Website Development for Publication and Marketing of ITS-Assisted Halal Product MSME

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Abstract

The high and increasing number of MSMEs and the importance of socialization and guidance related to halal product policies is one of the factors for the establishment of the Center for Halal Studies (PKH) of Institut Teknologi Sepuluh Nopember (ITS). PKH ITS aims to assist MSMEs in obtaining halal certification and marketing their products. In this community service activity, it is proposed to develop the ITS PKH website (http://halal.its.ac.id/) for publication and marketing of ITS-assisted MSME’s halal products. The stages in this community service activity include preparation, implementation, documentation, and reporting. The ITS PKH website that we developed contains a complete profile of ITS assisted MSMEs equipped with a QRCode. This unique QRCode leads to the MSME profile page on the ITS PKH website and has been utilized by ITS-assisted MSMEs by being pasted on the website/social media/product packaging of each MSME. This website also has a “Ask Halal” feature to help people search and check halal products. Currently, there are 134 MSMEs spread throughout Indonesia who use the ITS PKH website that we developed. With the features provided by the ITS Halal Study Center website, it is hoped that MSMEs will find it easier to market their products because users find it easy to get and find information related to MSME products.

Keywords: Halal product, MSME, website development.

INTRODUCTION

In 2020/2021, the Global Islamic Economy Indicator (GIEI) of Indonesia in general rose to 4th place after previously in 2019/2020 it was 5th in the world. [1] [2]. One of the main factors that caused this increase came from the halal food industry which occupies the 4th position in the world with a score of 71.5 after in 2019/2020 the Indonesian halal food industry did not rank in the top 10 with a score of 47. The driving factor for this increase is the regulation from the government, namely the Halal Product Guarantee (Jaminan Produk Halal) in Act No. 33 of 2014 (UU JPH) which requires halal certification for all halal products.

In UU JPH, there are 5 categories of products that are required to have a halal certificate, namely food and beverages; cosmetics and medicines; chemical, biological, and genetically engineered products; use goods; and services. This regulation changes the nature of halal certification from voluntary to mandatory for individual business actors and business entities in the form of legal entities or non-legal entities that carry out business activities in the territory of Indonesia. Based on this definition, Micro, Small and Medium Enterprises (MSMEs) are also included in the scope of the halal product policy. The implementation of mandatory halal products is carried out in stages, such as for food and beverage products which are given a time limit of 17 October 2024, in accordance with Minister of Religion Regulation (Peraturan Menteri Agama / PMA) No. 26 of 2019. Based on the UU JPH, the consequences for business actors who have not carried out halal certification are up to the limit. the specified time is that the product must be labeled as non-halal even though the product is made from
halal. This causes the importance of socializing halal product policies to business actors, especially MSMEs.

On the other hand, the number of business units and MSME workers in Indonesia continues to increase. In 2015–2018, there was an increase in the number of MSME business units by 2.02% - 4.03% and an increase in the number of MSME workers by 0.47% - 8.44% [3] [4] [5]. In 2018, there were 64,194,057 business units and 116,978,631 MSME workers in Indonesia [5]. The high and increasing number of MSMEs as well as the importance of socialization and guidance related to halal product policies to MSMEs is one of the factors for the establishment of the Halal Study Center (Pusat Kajian Halal / PKH) by Institut Teknologi Sepuluh Nopember (ITS). The ITS Halal Study Center was established based on the need for complete and accurate halal information for the Muslim community about the importance of halal products. The research results from the ITS Halal Study Center are expected to be easily accepted and utilized by the Indonesian Muslim community as a whole.

The ITS Halal Study Center has activities to assist the MSMEs in understanding halal products [6] [7] [8]. The assistance carried out is in the form of mentoring MSMEs from the production, distribution, to product sales and marketing stages. At the production and distribution stage, the ITS Halal Study Center assists MSMEs in managing halal certification and controlling distribution channels. At the sales and marketing stage, the ITS Halal Study Center helps MSMEs in branding and marketing according to sharia. For this reason, the ITS Halal Study Center (PKH) website was developed (http://halal.its.ac.id/) which also contains profiles of MSMEs assisted by the ITS Halal Study Center.

Currently, the number of MSMEs registered to be assisted by ITS (PKH partners) is 134 MSMEs spread throughout Indonesia (Figure 1). Most of the MSMEs came from Surabaya (55 MSMEs - 41%) and Sidoarjo (46 MSMEs - 34%). The farthest MSMEs are from East Belitung. Each MSME assisted by ITS has its own website on the ITS Halal Study Center website where they can display information related to these MSME products. However, currently the MSME profile on the website is still incomplete and informative, so it needs to be further developed to help MSMEs assisted by the ITS Halal Study Center in publishing, branding, and marketing.

Therefore, in this community service activity (abmas) it is proposed to develop the ITS Halal Study Center (PKH) website as a means of publishing and marketing ITS MSME halal products. The website development carried out is the addition of features to facilitate the search for addresses and MSME products. In addition, MSME profile data were also added such as PIRT (Pangan Industri Rumah Tangga / Household Food Industries) numbers, BPOM (Badan Pengawas Obat dan Makanan / Food and Drug Supervisory Agency), product materials, and photos/videos in 2 languages (Indonesian – English) on the ITS Halal Study Center website. The development of the ITS Halal Study Center (PKH) website is expected to help the MSME partners currently affected by the pandemic in marketing so that they can export products abroad. This also helps the economic growth of the people who have declined during the pandemic, especially small-scale food producers, as well as supports two issues of sustainable development goals, namely zero hunger and decent work and economic worth.

Figure 1. Statistics Distribution of ITS-Assisted Halal MSMEs
METHODOLOGY

Based on the results of the situation analysis described earlier, there are general problems related to:

1. The importance of socialization and guidance related to halal product policies to MSMEs;
2. The number of MSMEs is high and continues to increase;
3. Many MSMEs are affected by the pandemic; and
4. The importance of expanding the marketing of MSMEs to the level of product exports.

These problems are more or less trying to be overcome by ITS by establishing a Halal Study Center which has a MSME coaching program. MSMEs assisted by PKH ITS are facilitated in promoting their products that have been certified halal through the PKH ITS website. However, the current PKH ITS website is still not informative enough so that its function as a means of publication and marketing of ITS-assisted MSME halal products is not optimal. Therefore, in this proposal, it is proposed to develop a website for the ITS Halal Study Center which is expected to be able to assist assisted MSMEs in marketing up to the export level and helping MSMEs affected by the pandemic. The proposed activity strategies include:

1. Analysis of current conditions;
2. Data collection of MSME partners;
3. Added features of the ITS PKH website (search, filter, sorting, dual language Indonesian – English, API / Application Programming Interface);
4. Making a user guide for the ITS PKH website admin; and
5. Making guidelines for MSMEs regarding the procedure for completing MSME profiles on the ITS PKH website.

The methodology for developing the ITS PKH website is shown in Figure 2. In general, the methodology is divided into stages of preparation, implementation, documentation, and reporting.

**Preparation Stage**

At the preparation stage, an analysis of the current conditions was carried out through internal team discussions and discussions with partners, both representatives from the ITS Halal Study Center and from MSME partners. The analysis was carried out on the condition of the ITS Halal Study Center (PKH) website (http://halal.its.ac.id/) and the procedure for requesting profile data for MSME partners assisted by PKH ITS. The results of the analysis are used to determine the details of developing the ITS PKH website that needs to be done and the implementation steps.

**Implementation Stage**
At the implementation stage, user needs analysis is carried out (both from the PKH ITS side and from MSME partners), system development design, implementation, and trials. Based on user needs analysis and system development design, the implementation of the ITS PKH website development will be carried out. In the implementation process, there will be preparation of a website database, collecting and inputting profile data of assisted MSME partners, adding features to the website (including search, filter, and translate features), and making API (Application Programming Interface). An update was made on the ITS PKH website database so that it can accommodate new information related to the profile of MSMEs, which include the specific address of MSMEs connected to Google Maps, PIRT numbers, BPOM, product materials, and photos/videos of MSME products. After the database is ready, then input the MSME profile data that has been collected. The data input process is carried out through a form on the website admin page that has been prepared and adapted to the MSME profile data that you want to enter.

In addition to completing the MSME profile data, additional features were also made on the ITS PKH website. On the website, a search feature will be developed so that website visitors can search for MSME products and locations more easily. A normalization process will be carried out in retrieving MSME information so that the search process is no longer case sensitive and not affected by punctuation. In addition, a filter feature will also be added to sort products by product type or sort MSMEs based on their location. The sorting feature was added to make it easier for visitors to sort products/MSMEs search results.

The ITS Halal Study Center (PKH) also facilitates assisted MSMEs to be able to export products abroad. Therefore, the content of the ITS PKH website must have two languages (Indonesian – English) so that a translate feature is added so that the ITS PKH website can be used as a means of publishing and marketing export products. Another development that will be carried out is the creation of the PKH ITS website API so that information from the website, especially those related to location mapping or MSME products assisted by PKH ITS, can be easily added to other devices or applications. The results of the implementation of the ITS PKH website development will be tested on users to ensure that its functions are running correctly.

**Documentation Stage**

At the documentation stage, a user guide is made for website admins related to website development that has been carried out and procedures for using website administration features, such as inputting, editing, and deleting data for the assisted MSMEs. In addition, a guide for assisted MSMEs will also be made regarding the procedure for installing MSME profiles on the ITS PKH website page, including what data must be prepared.

**Reporting Stage**

At the reporting stage, scientific publication articles and publications in the media will be carried out according to the output targets. In addition, at this stage, progress reports and final reports will also be prepared.

**RESULTS AND DISCUSSION**

In this abmas activity, it is proposed to develop a website for the ITS Halal Study Center (PKH) as a means of publication and marketing of ITS-assisted MSME halal products. The results of this development have been implemented on the ITS PKH website which can be accessed at https://halal.its.ac.id/. The following is an example of the results of several features on the ITS PKH website that have been created and used:

a. **Home Page**

This page contains information about the Center for Halal Studies (Figure 3). The information submitted included PKH, activities, Frequently Asked Questions and PKH addresses.

b. **“Ask Halal” Page**

![Figure 3. Home Page](image-url)
This page contains a list of all halal certifications that have been issued by MUI (Majelis Ulama Indonesia / Indonesian Religious Council) for all products in Indonesia. On this page there is a search feature to make it easier for visitors to check halal-certified products or restaurants (Figure 4).

![Figure 4. “Ask Halal” Page](image)

This page contains a list of all PKH partners / assisted MSMEs (Figure 5). On this page there is a search feature to make it easier for visitors to find the desired building.

![Figure 5. PKH MSME Partners Page](image)

c. PKH MSME Partners Page

This page contains a list of all PKH partners / assisted MSMEs (Figure 5). On this page there is a search feature to make it easier for visitors to find the desired building.

d. PKH Cadets Page

This page lists all PKH cadets (Figure 6). PKH cadets are individuals without MSMEs who want to be active and participate in every PKH activity. On this page there is a search feature to make it easier for visitors to find the desired trained cadets.

![Figure 6. PKH Cadets Page](image)

e. Partner’s Registration Page

This registration is carried out by MSMEs that have become PKH partner (Figure 7). This registration is intended as a database used by PKH to monitor and assist in marketing the partner’s products.

![Figure 7. Partner’s Registration Page](image)

f. Login Page

The login page is used for the verification process for users who want to access the dashboard page (Figure 8). Users who have the “admin” role will be redirected to access the admin dashboard while users who have the “partner” role will access the partner dashboard.

![Figure 8. Login Page](image)

g. Partner Dashboard

The partner dashboard contains one feature which is “My Product”. Partners add their own products according to the form provided. The added product will be validated by the admin before being displayed on the PKH partners
Figure 9. Partner’s Product Validation Page

The PKH form contains information about the owner, product, certification, BPOM, and pictures of the partner’s products (Figure 10). The form can be updated at any time by contacting the admin in advance.

Figure 10. Partner’s Form Page

h. MSME Management Page

MSME management contains sub menus, namely master data, MSME data, and cadre data (Figure 11). The master data contains all the partners, including cadets and MSME partners that have been stored in the database. The MSME data contains all registered MSME partners, both those who already have a halal certificate and those who do not. Cadet data contains all individual cadet who are active in PKH activities.

Figure 11. MSME Management Page

On this page there are several features that can be used, namely adding partner, exporting all partner data to excel, importing partner data from excel, changing and deleting certain partner (Figure 12). In the feature for add new partner, there is a partner form that contains fields about the owner, MSME data, product data, pictures and halal certification. In addition, the admin can activate and deactivate the partner from the PKH website’s home page.

Figure 12. Partner’s Data Export and Import Feature

i. Administrator Dashboard

The admin dashboard has the main feature on the halal website, namely monitoring and management of MSMEs. In monitoring page, the admin can see the number of MSME partners and cadets that have been saved (Figure 13).

Figure 13. Partner’s Statistics Page

CONCLUSION

In this community service activity, the ITS PKH website has been developed as a means of publication and marketing of ITS-assisted halal product MSME. The stages of activities carried out include preparation, implementation, documentation, and reporting. Currently there are 134 MSMEs spread throughout Indonesia that are under the guidance of PKH ITS and use the PKH ITS website that we developed.

The ITS PKH website contains a complete profile of ITS-assisted MSMEs. In addition, this website also has a “Ask Halal” feature that can help people search or check halal products. MSMEs who register on the ITS PKH website will automatically get a QRCode which is valid for 2 years and has been used by ITS-assisted MSMEs by being pasted on the
website/social media/product packaging of each MSME. This unique QRCode leads to the MSME profile page on the ITS PKH website. With the features provided by the ITS Halal Study Center website, it is hoped that MSMEs will find it easier to market their products because users find it easy to get and find information related to MSME products. Currently the ITS PKH website is still running and is used by ITS assisted MSMEs. In the future, it is necessary to continue to carry out maintenance on the ITS PKH website and also add features such as dual-language so that the ITS PKH website is getting better and can further help the development of ITS-assisted MSMEs.

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REFERENCES