dewantoro 2019). With different types, different learning strategies and facilities are owned. Although special schools have been considered as schools with educational backwardness and have learning methods that are lagging as compared to general schools, special schools teach children about various basic skills and abilities so that they can follow the education curriculum in public schools (Marani 2017; Saputra & Mariah 2018). In learning activities, more emphasis is put on the process of life skills so that students can be independent. One of the life skills in question is food-processing skills in the form of snacks that are produced and traded.

Based on the results of field observations related to the sales work of students with special needs are quite high due to various reasons such as the good taste, affordable price, and cleanliness. Unfortunately, the limited production requirements for larger quantities are a major problem in product marketing activities. So far, the food products they make are only sold in a limited area, such as the school canteen. Opportunities associated with the halal certification include easy marketing, better consumer reach, and the safety and comfort of consumers, especially Muslim

consumers. Therefore, there is a need for an understanding related to the importance of halal certification on their products. Thus, the objective of this study is to see what problems make this special institution or school reluctant to adopt a halal certificate, taking into account the benefits that will be obtained if this special institution or school implements halal certification.

## 2 METHOD

The type of research is descriptive qualitative. Descriptive research is research that describes only a particular scene, field, or region. Collected data are classified or grouped according to type, properties, or combinations thereof (Moleong, 2007; Zellatifanny & Mudjiyanto 2018). The data collection technique in this study used a questionnaire with 10 questions relating to 4 aspects of understanding: 1) the need or role of a halal certification on food products; 2) mechanisms and procedures for managing a product to obtain halal certification; 3) Obstacles in the process of implementation of a halal certification on food products; 4) follow-up plans in overcoming problems that arise in the process of implementation of halal certification in food products. Interviews were conducted with ten teachers who are actively engaged in the food production process at a special school in Sidoarjo. The respondent's data can be seen in Table 1.

Table 1. Source of respondent data.

Origin of institution	Gender		Age range	Job status			Total
	Male	Female		Teacher	Headmaster	Other	
SLB – B Dharma Wanita	1	2	30 – 50	2	1	–	3
SLB Putra Mandiri	–	3	30 – 50	2	1	–	3
SLB Bina Bangsa	1	1	30 – 50	2	–	–	2
SLB A/C Dharma Wanita	1	1	30 – 50	2	–	–	2
Grand Total							10

The conclusion is derived after data collection. The reason behind carrying out descriptive research is to provide facts or events systematically and accurately about the nature of a particular population or area, and to provide an overview of the facts of the obstacles that occur. The qualitative research method is based on post-positivism philosophy and is used to examine the condition of the object natural (as opposed to experimental) in which the researcher is a key instrument, data collection techniques are carried out through triangulation (combined), inductive/qualitative data analysis is performed, and the results of qualitative research emphasize meaning rather than generalization. Thus, the problems focused upon in this study are halal-certified special school products and the causative factors for the absence of halal certificates in special schools. The technique of determining the subject uses purposive sampling. Purposive sampling is carried out by taking special schools that were selected correctly by the researchers based on the characteristics and specific details of the sample. A special school that has active food production but does not yet have halal certification for its products is located in Sidoarjo district, East Java.

## 3 RESULTS AND DISCUSSION

Based on the results of the interview, it was found that they were not aware of the legal provisions and the benefits of having halal certification. This is a tough challenge as many are looking for solutions and socializing the importance of halal certification. This can be seen from the results of the analysis

of the findings of the problems found, namely: 1) The validity period of the certificate is only two years; 2) The cost of applying for certification is high; 3) The certification process is long; 4) The taste of the product cannot affect the halal certificate; 5) Awareness of weak institutional competition for halal certification; 6) Lack of legal understanding regarding mandatory certification. Based on the results of interviews with ten respondents, it can be described some of the findings of problems in special schools related to their food products that have not been certified halal as described in the next paragraph.

Based on the results of interviews with the informants, it was found that reasons attributive for institutions not registering to obtain halal certification include: 1) The number of imported halal-certified food and beverage products in Indonesia increases the level of competition; 2) With at least the validity period of halal certification and expensive manufacturing, as well as the length of the certification, the application process can make producers commit fraud in trading, such as falsifying the halal label on the product without thorough inspection first and make the community increasingly restless; 3) With lack of public awareness and understanding of the law regarding halal certification many people do not care about the halal certification; 4) By already providing a taste that suits the people's palette or suffices consumers' needs, the vendors feel that the halal certification of their products is not important for its business.

The procedure for obtaining halal certificate on food products by LPPOM MUI consists of several stages (Hosanna & Nugroho, 2018; Qomaro et al. 2019). Before registering, the concerned company must meet the following conditions: 1) Before the producer applies for a halal certificate, it must prepare a Halal Assurance System; 2) Obligated to officially appoint a person or team Internal Halal Auditor (AHI) who is responsible for the guaranteed implementation of halal production; 3) Obligated to sign a willingness letter for unannounced inspection b LPPOM MUI; 4) Make periodic reports every six months on the implementation of Halal Assurance System. After these conditions are met, the company can apply for registration for halal certification.

In the halal certification procedure, producers who want a halal certificate should register with the LPPOM MUI secretariat with the following conditions: 1) Manufacturers must register all products produced in the same location and/or which have the same brand/brand same; 2) Manufacturers must register all production sites including tolling and packaging factories; 3) Provisions for the toll site must be made by the company who already has halal-certified products or is willing to be certified halal (Hidayat & Siradj 2015).

After classification by business category, the applicant company should practice the following: a) every producer who applies for halal certificate for the product must fill out the form that has been provided. The form contains information about company data, types, and the name of products and the ingredients used; b) The completed form and supporting documents should be returned to the LP POM MUI secretariat for inspection completeness, and if it is not sufficient the company must complete following the provisions; c) LPPOM MUI will inform the company about the schedule audits. The LPPOM MUI Auditor Team will carry out an inspection/audit of the location of the producer and at the time of the audit, the company must be in a state of producing a product that is certified; d) Examination/audit results and laboratory results (if needed) are evaluated in the LPPOM MUI Auditor Meeting. If the results of the audit do not meet the requirements the company is notified through an audit memorandum. If the company meets the requirements, the auditor will make a report on the results of the audit to be submitted to the meeting of the MUI Fatwa Commission to decide its halal status; e) The audit result report is submitted by the LPPOM MUI Management in the MUI Fatwa Commission Session at the time determined; f) The MUI Fatwa Commission meeting may reject the audit report if: considered not to meet all the requirements that have been determined, and the results will be communicated to the producer or halal certification applicant; g) Halal certificates are issued by the Indonesian Cleric Council after halal status is determined by the MUI Fatwa Commission; h) Halal certificate is valid for 2 years from the date of determination of fatwa; i) Three months before the expiration of the halal certificate, producers must apply for an extension of the halal certificate as per the rules set by LPPOM MUI (Faridah 2019; Resmawati & Hanifa 2018).

#### 4 CONCLUSION AND SUGESSTION

Based on the research that the author has done at a special school in Sidoarjo Regency, which does not have a halal certificate for their products, it can be concluded that halal certification also has challenges, here are the factors that cause school institutions to not have halal certificates its products, among others: 1) Unwilling attitude of the business owner. 2) The taste of the product that is owned is the most important in marketing; 3) Because they feel that a health office permit is enough; 4) Insufficient expenses; 5) Tedious and complicated process; 6) The short validity period of the certification, which is 2 years according to the length of the manufacturing process.

Special school institutions, that choose to move into the food production process are expected to consistently implement the guaranteed halal system during the production process at school until it reaches the consumers and always renew halal certification on products sold so that their business activities will continue to grow. For the government as the implementer of the Halal Product Assurance law, it is expected to take gradual implementation steps in the form of socialization, preparing a system of supervision and sanctions for producers regarding halal certification so that the implementation of halal can be implemented. LPPOM MUI as the largest halal certification agency in Indonesia is expected to provide extensive education to food producers and consumers regarding the safety of halal food and simplify the management mechanism of halal certificate for producers without compromising management performance. For further findings, it is expected to conduct research with the party that issued the halal certificate, to clearly understand the problems faced during submission and the issuance of the halal certificate.

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## Strengthening the life of nation by encouraging the values of religious tourism in Wali Pitu, Bali

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**ABSTRACT:** This study aims to explore the relationship between religious adherents, especially the majority Hindus and minority Muslims as a mode of strengthening the life of the nation and state. This study used a qualitative approach with case study design. The results of the study show that the presence of Muslims in the “Wali Pitu” tourist destination has a long history. They have lived there for generations, thus their habits and culture in everyday life are no different from the local Hindus. They use “Tri Hita Karana” as a foundation for creating happiness in life. Therefore, the development of “Wali Pitu” tourism among Hindus, which are the majority, can be well implemented.

**Keywords:** Wali Pitu, Harmonization, Religious Tourism, Strengthening National and State Life.

### 1 INTRODUCTION

Indonesia has been awarded the title as a meeting place for world religions, as proven *de facto* and *de jure*, can coexist until now (Muhammad et al. 2013). Until now, religious conflicts, especially those that occurred in Indonesia, were considered the most extraordinary and received sharp attention from the international community (Nurcholish 2015). As per Raeijmaekers views, a media of “pluralism” is needed in a democratic country, although it causes damage and threats to pluralism in the name of democracy (Raeijmaekers & Maesele 2015). Hinduism and Islam have also occurred in Indonesia. This event occurred at the end of the Majapahit Kingdom and the beginning of the establishment of the Demak Kingdom as the first Islamic kingdom on the island of Java. The collapse of Majapahit led to an exodus of Hindus eastward to the island of Bali (Muljana 2005). According to the Chronicle of Tanah Jawi, Prabu Brawijaya, apart from marrying Ni Endang Sasmitapura, he also married Putri Campa (China). Gajah Mada was ordered by the king so that Princess Campa was given to Arya Damar who was in power in Palembang, and was pregnant at that time. The child she was carrying was named Raden Patah, the ruler of Demak. Raden Patah was raised with Islamic education by Sunan Ngampel, to aid him to become a cleric and gather his fanatical followers easily. It was also reported that Raden Patah refused to appear before the Majapahit Kingdom because he did not want to serve the infidel king who was still a Hindu (Atmadja 2010). Religious conflict is not only between religions but can also occur between within religions. For instance, internal Islamic conflicts, such as those between abangan Muslims and santri (Geertz 2001). There was also an internal Hindu conflict in 1926. At that time, Surya Kanta magazine, published in North Bali, published a drama entitled “Fidelity to Women”. This magazine wanted reforms to the caste system and the implementation of adat (Soethama 2011).

On the island of Bali, the “Wali Pitu Pilgrimage” religious tourism is now being developed which is packaged together between the community and local government in the context of innovation in the tourism sector and anticipating social conflicts with SARA nuances. The name of the island of Bali is not foreign to everyone with all its uniqueness. Another uniqueness is the presence of many Muslims in Bali, either because they migrate to seek a livelihood or because they have settled for

generations and consider themselves to be Balinese. They use Balinese names (I Wayan, Nyoman, Ketut, etc.), speak Balinese, and even their religious activities have been in touch with Balinese culture. This diversity is treated as wealth to attract tourists to Bali. All potentials are explored and utilized, including the diversity of religions embraced by the Balinese people, including the development of Wali Pitu tourism. The seven guardians are: 1) Prince Mas Sepuh alias Raden Amangkuningrat Sacred Seseh Beach, located on the edge of Seseh Beach, Mengwi, Badung Regency, 2) Dewi Khotijah, located on Jalan Batu Karu Monang Maning, Denpasar, 3) Sacred in Bedugul Hill (Chabib Umar Bin Yusuf Al Maghreb), it is located in the hills of Bedugul, including Kab. Tabanan, 4) Habib Ali Bin Abu Bakar Bin Umar Bin Abu Bakar Al Khamid, in Kusamba Village, Dawan District, Klungkung Regency, 5) The Tomb of Wali Maulana Yusuf Al Baghdi Al Maghribi, 6) The Tomb of Wali Chabib Ali Bin Zaen Al Edrus (Number 5 and 6 are also known as the Sacred Twins which are located in Bungaya Kangin Village, Benden District, Karangasem Regency (Amlapura) and, 7) Karangrupit Sacred Tomb or The Kwan Lie / Shaykh Abdul Qodir Muhammad which is located in Temukus Village, Banjar District, Singaraja City (Chusna 2020).

The development of this destination is reinforced by Regional Regulation Number 2 of 2012 concerning Balinese Cultural Tourism chapter IV, article 8 which decides that tourism businesses to be developed include: a) tourist attraction; (b) tourism area; (c) tourist transportation services; (d) tourism travel services; (e) food and beverage (culinary) services (f); accommodation services; (g) services for organizing entertainment and recreational activities; (h) organizing services for meetings, incentive trips, conferences, and exhibitions; (i) tourism information services; (j) tourism consulting services; (k) tour guide services; (l) water tourism; (m) spiritual tourism; and (n) spas.

This innovation is expected to increase tourist visits, which have an impact on improving the welfare of the community. Many factors drive the tourism industry. As MacIntos views (Yoeti 1993), several factors encourage a person to travel, namely: 1) Physical Motivations, Cultural Motivations, 3) Interpersonal Motivations, and 4) Status and Prestige Motivations. From the results of field observations and interviews with informants, it turns out that there are forms of traditional activities carried out together which led to the development of harmonious behavior between Muslims and Hindus in the area which is the goal of Wali Pitu's religious tourism. The tradition in question is local wisdom, namely Tri Hitakarana which includes: 1) parahyangan activities, 2) pawongan activities, and 3) weakening activities.

Local wisdom obtained from tradition and locality of teachings provides life lessons that are useful for the process of developing one's maturity (Nurcholish 2015). Equally important is emphasizing human values, equality, tolerance, and empathy (Sochamawardiah 2013, p. 75). The importance of local wisdom does not only occur in Indonesia but also in other countries. Kagema's writing, that before the arrival of religions from outside (Islam and Christianity) African people were familiar with the traditional religion, namely Africa Traditional Religion (ATR). ATR is a unique religion that can unite tribes in Africa with various religious and ethnic differences (Kagema 2015).

## 2 PARAHYANGAN ACTIVITIES

The objective of this activity is to create a balance of life by practicing activities related to religion to get closer to the Almighty (God). Some temples serve as pilgrimage destinations for Wali Pitu, which are a common place of worship for Hindus and function as pilgrimage destinations for Muslims, such as the Temple on Seseh Beach located in Cemagi Village, Mengwi District, Badung Regency. The temple is believed by Hindus and Muslims as the tomb of Prince Mas Sepuh that must be purified. Similarly, the Tomb of Siti Khotijah, located in Jalan Batu Karu Monang Maning or Jalan Perumnas, Pemecutan District, Denpasar City, is a place of worship for local Hindus every Sunday, *Kliwon*, *Pujut*, as well as a place of pilgrimage (tahlilan) for Muslims. People believe that the person who is carried (in lieu of) his real name is Ratu Ayu Anak Agung Rai or also known as Gusti Ayu Made Rai. She is the younger sister of the King of Pemecutan named Cokorda III. She became the wife of Cakraningrat IV from Madura after successfully curing her illness. That is

what caused Gusti Ayu Made Rai to convert from Hinduism to Islam. From the point of view of this Parahyangan activity, it is believed that this place is sacred for both Hindus and Muslims. Therefore, collaboration occurs in the implementation of the ceremony as a form of harmonious interaction between Hinduism and Islam. This is what causes the sites mentioned above to serve as religious tourism destinations. This is possible and it requires maturity in carrying out religious teachings. As Asghar said, reaching heaven depends on how our attitudes and behavior are, and how we treat others (Ali 2008). The value of tolerance is very visible here, as described by the stakeholder (local religious leader), as follows;

“..... During the ceremony, they don't use pork because it's haram for Muslims. Muslim brothers and sisters around also helped to cook mebat for the ceremony. The offerings used are a mixture of Javanese, Balinese, and Islamic traditions. For example, using yellow cones and snacks from the market, as well as prayer mats and *mukena* are prayer tools for Muslims; Using Balinese offerings of banten canang, incense, water tirta (holy water) pis bolong (Chinese kepeng money) which are commonly used in ritual activities for Hindus in Bali...”

The role of religious leaders from both parties is very important in creating this kind of atmosphere because such relationships and beliefs are contrary to the teachings of their religion. According to Borgonovi, to resolve religious conflicts, the role of religious leaders is to motivate external (inclusive) interactions. Religious pluralism is closely related to a sense of volunteerism, although based on the facts, religious pluralism causes the emergence of internal (exclusive) motivations. Therefore, the role of religious leaders is to motivate external (inclusive) interactions (Borgonovi 2008).

### 3 PAWONGAN ACTIVITIES

This activity is to create a balance of life through interaction with fellow human beings. In general, the relationship between religious adherents (Hindu-Islam) at the “Wali Pitu” location is very good. The harmony is described as follows;

“.....The relationship between Muslims and Hindus is very good, respecting each other like during the holidays, congratulating each other on holidays. It is also said that they always enliven and protect each other during the holidays. When celebrating Eid al-Fitr, Hindus congratulate Muslims on the holidays, and vice versa. When Hindus celebrate Galungan, Kuningan, and Nyepi Days, Muslims congratulate the holidays. Likewise with the security carried out by pecalang, when Muslims carry out activities. On the other hand, security is carried out by the Satkam (Village Security Unit) when Hindus carry out religious activities. During the ogoh-ogoh parade (towards Nyepi Day) for Hindus, the parade is also enlivened by flying in the front position, and before Eid al-Fitr a torch relay around the village is also enlivened by Balinese gambelan (gong) in the front position. This is a form of mutual respect between religious adherents as a form of harmonious interaction between humans. Placing the arts of each religion at the forefront is a sign of respect and empathy between religious adherents”.

Religious conflicts often occur because of the emergence of interests, especially from outside. Like the Palestinian conflict with Israel, attacks on Afghanistan, Iraq, Rohingyas, and many other external political factors have contributed to creating anti-pluralism sentiments (Hasyim 2015, p. 494). Therefore, in this place, not everyone from outside is allowed to preach religious sermons without obtaining permission from the local Islamic authorities. The role of local political elite, especially the local religious elite, has an important role in creating a balance of life both vertically and horizontally. This is what creates harmony between religions, even though Islam is in a minority position. Vertical integration includes problems that exist in the vertical plane, which aims to bridge the gaps of differences that may exist between the political elite and the masses in the context of developing an integrated political process and a participating political community. Horizontal integration, between communities supporting a country to reduce discontinuities and tensions of regional culture and religion adopted in the context of the process of creating a homogeneous political society (Nazarudin 1994).

The spirit of equality is also instilled between humans on earth and before God. This can be seen in the name Kusamba, the location of the Tomb of Habib Ali Bin Abu Bakar Bin Umar Bin Abu

Bakar Al Khamid, which is located in Kusamba Village. Reinforced also by the caretaker of the local tomb, they said;

“.....At that time, there was already a brotherly relationship between Islam and Hinduism. Even now, good relations are still established with brothers in Bali who are Hindus. This is proven, when we enter the tomb of Habib Ali, the first thing we see is a very large temple building as a form of welcoming brotherhood from Hindus, then we meet the Almahdi Mosque, then we meet the Mausoleum of Habib Ali, which until now has been visited by pilgrims from outside Bali such as Java, Banjarmasin, Lampung, even abroad, Malaysia, Brunei, America, even from Mecca. This proves that the value of tolerance instilled by Habib Ali is not only heard in Bali, but also other countries in the world. Hopefully we can inherit these values. Economically, it can also support the Kusamba people, because the goods sold here are made by our Hindu brothers. Like the skullcap, the *mukena* that makes is our Hindu brothers and sisters.”

Minorities are not always in a discriminatory position; this depends on the political will of the rulers. For example, the political nature of the Sri Lankan government is not only its tolerance but also its support for the existence of Muslims despite the minority position compared to Buddhists (Ali 1984). All parties or all elements of community diversity have the same opportunities to concrete national commitments through their respective services (Kusumaatmaja 1996). Another guardian is in Karangasem known as the twin guardians who have existed from 1640s since the Watu Renggong Kingdom. He also gives color to the life of religious harmony in Karangasem. Since then, there has also been a harmonious relationship with Hindus, as told by local Islamic leaders;

“.....they have succeeded in instilling religious harmony until now, there has never been a conflict. When Hindus have events, Muslims are involved, so should it be, based on the culture they have inherited from the past. The proof is that until now, the language used is smooth Balinese in communication because Islam exists because it is through the kingdom so that the language used is the royal language (smooth) until now. Cultural tolerance seen until now is that *megibung* is eating together, as well as bringing fruit during certain events such as Eid al-Fitr, which is known as *rake-rake*, (a kind of *banten* or offerings in Hinduism. In terms of names also use Balinese names such as Wayan , Made, Komang, Ketut. The culture of daily life, such as when someone dies, *pitungdinain* (seven days), *petangsain* (forty days), as well as birth, there is a term called *ngotonin*, which is a ceremony for a child who is six months old.”

#### 4 PALEMAHAN ACTIVITIES

This means that there is a harmonious relationship between humans and the universe, in this case, it is about the harmonious relationship between Hindus and Muslims at the Wali Pitu location in relation to the function of the land. Kusamba is the location of the Tomb of Habib Ali Bin Abu Bakar Bin Umar Bin Abu Bakr Al Khamid. Because of the good relationship with the local rulers since 1461 he was awarded *landas* a place to live, place of business, a school, and so on. As one resident in Kusamba put it:

“...even this land used to be a gift from the King of Klungkung so that until now there is land owned by Muslims who are still under the status of *waqf*. These used to be gifts by the king to our ancestors because they were loved to be *parekan* (servants or servants of the king)...”

Paste This statement shows that there is concern for Muslims by giving a piece of land as a place to live. Likewise at the Tomb of Siti Khotijah in Monang (Denpasar), that the land belongs to the *Pemecetan* king in Badung. As one expert said that;

“.....after he died, his followers who came from Madura were given land to live in which until now is known as *Kampung Jawa* .....

They carry out activities in the garden or rice fields from tillage to harvest using the Balinese calendar system. As stated by one of the local community leaders;

“..... We have always respected each other since the beginning, we are Balinese here, so whatever we do is no different from our Hindu brothers. Our livelihood here is gardening, so we always use the Balinese calendar to find time to work in the garden, such as cultivating the land, until harvesting as

well as other activities. I have been a Muslim since birth, so the language we use everyday is Balinese, our culture is also Balinese, it's just that it involves faith in accordance with our beliefs, namely Islam.”

Based on the description above, the implementation of *Tri Hita Karana* as their basis for living *menyame braye* can be arranged based on the chart below.

## 5 CONCLUSION

The existence of these saints has a long historical background with the local Hindu ruler (King). This historical background causes the adherents of the two religions to live in harmony to date. The concept of a harmonious life between human beings in Hindu society becomes a reference in a diverse life as a meaning of socio-cultural solidarity, namely *manyama-braya*, *paras-paros sarpanaya*, *salunglung sabayantaka*, and *Tat Twam Asi* which means “always being together in both joy or sorrow, good or bad, respect as common property, know yourself”.

The forms and tips done by Muslim and Hindu leaders in the “wali pitu” religious tourism destination on the island of Bali in building a harmonious life are based on the philosophy of local belief as a local genius, namely *Tri Hitakarana* which includes activities of *parahyangan*, *pawongan*, and *palemahan*. Based on this concept, the conditions in the “wali pitu” religious tourism destination on the island of Bali are very conducive which greatly affects the area that can be packaged and developed into an alternative tourist destination in addition to cultural tourism which is the flagship of the Bali Government.

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## An overview of Brunei's halal certification development

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**ABSTRACT:** Halal certification is essential as it serves as a medium for strengthening the Muslim consumers' faith and serves as a sign of assurance that the goods produced are religiously compliant, safe, and hygienic. Therefore, Brunei Darussalam takes initiatives to improve its halal certification system by developing its halal matters, halal certification process, laws, and regulations. For that reason, this study discusses the development of the halal certification system from its establishment till now. Hence, this discussion aims to explore how halal is governed and practised in Brunei, with a focus on the halal certification system. The methodology used in this study was extracted from a review of relevant papers, journals, proceedings, and books. According to the study's findings, halal certification is being established by the current situation.

**Keywords:** halal certification, halal certification development, halal unit, Brunei Darussalam

### 1 INTRODUCTION

At the moment, Brunei is gearing up to capitalize on its halal market and further stamp Brunei as the Halal Hub. As Brunei is now shifting towards realizing to be marked as the Halal Hub, the demand for meaningful strategic management is seen as a platform towards realizing the Brunei Vision 2035. One approach would be to establish a credible organization that promotes and develops halal certification as a platform for local Brunei Micro, Small, and Medium Enterprises (MSMEs) to thrive (Ismail and Laidey, 2014). The emphasis on halal is indeed growing (Cheng & Low 2008), and it is influencing and changing the way businesses are run (Asa 2019).

Furthermore, Bergeaud-Blackler (2016) states that since the second half of the 1990s, halal certification of food and related goods and services has arisen as a result of the global demand for Muslim consumers and competition for this market. Bergeaud-Blackler (2016) also stated that the halal phenomenon is becoming more prevalent in places where halal quality is in high demand.

Moreover, according to Riaz and Chaudry (2004), halal certification is a document issued from an Islamic organization declaring that the products specified on it comply with Shariah laws or guidelines as established by the certification body, whether in the form of a logo, labelling, stamp, seal, or certification. Ab. Rahman (2005) supported this statement by saying that halal certification is indeed a means to identify and show that the products are halal (Ab. Rahman 2005). In other words, a halal certificate is a verification of a person's claim to be a halal product manufacturer or distributor. For instance, from the standpoint of the consumer, it is a symbol of assurance and confidence, whilst from the perspective of the halal certificate holder, the certificate could enhance the marketability of their products.

As result, many Muslim and non-Muslim countries are seizing the opportunity to establish their halal issues, certification processes, laws, and legislation, as halal certificates have the potential to become a global halal trademark for quality assurance (Asa 2019). Therefore, it is vital for every country especially Brunei Darussalam strengthen its halal certification system since it positioning itself to be a halal hub to gain trust from people. For that reason, this article discusses the halal certification of Brunei Darussalam and its development from the beginning around 1997 to the present.

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## 2 LITERATURE REVIEW

Halal certification is often addressed in scholarly publications. However, there is relatively little research on Brunei Darussalam's halal certification and its development from the beginning of their establishments to the present. Based on these findings, researchers began to write more about halal certification in Brunei Darussalam so that others can learn about these issues and fill the knowledge gap. Thus, this research is impeded because no comprehensive research on the evolution of halal certification in Brunei Darussalam has ever been done.

Halal certification in Brunei Darussalam is believed to have formed around 1997 when an ad-hoc committee was created to oversee halal meat inspection (Pusat Da'wah Islamiah 2007). Then, in 1998, this committee became a board, which issued the halal permit (Pusat Da'wah Islamiah 2007). This board developed into a unit called Unit Halal Haram under the Department of Religious Affairs (DoRA) in 2001 (Mustafa 2013), which was renamed into Halal Food Control Division (HFCD) in 2006 (Rahman 2009).

In addition to the unit of handling halal certification, Rahman (2009) noted that the halal logo evolved from Halal Label 2005 into Halal Label 2008. The fee of obtaining the halal certificate and halal permit has also changed over time (Kifli 2019). To summarize, progress or change in the halal certification process or system has indeed been noticed in Brunei Darussalam, and this tendency has not abated. As a result of these reforms, Brunei Darussalam now has a better halal certificate system, and perhaps much better in the future.

## 3 SCOPE AND METHODOLOGY

The main objective of this research is to learn more about the halal certification system in Brunei Darussalam. The study will focus on the halal certification system, which will look at (1) the formation of the halal unit, (2) halal governing laws in Brunei Darussalam, (3) standard operating procedure, and (4) halal label throughout from they have been started in 1997 to the present.

Data collection is gathered in a qualitative approach by examining pertinent papers, journals, and related articles. Additional material from the related authoritative websites and the mainstream media also contributed to the study's completion. The study focuses on gaining a deeper knowledge of development halal certification in the Brunei Darussalam setting, which is highlighted below.

## 4 FINDINGS AND DISCUSSION

Based on the literature review, the halal certification system in Brunei Darussalam addresses (1) the formation of the halal unit, (2) Brunei Darussalam's halal governing laws, (3) standard operating procedure, and (4) halal certificate as well as (5) halal label. The analysis demonstrates that the halal certification system in Brunei Darussalam has been gradually developing with time. The findings are discussed in the sections below.

### 4.1 *The background of the formation of halal unit*

His Majesty the Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah and Yang Di-Pertuan of Brunei Darussalam had given his excerpt during his 51st birthday, on July 15, 1997, as follows:

*"In this context, it is time for the relevant parties in the government to study the possibility of establishing a body as the party that controls the halal and haram food and beverages ingredients, including all types of meat and other consumables product in the country."*

(Mustafa 2013; Pusat Da'wah Islamiah 2007)

Prior to the above excerpt, the ad-hoc committee of cabinet ministers was formed to carry out the formation of the Halal Meat Inspection Committee (Pusat Da'wah Islamiah 2007) on October 13, 1997, and the Board of Issuing Halal Import Permit on September 26, 1998. The Board of Issuing Halal Import Permit was renamed to Unit Halal Haram on January 22, 2001, under the

supervision of the DoRA (Mustafa 2013). By 13 July 2006, Unit Halal Haram had evolved into the HFCD, which is still operational today. HFCD was founded on the occasion of His Majesty the Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah and Yang Di-Pertuan of Brunei Darussalam except during his 55th birthday on July 15, 2001 (Rahman 2009).

#### 4.2 Halal governing laws in Brunei Darussalam

In Brunei Darussalam, halal certification and the halal label are performed solely by the officers of the HFCD, starting from application through site auditing to certification and follow-up audit (Kifli 2019). In addition, the Brunei government established a committee comprised of personnel from the Islamic Religious Council, State Judiciary, Agriculture Department, Ministry of Industry and Primary Resources, Ministry of Health (MoH), Islamic Judicial, HFCD, and DoRA as well as Ministry of Religious Affairs (MoRA) to enforce halal certification, (Asa 2019). the Halal Certificate and Halal Label Inspection Committee are comprised of the Director of Shariah Affairs as chairperson, Deputy Mufti, District Officers of every district, Director of Health Services, Chairman of Municipal Department of every district, Director of Agriculture and secretariat as well as the appointment of not more than two new committees, according to Brunei Darussalam Government Gazette, (2005). HFCD manages the halal certification process as a secretariat. The Halal Certificate and Halal Label Order (Brunei Darussalam Government Gazette 2005) appoints these committees as auditors under Chapter 18 of the Halal Certificate and Halal Label Order.

Table 1 also lists the halal regulating acts and regulations, as well as the regulatory bodies that are engaged in the halal certification process. These acts or standards are used as a reference throughout the inspection and must be followed. Other industry players such as business owners also should adhere to the relevant acts or standards.

Table 1 lists the relevant laws and guidelines that must be considered during the on-site audit and inspection of the companies before issuing the halal certification. Table 1 further demonstrates that

Table 1. Regulations and regulatory bodies for halal certification process.

No	Act/Regulation/Standard	Regulatory Bodies
1	BCG 1 – Guideline for Halal Certification	Halal Food Control Division, Ministry of Religious Affairs
2	BCG 2 – Guideline for Halal Compliance Audit	
3	BCG 3 – Guideline for Halal Compliance Auditor	
4	BCG 4 – Guideline for Halal Surveillance Audit	
5	■ Halal Certificate and Halal Label Order, 2005 ■ Halal Certificate and Halal Label Order (Amendment), 2008 ■ Halal Certificate and Halal Label Order (Amendment), 2012 ■ Halal Certificate and Halal Label Order (Amendment), 2016 ■ Halal Certificate and Halal Label Order (Amendment), 2017	
6	PBD 24:2007 – Brunei Darussalam Standard for Halal Food	
7	■ Halal Meat Act 1999 ■ Halal Meat Act, 2014	
8	■ Halal Meat Rules, Cap. 183, R1, 1999 ■ Halal Meat (Amendment) Rules, 2016	
9	Wholesome Meat Order, 2011	Brunei Darussalam Food Authority Food Safety and Quality Control Division and Public Health Services, Ministry of Health
10	■ Public Health (Food) Act, Chapter 182, 1998 ■ Public Health (Food) Act, Chapter 182, 2012	
11	■ Public Health (Food) Regulations, 2001 ■ Public Health (Food) Regulations (Amendment), 2013	

the act, rules and regulations have been revised and amended throughout time. The amendment is required to simply update the act by modifying previous acts by adding and subtracting material. Furthermore, the change is required for a better outcome.

#### 4.3 Standard operating procedures

In Brunei Darussalam, food company owners must apply for a halal certificate, whereas non-food products such as medications, cosmetics, consumable goods and services must apply voluntarily

Applicants who desire to seek a halal certificate must go through HFCD, which has given the authority to manage the halal certification process, with the Majlis Ugama Islam Brunei (hereafter called MUIB) having the final say on approval (Sulaiman 2020) or rejection. In other words, HFCD is completely responsible for all halal affairs, including preparation, food handling, site auditing and so forth, unless officers from other departments are required to assist in the audit (Kifli 2019). To complete halal certification process is seen in Figure 1 below. The halal certification process takes 45 days from start to finish, assuming all standards are met.

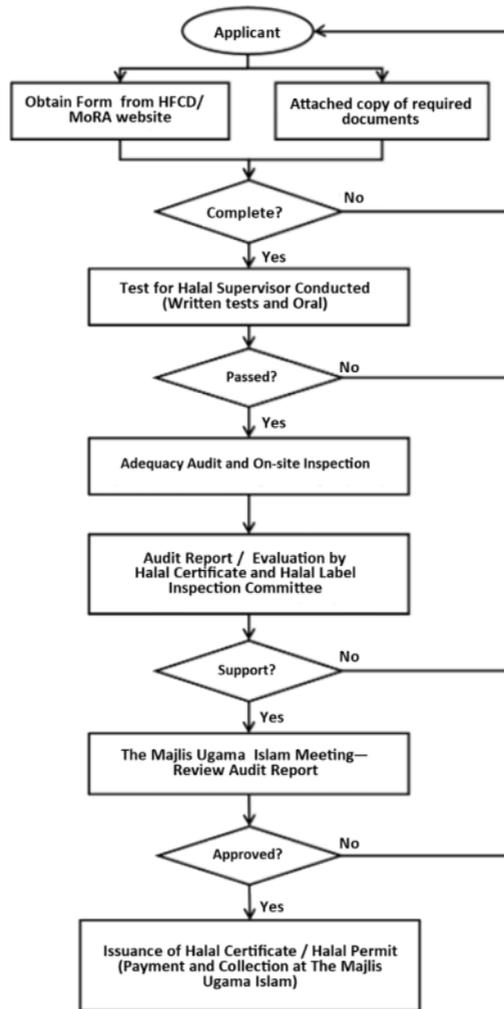


Figure 1. Flowchart for application of halal certificate.

Source: (Ministry of Religious Affairs 2016).



as Inspection Committee), which is formed up of representatives from MoRA, Ministry of Primary Resources and Tourism (MPRT), and MoH, and will conduct an adequacy audit once a week. The Inspection Committee will inspect or review the completed form. Then the Chief Inspector and the Food Analysis will conduct inspections at the business site to ensure that the premises are up to standard if they are satisfied and approved the documentation review. If the Inspection Committee rejects the applications, the applicants must return to the first step and submit the completed form and documents to HFCD.

Following the Inspection Committee approval, inspection committees will be authorized to inspect numerous premises to ensure that all ingredients are halal and also the space for food preparation is acceptable following the guideline (Asa 2019). Furthermore, the Chief Inspector and Food Analysis not only inspected the premises but also ensured that the tools and equipment used to prepare food or manufacture the products are separate from any other tools and equipment used for other purposes, as well as segregating the manufacturing process, particularly for home-based businesses where kitchen area must be completely separate from the space where daily home cooking is done.

The on-site inspection committee also checks to see if the manufacturing area or the kitchen complies with health and hygiene standards. They will also see examine invoices for raw material purchases to determine whether any undeclared ingredients were used in the preparation of food and product. The inspection committee will also take a photo of materials and places. If any non-compliance reports (NCRs) are received, the inspection committee will issue a corrective action request (CAR) and give the applicants time to implement the corrective actions.

Subsequently, the audit team will prepare a report to the officer for the examination of the Halal Certificate and Halal Label Inspection Committee. So, after that, the Halal Certificate and Halal Label Inspection Committee will meet to discuss the application. The report will be presented to MUIB if it is approved. The MUIB will then convene to examine and premeditated the application report. A Halal Certificate will be issued for the premises if it is supported and approved. If the request is not approved, the process will be restarted at step 1.

Finally, after the applicant has paid, the halal certificate will be issued. Approved applicants will be required to pay BND90 to MUIB for each halal certificate, which will be valid for three years. The invalid certificate must be returned, and lost certificates must be reported, with a fee charged to replace the certificate.

In addition, if there are no NCRs or CARs, the entire process will take 45 calendar days to complete, with the processing of the application taking 11 days, the period between test and on-site inspection taking 3 days, and the final certification being issued taking 31 days, as shown in Figure 3 below.



Figure 3. Halal certification process.  
Source: (businessBN 2020).

In addition, a surveillance audit will be performed regularly to ensure that the premises are always in compliance with the halal food standards requirements. If the premises were found to have broken the law, the halal certificate will be revoked.

Furthermore, a few relevant standards and guidelines are used together with the laws during the inspection and surveillance audit. In early the 1990s, the committee used *Garis Panduan Mengenai dengan Kawalan Barang-Barang Gunaan dan Makanan Orang-Orang Islam* (Guideline on the Control of Consumer Goods and Muslims Food) as a guideline (Pusat Da'wah Islamiah 2007) in conducting inspections and establishing rules and regulations. Then, HFCD mentions that while PBD 24:2007 is the Brunei Darussalam national halal standard, BCG 1 -Guideline for Halal Certification and BCG 2 – Guideline for Halal Compliance Audit are the most accurate that HFCD followed as they specify precise guidelines on the proper procedure, how the audits would be conducted and the preparation required of all applicants (Kifli, 2019).

#### 4.4 Halal certificate

Brunei government has formed a committee comprised of officers from the Islamic Religious Council, State Judiciary, Agriculture Department, MIPR, MoH, Islamic Judicial, HFCD and DoRA, MoRA, to enforce halal certification (Asa 2019). These committees are in charge of managing, supervising, or selecting other officers to carry out inspection and enforcement duties encompassing all aspects of food production and preparation (Asa 2019). Aside from that, these inspection officers also will be authorized to conduct random inspections on various premises to ensure that all the ingredients are halal and that production is following the guidelines. If there is non-conformity during the inspection and the board agrees, the company will be granted halal certification.

#### 4.5 Halal label

In the *Warta Kerajaan* of Brunei Darussalam, it is stated about the Halal Label, namely in Chapter 9 (1) as follows:

1. When used concerning food while carrying on trade or business, the Halal Label shall mean that the food:
  - a) Not and does not consist of or contain any part or material of animals that are prohibited by Islamic Law to be eaten by Muslims or that are not slaughtered by Islamic law;
  - b) Does not contain anything that is considered unclean according to Islamic law;
  - c) has been prepared using an instrument free from anything deemed unclean according to Islamic law;
  - d) While preparing or storing. not in contact with or near any food that fails to comply with paragraphs (a), (b) or (c) or anything else that is considered unclean according to Islamic law.

After implementing the Halal Meat Act Cap 183 and its rules, the government has enacted another law on food and beverages that is broader than what is contained in the Halal Meat Act Cap 183 and its rules, which is called the Halal Certificate and Halal Label Order 2005 (Haji Abdul Rahman 2009). Halal Certificate and Halal Label Order 2005 covers the supervision and regulation of food items, both processed in the country and processed abroad as well as in restaurants and in places to eat and drink in the country (Haji Abdul Rahman 2009).

Unit Halal Haram had issued the use of halal label which has been adopted from the enforcement of the Certificate and Halal Label Order 2005 (Pusat Da'wah Islamiah 2006). This matter is in response to the excerpt of His Majesty the Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah and Yang Di-Pertuan of Brunei Darussalam in conjunction with his 54th Birthday on 15 July 2000 (Haji Abdul Rahman 2009; Pusat Da'wah Islamiah 2006), as follows:

*“...in addition to the country's role in the regional and international economy will be more prominent when we can be producers of goods from halal food. Last year, we already enacted an act related to it, to ensure that the supply of meat and poultry is completely halal according to Syarak. I hope this move is not only for the mentioned type of foods but also including processed foods.”*

As of August 1, 2008, the Halal Label 2005 is no longer applicable and has been changed to the new halal label (Rahman 2009), halal label 2008. The evolution of the use of the halal logo can be seen in the following Figure 4.

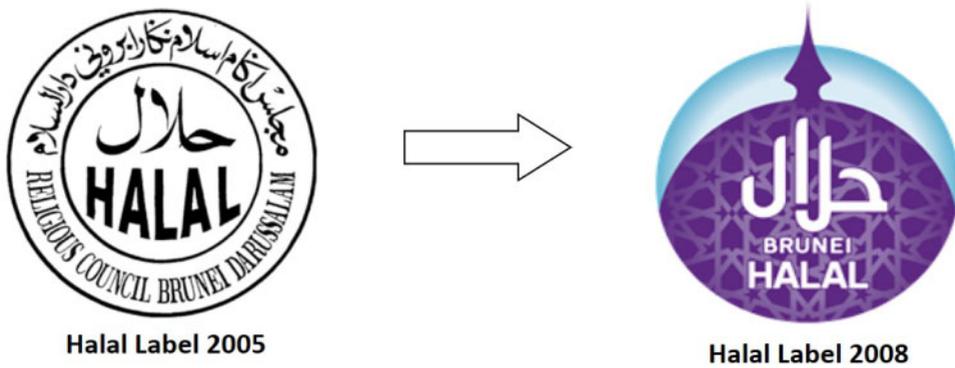


Figure 4. Halal label.

Source: Section 9(2)) of Halal Certification and Halal Label Order, 2005 and (Section 9(2)) of Halal Certification and Halal Label Order (Amendment), 2008.

Moreover, there was a press release and an official announcement regarding the revised price charges for halal certification and the halal logo by MoRA to accommodate the size and scale of businesses that manufacture and produce food for supply (Kifli, 2019). The revised price charges for halal certification remains at BND90, whereas for the halal permit, the revised rate structure is shown in Table 2 as below:

Table 2. Halal permit revised rate

No	Classification	New Rate
1	Micro Industry	BND 5.00 for each product
2	Small Industry	BND 150.00 for every 20 products
3	Medium Industry	BND 300.00 for every 20 products
4	Macro Industry	BND 700.00 for every 20 products
5	Multinational	BND 1000.000 for every 20 products

Source: (Bahagian Kawalan Makanan Halal 2017)

## 5 CONCLUSION

Halal certification logo or label identifies the country of origin of the product so it is crucial for every country to develop its halal matters to gain people's trust and be a halal hub. Halal certification shows that the halal status of the products has been reviewed regularly by relevant authorities to ensure the Muslims that their products fulfil the requirement of halal. Besides, it is not deniable that halal certification also serves as a tool for economic development as it can promote the product in the global halal market. Considering all the findings, it can be concluded that Brunei Darussalam is gradually developing its halal certification system to support local businesses to hold the best position in the halal market. In addition, the consumers will feel more confident and positive perception towards Brunei's halal certificates as the related authority keep on developing and updating the process, system and acts related to halal to get a better result. The development of halal certification is not only restricted to the processes instead should include the certifying bodies, laws related to halal, standards and guidelines, and halal label.

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## Comparisional analysis of financial performance between sharia and conventional banks (case study on BRI and BRI Sharia bank)

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**ABSTRACT:** This study aims as literacy in analyzing financial operational performance and to find out the form of prominent differences in the financial performance of Conventional Banks against Islamic Banks whose reference is to look at the number or financial ratios. The type of this research is descriptive quantitative research. The sampling of data in this study was from BRI and BRI Syariah Banks based on the publication of annual financial reports for 5 years, from 2016–2020. The indicators in measuring the financial performance of this bank use the ratio of CAR, BOPO, LDR, NIM, ROA, and NPL.

**Keywords:** Performance Comparison, Conventional and Islamic Banks, Bank Finance.

### 1 INTRODUCTION

The company's financial performance is related to work assessment and measurement. Performance appraisal in Srimindarti opinion (2006:34) is a way to determine the effectiveness of the company, organizational management, operations and employees in accordance with predetermined standards, targets or criteria on a regular basis. Furthermore, performance measurement is the qualification of the company's effectiveness and efficiency related to the company's management during a certain period.

Bank is a financial institution that has a very important role in the economy in a country. Banks serve as financial intermediary institutions between banks and customers. Banks according to Article 1 paragraph (2) of Law no. 10 of 1998 concerning amendments to Law No. 7 of 1992 concerning banking, namely a bank is a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and other forms in order to improve the standard of living of the people at large. Based on the type of bank in Indonesia, it is divided into two, the difference is based on profit sharing or interest payments, namely:

- a. Conventional Banks
- b. Sharia Banks

Banks have a strategic role in the economy of a country. As an intermediary institution, the role of the bank itself is as an intermediary in mobilizing funds from the public and used to provide service facilities in payment transactions and finance investment activities. Furthermore, according to (Kasmir 2009:25) the bank is also known as a place that is needed by the community when they need a loan of money or credit. Based on its function, the nature of the bank's business itself is different from other service and manufacturing companies.

In the current era, in order to seek accommodation for the Indonesian people, the majority of which are Muslims. The government subsidizes the launch of an Islamic sharia-based financial system. The Islamic financial system is extended to banks, capital markets, insurance, savings and loan institutions (Wijaya 2008). This method is a step and an effort to expand the sharia system to the conventional system where it can be used as a comparison of future expectations and performance at a bank. According to (Antonio 2001) the government acted by taking steps to develop a sharia

banking business unit by granting rights and permits to conventional banks to open and have sharia banking business branches. The Islamic Banking System is placed as a component of the national banking system. Furthermore, the Government introduced Law No. 21 of 2008 regarding Sharia Banking, which later could provide a constitutional basis that has greater and more assertive opportunities in developing Sharia Banking businesses in Indonesia so as to demand results that ultimately sharia banks can be equal and comparable. with conventional banks. Now the existence of Islamic banks has been regulated in PP. No. 72 of 1992 regarding the principle of profit sharing by banks. Therefore, finally two different banking systems were introduced, namely in accordance with the interest system and the profit-sharing system, namely:

- a. Banks that run conventional business.
- b. Banks that run business according to sharia.

Conventional banks and Islamic banks in several points of view have similarities, these similarities are such as in the transfer mechanism, the technical side of receiving money, general requirements for obtaining financing such as NPWP, ID cards, proposals, financial reports, computer technology, and so on. According to the view (Antonio 2001) the basic dissimilarity between conventional and Islamic banks is related to organizational structure, legal aspects, work environment and financed businesses.

## 2 CONVENTIONAL AND SHARIAH BANK DIFFERENCES

In several aspects of conventional banks and Islamic banks there are similarities, namely in the transfer mechanism, the technical side of money receipts, general financing requirements, computer technology used, and so on. Judging from the differences between conventional banks and Islamic banks, namely related to the business being financed, legal aspects, organizational structure, and work environment. In the contract itself, Islamic banks have consequences for the world and the hereafter because the contract carried out must be in accordance with Islamic law and sharia. Control of problems and disputes between banks and customers in Islamic banking has differences with conventional banking. Islamic banks have been regulated by the Indonesian Muamalah Arbitration Board (BAMUI) which was established jointly by the Indonesian Ulema Council and the Attorney General's Office of the Republic of Indonesia.

### 2.1 *Conventional bank*

Conventional banks are defined as banks whose business activities provide services in payment intermediaries. The main advantage of the banking business on conventional principles is obtained from the difference between the interest on deposits given to depositors and loans disbursed or loan interest. We know the term spread based, which is the profit obtained from the difference in interest at the bank. The term negative spread is a condition when the bank suffers a loss from the difference in interest, more specifically, the loan interest rate is lower than the deposit interest rate.

### 2.2 *Shariah bank*

Banks that apply Islamic sharia rules or known as Islamic banks are banks that run their business without applying interest. An Islamic bank or also called an interest-free bank, is a financial or banking institution whose products and operations are developed according to the words of the Qur'an and the Hadith of the Prophet Muhammad SAW or it can be concluded that an Islamic bank is a financial institution whose main business is to provide services and other financing in payment transactions based on Islamic rules and laws.

Islamic banks have the same organizational structure as conventional banks, for example in terms of directors and commissioners, but the element that really distinguishes between conventional banks and Islamic banks is the necessity of having a Sharia Supervisory Board which has a function as a supervisor of bank operations and their products in accordance with the rules, sharia rules.

### 3 METHODS

#### 3.1 *Research design*

This research is quantitative and uses secondary data. In a study from Hari YR, Lela NW, and Refren R in 2019 regarding “Comparative Analysis of Financial Performance of Conventional Banks and Islamic Banks, According to the view (Mulyadi 2000: 415) performance measurement is a periodic determination of the appearance of a company whose activities are in the form of organizational structure, operations and employees based on predetermined standards, targets and criteria. Meanwhile, performance measurement according to Hongren (1993: 372) has the aim of measuring business and management performance, namely comparing with company goals. In other words, performance measurement is a tool for management to control its business.

#### 3.2 *Data analysis and processing*

In this study, samples were taken from Conventional Banks and Islamic Banks, namely BRI Bank and BRI Syariah Bank. The method used in this research is CAMEL analysis. CAMEL stands for Capital, Assets, Management, Earnings, and Liquidity.

#### 3.3 *Procedure for sampling*

The samples used in this research are from a conventional banks that running in Indonesia (BRI Bank) and from Islamic banks (BRI Syariah Bank). The information used in measuring bank financial performance is based on financial reports published from related banks in 2016–2020 In its application, it uses the CAMEL ratio indicator method or defined by Capital, Assets, Management, Earnings, and Liquidity which includes CAR, BOPO, LDR, NIM, ROA, and NPL.

### 4 RESULTS AND ANALYSIS

#### 4.1 *CAMEL analysis table*

##### **BRI Financial Performance Ratios**

Financial Ratio (CAMEL)	2016	2017	2018	2019	2020
CAR	22,91 %	22,96 %	21,21 %	22,55 %	20,61 %
BOPO	68,93 %	69,14 %	68,48 %	70,10 %	81,22 %
LDR/FDR	87,77 %	88,13 %	89,57 %	88,64 %	83,66 %
NIM	8,00 %	7,93 %	7,45 %	6,98 %	6,00 %
ROA	3,84 %	3,69 %	3,68 %	3,50 %	1,98 %
NPL	1,09%	0,88%	0,92%	1,04%	0,80%

##### **BRI Syariah Bank's financial performance ratio**

Financial Ratio (CAMEL)	2016	2017	2018	2019	2020
CAR	20,63 %	20,05 %	29,23 %	25,26 %	19,04 %
BOPO	91,33 %	95,34 %	95,32 %	96,80 %	91,01 %
LDR/FDR	81,42 %	71,87 %	75,49 %	80,12 %	80,99 %
NIM	6,37 %	5,84 %	5,36 %	5,72 %	5,89 %
ROA	0,95 %	0,51 %	0,43 %	0,31 %	0,81 %
NPL	3,19 %	4,72 %	4,97 %	3,38 %	1,77 %

#### 4.1.1 *Description of CAR ratio comparison*

The performance of the comparison of the CAR ratio of BRI Bank and BRI Syariah Bank for the five-year period from 2016 to 2020, the adequacy of the capital ratio for both types of banks has met the supporting ratio set by the Financial Services Authority, which is <8%.

When viewed from the average ratio of CAR numbers, Conventional BRI Bank has an average of 22.04%, while BRI Syariah Bank is 22.84%, this shows that the difference in financial performance in the CAR ratio for the two types of banks is not too significant.

#### 4.1.2 *Description of BOPO ratio comparison*

The performance comparison of the BOPO ratio of BRI Bank and BRI Syariah Bank for the five-year period from 2016 to 2020, the level of expenses and operating costs is significantly different where the Sharia BOPO is too high compared to conventional BOPO, this indicates that conventional BRI banks are more efficient than conventional banks. BRI sharia bank.

#### 4.1.3 *Description of NIM ratio comparison*

Bank BRI shows the NIM ratio which tends to decrease from year to year. The ratio figure in 2016 was 8.00% and the following year also decreased. Until 2020, Bank BRI's NIM ratio is at 6.00%. This has an impact on decreasing profits for the bank itself. Meanwhile, the NIM ratio of BRI Syariah Bank tends to fluctuate or fluctuate. This is evidenced by the NIM ratio in 2016 of 6.37%, then decreased again in 2018 to 5.36% and increased in 2019 to 5.72% and finally fell to 5.39% in 2020.

#### 4.1.4 *Description of LDR ratio comparison*

LDR ratio always increases in the following year, the amount of profit will increase. However, for the minimum standard value set by OJK, which is at 78%, the LDR ratio of BRI Syariah Bank has not met the minimum standard because it is at an average of 77.97% while the average LDR ratio of conventional BRI Bank at 87,55%. So that it can be said that the amount of profit earned is greater by BRI Bank than BRI Syariah.

#### 4.1.5 *Description of ROA ratio comparison*

The higher the ROA value the better the company will be, because the rate of return on investment is getting bigger. This value will describe the company's return from all assets given to the company. This ROA graph aside is also coming from how long the company stand, that's why there is a huge gap between conventional BRI and BRI Syariah.

#### 4.1.6 *Description of NPL ratio comparison*

NPL or non-performing loans will certainly have an impact on reducing the capital of a bank. If it's not stopped, it will have an impact on lending for the next period. The lower NPL ratio value, the better. The NPL ratio of BRI bank is doing constantly around 0.8-1%, while NPF of BRI Syariah is fluctuating hard. But for the past 3 years, BRI Syariah NPF is reduced to lower its point.

### 4.2 *CAMEL analysis*

From the results of research conducted on Conventional Banks and Islamic Banks, namely BRI and BRI Syariah Banks that there is no significant difference in the financial performance of the CAR ratio or Capital Adequacy Ratio between BRI and BRI Syariah Banks for the period 2016–2020. BRI Syariah's CAR ratio can be compete with BRI. Meanwhile, in the ratio of BOPO (Operating Costs to Operating Income) there is a very significant difference in the 2016–2020 period to its financial performance where BRI Bank is better than BRI Syariah

Bank in this ratio. The level of expenses and operational costs is significantly different where the Sharia BOPO is too high compared to the conventional BOPO, this indicates that conventional BRI banks are more efficient than sharia BRI banks. The LDR ratio or Loan to Deposit Ratio

between BRI and BRI Syariah Banks for the 2016–2020 period shows a significant difference. In this ratio, BRI Bank has a better ratio than BRI Syariah, so it can be said that the amount of profit earned is greater than that of BRI Syariah. In the ratio of NIM or Net Income Margin between Bank BRI and BRI Syariah for the period 2016–2020 there is a significant difference even though the last year the value is almost the same. There is a very significant difference in the ROA ratio between BRI Bank and BRI Syariah, where the very striking difference in this ratio is due to the long-standing operations of BRI Bank compared to BRI Syariah. The high ROA value of Bank BRI makes the rate of return on investment even greater. This value will describe the company's return from all assets given to the company. And for the ratio of NPL or Non-Performing Loans between Bank BRI and BRI Syariah, there is a very significant difference where the NPL value is high from BRIS and low from BRI. In relation to this, the lower the NPL ratio, the better because the level of bank capital is increasing, while if the NIM ratio is higher, it will have an impact on reducing bank capital. BRIS Bank has more non-performing loans than BRI. This has an impact on the Bank which is unable to pay its obligations due to unpaid debts

## 5 CONCLUSION AND RECOMMENDATION

The results of this study state that the financial performance of Islamic BRI Banks has not been able to outperform conventional BRI Banks financial performance, from the six financial performance indicators namely the CAR, BOPO, LDR, NIM, ROA and NPL ratios on average conventional BRI Banks are still powerful to outperform Islamic BRI Banks, This is an important note for stakeholders in BRI Syariah Bank to be able to immediately rise to compete to match and outperform conventional BRI Banks.

From the conclusions that have been written, in this case the financial performance of BRI Bank is better than BRI Syariah. Perhaps one of the reasons is that BRI has already been established before BRIS, so that all methods or management are superior to BRI. By merging various Islamic banks into BSI or Bank Syariah Indonesia, it is hoped that they can be better in management and maximize the level of efficiency in the use of operational costs and reduce the number of non-performing loans so that it has an impact on increasing company revenues and profits.

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## Performance of Indonesian restaurants: An analysis of halal supply chain management

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**ABSTRACT:** The purpose of this study is to determine whether restaurants in Indonesia are prepared to sell the products compliant with Islamic Sharia and the Halal Assurance Regulation in supply chain management. The study employed a qualitative case study approach, focusing on halal restaurants located in 10 Indonesian halal destinations. The study's findings indicate that halal restaurants' performance requires a halal traceability mechanism that is integrated into supply chain management (SCM) activities. This halal supply chain tracking capability works from downstream to upstream to ensure that each stage of the process of converting raw materials to finished food and beverage products complies with the halal SCM specifications. The halal assurance regulation is also one of the policies and incentives that encourage restaurants to increase the value of each product they produce to support Indonesia's halal tourism. At a halal-certified restaurant, every tourist and restaurant visitor will undoubtedly find comfort and other benefits.

**Keywords:** Restoran Halal, Supply Chain Management, UU Jaminan Halal.

### 1 INTRODUCTION

Each business makes every possible effort to increase productivity, efficiency, provide quick service, and continue developing innovations, to stay ahead of the competition and survive in the market and industry (Ariani 2013: 2). The industry must be able to design and implement a supply chain management (SCM) strategy that will guide the path toward achieving the company's performance goals and ensuring the company's survival in the competitive environment. SCM is the process of converting raw materials into goods in process, semi-finished goods, and finished goods and then distributing them to consumers via the distribution system. This activity encompasses the purchasing function, which is responsible for establishing relationships between suppliers and distributors. According to Pambudi, Heizer and Render (2004) (2016:11), a company's performance is defined as something the business produces within a specified period and to a predetermined standard.

The term "business performance" refers to a company's market orientation and profit objectives (Rahadi 2012: 2). SCM is the coordination of strategies and systems for traditional business functions, as SCM represents the flow of materials, products, and information, which is primarily a company's responsibility, from suppliers to factories to consumers to improve performance over time. Hou (2001) and Mentzer (2013:1) stated that SCM encompasses several processes, including the development of long-term relationships between industry and suppliers. Long-term relationships can be established through a sustainable relationship between all parties involved. Several indicators in SCM include a strategy for relationships with suppliers and customers and a level of information sharing. Rapid response in raw material delivery is critical in supply chain management. As per Suhong Li et al. (2006:100), SCM is a collection of practices aimed at resolving customer complaints and establishing positive long-term relationships with customers. The extent

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to which critical information is communicated to a company's business partners is a critical component of SCM implementation. Producers must recognize halal certification as an assurance of food safety, quality, and other important characteristics that are enjoyed not only by Muslim consumers but also by non-Muslim consumers (Cooper 2017). The quality of the product indicates that it is produced in a halal manner from start to finish. In the supply chain context, a halal philosophy requires that the entire value chain, from raw materials to consumers, be halal. The food supply chain is a subset of SCM that is closely related to food and beverages. According to Van der Vorst (2000), "the food supply chain is a network of food-related businesses involved in the production of food products as they move from manufacturer to end-user, and each firm is a member of at least one supply chain." Manzini and Accorsi (2013) define the food supply chain as "the integration of quality, safety, sustainability, and logistics efficiency of food products." This demonstrates how consumers truly require information transparency to ensure that the food and beverages they consume are not contaminated with anything illegal or prohibited.

## 2 METHOD

This study employed a qualitative approach and a descriptive research design. Researchers employed descriptive research to adjust or compare field facts to theory and attempted to provide solutions to the problems. According to Bogdan and Taylor's opinion in Moleong (2017: 4), qualitative research seeks to describe events or phenomena in terms of what is occurring in the field, and data are generated in the form of written or spoken words from people as well as observed behavior. The approach of research was descriptive research, which is defined as writing that contains a description of an object, as it exists at a particular point in time to detail a series of data gathered through observations and interviews. The purpose of this research is to address the problem formulation through the application of focus, specifically to begin, establishing a focus can help limit the scope of the study. Second, by establishing a clear and consistent focus, a researcher can make informed decisions about what data to collect and what should be left alone or discarded. The research focuses on supply chain management, halal assurance systems, and organizational performance to create products that are both fit for circulation and halal certified. Consumers, business actors, halal institutions, and government officials were interviewed for this study (related to halal policies). Meanwhile, the restaurant is located in 10 areas of Indonesia's halal destinations.

## 3 RESULTS AND DISCUSSION

SCM encompasses all aspects of the supply chain, from raw materials to the final customer. Suppliers, manufacturing companies or service providers, distributors, wholesalers, and retailers all contribute to SCM (Heizer & Render 2015). Until now, the term halal has been used exclusively to refer to products that can be consumed by humans, such as food, beverages, cosmetics, and medications. However, halal continues to evolve following current trends until it reaches its conclusion. Supply Chain Management is also concerned with the incorporation of Islamic values into the process, transforming it into halal SCM. Halal food is defined by Islamic law as having a high level of cleanliness and safety, with the food being required to avoid contamination or mixing with prohibited materials. There are five dimensions of halal SCM knowledge examined in this study:

### 3.1 *Halal purchasing*

"Those who eat usury are unable to stand, but their standing is comparable to that of a person possessed by the devil due to insanity. Indeed, Allah has justified commerce and prohibited usury. Whoever receives a warning from his Lord, then he must halt; whatever he has obtained previously becomes his property, and his affairs (up to) Allah's. Whoever repeats it is a resident of hell and will remain there" (Al-Baqarah: 275). According to the verse, because Allah permitted buying and

selling and forbade usury, the process of buying and selling is legal and not prohibited. Islamic law has always favored purchasing and selling to achieve certain benefits and social objectives wherein humans require money to survive.

### 3.2 *Halal food quality and hygiene*

Food hygiene practices should be implemented throughout the food supply chain, from primary production to final consumption, to establish control and critical hygiene conditions at each stage of production. Businesses must establish a halal assurance system. The halal assurance system is an integral part of the management policies of the business and must be documented. The halal assurance system's primary components are halal commitment, planning, implementation, monitoring and assessment, and corrective actions in a cycle (Ratanamananeichat & Rakkarn 2013). To ensure the safety of their products, halal food manufacturers must adhere to stringent Good Manufacturing Practice (GMP) and Good Hygiene Practice (GHP) standards (Ratanamananeichat & Rakkarn 2013).

### 3.3 *Halal storage*

Halal warehousing logistics management facilities, such as halal warehousing, contribute significantly to the halal industry's turnaround by ensuring the integrity of halal products (Tan, Razali, & Husny 2012). If products are not properly handled or stored, they will not be considered halal (Alam & Sayuti 2011). As the market value of halal products increases, so does the number of businesses certified as halal producers. However, halal warehouse providers report that their service levels are not increasing as quickly as expected (Nghah, Zainuddin, & Thurasamy 2015). Halal-certified businesses are not only required to focus on their manufacturing processes and ingredients but also on their entire supply chain, ensuring that their transportation, storage, and handling processes are Sharia-compliant and follow Islamic law. Halal integrity can be maintained if the product is handled and stored properly, as halal integrity is derived from a variety of supply chain activities (Tieman 2011). Once halal products are received in the warehouse, all tools, such as cargo carriers, used to handle them must be different than those used to handle non-halal products. Halal products will be placed on separate shelves (Talib et al. 2010; Tieman 2007). In other words, if food is not handled or stored compliant with halal standards, it is not halal (Alam & Sayuti 2011).

### 3.4 *Halal logistics*

All halal products must adhere to Sharia, which states that the product must be safe, harmless, and healthy from the time it is manufactured to the time it is consumed. Thus, when applying halal principles to logistics, it is necessary to ensure that all products associated with logistics, such as transportation or storage, adhere to Sharia principles (Talib & Hamid 2014). Halal logistics is defined as the process of managing the procurement, movement, storage, and handling of materials, spare parts, livestock, semi-finished or finished inventory, both food and non-food, as well as associated information and documentation, following Sharia principles (Tieman 2013). To be considered halal, the distribution, storage, handling, and procurement of halal products must adhere to Sharia principles (Tieman 2011). Halal logistics must be conducted in the same manner as conventional logistics, which entails planning, implementing, and controlling the distribution and storage of halal-certified products from the point of origin to the point of consumption. A critical stage in logistics and supply chain operations, all halal products must be safeguarded against non-halal products or substances until they reach their final destination (Lodhi 2009). When shipping halal products, halal and non-halal products must be kept separate to prevent contamination of halal products with non-halal products. A clear distinction between ambient and reefer cases (chilled or frozen) is the halal hallmark in Islam (Tieman 2007).

### 3.5 *Halal retail*

Halal Retailing encompasses all activities involving the direct sale of goods or services to final consumers for personal, family, or household use (Berman & Evans 2010; Kotler 2012). Distribution and sale of halal food are also critical factors to consider. When food is distributed to retailers or displayed in retail stores, it can become contaminated. As a result, when halal products are sold in stores, they are frequently separated from non-halal products (Shahijan et al. 2014). In Malaysian supermarket hypermarkets, haram drinks (those containing alcohol) are separated from other beverages, stacked on separate shelves, and labeled “Non-halal” so that consumers are aware of the beverage’s contents (Tieman et al. 2013; Yusof et al. 2011). Concerning non-halal meats such as pork, the majority of hypermarkets have their own “non-halal” chiller or space dedicated to non-halal products (Yusof et al. 2011). Islamic retailers must provide their customers with halal products. Halal certification is an example of retailers who prominently display their halal products in their stores. Customers are very likely to purchase these products (Hashim et al. 2014).

### 3.6 *Islamic dietary law*

Islam is a guide, not merely a religious ritual, but also the rules and manners that govern every Muslim’s life (Riaz & Chaudry 2004). Halal food, which adheres to Islamic law, is a critical aspect of Muslim life. For a Muslim, the Qur’an reveals the fundamental legal guidelines regarding food and explains and records them in the Hadith (Bonne & Verbeke 2008). All food products are permitted under Islamic dietary law, except those that are prohibited, such as alcohol, pork, blood, meat from corpses, and meat from animals that have not been slaughtered following Sharia law (Riaz & Chaudry 2004; van der Spiegel et al. 2012). A Muslim who follows Islamic law is a representative of the religion, and they should abstain from foods that do not conform to dietary standards (Bon & Hussain 2010; Riaz & Chaudry 2004).

### 3.7 *Halal tourism development strategy through halal restaurants*

According to the findings of this study, several strategies can be implemented to aid in the development of halal restaurants in 10 Indonesian halal tourist destinations, including the following: (1) Utilization of the Halal Label; (2) Improving the Quality of Halal Food and Beverage Services; (3) Halal Tourism Attractions’ Capability; (4) Optimum Policy Design and Government Involvement.

## 4 CONCLUSION

The purpose of this study is to determine whether restaurants in Indonesia are prepared to fulfill the requirements of products they sell, beginning with the supply chain of materials, as per Islamic Sharia and the Halal Assurance Regulation. The study employed a qualitative case study approach, focusing on halal restaurants located in 10 Indonesian halal destinations. The study’s findings indicate that halal restaurants’ performance requires a halal traceability mechanism that is integrated into SCM activities. This halal supply chain tracking capability works from downstream to upstream to ensure that each stage of the process of converting raw materials to finished food and beverage products adheres to the halal SCM specifications.

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## The influence of Sharia education, Waqf management's reputation, literacy, and intention to cash Waqf

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**ABSTRACT:** In 2021, Indonesian government launched National Money Waqf Movement programs to increase the awareness of the people in waqf. Thus, this study aims to determine the influence of sharia economics education, the reputation of waqf institutions, literacy to intention through this program in Indonesia. Using Structural Equation Modeling to proceed data from 262 Muslim respondents in Indonesia, the main finding of this study is sharia education and literacy have a significant role in the intention in cash waqf. Otherwise, reputation doesn't affect the intention in cash waqf. Therefore, this research can conclude that the government must strengthen the cash waqf through sharia education. Meanwhile, even reputation doesn't affect intention, and the management has to keep the waqif's trust by practicing integrity and maintain a reputation to gain the waqif's trust.

**Keywords:** Sharia Education, Reputation of Waqf Institutions, Literacy, Intention, Cash Waqf

### 1 INTRODUCTION

Currently, Sharia Economics education is still not widely understood by the Indonesian people, which in fact, most of the people are Muslims. Asyhad & Handono (2019) stated that the literacy and sharia financial inclusion in Indonesia in 2016 was 8.11 percent, and the sharia financial inclusion index was 11.06 percent. Therefore, Sharia economic education is needed and can be one way to overcome the various problems faced. In addition, Sharia education can be a driving force for the community to participate in government programs that are run.

One of the programs that the government recently launched was the National Movement for Cash Waqf. This program aims to enable funds from the general public to be collected in cash waqf and used productively. In waqf, Sharia economic education from a person certainly influences moving his intentions. Therefore, a qualified Sharia economic education will increase one's literacy level regarding cash waqf and influence someone to do cash waqf.

The waqf fund could be a valuable benefit if it is successfully collected, as poverty remains a severe concern in most Muslim countries. Poverty can be alleviated if the application of waqf is appropriately handled (Indahsari et al. 2014). Even though Indonesia is predominantly Muslim, the notion and perception of cash waqf are relatively new compared to two older practices: sadaqah and land waqf. Therefore, cash waqf might be viewed as a potential source of fruitful waqf. Waqf can help promote social welfare, satisfy people's rights, and minimize society's economic hardship if it is handled and expanded professionally by an institution. Waqf will allow high-income people to swap their savings for cash certificates, allowing them to invest in religion, education, and social activities. Investor funds will be used for various goals, including educational, health, and economic development for small enterprises (Ismawati 2019).

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Waqf can help the economic welfare of the people, the fulfillment of community rights, and the reduction of community suffering if the waqf can be empowered and managed professionally by an institution (Seprillina et al. 2020). Furthermore, we can further optimize the program's success if the public's intention to participate in the program is high. However, the intention of Muslims to donate in the cash waqf program still needs to be explained using behavioral theory. Therefore, the main objective of this study is to determine the role of sharia education, the reputation of waqf institutions, and literacy in affecting Muslims to donate in cash waqf program.

## 2 LITERATURE REVIEW

Sharia economics is defined as a science that examines human efforts to utilize available resources to achieve Falah or prosperity based on the principles taught by the holy book Al-Quran and Sunnah (P3EI 2009). In shariah economics, we also found that waqf is one of the crucial factors in Islamic Economics for building economic sustainability.

The literacy concept of waqf focuses on understanding, ability, and belief regarding the law and wisdom itself (Sardiana & Zulfison 2018). Waqf literacy then becomes part of Ziswaf which means that the individual's ability to read, understand, calculate, and access information about waqf ultimately aims to increase individual awareness in waqf. A linear influence is seen in literacy and changes in people's behavior and socioeconomic life. The level of personal literacy will significantly impact the individual's socioeconomic status (Zakat Literacy Index 2019).

According to Osman et al. (2014), individual intention in cash waqf is determined by religiosity and literacy factors. There is a positive influence between religious observance and the intention to make cash waqf (Osman et al. 2016). Furthermore, sufficient knowledge of religion can convince the intention and determination of individuals to do charity as provisions in the hereafter (Zulkiflee et al. 2015).

Access to public information also affects people's knowledge and understanding of cash waqf (Adeyemi et al. 2016; Efrizon 2008). Knowledge, understanding, preferences, and social environment are community behaviors that are considered to influence individual decisions in cash waqf (Adeyemi et al. 2016; Yunimar 2015). The lack of public understanding of cash waqf has resulted in a low level of public awareness. In addition, the social environment has a significant influence on the information received by individuals, so that this also affects the decision to make cash waqf.

Based on the introduction of the research above, it obtained the following hypotheses:

H1: There is a direct influence between sharia education and intention in cash waqf,

H2: There is an influence between sharia education on intention in cash waqf with the level of literacy regarding cash waqf as a moderating variable,

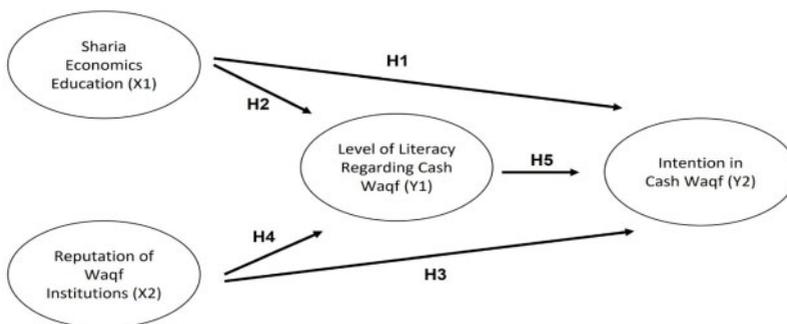


Figure 1. Conceptual model.

Source: authors 2021.

- H3: There is a direct influence between the reputation of waqf institution and intention in cash waqf,
- H4: There is an influence between the reputation of the waqf institution on the intention in cash waqf with the level of literacy regarding cash waqf as a moderating variable.
- H5: There is a direct influence between the level of literacy regarding cash waqf to intention in cash waqf.

### 3 METHODS

#### 3.1 *Research design and data analysis*

This research is quantitative and uses primary data. Data collection was carried out online by distributing questionnaires through a google form that experts had validated. This study uses a variable measurement with a Likert scale. Likert scale is a scale used to examine how high the respondents agree and disagree with the available statements. The researcher used non-probability sampling with a purposive sampling technique. The type of analysis used by researchers in this study is Structural Equation Modelling analysis, assisted by LISREL software. The study's participants were Malang people from East Java, Indonesia. Slovin's algorithm was used to collect a sample of roughly 262 respondents for this investigation.

### 4 RESULTS AND ANALYSIS

Follows are the similarities of the path analysis figure in this study:

$$\text{Sub Structure I: } Y_1 = 0.49 X_1 + 0.08 X_2$$

$$\text{Sub Structure II: } Y_2 = 0.21 X_1 + 0.06 X_2 + 0.55 Y_1$$

Based on Figure 2, sharia education and the level of literacy regarding cash waqf are positively related to the perception of cash waqf. It means that a percent increase in sharia education will lead 49% rise in literacy, while a percent up in literacy will bring a 55% elevation in intention to waqf. Nevertheless, the influence between sharia education to intention is indirect with literacy as a moderating variable. When it comes to direct connection, the relationship is not as significant as with moderating variable. Furthermore, in this research, reputation has no direct or indirect effect on intention.

This study builds on the paradigm of behaviorism, trying to know the role of sharia education, the reputation of waqf institutions, and the level of literacy regarding cash waqf in affecting Muslims to donate in cash waqf program. Most importantly, the findings of this study will contribute to our understanding of the relationship between sharia education, the reputation of waqf management, and literacy in affecting intention to contribute to cash waqf giving. The results show that sharia education has a substantial impact on the level of literacy regarding cash waqf, which also plays a role in the intention of Muslim waqf. Meanwhile, the reputation of waqf management has a feeble impact on the level of literacy regarding cash waqf, which significantly affects the intention of Muslim waqf.

The findings suggest that sharia education has a positive impact on cash waqf literacy and donating. The results suggest that sharia education leads to more favorable views about the function of waqf, and literacy leads to more positive preconceptions about the role of waqf. As a result, it will be possible for believers to make monetary waqf donations. In theory, sharia education has a good and significant impact not just on educating Muslims but also on their willingness to pay monies to the Waqf (Zulkiflee 2015). A variety of circumstances influences a person's waqf literacy. These

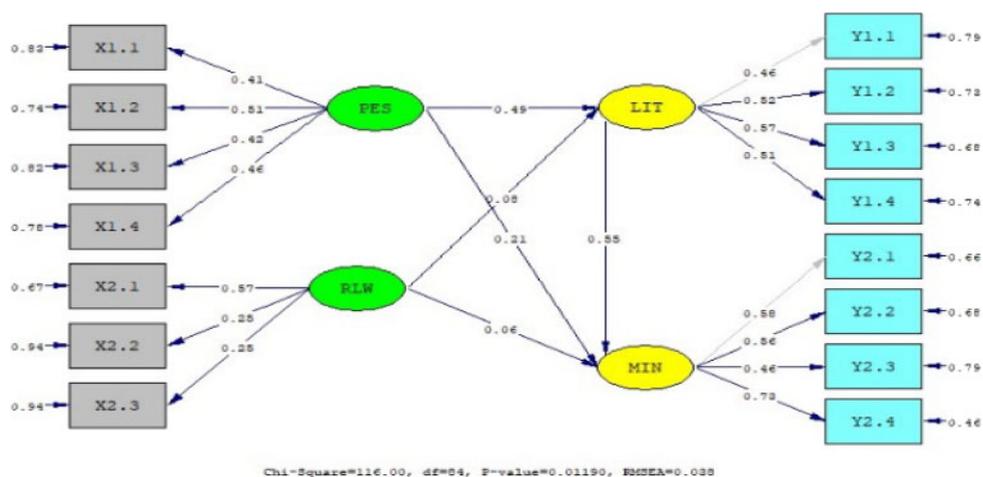


Figure 2. Structural model results.  
Source: authors 2021.

determinants include a waqf institution's marketing plan (Listiana et al. 2020; Shukor et al. 2017), participation in socio-religious organizations, access to mass media and financial technology, religious compliance, and access to an Islamic institution (Listiana et al. 2020; Utami et al. 2019). Interest, knowledge, and religiosity influence a person's waqf literacy (Hayati et al. 2020; Husniyah 2019).

Literacy in knowledge is undoubtedly influenced by sharia education. Both of these are the basis for the emergence of a good understanding of waqf. This good understanding will later become one factor that encourages people's intention to do waqf (Husniyah 2019). From data taken from more than 200 respondents in Indonesia, they stated that sharia education and literacy would provide a national movement for cash waqf, so they prefer more specific waqf projects. For practical reasons, they prefer to give cash waqf compared to other forms of waqf. Perception of waqf will grow with good literacy (Baskoroputra 2019; Jazil et al. 2019; Shukor et al. 2017). In Indonesia, waqf, especially cash waqf, has not developed, mainly because of inequality in understanding waqf in society (Hadi 2018; Muhammad 2016; Osman et al. 2012).

Meanwhile, in this research found that reputation of waqf management has no direct or indirect impact with literacy nor intention to cash waqf. This is an unusual thing; however, Johari, et al. 2015 has written that most respondents on his research did not trust waqf institutions. He stated that trust is one of the internal factors for donor to participate in cash waqf. For waqif in Malang, East Java, Indonesia, most of them directly choose to donate cash waqf to individual nazir (not tied to the institution). This is related to the belief that has been built between the waqif and the individual nazir because they think that it is impossible for a nazir who has knowledge of religion to misuse the waqf that has been collected.

This finding is, of course, very different from several other findings by Hafiz, et al. 2019, which states that the reputation of waqf management greatly affects people's intention to waqf. The results of this study may differ from other studies due to the different characteristics of the community. Several studies were conducted in developed countries and have a high level of transparency and accountability in waqf management institutions. This phenomenon is still not developed in Indonesia, especially the city of Malang which is the object of research. For people in Indonesia, their intention to waqf is based on empathy, religiosity, and perception of Nazir so that they do not feel the need to seek information about Nazir's reputation.

## 5 CONCLUSION AND RECOMMENDATION

An individual intention in cash waqf mainly influenced by the level of literacy regarding cash waqf. The findings of this study shows that sharia economics education has a positive influence in both level of literacy and individual intention in cash waqf. Based on strong influence of sharia economics education to level of literacy regarding cash waqf, it can be concluded that to gain higher level of literacy regarding cash waqf is to build a fundamental knowledge about sharia economics education at various level of education.

Fundamental knowledge about sharia economics can easily be taught by giving away course about basic sharia economics principle or making a curriculum about sharia economics. On the other hand, reputation of waqf institutions did not have any influence on intention in doing cash waqf. A waqif will participate in cash waqf based on their knowledge, empathy, and religious obligation to do so.

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## Does Sharia superior to conventional? Life insurance companies

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**ABSTRACT:** This research aims to test the performance of life insurance companies between sharia-based and conventional. This research was conducted for five years from 2013 to 2017 on 14 life insurance companies that have units and implement dual basis management systems in OJK. Through the Risk-Based Capital (RBC) and Early Warning System (EWS) approach, proving sharia unit performance is superior to conventional namely claim ratio, investment adequacy ratio, premium growth ratio and technical ratio. This indicates that managers who implement sharia insurance-based insurance business management are more careful and thorough than conventional systems so that they are better able to maximize the company's performance and achieve stakeholder goals.

**Keywords:** conventional, sharia, risk-based capital, early warning system

### 1 INTRODUCTION

Conventional and Sharia-based insurance businesses have the same noble goal of maximizing the welfare of stakeholders through businesses that seek the management of one's financial risks to be more controlled, but the ways and processes are different (Sula 2016). The principle of conventional insurance business process is to transfer the risk of a person or institution to the insurance company by paying a premium, while the sharia insurance process is to bear each other or risk sharing between customers and insurance companies. In Indonesia, the number of companies engaged in insurance continues to increase every year. The rapid development of the insurance industry, especially conventional and Sharia-based life insurance, resulted in increasingly fierce competition and encouraged the company to continuously improve the company's performance, especially the company's financial performance (Handayani 2015).

One indication of a superior and reliable insurance company is a company that has good financial health (Safitri & Suprayogi 2017). Analysis of the health level of insurance companies can be done using two methods, namely the Early Warning System (EWS) and Risk-Based Capital (RBC) methods (Avery 1991; Cummins et al. 1995). The Early Warning System (EWS) method was introduced by the National Association of Insurance Commissioners (NAIC) to measure the financial performance of insurance companies (Satria 1994; Sumartono & Harianto 2018). Meanwhile, the Risk-Based Capital (RBC) method is used to assess the financial performance of insurance companies from the aspect of capital adequacy so that the public will use this capital adequacy in determining or choosing an insurance company (Nurfadila 2015). Tahira and Arshad (2014) & Yusof (2015), found that the level of financial security in Islamic insurance companies is better than conventional insurance companies. But Wangi & Darwanto (2020) concluded that conventional insurance companies are better than Sharia insurance companies in terms of efficiency.

This research aims to see which among conventional or Sharia-based life insurance companies have superior financial performance in business management and risk to always be able to survive in increasingly tight business competition.

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## 2 LITERATURE REVIEW

### 2.1 *Early Warning System (EWS)*

The EWS ratios used to assess the financial performance of insurance companies in this study which are based on the Statement of Financial Accounting Standards (PSAK) No. 28 concerning Accounting for Insurance for Losses are as follows:

#### a. Claim Ratio

This ratio reflects the experience of claims that occur and measure the quality of insurance that is covered (Tarsono et al. 2019). The high ratio provides information about the poor underwriting and risk closure processes of insurance companies (Ndaru & Soesetio 2021). The claim expense ratio is calculated by dividing claims by the premi revenue.

#### b. Investment Return Ratio

This investment return ratio generally indicates the quality of each type of investment and measures the results achieved from the investments made (Yan et al. 2017). The low ratio gives information that the investment made is not right, so the investment placement needs to be reviewed. Investment return ratio is calculated by dividing net investment revenue by the investment average.

#### c. Liquidity Ratio

Liquidity ratios are ratios used to measure a company's ability to meet its short-term obligations using company assets (Ahmad & Prasetyo 2018). High ratios indicate liquidity problems, and the company is likely to be in an unsolved condition, so an analysis of the adequacy of funds, asset distribution, valuation of premium stability and allowable li-quidity is necessary (Ndaru & Soesetio 2021). Liquidity ratio is calculated by dividing as-set by liability.

#### d. Investment Adequacy Ratio

This ratio shows how far or large the technical obligations formed by insurance companies are reflected in investments. The low ratio shows the tendency that the estimated dependency claims themselves are not supported by adequate funds and premiums, yet income is less reflected in the investment. Investment to adequacy ratio is calculated by dividing investment by the technical obligation.

#### e. Premium Growth Ratio

This ratio is a ratio that measures the increase or decrease in net premiums which will illustrate the stability of the insurance company's operations (Ahmad & Prasetyo 2018). The sharp increase or decrease in the net premium volume gives an indication of the lack of sta-bility in the company's business activities. High increase in net premiums means the company is oriented towards cash flow underwriting. Premium growth ratio is calculated by dividing increase/decrease net premium by the net premium last year.

#### f. Technical Ratio

This ratio is broadly used to measure the level of adequacy of funds needed to meet technical obligations (Azmi et al. 2020). This low ratio means that the company sets technical obligations too low and if the company is not solvent, the company needs to make ad-justments to the solvency margin (Ndaru & Soesetio 2021). Vice versa, a high ratio shows that the business portfolio does not bring profit. Technical ratio is calculated by dividing technical obligation by the net premium.

### 2.2 *Risk Based Capital (RBC)*

Risk Based Capital analysis is used to measure the level of solvency in accounting the risk of losses that may occur due to deviations between wealth management and liabilities (Nurfadila et al. 2015). All insurance companies and reinsurance companies are required to have a minimum solvency level (risk-based capital) of 120% for conventional insurance companies and 30% for sharia insurance companies from a minimum risk-based capital. Insurance companies and reinsurance companies must meet the lowest solvency level of 100% of the minimum capital based on risk, so that the

company has the opportunity to adjust and increase its solvency limits within a certain period of time. RBC is calculated by dividing solvability by the minimum solvency level limit. solvency level limit.

### 3 METHODS

The study uses comparative models, to compare or prove differences in outcomes caused by the application of policies or events. The sample was selected using purposive sampling with criteria: life insurance companies that have conventional units and Shariah units registered with OJK in the period 2013-2017 as many as 14 insurance companies. The analysis tool used is the mann whitney-u test and for robustness check, we used independent t-test, paired t-test and wilcoxon signed rank test.

### 4 RESULTS AND DISCUSSION

Based on Table 1, the financial performance of sharia unit insurance companies is superior and reliable compared than conventional units based on the Early Warning System (EWS) which is the ratio of claims cost, investment adequacy ratio, premium growth ratio, and technical ratio. From the point of view of claim cost ratio, the number of claims fulfilled by sharia units is smaller than conventional units, because sharia units are relatively new units operating and the variety of products is still small so there are not many customers who choose sharia unit products over conventional units. Although the number of sharia unit products and customers is still small, but the premium obtained is large enough and qualified to cover all claims and risks of an effective and efficient underwriting loss process.

Based on the investment adequacy ratio, the investment growth of sharia unit life insurance companies over the past five years is better than the growth of conventional units. In addition, the technical obligations set by conventional unit life insurance companies tend to be greater than the number of technical obligations specified by sharia unit life insurance companies. Although in 2015 capital market conditions did not have a good impact also on the investment results of the life insurance company.

Sharia life insurance products are still new whose premium prices are lower than the price of conventional premium life insurance products, so that people become aware and open to Sharia life insurance who are interested in opening Sharia life insurance policies because they feel the benefits obtained from greater Sharia life insurance. In addition, the decrease in premiums occurred on conventional units due to the shift of focus on selling single premium products to regular premium products.

Table 1. Results of different test.

Variables	Mean		Independent t test		Paired t test		Mann Whitney-u		Sign test	
	Conventional	Sharia	T	Prob. t	t	Prob. t	Z	Prob. Z	Z	Prob. Z
CR	1.448	0.738	-4.019	0.0001***	3.8424	0.0003***	-7.027	0.0000***	5.785	0.0000***
IRR	0.464	0.042	-7.636	0.0000***	7.8495	0.0000***	-7.468	0.0000***	6.113	0.0000***
LR	3.738	3.766	0.052	0.9583	-0.0501	0.9602	-1.477	0.1396	0.746	0.4556
IAR	2.441	6.686	4.071	0.0001***	-4.1501	0.0001***	3.507	0.0005***	-4.334	0.0000***
PGR	0.251	0.471	2.385	0.0184***	-2.6247	0.0107***	4.201	0.0000***	-3.924	0.0001***
TR	2.720	1.599	-3.435	0.0008***	3.1024	0.0028***	-5.318	0.0000***	3.602	0.0003***
RBC	7.977	7.261	-0.382	0.7033	0.5595	0.5776	-5.626	0.0000***	3.087	0.0020***

Notes: \*\*\*, \*\*, \* indicates significance at the 0.01, 0.05, and 0.1 level respectively.

Technical obligations set by Shariah units are not much different from premium income earned but superior to conventional units. While conventional units have technical obligations 2.7 times greater than premium income earned. If the technical obligations set are greater than the premium income received by the company, it is feared that the company is not able to meet the technical obligations that have been set (Nurfadila 2015).

The amount of investment that conventional units have is greater than sharia units. This is due to the age of Sharia life insurance companies that are still young and have a limited amount of investment. In addition, because conventional units have a cash premium amount or income more than sharia units, investment can also increase. The difference in investment returns is also due to the ineffectiveness of the placement of funds on investment portfolio options.

Comparison of financial performance between sharia and conventional unit insurance companies in terms of minimum risk-based capital adequacy, shows that conventional units of life insurance companies have better performance. The conventional unit of an insurance company has premium income that fluctuates fairly from year to year but not too significant a decrease. In addition, accuracy in placing investment managers can produce better returns than Shariah units. In addition, although the RBC level between the two types of business processes has not shown significant consistency of results between each other, there has been a set of different minimum limits between Sharia and conventional that have been set by regulators.

In terms of liquidity, the performance of conventional and Shariah unit life insurance companies shows that the performance is almost the same, which has a high level of liquidity even some insurance companies experience over liquid. Distribution of non-optimal and unprofitable current assets, such as cash that is not allocated to investments properly so that the cash balance is too high or too low, receivables that are too large and difficult to collect, and poor operational stability of the company.

## 5 CONCLUSION

Based on EWS, the claims cost ratio, investment adequacy ratio, premium growth ratio, and technical ratio of Sharia life insurance units are superior to conventional life insurance units. Sharia units have a superior and more beguiled anticipation system because the main system of Shariah units is revenue sharing. It also proves that the profit-sharing system is better than the risk transfer system in conventional units. While the ratio of investment returns, and RBC conventional life insurance units are better than sharia life insurance units. Sharia-based insurance tends to be new when compared to conventional units, so companies are more careful. In addition, because it tends to be new, sharia units have many claims. While the liquidity ratio does not have a significant difference between the two systems. Thus, it can be concluded that the financial performance of islamic unit life insurance companies is superior in general to the financial performance of conventional life insurance unit companies.

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# Human resources in the development of the halal industry on industry revolution 4.0 during the Covid-19 pandemic

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**ABSTRACT:** The halal industry is one of the developed industries in the world because it is in line with Islamic principles and laws. The emergence of the business intends to meet the needs of Islamic-compliant products and services. Surprisingly, this commerce is growing in both Muslim and non-Muslim countries. The research discusses the development of human resources in the growth of the halal industry on the Fourth Industrial Revolution which gives a significant impact on human's life and the world's Ecosystem. Therefore, it is very important to manage people as the main actors who are related to it. The research method is descriptive-qualitative with the concepts of Human Resource Management and the halal industry in the era of Industry 4.0. The result of this study indicates that the industry is potential so that the Human Resources Management in the halal industry sector implements its managerial functions: 1) planning: to adjust the path of halal industrial development; 2) organizing: to decide the credible institutions to run the plan; 3) briefing: to give instructions, regulations, or socialization to support the planning; 4) monitoring: to control and supervise for achieving the goal.

**Keywords:** human resources, halal industry, Industrial Revolution 4.0

## 1 INTRODUCTION

Indonesia as the largest Muslim-populated country has enormous opportunity to develop the halal trade. One of the objectives is the guarantee of the availability of the industrial market in Indonesia. Global Islamic Economic Report 2019/2020 states that Indonesia is in the fifth rank of the industrial development; it lags behind Malaysia which possesses the first position, from various existing indicators. It challenges Indonesia to develop halal commerce; both in terms of quality and quantity.

Nevertheless, Indonesia barely has vision in the business. This country is not actively involved on the global industry because its main purpose is to protect domestic consumers. In Indonesia, halal certification is optional; it means that the companies—with the consideration to meet the demand of the Muslim consumer market—apply for it, including the consequences of self-financing.

Indonesia will focus on classifying the problems in certification. This study creates five groups: policy, human resources, infrastructure, socialization, and production.

In this era, the industry causes a big change in the way of thought, life, and how human beings interact with one another. The significant change is not only in technology but also in many aspects. The change also affects human resources because of its results from their contributions in Industry 4.0.

The quality improvement has been significant, since this country has not optimized in utilizing new technology. Technological advance is non-negotiable in society, particularly in the business field, and it needs to apply for preparing skilled human resource.

## 2 LITERATURE REVIEW

### 2.1 *Human resources*

It is significant element to enhance the assets of the company and employees to improve their productivities and maintain the profit. People also refer to the processes related to training, education and other professional initiatives to increase the level of knowledge, skills, abilities, values, and social assets of an employee that will lead to employee's satisfaction, performance, and ultimately to company performance. At this time, for entering the globally halal market, the most important principle is the capability of human resources in facilitating knowledge and expertise. Based on this factor, it must invest in programs to enhance the workforce. An investment focuses on providing program for Small Businesses on halal compliance.

Human resources play an important role in industry. Good management of human resources and good utilization will run the industrial operating system to its full potential. The existence of human resource management will have a role in increasing the effectiveness and efficiency of a company. Broadly speaking, Human Resource Management provides the following benefits: 1. Quality. The dominant function of human resource management is to build qualified people according to their competence and expertise. Therefore, with the existence of human resource management, it is expected that the workforce will be able to provide benefits to the organization and themselves. 2. Speed. An expert will do the job that results an expected output. Likewise, when professionals are required to work quickly, they will be able to do the work with full accuracy and perfection, so that the work can be completed professionally in a relatively short time. 3. Leadership Cost. Good Human Resource Management will make a leader have the ability to carry out his leadership in an organization well. Effective leadership is very influential on the need for costs in the organization. The number of costs incurred by an organization can be seen from the effectiveness of leadership in carrying out organizational activities. 4. Adaptive Learning Ability. The pluralism of human resources in an organization requires a good communication system between management and employees and fellow employees. Therefore, to realize the synchronization of goals between management and employees, human resource management is required.

Among the industries developed in Indonesia, one of them is a creative industry. The development of creative industry in Indonesia has a very significant growth from time-to-time. The data released by Bekraf (Bureau of Creative Economy) states that there are three contributors of creative economic PDB in Indonesia during the year of 2017: 41.4% of fashion subsector, 17.6% of culinary, and almost 15% of craft. They are the top contributor to Indonesian exports. The Minister of Tourism and Creative Economy, Wisnutama Kusubandio, stated that fashion gets 11,964 million American dollars; craft gets 6 million American dollars; and culinary gets 1,300 million American dollars.

However, behind the rapid development of the creative industry, there are many challenges that must be faced by creative industry players. The challenge is also the strategic issues that will be the focus of the next development. Several strategic issues have been disclosed in the "Creative Economy Mid-Term Action Plan 2015-2019" published in 2014. Recognizing the rapid change of information technology, the government of the Republic of Indonesia has issued a systematic, comprehensive and futuristic national industrial development plan (Government Regulation No. 14 of 2015). The vision for national industrial development is to become a tough industry with the following characteristics: (1) a national industrial structure that is strong, deep, healthy, and fair; (2) industry that is highly competitive at the global level, and (3) industry based on innovation and technology. (Siswoyo 2021)

Indonesian Human Resources have three problems, namely foreign language skill, managerial skill, and lack of understanding related to information technology (Widodo 2016).

### 2.2 *Halal industry*

The halal industry is often associated with an effort to produce a product (goods and services) that is in accordance with the provision of Islamic religion (sharia). This definition began to emerge recently due to the high demand for halal products and services in the world. Previously, it was

known that the halal industry was associated with the halal economy. The term of halal economy was much earlier known than the term of halal industry. (Trimulato 2021)

While the language definition consists of two words, namely industry and halal. According to Kamus Besar Bahasa Indonesia, halal industry is an economic activity that processes raw materials and/or utilizes industrial resources to produce goods that have added value or higher benefits, including industrial services. (www.ijstr.org). Raw materials should be halal materials; and it should comply with the Islamic law. Al Baqarah 2:58 stated:

وَإِذْ قُلْنَا ادْخُلُوا هَذِهِ الْقَرْيَةَ فَكُلُوا مِنْهَا حَيْثُ شِئْتُمْ رَغَدًا وَادْخُلُوا الْبَابَ سُجَّدًا وَقُولُوا حِطَّةً نَعْفِرْ لَكُمْ خَطِيئَتِكُمْ وَسَبِّحْ بِحَمْدِ رَبِّكَ الْمُحْسِنِينَ

Meaning that:

“And [recall] when We said, “Enter this city and eat from it wherever you will in [ease and] abundance, and enter the gate bowing humbly and say, ‘Relieve us of our burdens.’ We will [then] forgive your sins for you, and We will increase the doers of good [in goodness and reward].”

The halal industrial areas have potentially been developed when Muslim population reach 85.2 percent of the total population. The Indonesian people consume food, drinks, medicines, and cosmetics. If Indonesia is able to develop the halal industry massively—as conducted by Malaysia—Indonesia will be able to be in the top rank of the halal industry and market in the world. One way to improve halal food products, starting with meeting targets in accordance with Law no.33 of 2014 concerning Halal Product Guarantees, then in 2019 all food circulating in Indonesia already have halal certificates (apiar.org.au).

Article 1 of Law No.33 of 2014 states that products are food, beverages, drugs, cosmetics, chemical products and/or services that are consumed by the society. Halal products are products that have been declared halal in accordance with the Islamic law (ejournal2.undip.ac.id). Figure 1 covers world’s halal industrial sectors including 1. logistics; 2. fashion; 3. hotel services; 4. Islamic/Sharia financing; 5. halal tourism; 6. Cosmetics, personal care, and 7. food, beverages.

A trend of halal business is a hot topic in the international business world today. The halal product commerce reached \$254 billion and boosted the economy 1-3% of GDP (Gross Domestic Product) in OIC (Organization of Islamic Conference) member countries (Dinar Standard, 2019). Global Islamic Economy Report (2019/2020) reveals that Indonesia is on the fifth rank in industry development. It is contrast to the Indonesian condition as one of the largest Muslim population countries which should have great opportunities in the halal business. This is a challenge for Indonesia in developing quality and quantity in the industry.

### 2.3 Abstract frame

If there are no further authors, place the cursor one space after the word ABSTRACT: and type your abstract of not more than 150 words. The first line of the abstract will be 7.2 cm (2.83”) from the top. The complete abstract will fall in the abstract frame, the settings of which should also not be changed (width: Exactly 15.0 cm or 5.91”; height: Automatic; vertical: 7.2 cm or 2.83” from margin; Lock anchor).

Globalization is a new era of Industrial Revolution 4.0. It means the world has experienced four stages of revolution. 1) Industrial Revolution 1.0 happened in the 18th century through an invention of condensation engine, then it allowed goods to be mass-produced; 2) Industrial Revolution 2.0 happened in the 19th to 20th centuries through the use of electricity which decreased the production costs; 3) the Third Industrial Revolution occurred in the 1970s through the use of computers; and 4) the Fourth industrial revolution occurred in the 2010s through intelligence engineering and the internet as the support of the movement and connectivity of humans and machines.

It is undeniable that the quality of the workforce is very important for doing the effort of Indonesia in welcoming the all-digital era of the industrial revolution 4.0. This era changes ways of thinking, living, and relating with one another. It also affects human resources (HR), because HR is one of the success factors in the role of industry 4.0.

In facing industrial revolution 4.0, there are two stages that must be taken: First, preparing implementation of education and human resources and the needs of the times in the industrial revolution era. Second, in addition to prepare the education, human resources that are prepared must also be equipped with education on cultural and human values, so that the use of technology is in accordance with the cultural and humanitarian rules that have been made.

Anyway, there are three things to consider. The first consideration is the quality that produces qualified workforces to meet the needs of the digital technology-based job market. The second is the issue of quantity which is to produce a number of qualified, competent human resources according to the industrial needs. The third one is the problem of the distribution of quality human resources which is not evenly distributed.

To get qualified human resources in industry 4.0, the government should design educational curriculum so that the output is able to master new literacy: (1) data literacy which is the ability to read, analyze, and utilize information in the digital world; (2) technological literacy that is to understand how machines, technology applications—coding, artificial intelligence, and engineering principles—work; and (3) human literacy, humanities, communication, and design.

In Indonesia, from the number of 272.1 millions of the population, internet users reach 175.4 millions. Surprisingly, the connected smartphones are 338.2 million units. The total is almost twice of the number of internet users. It means that majority Indonesian people have more than one, while the numbers of social media's users reach 160 millions.

Comparing with the period of January 2019, in January 2020, the internet users increased 17 percent (increased by 25 millions) from last year. The connected smartphones were increased 15 million units or 4.6 percent, the social media's users expanded 12 millions or 8.1 percent.

### 3 RESEARCH METHODOLOGY

The study used the descriptive-qualitative method that explains the phenomenon of human resources who face the industrial revolution in the context of development of halal industry in many sectors, such as halal food industry, sharia financing, halal tourist, and halal fashion. This research is both primary and secondary data. The data collection used literature review. Data analysis examined the data for the study and presented them in sentences, tables, graphs, and others.

### 4 RESULT AND RESOLUTION

#### 4.1 *Human resources potential in industrial revolution 4.0*

An escalation of human resources has been very important since Indonesia still has not utilized the latest technologies. Advance of technology is not negotiable in society, especially in business. It must to be handled carefully, because of preparing HR (human resources) to have some skills is considerably important.

The growth of people starts from education, training, and Human Resource's guidance. In Industry 4.0, the basic requirements that must be owned are skill, dexterity, and culture adaptation ability (different culture background yet cooperative). Human Resource Management plays as an important role to deal with the Industrial Revolution Era 4.0.

Encountering the new era, there are three to consider. The first thing is "Quality", it means there are efforts to produce the qualified human resource, so they can fulfill the job market based on digital technology. The second is "Quantity" which means there are efforts to build the numbers of qualified human resource that are competent as well. Third, the distribution of the human resource does not spread equally.

In terms of competence enhancement and HR productivity, the government needs to make efforts for training, such as certification institute through Job Training Center and digital programs. Problems that occur nowadays cannot be solved as well as the earlier concept, therefore modern problems require modern solutions, especially in this Industrial Era 4.0. Industrial Revolution 4.0 is not able to be encountered by technological development without implicating human resource

in it, because they are the actors in the Industry 4.0. According to that, it has purposes, such as : 1. Preparing education implementation and human resources that correspond with the new Industrial Revolution era. 2. Besides that, human resources also must have “cultural-value education” and humanity, in order to get along with the rules which have existed.

According to State of Global Islamic Economy (SGIE) Report 2020//2021, Indonesia has succeeded to get from the fifth position to fourth rank in 2019, even from tenth place last year. The annual report is the source of information for global Islamic economic development. SGIE 2020/2021 is the eight edition that was published in the economic slowdown because of the COVID-19 pandemic.



Figure 1. The state of global Islamic economy (SGIE) report 2020/2021.

Center for Research and Development of Informatics and Information and also Public Communication Applications (Puslitbang Aptika-IKP) in Workforce Litbang Agency in the Ministry of Communication and Information of 2019 states that Indonesia needs 129,465 workforces for TIK field during 2020. The requirements are in 8 (eight) major Indonesian business sectors.

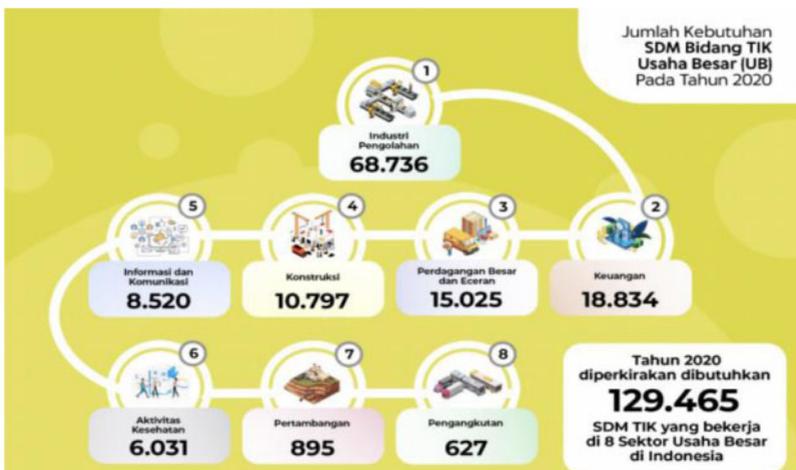


Figure 2. Study result of puslitbang aptika-IKP, 2019.

Industrial world requires Full Stack Programmer in the average of 35,172 people and Data Analyst of Big Data Scientist in the average of 21,705 people.



Figure 3. Study result of puslitbang aptika-IKP, 2019.

The figures above showed that Indonesia requires more human resources for many fields.

#### 4.2 The development of halal industry

In halal industry, there are 5 aspects to consider:

1. Policies avoid the incomplete halal product guarantee, the lack of certification and standardization of halal products, and the absence of a roadmap of halal industry development.
2. Human resources are producers who pay less attention to halal products and knowledge of halal products for small business actors.
3. Inadequate infrastructure relates to the coordination of institutions that handle infrastructure.
4. Lack of socialisation, promotion, education, and information about halal.
5. Some obstacles—limited raw materials—influence import.

Besides the human resource, the other constraints are infrastructure and production. Infrastructure becomes a problem in growing halal industry because it relates on the implementations of JPH, such as rules, systems, procedures, and the number of halal guarantee institutions. The other priorities are policies and socialisation.

Here is the report of SIEG (State of the Global Islamic Economy) 2019/2020 that stated some Indonesian industries were ranked in the world's top 10. They were Sharia finance in the 5th position, the halal tourism industry in the 4th position, fashion industry in the 3rd position. However, the Indonesian halal food industry did not get the position. Here we should improve it and solve problems.

## 5 CONCLUSIONS

SGIE (State Global Islamic Economy) Report shows that Indonesia has its rapid growth, not only in the halal product consumption but also in finance, fashion, cosmetics and tourism. It also shows

that Indonesia makes policies in which Ecosystem provides opportunities for the growth of the Islamic economy in halal infrastructure, product, and service.

In the industry, human resources involve the top management, personnel management, financial management, and halal supervisors. The other human resources who have the important role in the chain of providing halal products are halal auditors, slaughterers, product analysts, and tour guides. To provide these resources, the government has provided personnel who have the required competencies through the standards regulated by BPJPH as an institution that has the authority to set standards as enshrined in Article 6 of Law 33 JPH. BPJPH in collaboration with the Ministry of Manpower through National Professional Certification Agency (BNSP), establishes Indonesian National Work Competency Standards (SKKNI) to produce professional and competent personnel.

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