



Universitas Gadjah Mada
Institute for Halal Industry & System

ISBN : 978-602-17639-1-9

Proceeding

The 3rd International Symposium toward Halal Global 2019

10 Desember 2019



Proceeding
The 3rd International Symposium Toward Halal Global

The contributions of Scientist toward Halal Global

Yogyakarta, December 10, 2019
University Club Hotel, Universitas Gadjah Mada

ISBN:
978-602-17639-1-9

Publisher
Laboratorium Penelitian dan Pengujian Terpadu (LPPT)
UNIVERSITAS GADJAH MADA

Proceeding
the 3rd International Symposium Toward Halal Global

The contributions of Scientist toward Halal Global

Organizing Committee

Chairman : Prof. Ir. Yuny Erwanto, S.Pt., MP., Ph.D.

Secretary : Dr. Lily Arsanti Lestari, STP., MP.

Treasurer : M. Fahmi Dwi Ari Yuwono, SE.

Secretariat : Tri Cahya Wibawa, S.Kom.

Fitriana Maharjanti, S.Si.

Scientific Committee:

1. Ir. Yuny Erwanto, S.Pt., MP., Ph.D.
2. Dr. Lily Arsanti Lestari, STP., MP.
3. Prof. Dr. Abdul Rohman, M.Si., PhD., Apt.
4. Tri Joko Raharjo, Ph.D.
5. Dr. Kuwat Triyana

Supporting Organizing Committee (students)

1. Deny Hermawan
2. Fredo Wahyu Ramanda
3. Muhammad Faris Al Akram
4. Muhammad Ridwan
5. Nisa Muflichati
6. Siti Aisyah
7. Dewi Sarah
8. Siska Mardiana
9. Nadya Ramadhani Susilo

Reviewer:

Dr. Lily Arsanti Lestari, STP., MP.

Editor:

Dr. Lily Arsanti Lestari, STP., MP.

Sampul dan Tata letak:

Tim Institute for Halal Industry & System

Penerbit:

Laboratorium Penelitian dan Pengujian Terpadu (LPPT) Universitas Gajah Mada

Alamat:

Gedung Laboratorium Penelitian dan Pengembangan Terpadu (LPPT) Unit 2 Universitas Gajah Mada Jl. Kaliurang km 4, Sekip Utara, Yogyakarta 55281

PREFACE

We are very pleased to introduce the proceedings of the 3rd International Symposium Toward Halal Global held by Institute for Halal Industry and System, Universitas Gadjah Mada on December 2019. There were several issues regarding halal that had been presented by invited speakers and participants in this conference. There are 4 invited speakers, 18 poster presentations, and approximately 80 participants who attend this conference. This conference was supported by Pusat Unggulan Iptek Perguruan Tinggi (PUIPT) and Laboratorium Penelitian dan Pengujian Terpadu (LPPT) Universitas Gadjah Mada. Hopefully, this proceeding could give information and research update on halal products and system.

Head of Institute for Halal Industry & System
Prof. Ir. Yuny Erwanto, S.Pt., MP., PhD.

Table of Content

Organizing Committee		ii	
Preface		iv	
Table of Content		v	
Extended Abstract of Invited Speaker			
1. Halal certification in South Korea and collaboration opportunities (Dr. James Noh)		1	
2. National Halal Market Potency & Strategy to Penetrate Global Market (Akhmad Akbar Susanto, SE., M.Phil., PhD)		4	
3. The role of standardized analytical methods in supporting halal certification in Indonesia (Prof. Dr. Abdul Rohman, M.Si., Apt.)		5	
4. Real-Time PCR Technology for Halal Authentication (Assoc. Prof. Dr. Kartini Abu Bakar)		7	
Abstract of Poster Presenter			
P-IE-1	Does Sharia Governance Exist? Evidence on Islamic Banking in Indonesia	Ely Windarti Hastuti	12
P-IE-2	Virtual Reality for Islamic Financial Literacy: A Shift in the New Education Strategy for the Digital Generation	Ratna Candra Sari	12
P-IE-3	Designing Virtual Assistant for Islamic Financial Literacy Using Augmented Reality Technology	Sariyatul Ilyana	13
P-HL-1	Creating Bangunjiwo as a Halal Food Tourism Village	Ambar Rukmini	13
P-HL-2	Halal Tourism Index (HTI) and Model of Halal Tourism Management in Bukittinggi City, West Sumatera	Muhammad Ghafur Wibowo	14
P-HL-3	The role of Accounting Information Systems in Halal Food Supply Chain.	Donny Setiawan	14
P-HL-4	Should Halal Certification Be a Bad Product Brand Connotation? An Islamic And Positive Juridical Review	Ridan Muhtadi	15
P-HL-5	Muslim Student's Awareness of Halal Food Products Small Micro Entrepreneurs	Hamii Datur Rosydhah	15
P-HL-6	Social Awareness in Checking Halal Labels Before Ordering Food Online	Durrotun Nafisah	16
P-HL-7	New Start-Up Development Model "Halalin Aja" Using Business Model Canvas	Anggun Fambudi Ningrum Lestari	16
P-HPDD-1	The Synthesis and Application of Edible Film for Eco-Friendly Material of Halal Packaging	Neneng Windayani	17
P-HPDD-2	Application of FTIR Spectroscopy for Initial Analysis of Leather Products Adulteration of Pig Skin	Ragil Yuliatmo	18

P-HPDD-3	Utilization of <i>Rhizopus Oryzae</i> on The Development of Halal Dairy Product Based on Biotechnology	Solikah Ana Estikomah	18
P-HPDD-4	Porcine DNA Contamination Test on Meat Milling Sample Using the Real Time PCR Method	Yuanita Rachmawati	19
P-FSN-1	In Vitro Test: Screening the Effectiveness of Reducing Glucose Levels of Parijoto Extract the Chitosan Encapsulated	Fania Putri Luhurningtyas	19
P-FSN-2	Screening of Antioxidant and Reducing Glucose Activity of Arabica Green Coffee Bean (<i>Coffea Arabica</i> L.) Purified Extract by UV-Vis Spectrophotometry	Rissa Laila Vifta	20
P-FSN-3	Intake a Mixture of Halal Lamb Meat and Fat that was Roasted can Increase Blood Glucose Levels	Fathimah	20
P-FSN-4	Antioxidant Activities of <i>Strobilanthes crispus</i> Leaf Extracts in Streptozotocin-induced Diabetic Rats	Veriani Aprilia	21
 FullPaper			
1	Does Sharia Governance Exist? Evidence on Islamic Banking in Indonesia (Ely Windarti Hastuti, Fajar Amtsal, Siti Lisnawati)		23
2	Should Halal Certification Be a Bad Product Brand Connotation? an Islamic and Positive Juridical Review (Ridan Muhtadi, Mohsi, Kamali)		29
3	Muslim Student's Awareness of Halal Food Products Small Micro Entrepreneurs (Hamii Datur Rosyidah, Durrotun Nafisah, Hafidhotun Nabawiyah)		35
4	Social Awareness in Checking Halal Labels Before Ordering Food Online (Durrotun Nafisah, Hamii Datur Rasydah, Hafidhotun Nabawiyah)		39
5	Initial Analysis of Pigskin Adulteration on Leather Products Using FTIR Spectroscopy (Ragil Yuliatmo, Wisnu Pambudi, Thoyib Rahman Hakim, R.L.M.S. Ari Wibowo, Dwi Wulandari, and Yuny Erwanto)		43
List of Participant			51

EXTENDED ABSTRACT OF INVITED SPEAKER

Halal certification in South Korea and collaboration opportunities

James (Jang Suh) Noh, Ph.D.
Korea Institute of Halal Industry("KIHI")

1. Recognition on Halal in Korea

Halal is understood as an indispensable concept in Korea for food and cosmetics exports to Southeast Asia and the Middle East. Korea's agri-food exports in 2018 amounted to \$ 68.3 billion, with exports to Islamic countries reaching \$ 813.7 million.

2. South Korea's government policy on Halal industry

With exports as a major driver of national growth, Korea provides various policy support to the halal industry to increase exports of food and cosmetics. Food exports are supported by MAFRA (the Ministry of Agriculture, Food and Rural Affairs), cosmetics exports are supported by KFDS, and consumer goods are supported by the Ministry of Trade, Industry and Energy.

Each department appoints an agency and conducts support through it. Support services are extensive, including halal education, halal market information, halal certification cost support, R & D, export support, and consulting support.

In Korea, there is an association of companies that export halal products. Korea Halal Export Association (KOHEA) is composed of more than 200 companies. In August, KOHEA holds an event called Halal Trade Expo Korea in Seoul, and not only exhibits Halal products, but also holds international halal conferences and international halal cosmetics seminars, as well as buyer matchmaking events.

The active activities of Korea's halal industry, as it is today, are made possible by the government's strong will. Especially, **the Halal Food Development and Export Promotion Measures** announced by MAFRA in 2015 played the most important role.

3. Halal certification in South Korea

Six halal certification bodies are currently in operation in Korea. The certification body that holds the most halal certification performance is KMF. KMF is recognized by JAKIM in Malaysia and attracts many customers with low certification costs. International recognition is a very important factor. Recently, IHCC (International Halal Certification Center), another local HCB, has been approved by the UAE's ESMA to open the way for Korean companies to export halal products to the Middle East.

In addition, KAB, a Korean accreditation body, was recently recognized by ESMA as a halal accreditation body and completed its membership in IHAF. Sooner or later, KAB is expected to recognize domestic halal certification bodies.

In addition to domestic halal certification bodies, Korean companies have actively acquired certifications from overseas halal certification bodies. In fact, according to KIHl's survey, about 100 companies have obtained Halal certification from Indonesia's MUI. Korean companies are very interested in Indonesia's new halal certification system, which took effect on October 17 this year.

4. Recent developments in Korean Halal infrastructure

KFRI, the Korea Food Research Institute, a government-funded organization, now provides a testing laboratory to detect porcine DNA from food samples. For halal certification inspection, precise check of Haram ingredients for products is essential. KFRI is in the process of ISO 17025 compliance assessment.

The country now has its first halal logistics service provider, Sejung Shipping, which has just been awarded a halal stamp from KMF. Korean government is well aware that halal logistics plays a key role to strengthen Halal Integrity in Korea's halal supply chain.

5. Local Halal market

In 2017, about 170,132 Muslim population living in Korea accounts for only 0.34% of the total population. Because of this, the domestic halal market is often ignored. According to KIHl's survey, local Muslim resident's per capita annual

expenditures to dining and food & drink purchase is 4,408,356 won. Then, the total annual food consumption by Muslim residents in Korea reaches U\$642mm. In addition, foreign Muslim traveler's per capita food and drink expenditure during travelling in Korea is U\$139. Then, the total food consumption by foreign Muslim tourists in Korea is 870,000(no. of Muslim travelers in 2017) X U\$139 = U\$121mm.

Local Halal food market size is estimated to be U\$743mm(U\$642mm+U\$121mm). If we include local Muslim residents and foreign Muslim travelers 's expenditure to cosmetics, the total local Halal market size is estimated to reach U\$1billion.

Various imported foods are found in Korean distribution channels such as supermarkets. Halal foods are also found in a wide range of food distribution channels. In the case of imported sauce products, Thai products displaying the CICOT certification logo are distributed. In the case of snack products, Indonesia's products displaying MUI logo or Malaysia's products showing JAKIM are distributed. In addition, ramen from Indonesia with MUI's halal logo is distributed.

6. Conclusion

The Korea's domestic halal market created by the consumption of Muslim residents and Muslim tourists in Korea has promising potential because there are not many Halal certified products yet. It is also promising if we can create synergy between resources and technologies of both countries. For example, we will develop halal cosmetics using Korean technology from raw materials of Indonesia's natural ingredients and jointly sell them to the global halal market.

DOMESTIC HALAL MARKET AND ITS POTENTIALITY TO SUPPORT INDONESIAN PRODUCERS TO ENTER GLOBAL MARKET

Akhmad Akbar Susamto

Faculty of Economics & Business, Universitas Gadjah Mada, Yogyakarta

Email: akhmad.susamto@ugm.ac.id

Indonesia's halal market has grown continuously over the last decade, confirming its position as one of the most potential halal market in the world. With over 235 million Muslim population, relatively steady economic growth and an increasing proportion of middle class households, it is expected that Indonesia's halal market will continue to grow in the future. The implementation of the Law Number 33 Year 2014 concerning Halal Product Assurance will likely expand Indonesia's halal market further, as it makes compulsory for all goods and services that enter, circulate and traded in the territory of Indonesia to be halal certified.

Despite such potential market growth, Indonesia has not been able to fully develop its halal industry. The proportion of domestic producers which have met halal requirements remain very low. Instead of using domestic halal market growth as a fertile ground to prepare their readiness to enter global halal market, most domestic producers seem to view halal certification as a burden.

The current presentation aims to, firstly, discuss the potentiality of domestic halal market to support producers in Indonesia to enter global halal market. The main argument is that large domestic halal market will allow producers in Indonesia to reach economies of scale and improve their production efficiency. Secondly, the current presentation also aims to discuss the opportunities and challenges of developing Indonesia's halal industry in general. Regarding the opportunities, this presentation puts an emphasis on economically and politically stable economy, abundance of resources, and large labor pool. With respect to the challenges, this presentation puts an emphasis on the importance of improving the infrastructure, regulatory framework, and business environments as a whole to support the development of Indonesia's halal industry.

The role of standardized analytical methods in supporting halal certification in Indonesia

Abdul Rohman

Institute for Halal Industry and Systems (IHIS), Universitas Gadjah Mada,
Yogyakarta 55281 Indonesia. Email: abdul_kimfar@ugm.ac.id

The food, cosmetics and pharmaceutical products are essential needs for human beings. With respect to the globalization and industrialization era, these products must meet the community demand and have to fit the required regulations. The advanced technology in the industries has led to the fraud in the product and it may contain non-halal substances and undeclared ingredients which are allergenic to certain people. It is reported that some food and pharmaceutical products available in the market may be labelled with incorrect or missing information related to ingredients sources. This has become a big issue for Jewish and Muslims, since the status of the ingredients used and the production process may not fulfil the religious requirements.

With the respect of implementation of Indonesian Act No. 33 (2014) on Halal Products Assurance clause 4 stating that all products including food, drinks, pharmaceuticals, cosmetics and personal care must be halal, it is necessary to assure that products available in Indonesian market must be halal certified. According to this Act, the certification of halal products is taken by *Badan Pelaksana Jaminan Produk Halal* (BPJPH) and the auditing process will be taken by *Lembaga Pemeriksa halal* (LPH), accredited by BPJPH. LPH must have or collaborate with accredited laboratory to support its activities as auditing body. During the inspection or auditing, products suspected to contain non-halal components must be subjected to laboratory evaluation using valid and standardized methods. As a consequence, standardized, valid and reliable methods must be used for identification of non-halal components present in the evaluated products.

Numerous analytical methods based on physico-chemical properties and molecular biology have been proposed, developed, and used for identification of non-halal components along with its own advantages and disadvantages. Due to the complex mixture of products, the responses obtained are rather complex, thus the application of sophisticated statistical analysis called with chemometrics is widely used. The most commonly used chemometrics in halal authentication is

classification chemometrics techniques including principal component analysis and discriminant analysis as well as multivariate calibration like partial least square and principle component regression.

Some methods have been reported in scientific publication for analysis of non-halal components such as Fourier transform infrared spectroscopy for analysis of pork fat (lard) and porcine gelatines in food and pharmaceutical methods, however, this technique is lack in specificity. Gas chromatography-mass spectrometry (GC-MS) is candidate method for analysis of lard due to its capability to search specific fatty acids (markers) present in lard. For porcine gelatine analysis, liquid chromatography-mass spectrometry (LC-MS) is potential to be developed as standard method by providing the specific peptide markers present in the evaluated products. In addition, DNA-based methods such as polymerase chain reaction are ideal method for identification of DNA present in pork and porcine gelatines. In the future, these methods must be harmonized to be an official halal authentication method, especially among Muslim countries.

REAL-TIME PCR TECHNOLOGY FOR HALAL AUTHENTICATION

Nor Kartini Abu Bakar*^{1,2}, Azmaniza Tulimin³, Atiqah Aziz¹ & Zalina Zakaria¹

¹University of Malaya Halal research Centre (UMHRC), University of Malaya (UM), 50603, Kuala Lumpur, Malaysia

eyqa@um.edu.my

²Chemistry Department, Faculty of Science, University of Malaya (UM), 50603, Kuala Lumpur, Malaysia

kartini@um.edu.my

³Biotechnology Division, Department of Chemistry, 46661, Petaling Jaya, Selangor, Malaysia

ieja2103@gmail.com

*Corresponding author

ABSTRACT

Halal cosmetics have attracted considerable attention worldwide. The increased level of education and awareness about Halal products are reshaping the demand and supply in the local cosmetic market. Therefore, the adulteration of non-halal ingredients such as porcine in any cosmetic substances must be avoided at any cost. The used of advanced technology such as nanoemulsion in cosmetic industries consequently gives a great challenge for porcine DNA detection in cosmetics. In this study, real-time polymerase chain reaction (qPCR), a DNA-based technique was chosen to detect DNA porcine in skincare products. Four types of non-halal skin cares were used in this study (silky balm, clay mask, skin refined cream & moisturizer). For DNA extraction, all samples were extracted and purified using Kogene gelatin DNA extraction kit. Then, the samples were lysed with buffer and added with enzyme to digest contaminating proteins present. The DNA binding column was used to collect the extracted DNA prior to the analysis using qPCR kit. The concentration of DNA was measured using a spectrophotometer. As a conclusion, it is easy to detect porcine DNA using the DNA extraction kit. Nevertheless, the efficiency of DNA extraction depends on the type of samples. Therefore, a modified CTAB method is required for DNA extraction to ensure the DNA of interest could be detected using real-time PCR for various types of cosmetic samples.

Keywords: Cosmetics, Halal authentication, Porcine DNA, Real-time PCR

1. INTRODUCTION

Halal certification on non-food products (pharmaceutical, cosmetic, leather goods and others) able to give Malaysia a unique edge globally to confirm the highest qualities of those products by counting religious aspect of fulfilling Muslim's obligations and business perspectives (Sahilah *et al.*, 2012). Moreover, Halal cosmetics products are suitable for both Muslims as well as non-Muslim consumers in term of the knowledge of ingredient, process, and nature of the products. The detection of adulterants is one of the greatest challenges facing not only in food and feed products companies but as well as cosmetics and pharmaceutical companies today. Therefore, the need for scientifically valid species identity methods is increasingly important and a strict regulatory mandate.

2. MATERIALS & METHODS

2.1 Samples collection & preparation.

Four different brands of non-halal skincare samples are used in this work were randomly purchased from an online e-commerce platform. These samples label as 1, 2, 3 and 4 respectively as in Table 1. Based on the description of the products, sample 2 and 4 (Clay Mask & moisturizer) were composed of hydrolysis porcine placenta protein, whereas sample 1 & 3 were composed of porcine oil/grease ingredients.

2.2 DNA extraction using Pork-gelatin DNA Detection Kit

The DNA extraction was extracted and purified from skincare samples (about 200 mg) using a Power Prep™ Gelatin DNA extraction kit (Kogene Biotech, Seoul, Korea) according to the manufacturer's instructions. The negative control (blank) was run using lysis buffer alone (which did not contain any sample) in the whole extraction processed. The extracted DNA solutions were stored at -20 °C for further analysis. The concentration of DNA was measured using a spectrophotometer. The total reaction volume used was of 20 µL, while the DNA sample volume was 5 µL. The experiment was performed in a PCR clean room to prevent the risk of contamination with foreign DNA. The kit has been thawed for 15 minutes using ice to maintain the enzyme activity.

2.3 Real-time PCR

The amplification of this real-time PCR-based protocol was carried out in 20 μL of total reaction volume containing 5 μL of sample DNA, 10 μL of Real-time PCR Master Mix and Primer/Probe Mix 4 μL , which contained target-specific primers and probes and internal control. Amplifications were performed on the ABI StepOne™ Real-time PCR system (Applied Biosystem Instruments, USA) using the following thermal cycling conditions: denaturation at 95 °C for 10 min (holding stage), followed by 40 cycles of denaturation at 95 °C for 15 s, annealing and extension at 60 °C for 1 min (cycling stage).

3.0 RESULTS AND DISCUSSION

Among four samples, the real-time PCR results revealed that porcine DNA was not present in the tested cosmetics except for the moisturizer. However, the spike samples of 1, 2 and 3 shown CT value indicating the presence of porcine DNA. Various ingredients such as alcohols, fats, pectin, and detergents, which may be present in cosmetics, may interfere with PCR (Ku *et al.*, 2013, Ann *et al.*, 2002, Demeke and Jenkins, 2010 & Rossen *et al.*, 1992). The use of nanocosmeceuticals by incorporating nanotechnology in most of the manufacturing processes by the cosmetics industries is going to be a huge challenge in terms of determine the safety for humans and environment because this makes quantifying this effect very difficult by lab instruments including real-time PCR. This could be one of the reasons why it is difficult to detect the porcine directly from the cosmetics without spiking.

4.0 Conclusion

Using this commercial kit, the LOD value is 0.0001 ng porcine DNA for raw lard material. A modified CTAB method is required for DNA extraction to ensure the DNA of interest could be detected using real-time PCR for various types of cosmetic samples.

Acknowledgements

Ministry of Education Malaysia research grant (grant vote MOO02-2018 awarded to Malaysian Higher Education Consortium of Halal Institutions) and University of Malaya Research Grant Challenge: Grant vote 002B-17HNE.

References

- Ann YG, Kim SK, Shin CS, Min JH (2002) Inhibitory effect of wax gourd extract on melanin formation and acne-forming bacterial growth. *Korean J Food Nutr* 15:137–143
- Demeke T, Jenkins GR (2010) Influence of DNA extraction methods, PCR inhibitors and quantification methods on real-time PCR assay of biotechnology-derived traits. *Anal Bioanal Chem* 396:1977–1990
- Ku JE, Han HS, Song JH (2013) The recent trend of the national preservation used in cosmetics. *Korean J Aesthet Cosmetol* 11(5):835–844
- Mail Online (5 Jan 2015) Would you put PIG collagen on your face? Bizarre new beauty trend promises to banish wrinkles for good. Accessed on 21st June 2017
- Rossen L, Nørskov P, Holmstrom K, Rasmussen OF (1992) Inhibition of PCR by components of food samples, microbial diagnostic assays and DNA-extraction solutions. *Int J Food Microbiol* 17(1):37–45
- Sahilah, A. M., Fadly, M. L., Norrakiah, A. S., Aminah, A., Aida, W. W., Ma'aruf, A. G., & Khan, M. A. (2012). Halal market surveillance of soft and hard gel capsules in pharmaceutical products using PCR and southern-hybridization on the biochip analysis. *International Food Research Journal*, 19(1), 371.

**ABSTRACT OF
POSTER PRESENTER**

P-IE-1

Does Sharia Governance Exist? Evidence on Islamic Banking in Indonesia

Ely Windarti Hastuti* and Fajar Amsal

Faculty of Economics and Management, University of Darussalam Gontor, Indonesia

Corresponding email: elywindarti@unida.gontor.ac.id*

The growth and development of Islamic banking in Indonesia is increasing rapidly, this is evidenced by the increasing number of bank service networks and products from Islamic banks. This development should involve the improvement of good sharia banking governance, known as Sharia Governance (SG). This study was aimed to analyze how the implementation of sharia governance islamic banking in Indonesia based on standard of sharia governance issued by Islamic Financial Service Board (IFSB). This study uses secondary data obtained from the annual report of good corporate governance of islamic banking which has published in 2017. The method used in this study is qualitative with the type research using content analysis from the annual good corporate governance report of islamic banking windows in Indonesia. The result of this study indicates that the implementation of good corporate governance of islamic banking in general have done which is marked with the result of self-assessment of every islamic banking which on average gets a good predicate. The result of research on the implementation of IFSB standard of sharia governance in general have applied some of the IFSB standards, but there is 1 (one) standard are not implemented by several banks and several standards are not applied to all banks. For further research, it is expected to re-analyze the implementation of sharia governance based on IFSB standard by using other analysis data technique to be able to examine the other result of analysis of sharia governance with the new perspective.

Keywords: Islamic Banking, Sharia Governance, IFSB.

P-IE-2

Virtual Reality for Islamic Financial Literacy: A Shift in the New Education Strategy for the Digital Generation

Ratna Candra Sari¹, Nurhening Yuniarti, Afrida Putritama, Mimin Nur Aisyah

¹ Department of Accounting, Faculty of Economics, Universitas Negeri Yogyakarta, Indonesia

The level of Islamic financial literacy in Indonesia is still low at 8.11% (OJK, 2016). Financial literacy education is very important to be given since early childhood because it will increase financial competence and ability. However, information and learning media for Islamic financial literacy available to children are still very limited. This study aims to design and develop learning media for Islamic financial literacy in usury material for elementary school children with virtual reality (VR) technology. The research method used is the Research and Development method. The implementation was carried out at SD Budi Mulia Dua Pandansari and SD Muhammadiyah Sapen. The students considered that the attractiveness of the story's content was good, the 3D images were very good, and the activity in the storybook was also very good.

P-IE-3

DESIGNING VIRTUAL ASSISTANT FOR ISLAMIC FINANCIAL LITERACY USING AUGMENTED REALITY TECHNOLOGY

Ratna Candra Sari¹, Rika Fatimah², Sariyatul Ilyana², Hardika Dwi Hermawan³

- ¹ Department of Accounting, Faculty of Economics, Universitas Negeri Yogyakarta, Indonesia
- ² Department of Accounting, Faculty of Economics and Business, Universitas Gadjah Mada, Indonesia
- ³ Information and Technology Studies, Faculty of Education, the University of Hong Kong, Hong Kong

The level of Islamic financial literacy in children is still very low, one of them is due to the lack of learning media for Islamic financial literacy, especially for children. Islamic financial literacy learning will be effective if there is the suitability of learning styles and learning media. At present, there is an evolution of changes in learning styles of digital generation from verbal to visual to virtual. This study aims to design and develop financial literacy learning media equipped with virtual assistance using augmented reality technology. Islamic financial literacy media is a book that is equipped with virtual assistance using augmented reality technology. Media development uses the ADDIE Instructional Design (ID) model. There are five phases involved in the life development cycle: analysis, design, development, implementation and evaluation. The results show that Islamic financial literacy learning media is ready to be tested for real users and ready to be commercialized.

Keywords: sharia financial literacy, elementary students, augmented reality

P-HL-1

Creating Bangunjiwo as a Halal Food Tourism Village

Ambar Rukmini, Masrul Indrayana, Yuliana Endah Widyaningsih
University of Widya Mataram Yogyakarta, Indonesia

Bangunjiwo Village is one of four villages in Kasihan Subdistrict, Bantul Regency of Yogyakarta, which is mostly mountainous. In the village, there are several beautiful places and also many producers of traditional foods. Through the Kajigelem Program, the Government of Bantul Regency has planned to develop the potential of the region into an integrated tourism area with superior local culture. Kajigelem Program has the concept of uniting the potentials of the region to become an attractive and superior tourist destination. However, it's still difficult to formulate and realize the concept. Therefore, we help to realize the program by giving it a halal touch. It will be encouraged to realize a village with a halal concept. Food producers were given the socialization and assistance of quality food production and halal certificate management. In collaboration with the village administration, we also conduct halal socialization for non-food producer groups. Thus, there were all produced halal. Then, a land mark will be created, so that a portrait of the village area will be able to empower the community, maintain environmental and regional quality, create conservation of natural resources, and preserve local cultural heritage. This activity will be carried out by mapping the area as well as implementing the concept of halal in tourist destinations, especially by creating halal culinary centers. It was targeted to have created halal tourism in Bangunjiwo Village, both for food and non-food aspects, so that Bangunjiwo will become a superior village, the main tourism destination in Yogyakarta with a halal concept.

Keywords: Bangunjiwo village, halal food tourism, Kajigelem, integrated tourism area, halal concept.

P-HL-2

Halal Tourism Index (HTI) and Model of Halal Tourism Management in Bukittinggi City, West Sumatera

Muhammad Ghafur Wibowo
Faculty of Islamic Economics and Business,
Sunan Kalijaga State Islamic University

Bukittinggi City is a tourist city in West Sumatera that has been declared by the Ministry of Tourism as one of the halal tourism models in Indonesia. Although there are currently no regional regulations governing the management of halal tourism in West Sumatera or Bukittinggi City, in practice, the tourism industry has partly been carried out under Islamic values. This condition is in line with the philosophy of life of the Minangkabau people, *Adat Basandi Syara', Syara' Basandi Kitabullah*. By referring to the Fatwa of National Sharia Council (DSN), The Council of Indonesian Ulama (MUI) Number 108/DSN-MUI/X/2016 Regarding Guidelines for Organizing Tourism Based on Sharia Principles, this study tries to calculate the Halal Tourism Index in Bukittinggi City. Besides, this study also builds a model of halal tourism management in the city of Bukittinggi which refers to the Penta Helix model suggested by the Ministry of Tourism. Finally, this study analyzes the policy priorities of halal tourism development in Bukittinggi City using the A'SWOT method (a combination of Analytical Hierarchy Process, AHP, and SWOT).

P-HL-3

THE ROLE OF ACCOUNTING INFORMATION SYSTEMS IN HALAL FOOD SUPPLY CHAIN

Ahmad Baehaqi¹, Alex Afit Ardiansyah¹, Donny Setiawan²

¹Department of Islamic Accounting

²Department of Islamic Business Management

STEI SEBI, School of Islamic Economics, Jl. Raya Bojongsari, Depok 16517
Corresponding Author: donny.setiawan@sebi.ac.id

This study aims to analyze the application of halal food supply chains and the role of accounting information systems (AIS) in maintaining the integrity of halal food. The research method adopted is descriptive qualitative with literature review and discussed with interactive analysis model by Miles and Huberman. The results show that AIS not only plays an important role in running the operation well, rapid response to consumer desires, and reduced delivery time, but also provides information regarding halal food products. All AIS components - people, procedures, data, software, and information technology (IT)-have a significant part in halal food supply chain. AIS provides information and warnings if there is a potential risk that threatens the integrity of halal food. With the application of the AIS, the halal food supply chain is expected to run more effectively and efficiently.

Keywords: Halal Food, Supply Chain, Accounting Information Systems (AIS)

P-HL-4

Should Halal Certification be a Bad Product Brand Connotation? An Islamic and Positive Juridical Review

Ridan Muhtadi*, Mohsi*, Kamali*
*STAI Miftahul Ulum, Pamekasan
ridanmuhtadi@gmail.com

The dynamics of Indonesia's food economic progress, is a challenge for Indonesian Muslims. The emergence of a variety of different types of new foods, must be observed properly halal. Not only in terms of material, type, processing, shape / packaging, but from all aspects. For example, many food products with negative connotations now appear, Jahanam fried rice, Iblis Noodle, Tuyul Es (name disguised). At a glance is an interesting creativity and not a serious problem, but on the other hand what if viewed in terms of halalism? Islam itself teaches to consume good things in order to bring blessings. While the Government of Indonesia has provided protection to Muslim consumers through the Law on halal certification and the authority of the MUI as an institution legalizing halal certification. This study will discuss food law with negative connotations from the perspective of positive law and Islamic law, and the role of the government in protecting Muslim consumers in Indonesia.

Keywords: Creativity brand, negative connotation, Islamic and positive law perspective

P-HL-5

Muslim Student's Awareness of Halal Food Products Small Micro Entrepreneurs

Hamii Datur Rosydah*, Durrotun Nafisah, Hafidhotun Nabawiyah
Nutrition Departement of University of Darussalam Gontor
*corresponding author: rosydahhamiida99@gmail.com

Muslim students are very influential agents in the formation of future Islamic characters. Muslim students also participate actively in society. As a Muslim majority country, the government should protect people from consuming non-halal foods and drinks, including Indonesian government through Halal Product Guarantee Agency (BPJPH) under supervision of the ministry of religion. In fact, there are still very few food products from the Micro small industry that owns and proposes for halal certificates. Small micro enterprises currently still do not care about their status products, although it is a help in the halal certification process. The purpose of this research is to find out how Muslim students awareness of food products comes from micro small. The method used is a qualitative method with a descriptive approach by using interview. This study has 30 students as respondent from first until third year. The interview was conducted in one day. The results of this study have shown that 50% of Muslim students who are less aware of the importance of halal products for Muslims. Some causes of less awareness towards halal certificates are cheap price, assumption that there are many halal food Indonesia because Islam as major religion and assumption of trusting the seller that their product is halal. Expected from this study can raise the awareness of Muslim students to be aware of halal products from small micro-enterprises.

Keywords: awareness, halal food, muslim students, small micro entrepreneurs

P-HL-6

Social Awareness in Checking Halal Labels Before Ordering Food Online

Durrotun Nafisah*, Hamii Datur Rasydah, Hafidhotun Nabawiyah
Nutrition Department of University of Darussalam Gontor

*corresponding author: nafisahdurrotun05@gmail.com

Nowadays, smartphones are something that cannot be separated from daily life of people worldwide including Indonesia. This is due to the many features of the mobile phone that facilitate daily activities such as ordering food through online application. One of smartphone application for ordering food is Gofood powered by Gojek. Gofood partners are spread over 300 units in Indonesia. However, some of these Gofood partners have not been certified as halal from halal product guarantee agency (BPJPH) Indonesia, and the public does not care much about the halal status of the place or menu ordered. The purpose of this study was to determine public awareness in checking halal labels before ordering food via online and public knowledge of the halal status of places and menus ordered via online. The type of method used in this study was qualitative descriptive design by interview of 10 respondents and literatures for having Gofood application information. The interview was held for one day. The results of this study showed 80% of respondents claimed not to pay attention to the halal label before ordering food via online. Several of the reasons are paying attention only towards ingredients or food types, public assumption of muslim majority in Indonesia, it means that most of food also halal, miss-leading perception towards the law regarding the guarantee of halal products. This shows that public awareness of halal label checking before ordering food online is still low.

Keywords: Awareness, Halal, Ordering Food Online

P-HL-7

NEW START-UP DEVELOPMENT MODEL "HALALIN AJA" USING BUSINESS MODEL CANVAS

Anggun Fambudi Lestari Ningrum¹, Raudiatuzzahra¹, Abdur Rohman², Lailatul Qadariyah²

¹Sharia Economics, Trunojoyo University of Madura

²Master Program of Economics, Trunojoyo University of Madura

corresponding author: anggunfambudi333@gmail.com

Indonesia is a country with the largest Muslim population in the world, which has great potential in the development of the halal industry sector, which is supported by increased awareness of the importance of consumption of halal products and the development of increasingly sophisticated technology. The great potential of Indonesia in the halal industry sector can support national economic growth. However, the development of the halal industry in Indonesia is currently underdeveloped or stagnant. This is because businesses in Indonesia have not taken the halal industry seriously as a promising business opportunity, even though the halal industry has become a global trend in the world. Halalin Aja is a new E-Commerce Starup business in the form of an application that combines e-commerce with ZISWAF where this application is not only a container for buying and selling transactions but also as a means of education as well as the receipt and distribution of zakat, infaq, and shodaqoh in collaboration with the government, and charity in its distribution. The results showed that the New Starrup "Halalin Aja" has implemented a Business Model Canvas. This is illustrated through nine building blocks namely the *Customer Segment* is all Indonesian society. *Value Proportion* is Halal product, Sharia compliant business practices, Easy and safe transactions, Education and ZISWAF acceptance and distribution facilities. *Channels* is marketing online and offline. *Customer Relationship* is a guarantee of good products, providing excellent service and responsive to problems. *Revenue Streams* are

profit sharing and revenue from advertising. *Key Resources* are Financial, Team Work, Halal Brands, Technology, Investors and Networks. *Key Activities* are Transactions, Expert Consultation, Campaigns, and Application Management. *Key Partnership* is government, social, MUI and BPOM halal certification institutions. *Cost Structure* is the cost of fixed asset investment, application procurement costs, patent fees, operational costs, administration, marketing and maintenance.

Keywords: E-commerce start-up, halal technology industry, education and ziswaf

P-HPDD-1
THE SYNTHESIS AND APPLICATION OF EDIBLE FILM
FOR ECO-FRIENDLY MATERIAL OF HALAL PACKAGING

Ferli S. Irwansyah, Meilla N. Effendi, Neneng Windayani

Departement of Chemistry Education UIN Sunan Gunung Djati Bandung

Jl. A.H. Nasution No. 105 Bandung

Email: nenengwinda.ftk@uinsgd.ac.id

Packaging materials especially in food is the most important of healthy aspect. However, today many types of packaging materials used are harmful for health and environment, then was found alternative halal packaging materials that are safe for health and environment. One of the alternative is edible film, synthesis from parrot fish bone gelatin. The purpose of this research was to determine the optimal conditions edible film of parrot fish bone gelatin (*Oreochromis niloticus*) using a plasticizer sorbitol. Edible film synthesized by dissolving parrot fish bone gelatin in distilled water containing sorbitol, then stirred, poured on a flat glass, and heated at 50 °C. The procedure is performed with a concentration of gelatin (8% and 10% w/v) and sorbitol (25% and 37% v/v). Then was characterized its mechanical properties include thickness, tensile strength, and elongation to determine eligibility. The optimum condition of the edible film, was obtained from 10% concentration of gelatin with 37% sorbitol, with the character of its mechanical properties value are 0.05 mm thickness, 3,07 MPa tensile strength and 64.34% for elongation.

Keywords: edible film, gelatin, sorbitol

P-HPDD-2
APPLICATION OF FTIR SPECTROSCOPY FOR INITIAL ANALYSIS OF LEATHER PRODUCTS ADULTERATION OF PIG SKIN

Ragil Yuliatmo^{1*}, Wisnu Pambudi¹, Thoyib Rahman Hakim¹, Raden Lukas Martindro Satrio Ari Wibowo¹, and Yuny Erwanto²

¹ *Department of Leather Processing Technology, Politeknik ATK Yogyakarta, Yogyakarta, Indonesia*

² *Department of Animal Product Technology, Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta, Indonesia*

Leather is commonly used in daily life in Indonesia, such as shoes, jackets, bags, and seats. Leather industry in Indonesia is vulnerable to raw material adulteration. This adulteration can disserve for consumer. This study aimed to identify the type of crust leather by comparing it made from sheep, goat, and pig skin using fourier transformed infrared spectroscopy (FTIR) method. Samples of lipid obtained during Soxhlet extraction was analyzed. The lipid was scanned using FTIR spectrophotometer resulted different spectra in several samples. Only in lard, there is a peak at a wavelength of 3000-2800 cm¹, while the other is not. The FTIR method is able to distinguish pig crust skin (raw material pigskin for leather products) with goat and sheep crust leather.

Keyword: Pig skin adulteration, FTIR spectroscopy, Leather products, Halal authentication, Initial analysis

P-HPDD-3
UTILIZATION OF *Rhizopus oryzae* ON THE DEVELOPMENT OF HALAL DAIRY PRODUCT BASED ON BIOTECHNOLOGY

Solikah Ana Estikomah¹, Fitri Komala Sari²

¹Pharmacy Department, Faculty of Health Science, University of Darussalam Gontor

²Nutrition Science Department, Faculty of Health Science, University of Darussalam Gontor

*Email: Ana@unida.gontor.ac.id

Indonesia is a country with a majority of the Muslim population so that in the provision of food was very concerned about aspects of halal. This study aims to observe the utilization of *Rhizopus oryzae* on the development of halal dairy product based on biotechnology. The approach is based online research and analysis of papers in journals. The finding indicates that potentiation *Rhizopus oryzae* on the development of halal dairy product based on biotechnology. *Rhizopus oryzae* used in cheese fermentation. The halal critical point of cheese are raw materials and coagulation. Cheese coagulation can be done by *Rhizopus oryzae*. Indonesia is a country with a majority of the Muslim population so that in the provision of food was very concerned about halal aspects. Included in food biotechnology that utilizing fungi *Rhizopus oryzae* and have to pay attention of the halal critical point. In this case, needs to be considered so that every production process can be ensured to avoid contamination of non-halal materials.

Keywords: *Rhizopus oryzae*, halal food, biotechnology

P-HPDD-4
PORCINE DNA CONTAMINATION TEST ON MEAT MILLING SAMPLE
USING THE REAL TIME PCR METHOD

Yuanita Rachmawati¹, M. Baihaqi², Tri Susilowati³, Saiku Rokhim³, Inggrit Tyautari³,
Latifatoel Chilmi³, M. Lathif Adzakkiyyi³, M. Alifiyan³

¹Halal Center University of Sunan Ampel UIN Surabaya

²Tarbiyah Faculty of UIN Sunan Ampel Surabaya

³Faculty of Science and Technology of UIN Sunan Ampel Surabaya

e-mail: yuanitarhartono@gmail.com

Meat milling is a public facility that is vulnerable to use by all consumers of various circles. Small traders who do not have milling machines will use the services of general meat milling facilities in the market. Both traders who sell processed foods made from halal and haram have the potential to be mixed into one. This study aims to detect the presence of porcine DNA contaminants in milling samples taken on regional markets in Indonesia using the Real Time PCR method. DNA isolation was carried out according to the *Instagene Matrix Biorad* Kit protocol, Real Time PCR was run according to the *Progenus* Kit protocol. The results showed that of the 5 test samples, there were no samples containing porcine DNA contaminants. The FAM value in the 5 test samples is 0 or *not amplified* (N/A), while the VIC value is 20.20; 24.42; 17.46; 30.88; 31.63 with an EPC value of FAM 32.00, while at VIC 32.44. However, at least to prevent the mixing of non-halal substances into halal materials at public facilities, the government should have regulations to separate meat grinding facilities from halal materials and those that do not lawful.

Keywords: Porcine DNA, Meat Milling, Real Time PCR

P-FSN-1

In Vitro Test: Screening the Effectiveness of Reducing Glucose Levels of Parijoto
Extract the Chitosan Encapsulated

Fania Putri Luhurningtyas¹, Rissa Laila Vifta¹, Alief Maulidya¹

¹Program Studi S1 Farmasi, Universitas Ngudi Waluyo, Ungaran, Jawa Tengah
@faniaputriluhurningtyas@gmail.com

Improved drug delivery systems by the nanoparticle method have evolved. The use of natural ingredients as herbal medicines has limitations, namely the low bioavailability when undergoing clinical trials. The method of encapsulation of active substances with chitosan is used to overcome these problems. The purpose of this study is to compare the effectiveness of reducing glucose levels of parijoto fruit extracts and parijoto fruit extracts formulated in the form of nanoparticles (NEBP). Parijoto fruit secondary metabolites were extracted using the maceration method, 96% ethanol solvent. The making of NEBP used chitosan encapsulate (0.2% w/v) and sodium tripolyphosphate (0.1% w/v) as a crosslinker agent. The Nelson-Somogyi method was used to determine the decrease in glucose levels extract and nano extract. The characteristics of nano chitosan EBP obtained were particle size of 269.3 nm, polydispersity index of 0.372, and percent transmittance of 99.379%. The ability to reduce glucose as much as 50% of NEBP is <2ppm. The effectiveness of NEBP glucose reduction is greater than the fruit extract (EC50 48.75). The smaller the EC50 value, the more effective the substance is to reduce glucose levels.

Keywords: *Medinilla speciosa* Reinw. ex Blume, nanoparticles, glucose, Nelson Somogyi

P-FSN-2
SCREENING OF ANTIOXIDANT AND REDUCING GLUCOSE ACTIVITY OF ARABICA GREEN COFFEE BEAN (*Coffea arabica* L.) PURIFIED EXTRACT BY UV-VIS SPECTROPHOTOMETRY

Rissa Laila Vifta¹, Anita Kumala Hati¹, Erik Rahman¹, Dwi Mafitasari¹

¹ Department of Pharmacy, Ngudi Waluyo University, Diponegoro Street 186,
Gedanganak, Ungaran, Central Java, 50519
Email: rissalailavifta@gmail.com

Arabica green coffee beans (*Coffea arabica* L.) contain secondary metabolites of flavonoids, alkaloids, tannins, and terpenoids. The content of flavonoids in arabica green coffee beans was thought to have antioxidant and antidiabetic activity. Increased active activities of metabolites compounds can be increased by the purification process. Purification of Arabica green coffee beans was carried out by using ethyl acetate solvent through liquid-liquid separation. The aims of this study were to determine the antioxidant activity of purified ethyl acetate extracts of arabica green coffee beans and analyze reducing of glucose activities by in vitro. The determination antioxidant activity was determined using the ABTS method (2,2-azino-bis(3-ethylbenzothiazolin)-6-sulfonic acid), while the determination of reducing glucose was used the Nelson Somogyi method with absorbance reading using UV-Vis spectrophotometry. Qualitative identification results indicate the presence of active flavonoid compounds in Arabica green coffee bean extract purified by ethyl acetate. Total flavonoid levels in EBKHA purified by ethyl acetate were 49.47 mg QE/g. Antioxidant activity on Arabica green coffee bean purified by ethyl acetate obtained IC₅₀ value 69.95 ppm with a strong category, while the activity of reducing glucose levels optimally at a concentration of 60 ppm with a decrease in glucose levels of 67.50%. The flavonoid content in Arabica green coffee bean purified by ethyl acetate has strong antioxidant ability and has the potential as an antidiabetic candidate.

Keywords: Purification, Antidiabetic, Antioxidant, *Coffea arabica* L., Flavonoid

P-FSN-3
Intake a mixture of halal lamb meat and fat that was roasted can increase blood glucose levels

Fathimah Fathimah¹, Kartika Pibriyanti¹, Fitri Komala Sari¹, Mutia Yuliza¹

¹Nutrition Department of University of Darussalam Gontor
email: fathimah@unida.gontor.ac.id

Nowadays, red meat is associated with diabetes mellitus risk, lamb is one of the red meat groups. In Indonesia, lamb is a favorite food such as satay (a mixture of meat and fat that roasted), the issue of lamb satay is only related to hypertension. whether a mixture roasted of lamb and fat can increase blood glucose levels, that is the aim of this study. This research was experimental pre- and post-test design. The subject was male Wistar rats, given the grilled halal lamb meat mix fat. The groups were Wistar fed with standard feed and grilled halal lamb meat. The Wistar got grilled halal lamb meat (1g/200g/bw). The results were analyzed using Repeated ANOVA for each week. The Wistar's blood glucose was measured in every week of treatment using glucose GOD FS and a spectrophotometer. The blood glucose of Wistar fed with standard feed were 71,73 ± 2.65 g/dl, 68,33 ± 1.36 g/dl, 72,33 ± 1.75 g/dl, 72,83 ± 1.94 g/dl (p 0,5) in each week, grilled halal lamb meat mixture fat were 69.37 ± 1.75 g/dl, 75,64 ± 1.62 g/dl, 88,05 ± 2.04 g/dl, 121,95 ± 2.55 g/dl (p 0,001) in each week. This study showed wistar given a dietary intervention of halal lamb meat and fat roasted for three weeks significantly increased Wistar blood glucose starting from the first week.

Keywords: Blood Glucose, Halal, Roasted Lamb Meat and fat

P-FSN-4

Antioxidant activities of *Strobilanthes crispus* leaf extracts in streptozotocin-induced diabetic rats

Dian Saputro Nugroho¹, Lulu Fathnatul Ulya², Veriani Aprilia³

¹Department of Nutrition, Faculty of Health Sciences, Alma Ata University, Jl. Brawijaya 99, Tamantirto, Kasihan, Bantul, Yogyakarta

Strobilanthes crispus (SC) is shrubs rich in antioxidant component. It has been proved to decrease the level of blood glucose. Chronic hyperglycemia may increase the production of free radicals that is indicated from the level of malondialdehyde (MDA). This study aimed to know the effect of SC leaf extract on MDA levels in diabetic-induced rats. Thirty of male Wistar rats were divided in 5 different groups, i.e. negative control (normal rats, no treatment), positive control (diabetic rats, no treatment), treatment group 1 (3.2 g/kg body weight), treatment group 2 (16.8 g/kg body weight), and reference group (glibenclamid). SC was administered orally during 14 days. At the end of study, the blood was collected and analysed using TBARS method. The study showed that SC could reduce 50% the level of MDA compared to positive group. The concentration of SC was linear in reducing MDA. However, the level of MDA in treatment groups were not as good as drug treatment. None of the groups may achieve the concentration of MDA levels in normal rats.

Key words: diabetes, rats, antioxidant, malondialdehyde, *Strobilanthes crispus*

Full Paper

Full Paper 1

DOES SHARIA GOVERNANCE EXIST? EVIDENCE ON ISLAMIC BANKING IN INDONESIA

Ely Windarti Hastuti ^{1)*}, Fajar Amtsal ²⁾, Siti Lisnawati ³⁾.

¹⁾ Universitas Darussalam Gontor, email: elywindarti@unida.gontor.ac.id

²⁾ Universitas Darussalam Gontor, email: fajaramtsal@unida.gontor.ac.id

³⁾ Universitas Darussalam Gontor, email: lisna8143@gmail.com

* Corresponding Author: E-mail: elywindarti@unida.gontor.ac.id

ABSTRACT

The growth and development of Islamic banking in Indonesia are increasing rapidly, this is evidenced by the increasing number of bank service networks and products from Islamic banks. This development should involve the improvement of good sharia banking governance, known as Sharia Governance (SG). This study was aimed to analyze how the implementation of sharia governance Islamic banking in Indonesia based on the standard of sharia governance issued by the Islamic Financial Service Board (IFSB). This study uses secondary data obtained from the annual report of good corporate governance of Islamic banking which has published in 2018. The method used in this study is qualitative with the type of research using content analysis from the annual good corporate governance report of Islamic banking in Indonesia. The result of this study found that the implementation of IFSB standard of sharia governance, in general, have applied some of the IFSB standards, but there is 1 (one) standard are not implemented by several banks and several standards are not applied to all banks, especially on the existence of Internal Sharia Review Unit and Internal Sharia Compliance Unit in each bank. For further research, it is expected to re-analyze the implementation of sharia governance based on IFSB standard by using other analysis data techniques to be able to examine the other result of analysis of sharia governance with a new perspective.

Keywords: Islamic Banking, Sharia Governance, IFSB.

1. INTRODUCTION

The growth and development of Islamic banking in Indonesia are increasing rapidly, this is evidenced by the increasing number of bank service networks and products from Islamic banks. This development should involve the improvement of good sharia banking governance, based on the explanation of Bank Indonesia Regulation No. 11/33/PBI/2009 known as Sharia Governance (SG). Since sharia compliance is an indicator that contributes greatly to IFIs (Islamic Financial Institutions), the application of Sharia Governance to IFIs must be considered.

With the rapid growth and development of Islamic banking, in its operations and regulations, Islamic banking implements a fatwa-fatwa compiled by a standard of Dewan Syariah Nasional Majelis Ulama Indonesia (DSN-MUI) (Faozan,2013). On the other hand, various international standards emerged which were specifically formed to realize Islamic financial institutions that are truly fair, professional and in accordance with sharia principles and standards. Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and Islamic Financial Service Board (IFSB) are both leading international organizations that set standards adopted as a reference for compliance with Islamic banks throughout the world.

Based on IFSB data in 2018, the number of Islamic banks is 189 units with 82 Sharia Business Units. The number of branches in Islamic banks is 29,766 units with total assets of USD 1,652 billion and Sharia compliance financing totaling USD 1,013

billion. This information is obtained from aggregate data for total assets (21 countries), total financing in accordance with the sharia (19 countries), and total funding / liabilities (19 countries) calculated from available national structural data from Islamic banks and Islamic banking from a conventional bank.

Based on the Financial Service Authority of Indonesia, until June 2018 the number of public companies of the Islamic bank is 13 units with the number of Islamic banking, is 21 unit. The financing of the legitimate people amounted to 168 housing units with total assets up to 444.43 billion rupiahs. The research carried out by Firmansyah (2018) concluded that GCG (corporate governance) in Sharia Commercial Bank has gone well but not fully implemented the AAOIFI standard. Therefore, the implementation of sharia governance in Islamic banking is important given the total assets of Islamic Banking in June 2018 up to 138.88 trillion rupiahs with funding routing up 105.34 trillion rupiahs.

Corporate governance is very important because Mardian (2011) also states that each Islamic bank has a different model in the fulfillment of sharia principles. This paper wants to examine and analyze whether Islamic banking in Indonesia, especially Islamic banking in regional development banks, in practice has applied and complies with the sharia governance standards issued by the IFSB. This study is done by answering these following questions:

How the implementation of *Sharia Governance* in Islamic banking in Indonesia based on standard issued by IFSB?

2. METHODS

Type of research used in this research is content analysis, which aims to find out the implementation of sharia governance in Islamic banking in Indonesia in terms of IFSB sharia governance standard through the analysis of the annual Good Corporate Governance report in Islamic banking of regional development bank in Indonesia in the year 2017. Content Analysis is a systematic technique for analyzing the content of the open communication behavior of selected communicator. Content analysis can be used to analyze newspapers, websites, advertisements, interview records, as well as company annual reports (Subiakto,2004).

To present the data for easy understanding, the steps of data analysis used in this research are Interactive Model Analysis from Miles and Huberman. Data analysis in qualitative research is done at the time of data collection as proposed by Miles and Huberman in Sugiyono (2015) state that activity in qualitative data analysis is done interactively and continuous progress until complete, so the data is saturated. Activities in analyzing qualitative data are Data Reduction, Data Display, and Conclusion Drawing/Verification.

3. RESULTS AND DISCUSSION

This study was aimed to find out the implementation of sharia governance in regional development bank of Islamic banking in Indonesia based on IFSB standards by using content analysis. It was showed that Islamic banking in Indonesia has not fully implemented all sharia governance indicators on the IFSB standard. The following are the results of the assessment by comparing the criteria/indicator on each factor which at least cover 5 (five) factor of applying the implementation for applying the implementation of sharia governance (Table 1)

Table 1. The Predicate Value of Assessment Result Based on IFSB standard on The Implementation of Sharia Governance of Islamic Banking in Indonesia

No.	Bank Name	GSG	CTP	IPP	CFP	CSP
1	Bank BNI Syariah	2,81	1,71	2,00	1,00	1,83
2	Bank BRI Syariah	2,81	1,71	2,00	1,00	1,83
3	Bank Muamalat Indonesia	1,90	1,71	1,00	1,00	1,83
4	Bank Victoria Syariah	2,81	1,00	2,00	3,00	1,00
5	Bank Maybank Syariah	2,81	2,42	2,00	1,00	2,66
6	Bank Mega Syariah Indonesia	2,81	2,42	2,00	1,00	2,66
7	Bank Panin Syariah	2,81	1,71	2,00	1,00	2,66
8	Bank Syariah Bukopin	2,81	1,00	2,00	1,00	1,00
9	Bank BCA Syariah	2,81	1,71	1,00	2,00	1,83
10	Bank BTPN Syariah	2,81	1,00	1,00	2,00	1,83
11	Bank BJB Syariah	2,36	2,42	2,00	1,00	3,50
12	Bank Syariah Mandiri	2,36	1,00	2,00	1,00	1,00

From the results of an assessment conducted on the IFSB standard indicators, the ranking of factors per assessment can be seen in Table 2.

Table 2. Composite Value (CV) Calculation Model Islamic Banking in Indonesia based on IFSB Standards

No.	Indicator	Weight (b)	Value (a) X (b)	Rank (a)
1	General Approach to the Sharia Governance System (GSG)	20.00%	0,20	1
2	Competance Principle (CTP)	20.00%	0,20	1
3	Independence Principle (IPP)	20.00%	0,20	1
4	Confidentiality Principle (CFP)	20.00%	0,20	1
5	Consistency Principle (CSP)	20.00%	0,20	1
Composite Value (CV)		100.00%	1,00	5

In the assessment of Islamic banking in Indonesia based on IFSB standards following the composite value rating system set by Bank Indonesia (BI) (Table 3).

Table 3. Criteria for Evaluating Good Corporate Governance (GCG)

Composite Value	Predicate
CV < 1,5	Very Good
1,5 < CV < 2,5	Good
2,5 < cv < 3,5	Pretty Good
3,5 < CV < 4,5	Poor
4,5 < cv < 5,0	Bad

Based on the results of an assessment of Islamic banking in Indonesia based on IFSB standards, the ranking of Islamic banking is obtained. The implementation of standards issued by IFSB can be seen in Table 4 and 5.

Table 4. The Predicate Value of Assessment Result on The Implementation of GCG in Islamic Bank Based on IFSB Standard

No.	Bank Name	GSG	CTP	IPP	CFP	CSP	CV
1	Bank BNI Syariah	0,56	0,34	0,40	0,20	0,37	1,87
2	Bank BRI Syariah	0,56	0,34	0,40	0,20	0,37	1,87
3	Bank Muamalat Indonesia	0,38	0,34	0,20	0,20	0,37	1,49
4	Bank Victoria Syariah	0,56	0,20	0,40	0,60	0,20	1,96
5	Bank Maybank Syariah	0,56	0,48	0,40	0,20	0,53	2,18
6	Bank Mega Syariah Indonesia	0,56	0,48	0,40	0,20	0,53	2,18
7	Bank Panin Syariah	0,56	0,34	0,40	0,20	0,53	2,04
8	Bank Syariah Bukopin	0,56	0,20	0,40	0,20	0,20	1,56
9	Bank BCA Syarah	0,56	0,34	0,20	0,40	0,37	1,87
10	Bank BTPN Syariah	0,56	0,20	0,20	0,40	0,37	1,73
11	Bank BJB Syariah	0,47	0,48	0,40	0,20	0,70	2,26
12	Bank Syariah Mandiri	0,47	0,20	0,40	0,20	0,20	1,47

Table 5. The Predicate Value of Assessment Result on The Implementation of Corporate Governance in Islamic Banks based on IFSB Standard

No.	BANK	CV	RANK
1	Bank BNI Syariah	1,87	Good
2	Bank BRI Syariah	1,87	Good
3	Bank Muamalat Indonesia	1,49	Very Good
4	Bank Victoria Syariah	1,96	Good
5	Bank Maybank Syariah	2,18	Good
6	Bank Mega Syariah Indonesia	2,18	Good
7	Bank Panin Syariah	2,04	Good
8	Bank Syariah Bukopin	1,56	Good
9	Bank BCA Syarah	1,87	Good
10	Bank BTPN Syariah	1,73	Good
11	Bank BJB Syariah	2,26	Good
12	Bank Syariah Mandiri	1,47	Very Good

Our study indicated that the Islamic banking in Indonesia has an average value that is almost the same, namely 1.87 with a Good rating, this explains that the implementation of Sharia governance based on IFSB standards is not too different in each bank. In implementing sharia governance in Islamic banking, several indicators are owned by several banks and not owned by other banks and there are several indicators that all banks do not apply namely:

1. **The first indicator:** On the first standard, point 4 regarding the number of Sharia Supervisory Boards. This is because government regulations are not in line with the IFSB indicator which states that a minimum number of Sharia Supervisory Boards must consist of a minimum of 3 people. This is supported by Firmansyah's research which states that in sharia commercial banks also do not fully have a Sharia Supervisory Board consisting of 3 (three) people.
2. **The second indicator:** On the first standard point 3 and 10, regarding Internal Sharia Compliance Unit, the result of the analysis explains that the existence of ISCU and ISRU (Internal Sharia Review Unit) has not been considered important

for Islamic banking and even sharia commercial banks regulate the establishment of ISCU and ISRU in Islamic banking in Indonesia.

3. **The third indicator:** On the second standard point 7 regarding the possibility of recruiting young prospective supervisory board sharia for the development of the unit. This was not disclosed at all in the annual report, GCG report or government regulation.
4. **The fourth indicator:** On the sixth standard point 2 regarding assessment for each member of the Sharia Supervisory Board. This was not disclosed at all in the annual report, GCG report, or government regulation.
5. **The fifth indicator:** On the fourth standard point 4, and the third standard point 5 regarding further actions taken by the IFI to control leaked confidential information. This was not disclosed at all in the annual report, GCG report or government regulation.
6. **The sixth indicator:** On the fifth standard point 5 regarding the signing of an agreement letter by each Sharia Supervisory Board member not to disclose information deemed confidential by the bank. This was not disclosed in the annual report, GCG report or government regulation.

4. CONCLUSION

This study aims to analyze the implementation of Sharia Governance in Islamic Banking in Indonesia when viewed from the standard of sharia governance issued by IFSB. This study uses secondary data obtained from annual report and GCG report of Islamic banking published for public period of 2018.

It can be concluded that the implementation of sharia governance in Islamic banking in Indonesia based on IFSB standard has not fully implemented the sharia governance issued by IFSB. Some standards are not implemented by several banks, Regulation of Bank Indonesia stated that Sharia Supervisory Boards consist of at least 2 people, this is not in line with the IFSB standard that minimum members Sharia Supervisory Board is 3 people. Moreover, some standards are not applied to all banks such as ISRU and ISCU ownership which are not applied to all sharia business units. This is supported by Ali Firmansyah's research stating that even for Islamic commercial banks, only Bank Muamalat has Internal Sharia Compliance Unit (ISCU). Then, for time to time, some members of Sharia Supervisory Board didn't participate in various seminars, workshop and meeting of ulama who specialize in *fiqh al-muamalat*.

REFERENCES

- Akhmad Faozan, 'Implementasi Good Corporate Governance Dan Peran Dewan Pengawas Syariah Di Bank Syariah', *La Riba*, VII.1 (2013), 1–14.
- Ali Syukron, 'Economic: Jurnal Ekonomi Dan Hukum Islam, Vol. 3, No. 1 2013', 3.1 (2013), 60–83.
- Deka Rachman Universitas Airlangga. Fakultas Hukum., 'Yuridika: Majalah Fakultas Hukum Universitas Airlangga.', *Yuridika*, 32.3 (2017), 379–92 <https://e-journal.unair.ac.id/YDK/article/view/4790/pdf_1>.
- Firmansyah, Ali. 2018. The Implementation of Corporate Governance In Islamic Banking in Indonesia Based on AAOIFI Standart. Thesis. University of Darussalam Gontor. IFSB Islamic Financial Services Board-10.
- Otoritas Jasa Keuangan, 'Snapshot Perbankan Syariah Indonesia', 2017, 1–8 Retrieved January 26, 2019, from <http://www.ojk.go.id/id/kanal/syariah/berita-dan-kegiatan/publikasi/Pages/Snapshot-Perbankan-Syariah-Indonesia-Posisi-30-September-2017.aspx>.
- Penjelasan Atas Peraturan Bank Indonesia (PBI) No. 11/33/PBI/2009 Tentang Pelaksanaan Good Corporate Governance (GCG) Bagi Bank Umum Syariah (BUS) dan Unit Usaha Syariah (UUS) Pada Bagian Umum.
- Sugiono (2015). "Metode Penelitian Manajemen". Penerbit Alfabeta Bandung.

- Sepky, Mardian. Study Eksplorasi Pengungkapan Penerapan Prinsip Syariah di Bank syariah. *SEBI Islamic Economics & Finance Journal* Vol. 04, No 1, Oktober 2011
- State Law of Republic Indonesia Number 21 Year 2008 concerning on Islamic Banking
- Subiakto, H. (2004). Analisis Isi Media Metode dan Pemanfaatannya. Dalam B. Bungin (Penyut.), *Metodologi Penelitian Kualitatif*(3 ed., hal 133-143). Jakarta : PT. Raja Grafindo Persada
- Sugiyono. (2015). *Metode Penelitian Kuantitatif Kualitatif R&B*. Bandung: Alfabeta.
- Syed Ahmed Salman Nawal Kassim, Sheila Nu NuHtay, 'Comparative Analysis on AAOIFI, IFSB and BNM Shari ' Ah Governance Faculty of Accountancy', *International Journal of Business and Social Science*, 4.15 (2013), 220–27.
- Syukron Ali, 'Economic: Jurnal Ekonomi Dan Hukum Islam, Vol. 3, No. 1 2013', 3.1 (2013), 60–83.

Full Paper 2

SHOULD HALAL CERTIFICATION IN PRODUCT BRANDS HAVE A NEGATIVE CONNOTATION? JURIDICAL REVIEW OF ISLAMIC LAW AND POSITIVE LAW

Ridan Muhtadi^{1)*}, Mohsi¹⁾, Kamali¹⁾

¹⁾STAI Miftahul Ulum, Pamekasan

* Corresponding Author: ridanmuhtadi@gmail.com

Abstract

The dynamics of Indonesia's food economic progress, is a challenge for Indonesian Muslims. The emergence of a variety of different types of new foods, must be observed properly halal. Not only in terms of material, type, processing, shape / packaging, but from all aspects. For example, many food products with negative connotations now appear, *Jahanam* fried rice, *Iblis* Noodle, *Tuyul Es* (name disguised). At a glance is an interesting creativity and not a serious problem, but on the other hand what if viewed in terms of halalism? Islam itself teaches to consume good things in order to bring blessings. While the Government of Indonesia has provided protection to Muslim consumers through the Law on halal certification and the authority of the MUI as an institution legalizing halal certification. This study will discuss food law with negative connotations from the perspective of positive law and Islamic law, and the role of the government in protecting Muslim consumers in Indonesia.

Keywords: Creativity brand, negative connotation, Islamic and positive law perspective

1. Introduction

The increasingly large competition in the food market economy is a new challenge for economic players to innovate. According to Muhammad Nafan Aji, as Binaartha Parama Sekuritas, today's society tends to favor unique restaurants with high levels of delicious culinary products and rational prices (Kontan, 2018). The uniqueness covering all aspects, both on the taste of the product, packaging, as well as branding or brand is a potential to attract buyers. Characteristic of the name on the product, is currently the main attraction for the community in determining the choice of a food product. The urgency of a product name on people's appeal is very influential. This requires a very mature consideration because it will affect the sales model and the future view of the community.

Food products with negative connotation that aim to attract people's purchasing power. For example, *Sambal Setan* Rice, Devil's Noodle, *Es Jahannam*, *Rawon Setan* (disguised name). These extreme names are the main attraction for consumers. At first glance, there is no problem with the existence of these innovative food products. Good Muslim consumers should also pay attention to any food that will become their body's intake. Even though it's only in the name of a negative connotation. The Qur'an itself, Allah says:

تَعْبُدُونَ إِلَّا هُوَ كُنْتُمْ مِنْ لَدُنْهُ وَأَنْتُمْ تَعْبُدُونَ مَا تَحْتَمِلُونَ

Yā ayyuhallażīna āmanū kulū min ṭayyibāti mā razaqnākum wasykurū lillāhi ing kuntum iyyāhu ta'budūn

“O you who have believed, eat from the good things which We have provided for you and be grateful to Allah if it is [indeed] Him that you worship”. (al-Baqarah: 172)

Good in terms of material, type, processing, shape / packaging and also the name, in Islam is called halal food. Halal is a must for every food consumed by Muslims. Being the

largest Muslim country in the world, Indonesia has protected Muslim consumers by issuing halal certificates for food businesses. The implementation has been carried out since 1996. Until the existence of the Industrial halal labeled products continues to increase. The total trade of halal products on the global market annually has reached 580 billion US dollars. This Muslim awareness of halal food production is growing well. But awareness of choosing to consume halal products is still considered less attention. According to Halal Corner Director Aisha Maharani, currently the awareness of the public to choose, buy, and consume halal products, is still a low factor that causes low public awareness to buy and consume halal products, one of which is triggered by their perspective on halal. Society tends to be obsessed with packaging and product uniqueness.

Meanwhile, the seriousness of the government in guaranteeing halal food protection for Muslims, is evidenced by the establishment of Law No. 33 of 2014 concerning Halal Certification, which was implemented in 2019. The law regulates various matters relating to halal certification.

The purpose of this study will discuss about whether food with bad connotation can be categorized as halal food. What is the perspective of both positive law and Islamic law regarding food with bad connotations? What is the government's effort to ensure the halal of food products circulating in the community?

2. Research methods

The method used is descriptive qualitative method with data analysis in the form of Normative Juridical Studies. This study discusses the phenomena that occur related to food products circulating in Indonesia with news sources that will be juxtaposed with theories. The theory is in the form of Islamic legal theories that discuss the halal of Indonesian products and legal products, including a MUI fatwa that discusses halal products.

3. Discussion

Juridical Analysis of Islamic Law for Negative Connotation Food Names

A food product certainly cannot be separated from the brand as an identification and characteristics of these foods. Brand names in food production, commonly referred to as food labels. The existence of food labels is a need to provide convenience to the community in the mention of a food production. Besides that, it becomes an identifying identity to market the product. Food label according to the term is any information about food in the form of a picture, writing, a combination of both, or other forms that are included in food, put in, pasted on, or is part of food packaging (PP No 09 1999).

Food labels are expected to have Brand Identity which is a unique brand association showing promise to consumers. To be effective, brand identity needs to resonate with consumers, differentiate brands from competitors, and represent what organizations can and will do from time to time. (Ghodeswar, 2008). Some elements of brand identity are names, logos, slogans. The name is the most important element in a brand, as the first face in a product. And is used in all forms of communication between companies and prospective customers (Kotler & Pfoertsch, 2008). While logos and slogans are supporting factors as a more persuasive form of marketing.

After building the next Brand Identity Brand Image. Brand image is a public perception of the product. The influencing factors are the uniqueness, strength, and the benefits achieved from these products. So, the level of consumer confidence that the attributes and benefits provided by a brand can satisfy their wants and needs (Keller, 2003).

Next is the brand preference (brand preference) is the level of people's tendency to judge a product has more value than other products. The last is trust (trust), trust is the sense of security felt by consumers of the brand, that the brand will meet their needs and desires. The process by which an individual associates trust with a brand is based on his experience with that brand (Delgado, 2014).

The main interest of Muslim consumers is the tendency towards food that clearly has a belief in hygiene and halal status. While the government has provided an umbrella for the

protection of Muslim consumers with the issuance of halal certification for economic actors approved by the Indonesian Ulema Council (MUI). In this case regulated in the Act.

Halal studies do not just stop with the legality process, because halal is also not enough, it must also be *toyyiban*. Halal in food itself is divided into 2 (two) aspects, namely halal in terms of material and *rukhyah*. What is meant here is the material constituent of foods that are materialist or can be seen or researched scientifically. In Islam, *dzahiriyah* only forbids the food mentioned in surah al-Maidah verse 3:

أَكَلَ وَمَا وَالنَّطِيخَةَ وَالْمُتَرَدِّيَةَ وَالْمُؤَفَّوْدَةَ وَالْمُنْحَنِقَةَ بِهِنَّ اللَّهُ لِيُغَيِّرَ أَهْلَهُنَّ وَمَا الْجَنْزِيرَ وَالْحَمَّ وَالِدَّمَ الْمَيْتَةَ عَلَيْكُمْ حُرِّمَتْ فَلَا دِينَكُمْ مِنْ كَفَرُوا الَّذِينَ يَتَسَنَّوْنَ الْيَوْمَ ۚ فَسِنُّكُمْ ۚ بِالْأَزْلَامِ تَسْتَفْسِمُوا وَأَنْ تُصَبَّ عَلَى دُبْحٍ وَمَا ذَكَّيْتُمْ مَا إِلَّا السَّبْعُ فِي اضْطِرَّ قَمَنَ ۚ دِينًا الْإِسْلَامَ لَكُمْ وَرَضِيَتْ يَغْمِي عَلَيْكُمْ وَأَتَمَمْتُ دِينَكُمْ لَكُمْ أَكْمَلْتُ الْيَوْمَ ۚ وَاحْتَشُونَ تَحْتَوَهُمْ رَجِبٌ عَفُورٌ اللَّهُ قَائِلٌ ۚ لِإِيْمٍ مُتَجَانِفٍ عَيْرٍ مَحْصَةِ

Hurrimat 'alaikumul-maitatu wad-damu wa lahmul-khinziri wa mā uhilla ligairillāhi bihī wal-munkhaniqatu wal-mauqūzatu wal-mutaraddiyatu wan-naṭīḥatu wa mā akalas-sabu'u illā mā ḥakkaitum, wa mā ḥubiḥa 'alan-nuṣubi wa an tastaqsimu bil-azlām, ḥālikum fisq, al-yauma ya`isallaḥīna kafaru min dīnikum fa lā takhsyauhum wakhsyaun, al-yauma akmaltu lakum dīnakum wa atmamtu 'alaikum ni'mati wa raḍītu lakumul-islāma dīnā, fa maniḍṭurra fī makhmaṣatin gaira mutajānifil li'ishmin fa innallāha gafurur raḥīm

“Prohibited to you are dead animals, blood, the flesh of swine, and that which has been dedicated to other than Allah, and [those animals] killed by strangling or by a violent blow or by a head-long fall or by the goring of horns, and those from which a wild animal has eaten, except what you [are able to] slaughter [before its death], and those which are sacrificed on stone altars, and [prohibited is] that you seek decision through divining arrows. That is grave disobedience. This day those who disbelieve have despaired of [defeating] your religion; so fear them not, but fear Me. This day I have perfected for you your religion and completed My favor upon you and have approved for you Islam as religion. But whoever is forced by severe hunger with no inclination to sin - then indeed, Allah is Forgiving and Merciful”. (Al-Maidah: 3)

In addition to the above verses other verses that explain the types of animals that are forbidden, namely Surah al Baqarah verses 172 -173, Surah al An'am verse 45. The verses above clearly explain the types of prohibited foods, including; carcasses, blood, pork, animals that were not slaughtered by God, or animals that died from strangulation, who died from being hit, who died from falling, died from gore, died from being eaten by wild animals, slaughtered for idols. Other than those mentioned above according to Malikiyah's view is something that is permissible or permissible. The description of the verses in the Qur'an explains in terms of substance, which can be studied scientifically.

The aspect of *ruhiyah* is oriented towards the study of *batiniyah*, which cannot be measured from the eye. The aspects include the origin of the food can be obtained, by good or bad and also how to treat the food. In terms of *rukhyah* seen from blessing in food. While its relation to the name of the food product, the writer considers it to be included in the material category, because it can be assessed clearly. It's just that the law is not clearly explained in *shar'i* law.

Basically, giving the name of a person or product is not included in the scope of worship of *mahdloh* but belongs to the scope of the *muamalah* where everyone is given the freedom to be creative as long as it does not violate the general provisions of the Shariah. this is based on the rule:

الاصل في الاشياء الاباحة حتي يد ل الدليل علي التحريم.

As long as everything changes until there is an unlawful proposition.

It's just that the Prophet SAW gave advice to his people to give a name with a good name as he said.

Make your names better because you will be called on the Day of Resurrection with your names. (Al-Mawardi, Tafsir Al-Nukat wa Al-Uyun)

Therefore, the Prophet sallallaahu 'alayhi wa sallam once changed several names to names that really showed the nature of the person. He did this not to forbid it, but for the purpose of endeavor (to show a better choice).

Not only changing the name of the person, the Prophet Muhammad SAW changed the name Yastrib to Medina, the Prophet Muhammad did not like naming the city with the name Yathrib because it contains a bad meaning. Referring to the Al-Ain dictionary written by Imam Kholil bin Ahmad Al-Farohidi, the meaning of the word yathrib or tatrib is اللوم (slur or insult). In the Qur'an the word Tasrib is mentioned in the verse Yusuf verse 92.

قال لا تَتْرِيْبَ عَلَیْكُمْ الْیَوْمَ یَغْفِرُ اللهُ لَكُمْ وَهُوَ اَرْحَمُ الرَّاحِمِیْنَ

Qāla lā taśrība 'alaikumul-yaūm, yağfirullāhu lakum wa huwa ar-ḥamur-rāḥimīn

He said, "No blame will there be upon you today. Allah will forgive you; and He is the most merciful of the merciful." (Yusuf: 92)

While the opinion of Ibn Abbas, he said, "Its roots are in the words of a believer and his branches soar up to the sky, because that is the way a believer's charity will reach the heavens. And for bad words the khabtsah are shirk words that prevent the acceptance of good deeds." (Syaikhul Hadits M. M. A, *Fadhail A'mal*). In Atsar Al-Shohabah explained that one day Umar bin Khotthob wanted to ask someone for help, he asked the name of the person and he answered "Dzolim bin Saroq" then Umar said "are you a dzolim and your father is a thief"? And Umar did not ask for help.

According to Isma'il Haqqi "atsar is used as an argument to replace a bad name with a good name, because in a good name contains the hope contained in the meaning of the name (tafa'ul) (Ismail Haqqi, *Ruhul Bayan*). Opinion of the Fiqh Scholars of the study, about the name analogous to the words as follows:

According to Ath Thobari rahimahullah regarding the meaning of a name:

It is improper for someone to use a name with a bad name or to use a name that contains tazkiyah (establishes the sanctity of himself), and may not also use a name that contains reproach. The right name should be a name that shows a sign for someone and is not intended as the nature of nature. However, it is punishable makruh if someone named by the name directly indicates the nature of the person who is named.

At-Thobari's opinion above, Sayyid Bakri Al-Dimyati confirmed giving ugly names such as syaithon, dog and himar, as well as names that have negative connotations with their absence (purification) and their existence. (Sayyid Bakri Al-Dimyati, *I'anatu Al-Tholibin*)

The explanation above according to the Fiqh Expert that giving a negative name is makruh, which means something that is disliked by shari'a, which in fiqh terminology, the nature of the makruh is if it is done innocently and if it is left it gets a reward. Imam Ahmad narrated the hadith with the status of hasan from Ibn Abbas that "the Prophet SAW likes good names". Imam Ali Al-Qori Al-Makki understood this hadith that giving a name with a bad name is makruh or something that is not liked by the Prophet SAW. (Ali-Al-Qori Al-Makki, *Mirqot Al-Mafatih*)

Islamic economic activists will avoid something that is important because the goal of Islamic economics is not merely worldly desires but also the benefits of ukhrowi which in Islamic economic terms is called Falah. While giving a good name is the avoidance of something that is affirmed and the culprit is rewarded by Allah SWT. There needs to be a clear concept in this fatwa, understanding not may be in the context of caution (tahdzir),

alert (tanfir), frightening (tarhib) does not mean forbidding the lawful or justifying the unlawful.

Juridical Analysis of Positive Law for Negative Connotation Food Names

Halal food itself according to Government Regulations is food that does not contain elements or ingredients that are haram or prohibited for consumption by Muslims, both concerning food raw materials, food additives, auxiliary materials and other auxiliary materials including foodstuffs processed through genetic engineering processes and food irradiation, and the management of which is carried out in accordance with the provisions of Islamic religious law. (Article 1 (5) Government Regulation of the Republic of Indonesia Number 69 of 1999)

It is explained in article 10 (1) that the legalization of halal products must be included in the packaging included with the product label / brand (Article 10 (1) Government Regulation of the Republic of Indonesia Number 69 of 1999). In this article, halal products are categorized based on ingredients and processing of a food product, not to mention the halal food category based on the mention or name of the product. This is confirmed in the article explanation, food testing for halal certification on food labels, evidenced in terms of raw materials, food additives, or auxiliary materials used in producing food, but must also be proven in the production process (Explanation of Government Regulation Number 69 of 1999).

Islam teaches to always consume good food and halal. Not only in terms of materials and processing also how to get it. in terms of lahiriyah, halal ingredients have been guaranteed without illicit elements and how to process products according to Islamic rules, a bad name will affect the blessing in the food.

In article 1 paragraph (3) of Law no. 33 of 2014 explained that the halal product process is a series of activities to ensure the halal product includes the provision of materials, management, storage, packaging, distribution, sales, and product presentation. So, the indicators of product halalness are ingredients, ways of managing, storing, packaging, distributing, selling and presenting products and do not guarantee product halalness based on product names. then to check the halal product is the duty of the halal auditor, but the duty of the halal auditor in article 15 of Law no. 33 of 2014 does not explain that halal auditors conduct checks or research on names product.

In submitting an application based on article 29 paragraph (2) of Law no. 33 of 2014 one of the documents that must be completed is the name of the product, in the event that although the duties of the auditor contained in article 15 of Law no. 33 of 2014 does not check or examine the name of the product that is registered, the product name will be a document for halal certification that must be completed at the submission stage.

Then, regarding the determination of halal products in article 33 of Law No. 33 of 2014 explained that the determination of halal products was carried out by the MUI in the MUI halal fatwa session which included experts, elements of the ministry or related institutions. And the decision to determine halal products is submitted to BPJPH (Halal Product Guarantee Agency) to be the basis for the issuance of halal certificates, so the determination of halal products remains the authority of the MUI.

The urgency of label innovation on food is now used as a land for marketing product expansion. Although in fact the type of product that is commonly found, if it is packaged with a unique and attractive brand and packaging will tend to be of public interest. For example, Devil Fried Rice (name disguised), with a spicier taste than fried rice in general, as well as attractive packaging coupled with pictures supporting the theme of the food product. In general, people tend to appreciate the unique and innovative forms. According to the Decree of the Indonesian Ulema Council in the Decision of the Indonesian Ulema Council Regarding the Provisions for Writing the Product Name and Product Form with Number SK46 / Dir / LPPOM MUIDUI / 14 states the names of products that cannot be certified by MUI are as follows: a. Product names that contain the name of liquor, for example rootbeer, rhum raisin flavored ice cream, beer 0% o alcohol. b. Product names that contain the names of pigs and dogs and their derivatives, such as roast pork, fried pork,

beef bacon, hamburgers, hot dogs. c. Product names containing demon names such as rawon devil, es pocong, kuntilanak chicken noodles. d. Product names that refer to things that cause kufr and sleaze, such as Valentine chocolate, Christmas biscuits, Gong Xi Fa Cai noodles e. Product names that contain words that have erotic, vulgar and / or pornographic connotations (Indonesian Ulema Council Fatwa Regarding Provisions for Writing the Product Name and Product Form with Number. SK46 / Dir / LPPOM MUIDUI / 14).

4. Conclusions and suggestions

The need to build halal brands in society needs to be driven. Besides giving an understanding to food producers to produce halal food both outwardly and in terms of rukhiyah. Education about consumer behavior that tends to choose unique products also needs to be held. The government certainly provides extra facilities for both consumers and producers. For example, by facilitating halal certification services, while still ensuring the selectivity of halal guarantees. So that the existence of the guarantor institution for halal products is maintained with satisfying services. Thus, the producers do not hesitate in building a halal food-based business, because the service is easy and inexpensive. On the other hand, consumers continue to entrust State products, so choose local potential products. Because someday the hope that will be raised is the creation of independent, halal food, again a blessing both in physical and substantive terms.

References

- Al-Aini, Badruddin *Umdatul Qori*, (Bairut : Dar Al-Turots Al-Arobi).
- Al-Dimyati Sayyid Bakri, *I'anatu Al-Tholibin*, (Bairut : Darul Kutub Al-Ilmiyah),
- Al-Mawardi, *Tafsir Al-Nukat wa Al-Uyun*, (Maktabah Syamilah)
- A, Syaikhul Hadits M. M., *Fadhail A'mal*, (Bandung: Pustaka Ramadhan)
- Al-Qori Al-Makki, Ali, *Mirqot Al-Mafatih* (Bairut : Darul Fikr)
- Ballester, Delgado dan Munuera-Alemán (2001) dalam Jurnal *Manajemen Pemasaran*. Petra Vol. 2. No. 1. (2014)
- Fatwa Majelis Ulama Indonesia Tentang Ketentuan Penulisan Nama Produk dan Bentuk Produk dengan Nomor. SK46/Dir/LPPOM MUIDUI/14
- Ismail Haqqi, *Ruhul Bayan* (Bairut : Daru Ihya, al-Turots)
- Keller. 2014. *Manajemen Pemasaran*. Dalam Jurnal. Petra Vol. 2. No. 1
- Kontan.co.id. Dimas Andi, *Persaingan bisnis dan likuiditas saham jadi tantangan emiten kuliner*. Edisi Minggu, 18 Februari 2018 20:34 WIB diakses dari <https://www.google.co.id/amp/amp.kontan.co.id/news/persaingan-bisnis-dan-likuiditas-saham-jadi-tantangan-emiten-kuliner>. Pada Kamis 5 Desember 2019
- Liputan6.com. Maulandy Rizky Bayu Kencana. 2018, *Industri Makanan dan Minuman Bakal Tumbuh 10 Persen*. Edisi 30 Jan 2018, 16:32 WIB <https://www.google.co.id/amp/s/m.liputan6.com/amp/3243577/2018-industri-makanan-dan-minuman-bakal-tumbuh-10-persen> . Pada Kamis 5 Desember 2019
- Peraturan Pemerintah Republik Indonesia Nomor 69 tahun 1999 tentang Label dan Iklan
- Republika.com, *Al-Quran Sebut Kata Halal 30 Kali*. <https://www.republika.co.id/berita/dunia-islam/mozaik/17/01/06/ojclls313-alquran-sebut-kata-halal-30-kali>. Diakses pada Kamis 5 Desember 2019 pukul 09:18 WIB.
- Republika.com. *Kesadaran Masyarakat Indonesia Mengonsumsi Produk Halal Masih Rendah*. Edisi Selasa, 16 Februari 2016. http://m.republika.co.id/amp_version/o2m324383, Diakses pada . Pada Kamis 5 Desember 2019

Full Paper 3

MUSLIM STUDENT'S AWARENESS OF HALAL FOOD PRODUCTS SMALL MICRO-ENTERPRISES

Hamii Datur Rosydah^{1*}, Durrotun Nafisah², Hafidhotun Nabawiyah³

¹ Nutrition Department of University of Darussalam Gontor_
rosydahhamiida99@gmail.com

² Nutrition Department of University of Darussalam Gontor_
nafisahdurrotun05@gmail.com

³ Lecturer of Nutrition Department of University of Darussalam Gontor
antozora@gmail.com

Abstract

Muslim students are very influential agents in the formation of future Islamic characters. Muslim students also participate actively in society. As a Muslim majority country, its government protects people from consuming foods and drinks non-halal including Indonesian government by Halal Product Guarantee Agency (BPJPH) under supervision of the ministry of religion. In fact, there are still very few food products from the Micro small industry that owns and proposes for halal certificates. Small micro enterprises currently still do not care about their status products, although it is a help in the halal certification process. The purpose of this research is to find out how Muslim students' awareness of food products comes from micro small. The method used is a qualitative method with a descriptive approach by using interview. This study has 30 students as respondent from first until third year. The interview was conducted in one day. The results of this study have shown that 35% of Muslim students who are less aware of the importance of halal products for Muslims and 65% of muslim students aware with halal product. Some causes of less awareness towards halal certificates are cheap price, assumption that there are many halal food Indonesia because Islam as major religion and assumption of trusting the seller that their product is halal. Expected from this study can raise the awareness of Muslim students to be aware of halal products from small micro-enterprises.

Keywords: awareness, halal food, muslim students, small micro-enterprises

1. INTRODUCTION

Student is a transition from adolescence to adulthood. President Indonesia's first Ir. Soekarno once said: "Give me ten young men then I will shake the world". This shows the magnitude of the influence of youth especially student in forming the character of a country. According to the 2010 BPS stated 87.18% of Indonesia's population is Muslim, around 207,176,162 people. As a country the majority is Muslim, the government participates in protecting its people primarily Muslims from consuming non-halal food and drinks, with food and halal certified drinks by the halal product guarantee agency (BPJPH) below supervision of the Ministry of religion. This body functions as a test and certification Halal of a product. In Law Number 33 Year 2014 concerning Guarantees Halal Products (JPH) article 10 reads Halal Certificates are halal recognition a Product issued by BPJPH based on a written halal fatwa issued by MUI. From this law, each food and beverage product has the right to get a halal label.

Small industry or better known as *Home Industry* is a small business food processing which is often found in Indonesian society. However, if based on halal status, there are still many food products from small industries micro companies that do not yet have and propose halal certificates. Because micro small businesses at this time, they still don't care about the status of their products. Although the government has made it easy in the halal certification process. Halal awareness is the level of knowledge possessed by Muslim consumers to search for and consuming halal products according to Islamic law

(Shaari, JAN and Arifin, 2010). Allah has said about awareness and attention to food in the Surat Abasa verse 24:

Meaning: *Then let the man pay attention to his food.*

So, in addition to awareness of the seller, awareness is inseparable from Muslim buyers regarding halal food especially Muslim students who have an educated background. Therefore, researchers are interested in researching about "Muslim Student's Awareness of Small Micro-Halal Food Products Enterprises". The purpose of this study is to find out how awareness is Muslim students will be halal food products that come from small micro-enterprises. It is hoped that this research can increase Muslim students' awareness for halal products from small micro-businesses and provide information for the next researchers to examine this problem more specifically.

2. METHODS

The method used in this study was a qualitative method with a descriptive approach. Fitriani (2015); Moleong (2005); Bogdan and Taylor (1975) suggest the qualitative method as a research procedure that produces descriptive data in the form of words written or verbal words from people and observable behavior. This approach directed holistically and individually. In collecting data, there are two forms of data: primary and secondary. Primary data was obtained through interview techniques and direct observation. This study uses 30 students as respondents from the first year to the third year. This research held at Darussalam Gontor Mantingan University, Ngawi, East Java. The interview is carried out in one day. Whereas for secondary data were obtained from reviewing several books, scientific magazines, internet, and journals both national and international relations with the problem.

3. RESULTS AND DISCUSSION

The awareness of Muslim students of halal product can be seen in Figure 1.

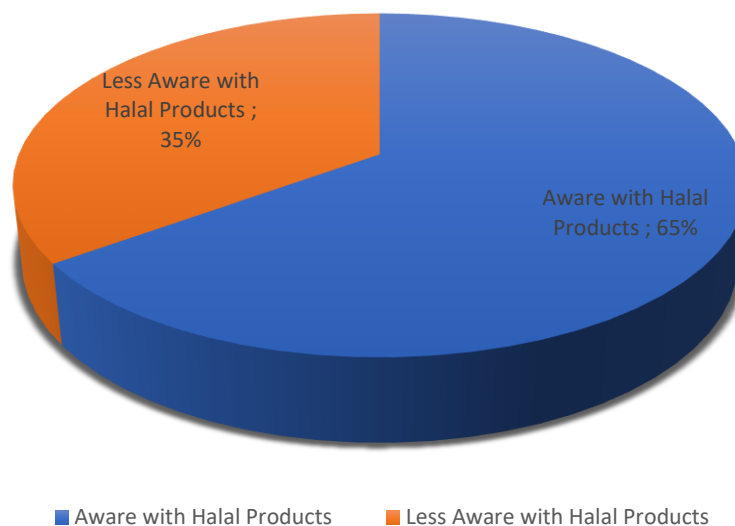


Figure 1. Diagram of Muslim student awareness of halal products

Figure 1 illustrates that 65% of Muslim female students are aware of halal food sold by the micro industry. Awareness in food selection is one factor that must be considered by humans because food can affect growth, development and maintain a healthy body to get the portion according to your needs. In *maqosidus-sharia* there are 5 things should be maintained, namely: *diin*, *nafs*, *Aqly*, *Nasal* and *Maal*. Food selection awareness to be one of self-behavior in keeping *diin*, *nafs* and *aqly*. Orders for Halal food has been written in the Al-Quran verse 172-173:

"O for who have believe, eat among our good fortune give it to you and give thanks to Allah, if it is really to your worship. Surely Allah only forbids you carcasses, blood, pork, and animals that (when chosen) are called (names) other than Allah. But whoever is forced (to eat it) while he is not wants it and does not (also) exceed the limits, then there is no sin for him. Truly Allah is Forgiving, Most Merciful".

According to Yunuz M., Rashid W., Ariffin M. (2014), awareness of halal product of Muslim has a significant effect on consumer buying interest of a product. Islamic law teaches that a Muslim's consciousness is marked with knowledge of the process of slaughtering, food packaging, and food hygiene. Subsequently, it produces a halal awareness in the election of food products that are the core of consumer decisions. In accordance to the research conducted by Setyaningsih and Marwansyah (2019) which stated that halal certification and halal awareness through interest in consumer decisions there is a halal logo inside product packaging is important.

This is consistent with the statement of Student 1: *" if you buy something first look at the situation for him, the cleanliness, then what are you busy with or not. Usually see if there is a halal label or not. "*

As well as student 2: *Certainly, see the merchants, processing and the ones most important cleanliness of the processing environment.*

However, there are still female muslims students who do not care about halal products. This is proven by the interview results with several female students who state that food selection was depended on whether or not crowded buyers, cheap prices, good taste, interesting appearance of food products and assume that Indonesia is a country that is the majority of his religion is Islam so that the goods sold must be halal. According to one of the Student statements 3: *the important thing is crowded, cheap, and tasty. I usually look around for a lot to come eat reliably. Join friends who recommend.*

4. CONCLUSION

The results of this study indicate that 65% of female students are still conscious the importance of halal products for Muslims, so they give more attention to halal products. However, 35% of Muslim students are still less aware the importance of halal products for Muslims. Several factors are lacking awareness of Halal Certificates on small industrial processed products is a price cheap, crowded, attractive food appearance, good taste, assuming that there is a lot of halal food in Indonesia because of Islam as the main religion and assumption trust the seller that their product is halal. Suggestions for students to be always as certain whether food products to be consumed have met halal conditions so that it can provide a sense of security, avoid the sins of the world and the here after.

5. ACKNOWLEDGEMENT

Thank you to the Rector of University of Darussalam Gontor for giving us the opportunity to continue our studies at the college level. We also thank the lecturers who patiently and tirelessly guided us to become better personalities. For Institute for Halal Industry & System (IHIS) Gadjah Mada University, thank you for giving us the opportunity to add experience by presenting our paper at the 3rd International Symposium Toward Halal Global event. We hope that this paper can be useful and able to contribute ideas and thoughts to the progress of science, especially in the halal studies in Indonesia.

REFERENCES

- Al Quran dan Terjemahnya Departemen Agama RI dengan Transliterasi Arab-Latin (cetakan II). 2016. Almahira. Jakarta
- BPS 2010 diakses di website: <https://www.bps.go.id>
- Fitriani Y.H. 2015. Pola Perilaku Konsumsi Islami Mahasiswa Muslim Fakultas Ekonomi Dan Bisnis Universitas Airlangga Ditinjau Dari Tingkat Religiusitas. JESTT Vol. 2 No. 7 Juli 2015.

- Setyaningsih E.D, Marwansyah S. 2019. The Effect of Halal Certification and Halal Awareness through Interest in Decisions on Buying Halal Food Products. *Syi'ar Iqtishadi*. Vol. 3 No. 1, Mei 2019
- Shaari, J. A. N. And Arifin, N. S. (2010). Dimensi of Halal Purchase Intention: A Preliminary Study. *International Review of Business Research Papers* , 6 (4), 444– 456.
- Undang-undang Nomor 33 Tahun 2014 tentang Jaminan Produk Halal (JPH)
- Yunuz M., Rashid W., Ariffin M., & R. M. (2014). Muslim"s Purchase Intention Towards Non-Muslim"s Halal Packaged Food Manufacturer. *Procedia. Social And Behavioral Sciences*. , 145 – 154.

Full Paper 4

SOCIAL AWARENESS IN CHECKING HALAL LABELS BEFORE ORDERING FOOD ONLINE

Durrotun Nafisah ^{1)*}, Hamii Datur Rasydah ²⁾, Hafidhotun Nabawiyah ³⁾

¹⁾Nutrition Department of University of Darussalam Gontor, email:
nafisahdurrotun05@gmail.com

²⁾ Nutrition Department of University of Darussalam Gontor, email:
rosydahhamiida99@gmail.com

³⁾ Lecture of Nutrition Department of University of Darussalam Gontor, email:
antozora@gmail.com

*corresponding author: nafisahdurrotun05@gmail.com

ABSTRACT

Nowadays, smartphones are something that cannot be separated from daily life of people worldwide including Indonesia. This is due to the many features of the mobile phone that facilitate daily activities such as ordering food through online application. One of smartphone application for ordering food is *Gofood* powered by *Gojek*. *Gofood* partners are spread over 300 units in Indonesia. However, some of these *Gofood* partners have not been certified as halal from halal product guarantee agency (*BPJPH*) Indonesia, and the public does not care much about the halal status of the place or menu ordered. The purpose of this study was to determine public awareness in checking halal labels before ordering food via online and public knowledge of the halal status of places and menus ordered via online. The research method used in this study was qualitative descriptive design by interviewing of 10 respondents and literatures for having *Gofood* application information. The interview was held for one day. The results of this study showed 80% of respondents claimed not to pay attention to the halal label before ordering food via online. Several of the reasons are paying attention only towards ingredients or food types, public assumption of muslim majority in Indonesia, it means that most of food also halal, miss-leading perception towards the law regarding the guarantee of halal products. This shows that public awareness of halal label checking before ordering food online is still low.

Keywords: Awareness, Halal, Ordering Food Online

1. INTRODUCTION

Nowadays, smartphones are something that cannot be separated from daily life of people worldwide including Indonesia. In the current industrial revolution 4.0 era, the development of information technology ranging from smartphones to social media has changed people's lifestyles to the most fundamental point. With technological advances that have facilitated the work of the community both directly and indirectly, it has changed the lifestyle of the people. Changes in lifestyle encourage today's modern society to become a society that tends to be consumptive, this is because people need convenience in all aspects of life with more practical principles, so as to shorten time and not interfere with work.

In today's sophisticated era, digital or online businesses are starting to grow, including food ordering businesses where we can order food using applications available on smartphones. Order food can be done anywhere and anytime, without having to come to the store directly. One of the online-based services that can be utilized to order food is *Gofood*. *Gofood* itself is one form of services contained in the *GoJek* application services. *Gofood* partners are spread over 300 units in Indonesia. However, some of these *Gofood* partners have not been certified as halal from halal product guarantee agency (*BPJPH*) Indonesia, and the public does not care much about the halal status of the place or menu ordered.

Indonesia is one of the countries with the largest Muslim majority population in the world, amounting to 207.176.162 people. Food products are important for Muslims. Every Muslim is obliged to consume halal food. The Islamic Shari'a has approved the way to fulfill human needs as stated in the Al-Qur'an surah Al Maidah ayat 88. In the Qur'an approving halal foods are all types of food, including those specifically offered as haram that are available or that can be trusted by Islam as added in the Qur'an surah Al Maidah verse 3.

Halal certification is a guarantee of security for Muslims to be able to consume a product as evidenced by the inclusion of the halal logo on the product packaging (Aziz, et al., 2013). Based on statistical data, Rahma and Fatmawati (2017) explained that in 2011 LPPOM MUI issued 4.869 halal certificates from 4.325 companies for 39.002 products. This number continues to increase until 2018, there are 17.398 certificates issued for 204.222 products from 11.249 companies.

The development of the economy in general and particularly in the field of industry and national trade has produced a variety of goods and or services that can be consumed. In addition, globalization and free trade supported by advances in telecommunications and information technology have expanded the space for the flow of transactions of goods and or services across national borders, so that the goods and or services offered vary both in foreign and domestic production. Such conditions on the one hand have benefits for consumers because consumers' needs for the desired goods and services can be met and increasingly wide-open freedom to choose various types of quality goods and or services in accordance with the wishes and abilities of consumers. On the other hand, the conditions and phenomena mentioned above can cause the position of business actors and consumers to become unbalanced and consumers in a weak position. Consumers become the object of business activities to reap maximum profits by businesses through promotional tips, how to sell and the application of standard agreements that harm consumers.

The progress of science and technology in the field of food today causes increasingly complex to determine what is halal and what is haram. Processed food products are increasingly circulating and also require halal determination, not only from raw materials but also including the supply of materials, processing, storage, packaging, distribution, sales, and presentation of products. Therefore, sufficient knowledge is needed about the guidelines or standards of Islamic law to determine the halal and illegality of a product.

The state guarantees every religious adherent to worship and practice the teachings of his religion, especially for Muslims, a halal guarantee is required for all food products, beverages, medicines, cosmetics and used goods that are traded and of course consumed by many Muslims. The halal guarantee is not only stated by the producer, but must go through an objective inspection and assessment process by the halal examining body. Information that the product system has been declared halal is by granting halal certification while products that are halal for consumers are informed of their halal status with halal marks on the product packaging.

Halal awareness is the level of understanding of Muslims in knowing problems associated with the concept of halal. Such knowledge includes understanding what products may be consumed and how the production process is. Halal awareness of a product according to Islamic halal standards can be an absolute requirement for consumers and producers to consume and produce food (Shaari and Arifin 2010; Ahmad et al 2013). According to the research of Golnaz et al. (2010), halal awareness of a product is determined by the positive attitude of the community. A positive attitude is a positive perception about halal awareness. That is, parties involved in product transactions must take positive action on halal products.

2. METHODS

The approach used in this research is a qualitative descriptive approach, that is to determine public awareness in checking halal labels before ordering food via online and public knowledge of the halal status of places and menus ordered via online. This research was conducted at University of Darussalam Gontor, Sambirejo, Mantingan, Ngawi, East

Java with a sample of 10 University of Darussalam Gontor students who had ordered food via online through the *Gofood* application that was spread across all existing study programs using simple random sampling technique.

3. RESULTS AND DISCUSSION

All respondents from this study were University of Darussalam Gontor students aged 18-23 years who often order food online. Respondents were asked about several factors that influenced her when buying food via online and whether she checked the halal label of the restaurant ordered. The factors that influence respondents in ordering food online are available menus, prices, distances, and ingredients for making menus.

Antonym from halal is haram. All types of food are halal, except those specifically mentioned in the Qur'an as haram, which are forbidden or violate Islamic law. What is meant by haram food as explained in the Al-Qur'an surah Al Maidah ayat 3 includes carcasses, blood, pork, meat of animals slaughtered on behalf of other than Allah, who suffocated, who was beaten, who fell, who was horned, and pounced on wild animals, except for those you have slaughtered, and those slaughtered for idols.

As many as 8 out of 10 respondents stated that they only looked at the raw material for making a menu. That is, if the menu ordered is made from halal raw materials then they consider the product halal. In fact, halal in the global sense is not only oriented to the main raw material for making a menu, but also the process of storage, processing, and delivery to food to consumers.

Indonesia as a rule of law with a Muslim majority population and being the largest Muslim population in the world, it is the duty of the government to truly protect the interests of consumers. One of the guarantees for the protection of Muslim consumers' rights is the guarantee of halal products that they consume from goods or services. Some policies that realize the protection of Muslim consumers are that the Indonesian government has issued Law No. 8 of 1999 concerning consumer protection, and law number 33 of 2014 concerning halal product guarantees.

This makes most respondents believe that this government regulation is able to control an effort to produce halal food, without giving halal label to food. The reason as a country with a Muslim majority population makes consumers think that producers must also process their products according to the prevailing rules. Respondents concluded based on personal assumptions that the product they eat, as long as it is not based on haram product is halal.

4. CONCLUSION

This study showed 80% of respondents claimed not to pay attention to the halal label before ordering food via online. Several of the reasons are paying attention only towards ingredients or food types, public assumption of muslim majority in Indonesia, it means that most of food also halal, misleading perception towards the law regarding the guarantee of halal products. This shows that public awareness of halal label checking before ordering food online is still low.

5. ACKNOWLEDGEMENT

Thank you to the Rector of University of Darussalam Gontor for giving us the opportunity to continue our studies at the college level. We also don't forget to thank the lecturers who patiently and tirelessly guided us to become better personalities. For Institute for Halal Industry & System (IHIS) Gadjah Mada University, thank you for giving us the opportunity to add experience by presenting our paper at the 3rd International Symposium Toward Halal Global event. We hope that this paper can be useful and able to contribute ideas and thoughts to the progress of science, especially in the halal studies in Indonesia.

REFERENCES

- Ahmad, Abaidah, and Yahya. 2013. A Study on Halal Food Awareness Among Muslim Customers in Klang Valley. In: *4th International Conference on Business and Economic Research Proceeding*, Bandung
- Ambali, A.R., and Bakar, A.N. 2012. People's Awareness on Halal Foods and Products: Potential Issues for Policy-Makers. *Procedia-Social and Behavioral Sciences* 121(2014): 3-25
- Aziz, A., Yuhanis and Chok, N.V. 2013. The Role of Halal Awareness, Halal Certification, and Marketing Components in Determining Halal Purchase Intention Among Non-Muslims in Malaysia: A Structural Equation Modeling Approach. *Journal of International Food & Agribusiness Marketing* 25(1): 345-355
- Fathimah, E., and Zailia, S. 2017. Jaminan Produk Halal Bagi Perlindungan Konsumen Telaah RUUJPH (Rancangan Undang-Undang Jaminan Produk Halal) Dalam Perspektif Hukum Ekonomi Islam. *Jurnal Muamalah* 3(1): 73-86
- Golnaz R. , Zainalabidin M., Mad Nasir S., and Eddie Chiew FC. 2010. Non-Muslim's Awareness Of Halal Principles And Related Food Products In Malaysia, *International Food Research Journal* 17: 667-674
- Hidayatullah, S., Waris, A., Devianti, R.C., Sari, S.R., Wibowo, I.A., Made., P.P.W. 2018. Perilaku Generasi Milenial dalam Menggunakan Aplikasi Go-Food. *Jurnal Manajemen & Kewirausahaan* 6(2): 240-249
- Indraswari, A. And Kusuma, H. 2018. Analisa Pemanfaatan Aplikasi Go-Food Bagi Pendapatan Pemilik Usaha Rumah Makan Di Kelurahan Sawojajar Kota Malang. *Jurnal Ilmu Ekonomi* 2(1): 63-73
- Izzuddin, A. 2018. The Effect Of Halal Labels, Halal Awareness And Food Materials On Interest To Buy Culinary Foods. *Jurnal Penelitian Ipteks* 3(2): 100-114
- Krisharyanto, E., Retnowati, E., and Hastuti, N.T. 2019. Regulation And Provisions For Supervision Of Halal Products In Indonesia. *Journal of Legal, Ethical, and Regulatory Issues* 22(1): 1-10
- Listyoningrum, A., and Albari. 2012. Analisis Minat Beli Konsumen Muslim Terhadap Produk Yang Tidak Diperpanjang Sertifikat Halalnya. *Jurnal Ekonomi & Keuangan Islam* 2(1): 40-51
- Luthfiah, E. 2019. Analisis Faktor Yang Mempengaruhi Keputusan Menggunakan Aplikasi Go-Jek Fitur Go-Food (Studi Kasus Pada Mahasiswa Jurusan Pendidikan Ilmu Pengetahuan Sosial Fakultas Ilmu Tarbiyah Dan Keguruan Universitas Islam Negeri Syarif Hidayatullah Jakarta). *Skripsi*. Program Studi Pendidikan Ilmu Pengetahuan Sosial Fakultas Ilmu Tarbiyah Dan Keguruan UIN Syarif Hidayatullah Jakarta
- Nofianti, K. A., and Rofiqoh, S.N.I. 2019. The Halal Awareness And Halal Labels: Do They Determine Purchase Intention? (Study On Sme's Business Practitioners In Gresik). *Journal of Halal Product and Research* 2(1): 16-17
- Rahma P., and Fatmawati I. 2017. Pengaruh Keyakinan Religius, Peran Sertifikasi Halal, Paparan Informasi, dan Alasan Kesehatan Terhadap Kesadaran Masyarakat Pada Produk Makanan Halal. *Jurnal Manajemen Bisnis* 8(1): 210-222
- Shaari J., and Arifin M., 2010. Dimension of Halal Purchase Intention; A Preliminary Study, *International Review of Business Research Papers* 6(4): 444 – 456
- Sodiman. 2018. Sertifikasi Halal Produk Makanan Sebagai Perlindungan Konsumen Muslim; Studi di Lembaga Pengkajian Pangan Obat-Obatan dan Kosmetika-Majelis Ulama Indonesia Sulawesi Tenggara. *Li Falah, Jurnal Studi Ekonomi dan Bisnis Islam* 3(1): 85-99

Full Paper 5

INITIAL ANALYSIS OF PIGSKIN ADULTERATION ON LEATHER PRODUCTS USING FTIR SPECTROSCOPY

Ragil Yuliatmo^{1*}, Wisnu Pambudi², Thoyib Rahman Hakim¹, R.L.M.S. Ari Wibowo¹, Dwi Wulandari¹, and Yuny Erwanto³

¹) Department of Leather Processing Technology, Politeknik ATK Yogyakarta, Yogyakarta, Indonesia email: info@atk.ac.id

²) Department of Rubber and Plastic Processing Technology, Politeknik ATK Yogyakarta, Yogyakarta, Indonesia email: info@atk.ac.id

³) Department of Animal Product Technology, Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta, Indonesia, email: fapet@ugm.ac.id

* Corresponding Author: E-mail: ragilyuliatmo@kemenperin.go.id

ABSTRACT

Leather products are part of daily fashion in Indonesia, such as bags, shoes, jackets, gloves, etc. Adulteration of raw materials for leather products can occur if there are no labels on these products. The existence of certain religion / belief that prohibit adherents from using certain materials, such as pork skin. Detection of adulteration has been carried out in various ways such as by PCR, GC-MS, HPLC, and FTIR methods. The FTIR method is known as an easy and inexpensive method to use. The objective of this study was to evaluate the capability of FTIR spectroscopy for lipid identification and initial analysis to detection of pig skin on leather products. Lipid extracts obtained from the various skin were scanned using FTIR spectrophotometer at 4000–500 cm^{-1} . It resulted spectral differences in several wavenumber (2951-3258 cm^{-1} and 1046-1428 cm^{-1}). At wavenumber 3020-2980 cm^{-1} there is a peak only in lard. The same result is also found in lipid spectra from leather products extraction. The FTIR spectroscopy is able to differentiate pigskin from goat and sheep skins through specific peaks in infrared spectra. This can be used as an initial analysis on determining the existence of skin adulteration in leather products. This study is prospective to be continued by chemometrics as a quantitative analysis

Keywords: Adulteration, FTIR Spectroscopy, Initial Analysis, Leather Products, Pigskin

1. INTRODUCTION

Determination of authentication and detection of adulteration of material products is one of the main issues in the industrial field (Marikkar et al., 1995; Al Jowder et al., 1997). One of the risky products to be falsified is leather products. Detection of product adulteration is important for consumer protection and also for certain religious reasons. In some countries, producers and sellers of leather products choose to use pigskin as a substitute for other skins, because prices are cheap and easy to obtain (Aida et al., 2005). The importance of labeling is influenced by the existence of certain religions / beliefs that prohibit adherents from using certain ingredients, such as the prohibition of the use of the element of pigs for Muslim and Jewish communities (Nakyisinge et al., 2012). Recently, the inclusion of material of animal origin is often not displayed clearly so scientific proof is needed to find out.

Various techniques or methods have been used for pig elemental analysis, such as Gas Chromatography-Mass Spectroscopy (Nizar et al., 2013), Liquid Chromatography-Mass Spectroscopy (LC-MS) (Czerwenka et al., 2010), Gas Chromatography Tandem Mass Spectrometry (GC-MS) (Oliveira et al., 2009), Differential Scanning Calorimetric (DSC) (Marina et al., 2009; Nurrulhidayah et al., 2015), High Performance Liquid Chromatography (HPLC) (Saeed et al., 1989; Marikkar et al., 2005), Electronic Nose

(Nurjuliana et al., 2011), and DNA-based methods using the polymerase chain reaction (PCR) method (Che Man et al., 2011; Erwanto et al., 2014; Maryam et al., 2015). Some methods that have been done have weaknesses because it requires a long time and expensive costs in detecting adulteration in food. Therefore, routine methods that are fast, accurate, inexpensive, and easy to use are needed. One ideal method to be used in laboratories is Fourier Transform Infrared (FTIR) spectroscopy. Application of FTIR for initial analysis on leather products is appropriate to be studied.

2. METHODS

Lipid extraction

Lipid extraction using Soxhlet method was performed according to AOAC (1995). Raw leather and leather products in the form of leather are obtained from the market and leather distributors. A-50.0 g of samples was wrapped with filter paper and placed into the Soxhlet apparatus. A-250 mL of n-hexane was used as extracting solvent. The extraction was performed for 8 h at 70°C (± 50 cycles). The lipid extract was added with anhydrous sodium sulfate, mixed, filtered by filter paper, and then evaporated until the solvent was completely removed. The resulting lipid fraction is then used for FTIR spectral measurements.

FTIR spectral measurements

The lipids obtained by lipid extraction were placed in attenuated total reflectance (ATR) crystal at ambient temperature (25°C). The spectrum was acquired in the wavenumbers region of 450–4000 cm^{-1} using FTIR spectrophotometer (Perkin-Elmer, Singapore).

Data analysis

The spectrum from FTIR spectral measurement results were analyzed descriptively by comparing of several skin species from raw skin and leather

3. RESULTS AND DISCUSSION

Lipid extraction

Raw material skin and leather have extracted by sokhlet method, and the solvent used by n-hexane. N-hexane solvent is very suitable for use in the extraction of fat on the skin. This is because n-hexane is non-polar, just like fat which is also non-polar and n-hexane is easily evaporated because it has a low boiling point of 69°C (Erwanto et al, 2016). The extraction of fat from all types of species produced yellowish and thick oil, but specifically in sheep skin fat produces oil that is easily frozen at room temperature, while others do not.

FTIR Analysis of fresh skin lipid

The FTIR spectra of lipid obtained from four species skin have similar profiles. Figure 1 showed lipid spectra of pig, goat, sheep, and cattle skin lipid. Infrared spectra is read at 4000-550 cm^{-1} , which is the middle region. Many molecules have a strong absorbance in the middle infrared region. Many types of samples including solids, liquids, gases, semisolids, powders, polymers, organic, inorganic, biological substances, pure substances, and mixtures can be measured in the middle region (Smith, 2011).

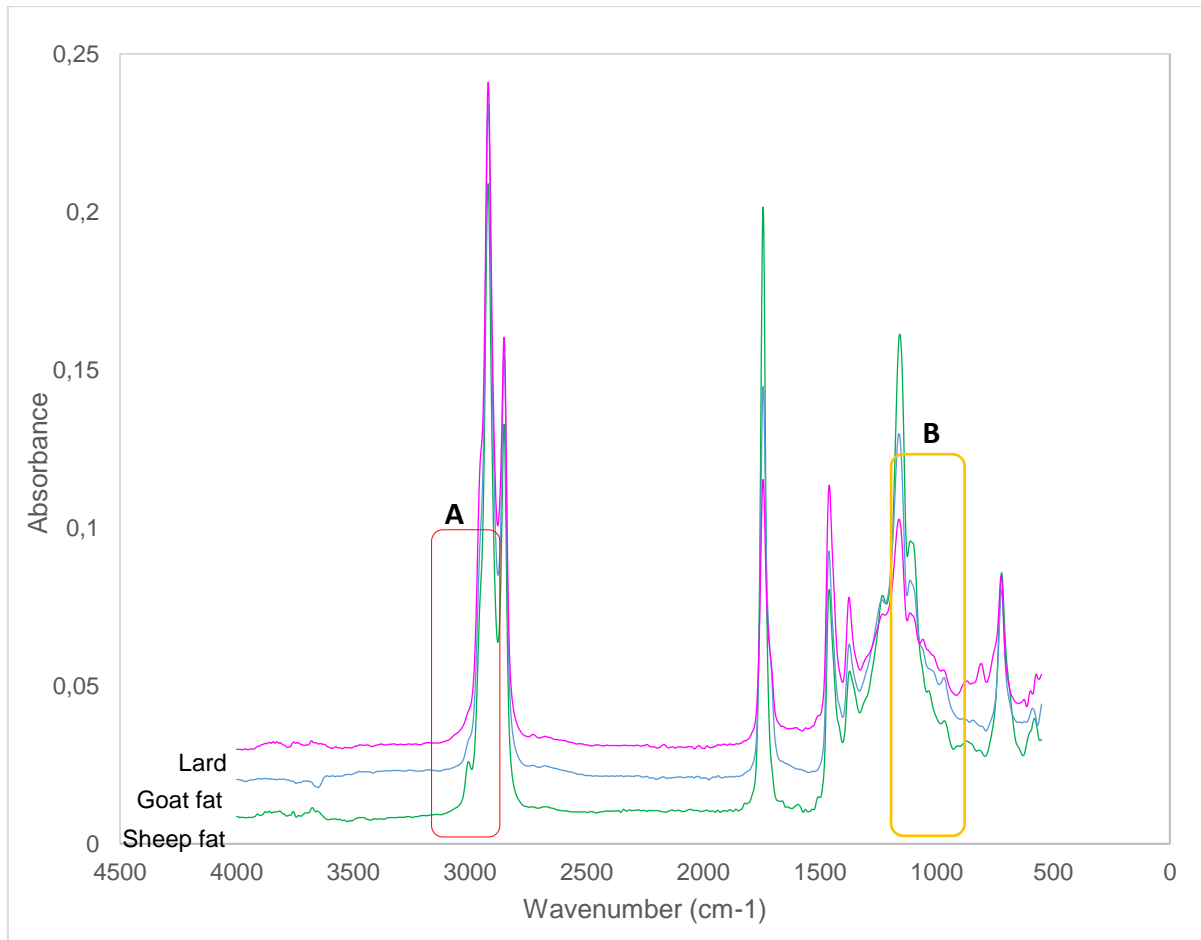


Figure 1. FTIR spectra of the lipid extracted from pig, goat, sheep, and cattle skin.

The results showed at a glance that there is no difference in the peak point in each fat, but it observed in more detail, there are some different peak point in the absorption of functional groups. There are at least 2 different spectra between each of the sources $2951\text{-}3258\text{ cm}^{-1}$ (a) and $1046\text{-}1428\text{ cm}^{-1}$ (b).

FTIR Analysis of lipid from leather products

Figure 2 showed that the spectra of three leather products have characters that are almost the same as the spectra of raw skin.

Goat fat

Sheep fat

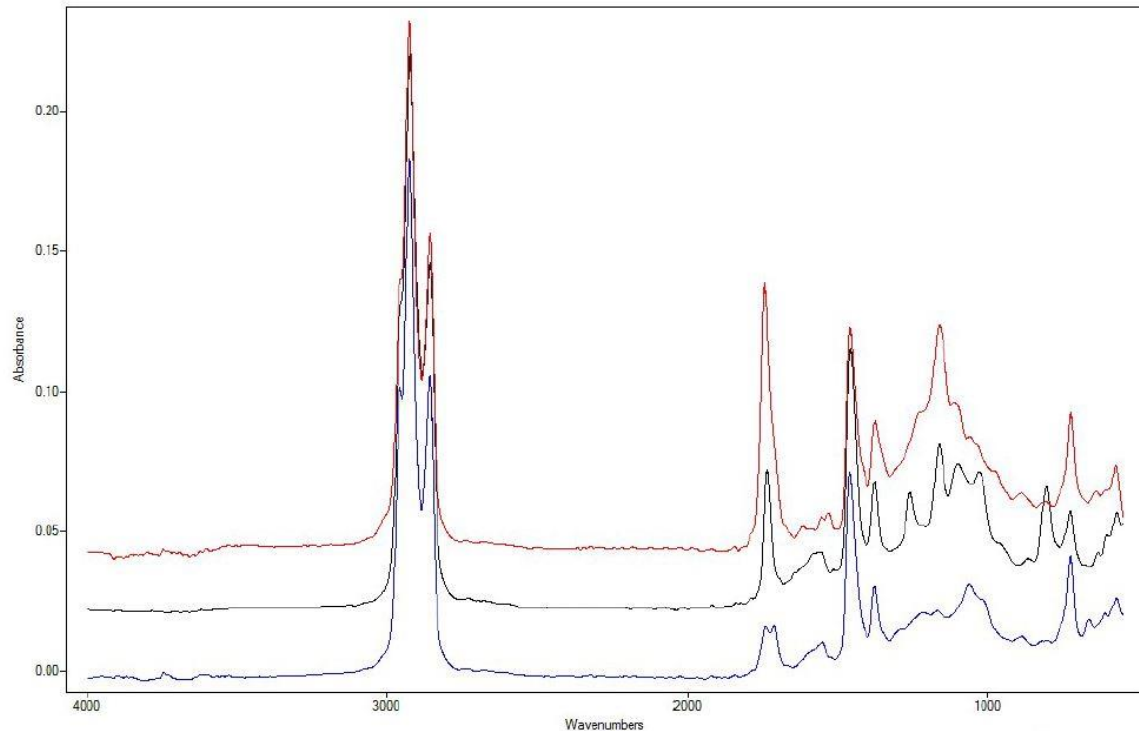


Figure 2. FTIR spectra of the lipid extracted from pig, goat, and sheep leather

Based on the results in Figure 2, wavenumber of the spectra is enlarged to be in the range of 3000-2800 cm^{-1} . The magnification of the area is shown in Figure 3. In that range, there is a peak in the spectra of pig skin leather lipid, while other types of leather do not have peaks in the wavenumber, this is also found in the raw skin spectra.

FTIR Analysis of lipid from commercial fatliquoring agent

In softy leather, as in leather products in this study, the addition of a fatliquor agent will improve the leather quality. Fatliquoring used fatliquor agent which is generally derived from the fat element, so that it can affect the spectra on crust skin (Covington, 2009). Fatliquoring is one of the important stages in the final process of tanning the skin so that it gets the desired leather character, such as the soft character on the glove or the medium hard on lining or upper shoes (Zarlok et al., 2014). This is thought to affect the fat spectra on the leather.

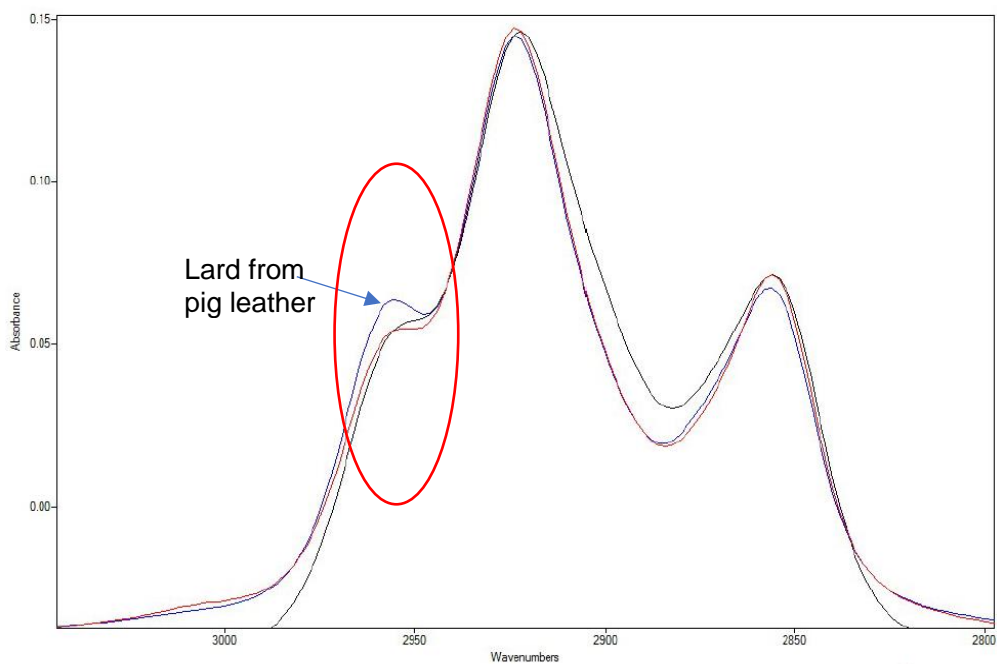


Figure 3. The enlarged FTIR spectra at wavenumber regions 3000-2800 cm^{-1}

Three types of fatliquoring agents or commercial fatliquors have been analyzed by FTIR in Figure 4. In the range of wavenumber 3700-3000 cm^{-1} there is a peak which showed the group H = O. This can be interpreted that the fatliquor still contains water (H_2O), while the main source of fatliquor is fat, so it is suspected that the three fatliquors contain surfactants that can bind fat and also water at the same time.

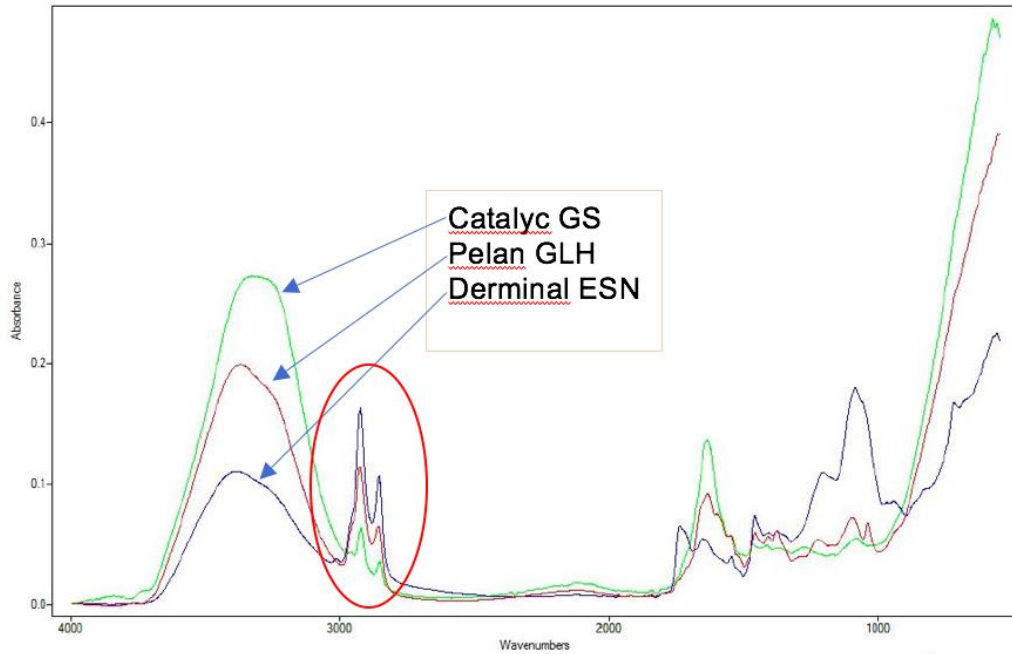


Figure 4. FTIR spectra of the lipid extracted from fatliquoring agent (Catalyc GS, Dermal ESN, dan Pelan GLH)

In wavenumber 300-2800 cm^{-1} there is a peak which has almost the same character in the leather fat spectra. Figure 5 showed the magnification of the peak of the fat spectra. Based on these results it was found that the wavenumber had similarities with the spectra of goat and sheep crust skin although the absorbance of fatliquor was relatively higher, but did not have the same characteristics as pig leather.

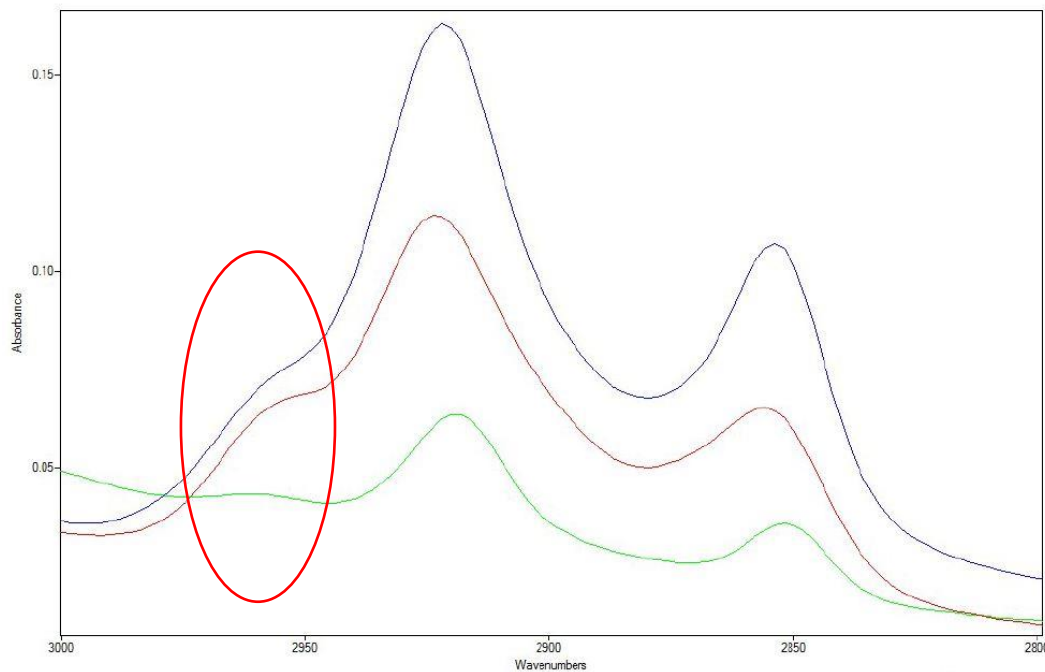


Figure 5. The enlarged FTIR spectra of commercial fatliquoring agents at wavenumber regions 3000-2800 cm^{-1} .

4. CONCLUSION

Lipid from skin extracts tested by FTIR have produced spectral differences in several wavenumber ($2951\text{-}3258\text{ cm}^{-1}$ and $1046\text{-}1428\text{ cm}^{-1}$). At wavenumber $3020\text{-}2980\text{ cm}^{-1}$ there is a peak only in lard. The same thing is also found in lipid spectra from leather products extraction. The addition of fatliquor did not affect the specificity of pig skin rind spectra. The FTIR spectroscopy is able to differentiate pigskin from goat and sheep skins through specific peaks in infrared spectra. This can be used as an initial analysis on determining the existence of skin adulteration in leather products. This study is prospective to be continued by chemometrics as a quantitative analysis

5. ACKNOWLEDGEMENT

The authors would like to thank the Research and Community Service Unit in Politeknik ATK Yogyakarta for financial support via Research Project 2019

REFERENCES

- Aida, A.A., Y.B.C. Man, C.M.V.L. Wong, A.R. Raha and R. Son, 2005. Analysis of raw meats and fats of pigs using polymerase chain reaction for Halal authentication. *Meat Sci.*, 69: 47-52.
- Al-Jowder, O. Kemsley, E.K. Wilson, R.H. 1997. Mid-infrared spectroscopy and authenticity problems in selected meats: a feasibility study. *Food Chem.*, 59, 195-201.
- AOAC (Association of Official Analytical Chemists). 1995. *Official Methods of Analysis*. AOAC International, Gaithersburg, MD. 16th Edition
- Covington, D. 2009. *Tanning Chemistry: The Science of Leather*. The Royal Society of Chemistry. Cambridge, UK.
- Czerwenka, C., L. Muller dan W. Lindner. 2010. Detection of the adulteration of water buffalo milk and mozzarella with cow's milk by liquid chromatography-mass spectrometry analysis of β -lactoglobulin variants. *Food Chem.*, 122: 901-908
- Che Man, Y.B. Rohman, A. Mansor, T.S.T. 2011. Differentiation of lard from other edible oils by means of Fourier transform infrared spectroscopy and chemometrics. *J Amer Oil Chemists' Soc.*, 88,187–192.
- Erwanto, Y. Abidin, M.Z. Muslim, E.Y.P. Sugiyono, Rohman. 2014. A. Identification of pork contamination in meatballs of Indonesia local market using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) analysis. *Asian Aus. J. Anim Sci*, 27: 1487-1492.
- Erwanto, Y. A.T. Muttaqien, Sugiyono, Sismindari, A. Rohmanet. 2016. Use of Fourier Transform Infrared (FTIR) Spectroscopy and Chemometrics for Analysis of Lard Adulteration in "Rambak" Crackers. *International J Food Properties*. Taylor & Francis, 19(12), pp. 2718–2725. doi: 10.1080/10942912.2016.1143839
- Marikkar, J.M.N.; Ghazali, H.M.; Che Man, Y.B.; Peiris, T.S.G.; Lai, O.M. 2005. Distinguishing lard from other animal fats in admixtures of some vegetable oils using liquid chromatographic data coupled with multivariate data analysis. *Food Chem.*, 91, 5–14.
- Marina, A.M.; Che Man, Y.B.; Nazimah, S.A.H.; and Ismail, A. 2009. Monitoring the adulteration of virgin coconut oil by selected vegetable oils using differential scanning calorimetry. *J. Food Lipids*, 16:50–61
- Maryam, S.; Sismindari; Raharjo, T.J.; Sudjadi; Rohman, A. 2005. Analysis of porcine contamination in dendeng using mitochondrial D-loop 686 and cyt B gene primers by real time polymerase chain reaction.
- Nakyinsige, K., Man, Y. B. C., & Sazili, A. Q. (2012). Halal authenticity issues in meat and meat products. *Meat Sci.*, 91(3), 207–214. doi:10.1016/j.meatsci.2012.02.015.
- Nizar, N.N.A.; Marikkar, J.M.N.; Hashim, D.M. 2013. Differentiation of lard, chicken fat, beef fat and mutton fat by GCMS and EA-IRMS techniques. *J Oleo Sci.*, 62, 459-464.

- Nurjuliana, M.; Che Man, Y. B.; Mat Hashim D. 2011. Analysis of lard's aroma by an electronic nose for rapid halal authentication. *J Amer Oil Chemists' Soc.*, 88, 75 – 82.
- Nurrulhidayah, A.F.; Arieff, S.R.; Rohman, A.; Amin, I.; Shuhaimi, M.; Khatib, A. 2015. Detection of butter adulteration with lard using differential scanning calorimetry. *Int. Food Res. J.*, 22, 832-839
- Oliveira, R.C.S., L.S. Oliveira, A.S. Franca and R. Augusti, 2009. Evaluation of the potential of SPME-GC-MS and chemometrics to detect adulteration of ground roasted coffee with roasted barley. *J. Food Compos. Anal.*, 22: 257-261.
- Saeed, T.; Ali, S.G.; Rahman, H.A.; Sawaya, W.N. 1989. Detection of pork and lard as adulterants in processed meat: liquid chromatographic analysis of derivatized triglycerides. *Journal of the Assoc. Official Anal. Chem.*, 72, 921 – 925.
- Smith, B.C. 2011. *Fundamentals of Fourier Transform Infrared Spectroscopy*. CRC Press, Florida, United States.
- Zarłok, J., K. Śmiechowski, K. Mucha, A. Tęcza. 2014. Research on application of flax and soya oil for leather fatliquoring. *J.Cleaner Prod.* 65: 583-589.

List of Participants

No	Full Name	Afiliation	Email
1	Nurul Jannah, M.Pharm.Sci., Apt.	Farmasi Universitas PGRI Yogyakarta	nuruljannah4869@gmail.com
2	Anis Febri Nilansari, M.Pharm.Sci., Apt.	UNIVERSITAS PGRI YOGYAKARTA	anis@upy.ac.id
3	Aviria Ermamilia	Gizi Kesehatan FK-KMK UGM	aviria.ermamilia@mail.ugm.ac.id
4	Ihsanul Arief	Akademi Farmasi Yarsi Pontianak	ihsanul.arief@gmail.com
5	Cici Darsih, M.Sc.	BPTBA LIPI	cici.darsih@gmail.com
6	Anjar Windarsih, M.Pharm.Sci.	Lembaga Ilmu Pengetahuan Indonesia	anjarwindarsih2@gmail.com
7	Ahmad Iskandar Setiyawan, M.Sc.	BPTBA LIPI	ahmd.setiyawan@gmail.com
8	Ria Suryani, M.Sc	Balai Penelitian Teknologi Bahan Alam LIPI	riasuryani786@gmail.com
9	Ervika Rahayu Novita Herawati, M.Sc.	BPTBA LIPI	ervika.lipi@gmail.com
10	Rifa Nurhayati, STP. MSc	BPTBA LIPI	rifa.lipi@gmail.com
11	Muhammad Fajri, STP	Balai Pengkajian Teknologi Pertanian Yogyakarta	fajri.litbangtan08@gmail.com
12	Melisa Ekaningrum	BPTBA LIPI	lusty.istiqomah@gmail.com
13	Lusty Istiqomah	BPTBA LIPI	lusty.istiqomah@gmail.com
14	Nurliyani	Fak Peternakan UGM	nurliyani@ugm.ac.id
15	Muslih Anwar, M.Sc.	BPTBA LIPI	muslihanwar@gmail.com
16	Febi Indah Fajarwati, S.Si., M.Sc	Universitas Islam Indonesia	febiindah.f@gmail.com
17	Dr. Imelda Fajriati, M.Si	UIN Sunan Kalijaga Yogyakarta	imeldafajriati1@gmail.com
18	Dr. Susy Yunita Prabawati, M.Si	Fakultas Sains dan Teknologi UIN Sunan Kalijaga Yogyakarta	susyprabawati@gmail.com
19	Agil Dhiemitra Aulia Dewi, S.Gz., M.P.H	Universitas Aisyiyah Yogyakarta	agildhiemitra@unisayogya.ac.id
20	Faurina Risca Fauzia, S.Gz., M.P.H	Universitas 'Aisyiyah Yogyakarta	faurinafauzia@unisayogya.ac.id
21	Bayu Aji Setyawan., S.Farm.	Universitas Muhammadiyah Surakarta	bayusetia25@gmail.com
22	Retty Ikawati, S.TP., M.Sc.	Universitas Gadjah Mada	rettyikawati@gmail.com
23	Agus Kurnia, S.S., M.Ag.	Universitas Gadjah Mada	aguskurnia@mail.ugm.ac.id
24	Dhina Fitriastuti, S.Si., M.Sc.	Prodi Kimia FMIPA UII	dhinaf@uii.ac.id
25	Yeny Fitriyani	sekolah Pasca Sarjana UGM	Yeni.fitriyanie@yahoo.com
26	Amri Setyawati, S.Si., M.Sc.	Universitas Islam Indonesia	amrisetyawati@uii.ac.id
27	Al M'rifatul A'la, S.El., M.A.	UGM	rifaala@gmail.com

28	Thoyib Rohman Hakim, S.Pt.	Politeknik ATK Yogyakarta	ragil.yuliatmo@gmail.com
29	Dr.Ir.R. Lukas Martindro Satrio Ari Wibowo.,S.Pt., M.P., IPU., ASEAN ENGINEER	Politeknik ATK Yogyakarta	ragil.yuliatmo@gmail.com
30	Fitri Komala Sari, S.TP., M.Sc.	Universitas Darussalam Gontor	fitri.ks@unida.gontor.ac.id
31	Nurwulan Purnasari, M.Si	IAIN Surakarta	nurwulan.purnasari@yahoo.com
32	Iman Sabarisman, M.Si	Sekolah Vokasi UGM	iman.sabarisman@ugm.ac.id
33	Indah Tri Lestari, S.Si., M.Si.	University of Darussalam Gontor	indahtrilestari94@gmail.com
34	Mira Dian Naufalina S.Gz., M.Gizi	Universitas Darussalam Gontor	miradianaufal@gmail.com
35	Nadia Mira Kusumaningtyas, S.Si, M.Sc	Universitas Darussalam Gontor	nadiamira.k@gmail.com
36	Sista Werdyani, M.Biotech., Apt	Universitas Islam Indonesia	sista.werdyani@uii.ac.id
37	Hafidhotun Nabawiyah, S.Gz., M.P.H.	UNIVERSITAS DARUSSALAM GONTOR	hafidhotun.n@mail.ugm.ac.id
38	Kartika Pibriyanti, SKM., M.Gizi	Universitas Darussalam Gontor	dkartika.02@gmail.com
39	Rahmawati, S.Pt.,MP	Universitas Gajah Putih	rahmawatiugp@gmail.com
40	Hartatik, S.Pt.,MP	Akademi Brahma Putra	hartatikhartatik315@gmail.com
41	Heny Vensye Saiya	Universitas Musamus Merauke	heny.saiya@gmail.com