



Strengthening the Digitalization of Halal Product Registration as a Support to the Industrial Revolution 5.0

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Abstract. The research using Producers as the subject. The purpose is to strengthen the digitalization of Halal Product Registration, supports the emerge of the Industrial Revolution 5.0, and encourages Producer to register their products. The research using a normative – empirical research method, in which the method using the Regulations as a source of study. Based on Act Number 33 Year of 2014 about Guaranteed Halal Products, there are rules regarding Procedures of Obtaining Halal Certificates. The Certificate can be obtained through Registration. Registration of Halal Products can be done online through the LPPOM MUI website by inputting all the requested data. After inputting the data, the next step is Monitoring Pre-audit and Payment of registration fees through the LPPOM MUT's Treasurer. Not all Producers conceive about this online Halal Product registration, so further socialization is needed by the Government. Especially for Producers with the age category of 40 years and over.

Keywords: Registration · Halal Products · Producer · Industrial Revolution 5.0

1 Introduction

Information technology is not something that is difficult to obtain nowadays, because it has entered all lines of people's lives. Information technology continues to innovate and transform and is increasingly sophisticated, with its sophistication it can provide many conveniences for people's lives. The digital era in Indonesia began when the Industrial Revolution 4.0 developed. The Industrial Revolution 4.0 is a phenomenon that collaborates cyber technology and automation technology. The Industrial Revolution 4.0 is known as the Artificial Intelligence (AI) system, which is a system that uses artificial intelligence in computerized technology. The system can be adjusted according to human needs. The more data received, the better Artificial Intelligence (AI) will make predictions.

Digital development is increasingly advanced after the issue of the emerge of the Industrial Revolution 5.0. Industrial Revolution 5.0 is also known as Society 5.0. Society 5.0 is a concept that implements technology in the Industrial Revolution 4.0 by considering the humanities aspect so that it can solve various social problems and create sustainability. In Society 5.0, it is hoped that there will be a balance between humans

and existing technology. Society 5.0 emphasizes not only machine-to-machine relations and robotic effectiveness, but also human-to-machine and vice versa.

The presence of 5G telecommunications technology and the massive Over The Top digital platform have triggered the presence of Society 5.0. The presence of Society 5.0 is to create a balance between advances in digital technology, parallel economic progress with solving social problems. Industry 5.0 is synonymous with the synergy of human civilization and digital technology without losing the real human identity.

The emergence of Society 5.0 with the characteristics of super speed telecommunication, requires the whole community to adapt. Especially when the Covid-19 pandemic appeared, so that social distancing was required, the telecommunications industry was inseparable from people's daily activities. All people are starting to turn to digital devices. The telecommunications industry as a provider of network and internet access must have a mutualistic symbiosis with over the top platforms, both those engaged in e-commerce, communication platforms, video conferencing, streaming, as well as content providers and social media content. In society 5.0, new value created through innovation will eliminate regional, age, gender and language disparities and enable the provision of products and services that are well adapted to the diverse needs of individuals and groups.

The rapidly growing telecommunications industry has had a positive impact on various industrial sectors, one of which is the economic industry sector. In the economic sector, preferred to marketing and trade activities. Currently these activities can not be separated from information technology and telecommunications. Many producers or sellers market their goods online on various platforms. This is because, online marketing is more efficient and effective. In addition, the target consumers for the marketed products can be addressed more widely. Likewise, what is felt by consumers or buyers, the ease of finding the products needed online, makes consumers or buyers able to choose products quickly with various types of products that have been offered by producers. In fact, trading transactions can also be carried out worldwide in one platform.

Marketing and trade activities are ways to stabilize the Indonesian economy. There is a balance between income and outcome. Trade is a source of income for the Indonesian economy. This is because products sold to the public will be taxed. This tax is called Sales Tax. Sales tax is a tax before Value Added Tax (VAT) levied on sales transactions. VAT is charged at the manufacturer's level, and does not reach the retailer. This tax must be looked at carefully to determine the cost of selling.

Considering that marketing activities and trade transactions can be carried out worldwide, the products marketed and traded are not only local products, but also imported products. As a developing country, export-import activities of these products are common in Indonesia. In simple terms, export activities are selling products from Indonesia to other countries. Meanwhile, import activities are buying a product from abroad to Indonesia.

As a consumer, apart from seeing the product from its needs, but also from the suitability of tastes. It is possible that the local products marketed are not suitable for their tastes, so they have to look for imported products. The entry and exit of products in Indonesia must always be controlled, especially with regards to the quality. Products that need to be given more supervision are products that enter the territory of Indonesia.

Therefore, it is necessary to supervise and check the ingredients contained in the product before being marketed and traded to all regions in Indonesia. This is because the ingredients contained in it determine the quality of a product. One of the institutions in Indonesia that carries out these checks is the National Agency of Drug and Food Control (BPOM).

As we know, Indonesia is a country with a majority Muslim population. Thus, all goods consumed or used must be labeled halal. In particular, products that are marketed and traded are required to be labeled halal, so that they are safe to use as needed.

According to the provisions of Article 1 point 1 of Act Number 33 Year of 2014 about Halal Product Guarantee, products are goods and/or services related to food, beverages, drugs, cosmetics, chemical products, biological products, genetically engineered products, as well as used goods. These types of products, not all of them are required to be certified halal. This is based on data from the Ministry of Religion, products that must be certified halal are food, beverages, slaughter products and services, drugs, cosmetics, and used goods. The institution in Indonesia in charge of carrying out the implementation of halal product guarantees in accordance with the provisions of the Halal Product Assurance Agency (BPJPH).

Halal certificates can be obtained through the registration of halal products. Halal registration of a product has started to be carried out online. This is certainly very easy for manufacturers who want to register their products. Besides being easy, online registration of halal products can also save time, because registration can be done quickly at home.

Online registration of halal products is indeed very effective and efficient, but not all producers understand the procedure. Due to the lack of socialization by the Ministry of Religion regarding this online registration. Given, there are still some Indonesian people who are not aware of technology, so that the use of existing communication technology is still not evenly distributed. Therefore, it is necessary to conduct stabilization to support the early entry of the Industrial Revolution 5.0 era and facilitate the search for products according to consumer needs. This is to maintain product quality and consumer's trust. Problems solutions What is the concept of the Industrial Revolution 5.0? and How is the development of digitalization of halal product registration as a form of support for the Industrial Revolution 5.0?

2 Research Method

This type of research is normative - empirical method research. Empirical (applied law research) is research that uses normative - empirical legal case studies in the form of products of legal behavior. Normative - empirical (applied) legal research stems from the provisions of the law. written positives imposed on legal events *in concreto* in society. Judging from its form, this research is included in the form of Descriptive research, is intended to provide the data studied as accurate as possible about humans, other circumstances or symptoms.

3 Results and Discussion

3.1 Introduction to the Industrial Revolution 5.0

The Industrial Revolution 5.0 or Society 5.0 is a concept initiated by the Japanese government taking into account aspects of technology to facilitate human life. Society 5.0 became the concept of a new order of life for society. Through the concept of society 5.0 it is expected that people's lives will be more comfortable and sustainable. The community will be provided with products and services in the amount and time needed.

The background to the emergence of the idea of the Industrial Revolution 5.0 began when the population of productive age society decreased and the elderly population increased. This is further has been worsened by the labour conflict. Japan considers that the manufacturing and business sectors can no longer rely on human power and expertise. Thus, the problem prompted the Industrial Revolution 5.0.

Society 5.0 is not just about technology, but also policy and regulation. The Japanese government encourages local businesses to share big data and increase cooperation to create new innovations. Currently, the company's capabilities are still limited because of the data needed to be owned by other companies.

In the future, the private and public sectors can work together to create new, safer and more effective systems. This will encourage more companies to share information and allow other companies to use their data to develop better and better products.

The grand appearance of the Society 5.0 initiative launched by Japan can not be separated from the technology race between major developed countries, especially the United States (US), Germany, and Japan. The birth of disrupted technology by utilizing big data, the internet of things (IoT), artificial intelligence (AI), robotics to blockchain has triggered various developed countries to race to lead the world through economic and technological power.

From the Industrial Revolution 1.0 to the Industrial Revolution 5.0, there have been significant changes to the use of technology. The Industrial Revolution 1.0 to the Industrial Revolution 4.0, which we are experiencing now, is more concerned with cyber technology and automation as "major actors" in every era. The difference in the Industrial Revolution 5.0 or Society 5.0 is to use the motto Personalization with the meaning of humanizing humans with technology. In fact, in the era of Society 5.0, there will be optimization of individual and social life in various sectors to become a unit, so that there will no longer be discrimination between each other. With the aim that each sector can help each other in achieving in accordance with the motto of Personalization.

In the era of society 5.0, there are some abilities that are needed, including cognitive abilities, soft skills, and technology. What is meant by cognitive ability is that you must be able to solve complex problems, have the ability to understand something (literacy), and think critically. Soft skills are the way a person communicates, empathizes, has a growth mindset, and is adaptive.

The priority of Society 5.0 in adapting society in the future is HOTS: Higher Order Thinking Skills, if the way of thinking is complex, tiered, and systematic can be used by society then this is called the high-level way of thinking society 5.0.

The benefits that can be felt if society 5.0 is applied in Indonesia one of them is environmental issues such as monitoring and management of water quality using remote

sensing and oceanographic data, early warning alert system useful to protect humans from natural disasters & diseases based on a combination of various data.

Furthermore, society 5.0 is also related to the analysis of meteorological data using high performance computers to solve environmental change issues, smart cities that are safe, comfortable and efficient.

The concept of Society 5.0 has the main mission of leveling well-being to all levels of society by utilizing artificial intelligence technology and the internet of things (IoT). If it can really be realized, Indonesia as an island nation will be greatly helped in distributing welfare.

In the era of Society 5.0 society will be faced with technology that allows access in virtual space that feels like physical space. In Society 5.0 technology, Artificial Intelligence (AI) generated big data and robots to perform or support human work. The basic principle in society 5.0 is the balance in business and economic development with the social environment. By using technology in the era of Society 5.0, problems created in the industrial revolution 4.0 such as social inequality between communities, lack of employment, and other industrialization impacts will be reduced to integrate properly. The use of technology is not only a tool to promote personal and business life, but also must be able to famous the lives of all mankind.

In the perspective of Society 5.0, content becomes one of the elements that play an important role in media technology, especially digital media. Today, digital media technology has become part of all human life so that there are growing opportunities and needs to run businesses related to content provision. The high role of innovation in the digital content industry gives rise to predictions that the industry will continue to grow sustainably in the Era of Society 5.0 when information or content becomes the basis of decision making. The digital content industry is one of the expansions of the analog content industry that was born by the development of digital technology.

The issue of sustainability is no less important in the concept of Society 5.0 because the development of digital technology has had a positive impact on the growth of inter-stakeholder collaboration. Through digital media, a country can market its products and services without being hindered by state restrictions. Industry is also assisted by various technologies present in the Industrial Revolution 4.0, such as AI in every production and distribution process so that the industry is very relevant to the concept of Society 5.0. Some of these arguments suggest that the ecosystem of the digital content industry should be a priority in the concept of Society 5.0 because it can promise economic growth for a country.

The concept of Society 5.0 is also designed to meet seventeen aspects of the Sustainable Development Goals (SDGs), one of which is communication or media technology. The media has an important role in informing, educating, giving a stage to debates and public discussions, and building an agenda setting on the issues of the SDGs. The concept of the SDGs also explains that the media must be inclusive so as to allow everyone to gain equality in accessing information.

The concept of collaboration and innovation that arises in the digital content industry is considered to be a building block to the sustainability of the industry. Information and communication technology also realizes digital social innovation that allows a task to be done together.

3.2 Digitalization of Halal Product Registration

The number of products that are not labeled halal makes consumers, especially Muslim consumers, difficult to choose which products are guaranteed in accordance with Islamic sharia. This is what prompted the birth of Law No. 33 of 2014 concerning Halal Product Guarantee as a form of legal protection from the government to Muslim consumers.

In Law No. 33 of 2014 concerning Halal Product Guarantee, there are rules regarding Halal Product Registration. The results of the Halal Product Registration, there will be Halal Certification of the registered product, as proof that the product has been guaranteed to its page. The institution that manages related to the Registration and issuance of Halal Certificates is the Institute of Food, Medicine, and Cosmetics of the Indonesian Ulema Council. LPPOM MUI was established on January 6, 1989 based on the Decree of the Indonesian Ulema Council Number: Kep./18/MUI/I/1989.

However, when LPPOM MUI was established since 1989, in its implementation halal certificate was first issued by MUI based on audit results. Then, in 1994 after LPPOM MUI obtained approval from the Minister of Religious Affairs, then LPPOM MUI can issue halal certificates. For five years since its establishment after the realization of halal certification activities.

On the official MUI website mentioned that for companies that want to register halal certification to LPPOM MUI must meet several criteria. Here are the details:

a. Halal Policy

Top Management must establish Halal Policy and socialize halal policy to all stakeholders of the company.

b. Halal Management Team

Top Management should establish a Halal Management Team that covers all sections in critical activities as well as having clear duties, responsibilities and authorities.

c. Training and Education

The company must have a written procedure for the conduct of training. Internal training and external training should be done at least once a year or once every two years.

d. Materials

Materials used in the manufacture of certified products should not be derived from illegal or unclean materials. The company must have supporting documents for all materials used, except non-critical materials or materials purchased retailly.

e. Products

The characteristics of the product should not have a tendency to smell or taste that leads to haram products or that have been declared haram under the MUI fatwa. Brands/product names registered for certification must not use prohibited names or worship that is not in accordance with Islamic sharia.

f. Production Facilities

Production Facilities shall ensure the absence of contamination with illegal and unclean materials or products.

g. Written Procedures of Critical Activity

The Company must have a written procedure regarding the implementation of critical activities, namely activities on the production chain that can affect the status of product page.

h. Traceability

The Company must have written procedures in place to ensure the searchability of certified products comes from materials that meet the criteria, which have been approved by LPPOM MUI.

i. Handling products that do not meet the criteria

The company must have written procedures for handling products that do not meet the criteria.

j. Internal Audit

The company must have a written audit procedure in the conduct of SJH. Internal audits are conducted at least once every six months and are conducted by competent and independent internal halal auditors. The results are provided in the form of a report to LPPOM MUI.

k. Review management

Top Management or its representatives must review management at least once a year with the aim of evaluation.

In Article 29–Article 36 of Law No. 33 of 2014 on Halal Product Guarantee is regulated regarding the procedure for obtaining halal certificates. Based on these rules, the application for halal certificates is submitted by business actors to the Halal Product Assurance Agency (BPJPH). The application for a halal certificate must be submitted along with an annex, in the form of:

- a) Data of Manufacturers or Business Actors;
- b) Name and type of product;
- c) List of products and materials used; and
- d) Product processing

BPJPH will establish a Halal Inspection Board (LPH) to conduct examinations and/or assessments of product page. The determination is at most within five working days from the time the application is received. After the determination of LPH, the examination and assessment is carried out by the Halal Auditor. If, the product is declared halal, then the determination of the product page will be done by MUI. Then, halal certificates will be issued and published as a form of product guarantee by BPJPH.

Based on Law No. 33 of 2014, registration of halal products is still submitted directly. However, when the Industrial Revolution 4.0 emerged, all systems turned into digitization, so that halal certification applications can be made online. This is as a form of digitalization adaptation to technological changes. There are a number of steps that must be taken by a company to get a halal certificate:

1. Understand halal certification requirements and take SJH training.
2. Implementing Halal Assurance System (SJH).
3. Prepare halal certification documents.
4. Register for halal certification through the www.e-lppommui.org page.
5. Complete the requested data as a prerequisite for halal certification submission
6. Conduct pre-audit monitoring and payment of certification agreements.
7. Implementation of audit.
8. Conduct post-audit monitoring.

9. Obtain Halal Certification, when the registered product has passed the assessment and is declared eligible to be registered as a halal product

Please note, halal certificate obtained is valid for 2 (two) years.

The purpose of MUI halal certification is basically to protect the rights of consumers in this case Muslim consumers. MUI halal certification aims to determine whether or not a product gets a halal certificate, where the determination of halal certification is carried out in the MUI meeting after an audit by the relevant parties in this case LPPOM MUI, BPPOM, Health Office and several related agencies. In the case of halal product registration there is a fee that must be paid in accordance with the applicable provisions.

3.3 Government Support for Digitalization of Halal Product Registration

As a follow-up regulation, Government Regulation No. 39 of 2021 on the Implementation of Halal Product Guarantee Field. Article 4 states that the Government is responsible for organizing halal product guarantees. The government in question is the minister. To carry out the implementation of Halal Product Guarantee, the Halal Product Assurance Agency was established which is domiciled and responsible to the Minister, especially the Minister of Religious Affairs.

Then, in Article 5 of Government Regulation No. 39 of 2021 regulated related to the authority of the Halal Product Assurance Agency, namely:

- a. formulate and establish JPH policies;
- b. establish JPH norms, standards, procedures and criteria;
- c. issuing and revoking Halal Certificates and Halal Labels on Products;
- d. register halal certificate on foreign products;
- e. socialization, education, and publication of Halal Products;
- f. register halal auditors;
- g. accrediting LPH;
- h. conduct the construction of Halal Auditors;
- i. conducting supervision of JPH;
- j. cooperate with domestic and foreign institutions in the field of JPH implementation.

As a form of government support for the implementation of halal product guarantees, one of the programs held by the Ministry of Religious Affairs is Free Halal Certification (Sehati) aimed at micro and kec (UMK) businesses. Sehati program participants namely UMK with categorised products in accordance with Article 1 number 1 of Law No. 33 of 2014 are subject to halal certified obligations. The Ministry of Religious Affairs' Free Halal Certification program was opened from its launch on September 8, 2021 until mid-December 2021.

There are general conditions and special conditions to be able to join this Sehati program, the general conditions are as follows:

- a. Have never received a Halal Certificate and will not/will receive a Halal Certificate from another party
- b. Have An Attempted Parent Number (NIB)
- c. Have business capital/assets below Rp 2,000,000,000 as evidenced by the data listed in nib

- d. Make business and produce sustainably for at least three years
- e. Register 1 type of product, with the product name at most 20 units and products in the form of goods.

Then, the conditions are especially as follows:

- a. Have a license or other license for products from the relevant agency/agency
- b. Have outlets and production facilities at most one unit
- c. Willing to provide the latest photos during the production process
- d. Willing to finance the testing of product page in the laboratory independently if needed to support the examination process by the Halal Examination Board.

The flow of registration in the Sehati program has little difference than the procedure of registration in general. In the Sehati program, UMK can register through the sehati.halal.go.id page or directly access through the SIHALAL page in ptsp.halal.go.id. After that, the UMK can follow the registration flow as recommended and fill in the necessary data.

Counseling related to halal product registration is also carried out in the District of Tragah Bangkalan. The extension aims to provide knowledge related to halal products and the right of consumers to consume products to business actors. Before registering online, business people must take halal assurance system training, held by LPPOM MUI, either in the form of regular training or online training. In addition, another contribution made by the Government as a form of support for halal product registration movement and preparation of business actors in facing the new era of digitalization is like East Java Province through the Jatim Provincial Cooperative and SME Office which provides a budget of Rp 60 billion every year to provide training, vocational assistance, promotion and management of halal certification.

4 Conclusion

The Industrial Revolution 5.0 uses the concept of Personalization, where humans and machines need each other, so that the essence of Human Resources will not be replaced by existing technology. The existence of the Industrial Revolution 5.0 resulted in all activities and activities turning to digital, one of which is halal product registration. Since the Industrial Revolution 4.0 with its digitalization concept, almost all government and non-governmental activities, both private and public, have turned into computerized systems. Halal product registration has begun to be held online, so the Government conducts many mentoring and education programs for manufacturers as a form of initial introduction, one example of such a program is Sehati held by the Ministry of Religious Affairs.

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