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Book of Abstract Conference Proceeding

**THAILAND  
HALAL**  
ASSEMBLY 2023



**The International Halal Science  
and Technology Conference 2023 (IHSATEC):**

**16th Halal Science Industry and Business  
(HASIB)**

**International Conference,  
December 2–3, 2023**

 **Venue: Nouvo City Hotel Bangkok, Thailand**

# **Book of Abstract Conference Proceeding**

## **The International Halal Science and Technology Conference 2023 (IHSATEC): 16<sup>th</sup> Halal Science Industry and Business (HASIB)**

**International Conference (Hybrid)**

**Venue: Nouvo City Hotel, Bangkok, Thailand**

**2-3 December 2023**



**Book of Abstract Conference Proceeding  
The International Halal Science and Technology Conference 2023 (IHSATEC):  
16<sup>th</sup> Halal Science Industry and Business (HASIB)**

**Editorial Board:**

Assoc. Prof. Dr. Winai Dahlan

Dr. Hendrati Dwi Mulyaningsih

Santi Rahmawati, MSM.

**Cover and layout:**

Finna Zephyrine

Mochammad Fachrizal

Donny Maulana Jefrianto

Mochamad Arief Abdillah

**Publisher:**

Yayasan Sinergi Riset dan Edukasi

**Office Address:**

Komplek Sinergi Antapani

Jl. Nyaman 31, RT01 RW23, Bandung 40291, Indonesia

Contact: (+62) 811227479 / (+62) 8112331733

Email: [contact@researchsynergy.org](mailto:contact@researchsynergy.org)

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# FOREWORD

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Established in 2003 and originally referred to as the Central Laboratory and Scientific Information Center for Halal Food Development (Halal-CELSIC), the Halal Science Centre (HSC) has become the research and network core for Halal science in Thailand. The center now has linkages in more than 10 laboratories, at several universities and institutions throughout the country. It is committed to the technological research and development of Halal-related sciences and the verification of Halal products and food to comply with the sanctity required in Islamic law. The center is also actively generating and transferring knowledge and innovation about Halal products to the public, through study and seminars.

#### **SCIENTIFIC SERVICES:**

The Halal Science Center is fully equipped with modern and advanced scientific devices, including LC/MS/MS, GS/MS, HPLC, GC, ICP, AA, FTIR, UC, and Realtime-PCR. These are essential to detect and analyze any contamination that may be detrimental to Halal food manufacturing, such as animal fatty acids, animal proteins/DNA, gelatin, alcohol, and microbial contamination. HSC has a team of scientists with a Ph.D. or master's degree in biochemistry, food and nutrition, pharmaceutical science and medical technology, who are all professionals in handling laboratory analysis, research and requests for consultations in Halal food standards. The center is, therefore, qualified to certify the Halal GMP/HACCP as well as Halal-QHS/ISO 22000 to the food manufacturers, restaurants, and other food service industries, as required.

HSC is responsible in the sales and distribution of all books on Halal GMP/HACCP, written or published by the center's notable scientist, in conjunction with the National Food Institute, Ministry of Industry. In cooperation with The Faculty of Allied Health Science, HSC offers a Bachelor program in Nutrition and Dietetics, producing the most qualified and well-trained Graduates that are specialized in Halal food standard, food manufacturing and food certification.

<https://www.chula.ac.th/en/cu-services/quality-assurance-services/the-halal-science-center/>



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# TABLE OF CONTENTS

---

<b>TABLE OF CONTENTS</b> .....	<b>8</b>
<b>ORGANIZING COMMITTEE</b> .....	<b>12</b>
<b>SCIENTIFIC REVIEWER COMMITTEE</b> .....	<b>14</b>
<b>CONFERENCE CHAIR MESSAGE</b> .....	<b>17</b>
<b>CONFERENCE CHAIR</b> .....	<b>18</b>
<b>CO-CONFERENCE CHAIR</b> .....	<b>20</b>
<b>SESSION CHAIRS</b> .....	<b>21</b>
<b>SPEAKERS</b> .....	<b>28</b>
<b>CONFERENCE PROGRAM</b> .....	<b>30</b>
<b>Track: Islamic Finance</b> .....	<b>37</b>
Does the Merger of Large Sharia Banks Work? A Study of Islamic Bank in Indonesia   <sup>1</sup> Moza Audina Sopharia, <sup>2</sup> Pupung Purnamasari, <sup>3</sup> Innez Assyffa Andien Wahyuningtyas .....	<b>38</b>
The Influence of Micro Factors (Liquidity and Profitability) and Macro Factors (Inflation and Interest Rates) on the Stock Prices   <sup>1</sup> Safira Rahmawati, <sup>2</sup> Donita Nawangayu, <sup>3</sup> Amelia Pulukadang, <sup>4</sup> Bella Fujitha, <sup>5</sup> Juariah Fitri .....	<b>39</b>
The effect of Institutional Governance and Shariah Governance on Sukuk and Bond Performance in GCC   <sup>1</sup> Alyamani Ghalib Mohammed, <sup>2</sup> Aisyah Abdul Rahman, <sup>3</sup> Syajarul Imna Mohd Amin, <sup>4</sup> Mohd Hafizuddin Syah Bangaan Abdullah.....	<b>40</b>
The impact of fintech on market power and Non-Performing Financing (NPF) risks at Rural Banks (BPRS) in West Jawa   <sup>1</sup> Syahmardi Yacob, <sup>2</sup> Junaidi, <sup>3</sup> Handri, <sup>4</sup> Achmad Kemal Hidayat, <sup>5</sup> Hendradi Dwi Mulyaningsih .....	<b>41</b>
The Influence of Sharia Financial Literacy and Sharia Financial Inclusion in Generation Z on the Use of Fintech in West Java Province, Indonesia   <sup>1</sup> Handri H, <sup>2</sup> Hendradi Dwi Mulyaningsih, <sup>3</sup> Syahmardi Yacob, <sup>4</sup> Azib.....	<b>42</b>
<b>Track: Food science</b> .....	<b>43</b>
Halal yoghurt production aspects related to halal and kosher foods production   Usman Mir Khan.....	<b>44</b>
Halal Food and Inclusivity in Children’s Literature: A Case Study from Cultural and Religious Perspectives in Early Childhood Education in Indonesia   <sup>1</sup> Maya Lestari, <sup>2</sup> Yogi Gumilar, <sup>3</sup> Fitria Budi Utami .....	<b>45</b>
Exploration of Nutritional Impact of Tilapia Noodles enriched with wolffia (Wolffia globosa)   <sup>1</sup> Firadao Boonmalert, <sup>2</sup> Sarin Chaovasuteeranon, <sup>3</sup> Najwa Yanya Santiworakun, <sup>4</sup> Kunthira Salae, <sup>5</sup> Winai Dahlan, <sup>6</sup> Nareeya Waloh .....	<b>46</b>
Evaluating the Impact of Microencapsulated Black Cumin Seed Oil on the Physical and Nutritional Profile of Orange Sweet Potato Custard   <sup>1</sup> Suwaibah Sulong, <sup>2</sup> Netnapa Ontao, <sup>3</sup> Najwa Yanya Santiworakun, <sup>4</sup> Winai Dahlan, <sup>5</sup> Hasam Chebako, <sup>6</sup> Baddariyah Sohsansa .....	<b>47</b>

Development of a Halal Plant-Based Egg Prototype for Conscious Consumers   <sup>1</sup> Kasinee Katelakha, <sup>2</sup> Najwa Yanya Santiworakun, <sup>3</sup> Nadia Dahlan, <sup>4</sup> Pongpol YodmuangCharoen, <sup>5</sup> Firadaw Boonmalert, <sup>6</sup> Suwaibah Sulong, <sup>7</sup> Winai Dahlan .....	48
Developing Product by Increase Value of the Salted Fish Kulao by Pa Aon Tak Bai Community Enterprise   <sup>1</sup> Habilla Chapakiya, <sup>2</sup> Chutima Wangbenmad, <sup>3</sup> Thanapong Wunsaeng, <sup>4</sup> Jinatda Wittayapanpracha, <sup>5</sup> Nisaporn Muhamad, <sup>6</sup> Ameen Mhamad, <sup>7</sup> Arseeyah Lateh .....	49
Reduction of Aflatoxin M1 Contamination in Milk Using Probiotic Lactic Acid Bacteria Isolated from Halal Source   <sup>1</sup> Anna Abdolshahi, <sup>2</sup> Ashkan Jebeli Javan, <sup>3</sup> Negin Rasooli, <sup>4</sup> Bahador Bagheri, <sup>5</sup> Mosaad A. Abdel-Wahhab .....	50
Consumer Confidence in Halal Products: The Influence of Transparent Regulatory Assessment   <sup>1</sup> Shahid Bashir, <sup>2</sup> Waseem Khalid .....	51
<b>Track: Health and Physical Science.....</b>	<b>52</b>
Maternal Health Services in Disaster Prone Areas: A Case Study of Sharonkhola and Morelganj Upazillas of Bagerhat, Bangladesh   Saiful Mozumder .....	53
The Influence of Fake News and the Intensity of Social Media Use on the Mental Health of Generation Z in West Jawa   <sup>1</sup> Fathan Auzan Abdullah, <sup>2</sup> Nicky Sunjaya .....	54
Emotional-Focused Coping and Problem-Focused Coping as Strategy for Reducing Stress among Gen Z at The Workplace   <sup>1</sup> Sely Astuti, <sup>2</sup> Nasywa Annisa Salsabilla, <sup>3</sup> Silsy Aziza Meidisty .....	55
<b>Track: Food Safety and Security .....</b>	<b>56</b>
Determination of Pork Fatty Acid in Bulk Cooking Oil   <sup>1</sup> Oktaviona Dwi Fatwa Az-Zahra, <sup>2</sup> Dina Pratiwi, <sup>3</sup> Nita Rusdiana.....	57
Multiplex droplet digital PCR assay for Simultaneous quantification of porcine bovine and fish DNA in gelatin-based products   <sup>1</sup> Pornpimol Mahamad, <sup>2</sup> Saveeyah Kahong, <sup>3</sup> Wila Munaowaroh, <sup>4</sup> Sukanya So audon, <sup>5</sup> Winai Dahlan, <sup>6</sup> Vanida Nopponpunth .....	58
Advancing Indonesia's Rice Industry: Embracing Tayyib Principles Beyond Halal   <sup>1</sup> Ferdi Zanuar Azan, <sup>2</sup> Nunung Nurhayati, <sup>3</sup> Ahli Fatoni, <sup>4</sup> Muhammad Irfan Florid, <sup>5</sup> Moza Audina .....	59
Molecularly Imprinted Polymers in Halal Food Authentication: A Mini Review   <sup>1</sup> Acharee Sukswan, <sup>2</sup> Kasinee Katelekha, <sup>3</sup> Najwa Yanya Santiworakun, <sup>4</sup> Nureesun Mahamad, <sup>5</sup> Sunainee Mahama, <sup>6</sup> Winai Dahlan .....	60
Evaluation of the Application of the HAL-Q System in the Development of Halal Food Production Processes in Hospital Kitchens   <sup>1</sup> Suwainah Sa-I, <sup>2</sup> Erfun Waehama, <sup>3</sup> Anat Matimu, <sup>4</sup> Arseeyah Lateh, <sup>5</sup> Anat Denyinghot, <sup>6</sup> Pornpimol Mahamad, <sup>7</sup> Monrudee Khemtham, <sup>8</sup> Winai Dahlan, <sup>9</sup> Warawut Krusung, <sup>10</sup> Kasinee Katelakha .....	61
<b>Track: Biotechnology.....</b>	<b>62</b>
Utilizing Anacardium occidentale Leaves Extract as Alternative to the Conventional Antibiotics Against Antimicrobial-Resistant Microorganisms   <sup>1</sup> Assoc Prof. Moohamad Ropaning Sulong, <sup>2</sup> Sulaiman Abdul Haq Hazman, <sup>3</sup> Farrah Nazuha Mansor, <sup>4</sup> Rozila Alias .....	63
Detection and Quantification of Genetically Modified Organisms (GMOs) in Halal Food Products by qPCR method— Utilization of GMO Positive Cabbage Seeds  Syeda Areeba.....	64
Detection of Porcine DNA using Isothermal Nucleic Acid Amplification for Halal Forensic   Mohd Hazim Mohd Yusop .....	65
<b>Track: Islamic Finance.....</b>	<b>66</b>

Sustainability and Green Accounting in Halal Tourism: A Comprehensive Literature Review   <sup>1</sup> Dewi Intan, <sup>2</sup> Muhamad Irfan Florid, <sup>3</sup> Ade Yunita Mafruhah, <sup>4</sup> Pupung Purnamasari.....	67
<b>Track: Halal Studies .....</b>	<b>68</b>
The Influence of Halal Labelling on Food Purchasing Decisions: Case Study of Islamic University Bandung and UITM Kedah Malaysia   <sup>1</sup> Rayhan Azis, <sup>2</sup> Nurleli.....	69
<b>Track: Green technology.....</b>	<b>70</b>
Technological Provision on Employee Green Behavior: Implementation on Technology-Based Start-up Company in Indonesia   <sup>1</sup> Allya Roosallyn Assyofa, <sup>2</sup> Nindya Saraswati, <sup>3</sup> Muhammad Iqbal Santosa .....	71
Removal of heavy metals from agricultural wastewater by forward Osmosis process for water reuse   <sup>1</sup> Sithy NY, <sup>2</sup> Chavalit Ratanatamskul .....	72
Optimizing Dental Waste Management for Sustainable Practices: A Case Study of Dental Clinics in Yangon, Myanmar   <sup>1</sup> Phyo Thiri Kyaw, <sup>2</sup> Pichaya Rachdawong .....	73
Understanding Tenant Satisfaction and Preferences in Green Buildings: A Post-Occupancy Evaluation Approach   <sup>1</sup> Wint Thiri Marn, <sup>2</sup> Achariya Suriyawong .....	74
<b>Track: Mobile Commerce .....</b>	<b>75</b>
Exploring Halal Mobile App Usage Among Muslim University Students in A Multicultural Society   <sup>1</sup> Dr. Pg Siti Rozaidah Pg Hj Idris, <sup>2</sup> SFPD Musa, <sup>3</sup> Hakimah Sumardi .....	76
<b>Track: Halal Tourism/Service .....</b>	<b>77</b>
Challenges and Issues in Halal Certification for Restaurants in Japan: A Perspective from Halal Certification Bodies   Pg Siti Rozaidah Pg Hj Idris .....	78
Get ready for preparation on tourism and services friendly to Muslim tourists in Thailand post COVID-19   <sup>1</sup> Anat Denyinghot, <sup>2</sup> Nanthachai Dangwijitr, <sup>3</sup> Erfun Waehama, <sup>4</sup> Tuanyasmin Saerae, <sup>5</sup> Monruedee Khemtham, <sup>6</sup> Pakorn Priyakorn, <sup>7</sup> Winai Dahlan .....	79
Prototype of A Multi-Language Interactive Game to Facilitate Muslim Children's Understanding of Halal   <sup>1</sup> Sisca Wulandari, <sup>2</sup> Ilfi Intansari, <sup>3</sup> Nurul Setiani, <sup>4</sup> Lulu Fatihatul Uyun.....	80
Halal Tourism and Technology: Meeting the Needs of Muslim Travelers   Syed Mirza.....	81
The Development of a Web Application Digital Innovation for Smart Masjid (DIMAS) Community-Level Mosques Management in Pattani Province   <sup>1</sup> Ameen Mhamad, <sup>2</sup> Pitak Ardmare, <sup>3</sup> Fakrutdeen Tapotoh, <sup>4</sup> Habilla Chapakiya, <sup>5</sup> Arseeyoh Lateh, <sup>6</sup> Zunnur-i SeedeH, <sup>7</sup> Kunthira Salae, <sup>8</sup> Nifarid Radenamad .....	82
<b>Track: E-Business .....</b>	<b>83</b>
Utilising Fluid Intelligence in Online Grocery Shopping (OGS) using E-SERQUAL Model Among Malaysians   Mageswari Ranjanthran.....	84
<b>Track: Nutrition (outline) .....</b>	<b>85</b>
Implementation of Halal Practices in Providing Supplementary Food in Kindergartens, Tangerang, Indonesia   <sup>1</sup> Fitria Utami, <sup>2</sup> Maya Lestari, <sup>3</sup> Yogi Gumilar .....	86
Fatty Acid Analysis for Halal Authentication of Baked Cheese Stick Product Fortified with Chia Seed Flour (Salvia hispanica)   <sup>1</sup> Mira Sofyaningsih, <sup>2</sup> Imas Arumsari, <sup>3</sup> Ony Linda, <sup>4</sup> Winai Dahlan, <sup>5</sup> Pornpimol Mahamad, <sup>6</sup> Uarna Nungarlee, <sup>7</sup> Najwa Santiworakun, <sup>8</sup> Acharee Sukswan, <sup>9</sup> Arnakorn Ruangsapach .....	87

<b>Track: Digital Marketing</b> .....	<b>88</b>
Digital Innovation and Gender-Based Competitive Advantage: Evidence from Indonesian Indonesia Micro, Small, and Medium Enterprises (MSMES)   <sup>1</sup> Lela Nurlaela Wati, <sup>2</sup> Rita Yuni Mulyanti, <sup>3</sup> Abdul Mukti Soma.....	89
Navigating Digital Transformation: A Study on the Role of Change Sensing and Seizing Capabilities in Malaysian Manufacturing Firms   <sup>1</sup> Saif Ahmed, <sup>2</sup> Norzalita Abd Aziz, <sup>3</sup> Ummu Ajirah Abdul Rauf.....	90
Green Practices, Image, Trust, Environmental Awareness and Purchase Intention: A Moderated Mediation for Muslim Consumers   <sup>1</sup> M Qoshid Al Hadi, <sup>2</sup> Abdul Wahab, <sup>3</sup> Iman Setya Budi.....	91
<b>Track: Halal Studies</b> .....	<b>92</b>
The influence of Religiosity on the Purchase Intention of Halal Foods in Trinidad and Tobago   Sheraz Ali.....	93
Monitoring Ethanol Levels: A Forensic Analysis of Halal-Certified Food Products in Thailand   <sup>1</sup> Tuanyasmin Saerae, <sup>2</sup> Pornpimol Mahamad, <sup>3</sup> Wila Munaowaroh, <sup>4</sup> Uarna Nungarlee, <sup>5</sup> Anat Denyingyhot, <sup>6</sup> Monruedee Khemtham, <sup>7</sup> Vanida Noppornpunth, <sup>8</sup> Winai Dahlan .....	94
Healthy & Halal Food Contributes to Children’s Growth and Development in Indonesia After the COVID-19 Pandemic: Opportunities and Challenges   <sup>1</sup> Ilfi Intansari, <sup>2</sup> Sisca Wulandari, <sup>3</sup> Ujang Sugara .....	95
Impact of Alcohol: The Role of Local Councils on Alcohol Regulation in Malaysia   <sup>1</sup> Maryam Jamilah Asha'ari, <sup>2</sup> Amalia Nabilla Azman, <sup>3</sup> Ainul Huda Jamil, <sup>4</sup> Mazzlida Mat Deli, <sup>5</sup> Ummu Ajirah Abdul Rauf.....	96
Introducing Halal Snacks to Children: A Phenomenological Study in Indonesian Kindergartens   <sup>1</sup> Yogi Gumilar, <sup>2</sup> Fitria Budi Utami, <sup>3</sup> Maya Lestari.....	97
Assessing Halal Professionals' Influence on Fraud Mitigation in Halal Supply Chains   <sup>1</sup> Ainul Huda Jamil, <sup>2</sup> Mohd Helmi Ali, <sup>3</sup> Ummu Ajirah Abdul Rauf, <sup>4</sup> Mazzlida Mat Deli, <sup>5</sup> Maryam Jamilah Asha'ari .....	98
Satisfaction and Comparison of Knowledge for High School Innovation Project Advisors Regarding Halal Science, Technology, and Innovation Training Courses   fakrutdin tapohtoh	100
<b>Track: Cosmetic Science</b> .....	<b>101</b>
Development and Characterization of Skin Care Cream from Luk Neing Peel Extracts   <sup>1</sup> Suraiya Malee, <sup>2</sup> Ladawan Khongsichan .....	102
<b>Track: Internet of Things (IoT)</b> .....	<b>103</b>
Assessing the Readiness of Malaysian Society for Society 5.0: Opportunities and Challenges   Mazzlida Mat Deli .....	104
<b>CLOSING SPEECH</b> .....	<b>105</b>
<b>Future Events</b> .....	<b>106</b>

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---

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Age-related Inflammation and Degeneration Research Unit, Department of Clinical Chemistry, Faculty of Allied Health Sciences, Chulalongkorn University, Bangkok, Thailand

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The International Halal Science and Technology Conference 2023 (IHSATEC): 16<sup>th</sup> Halal Science Industry and Business (HASIB) is an international conference organized by The Halal Science Center Chulalongkorn University, Thailand and Research Synergy Foundation that is held hybrid on 2-3 December 2023, Onsite from Nouvo City Hotel Bangkok, Thailand and virtual through Zoom platform. Supported by Scholarvein, Research Synergy Institute, Reviewer Track, Research Synergy Press, F1000Research, Cogent Open Access Journals, and Taylor & Francis Group.

We are delighted to welcome all participants of IHSATEC 2023: 16<sup>th</sup> HASIB, both onsite and virtually. This conference is designed to facilitate the exchange and sharing of thoughts and findings across various aspects of Halal Science and Technology, both in industry and business. Participants are welcome to present their work either physically or virtually during the Academic Session of Thailand Halal Assembly 2023.

We encourage all researchers, lecturers, students, practitioners, and academicians are to join this event to share insights and discoveries in the diverse subjects of Halal Science and Technology Management. This conference provides a global platform for the exchange of ideas, research, and collaborative opportunities, fostering a broader network and research ecosystem. Exclusive opportunities will be extended to all participants attending the conference.

We warmly greet you at this conference and hope that this year's conference will present both challenges and inspiration, encouraging the development of fresh knowledge, collaborations, and friendships.

Best regards,

***Assoc. Prof. Dr. Winai Dahlan***  
Conference Chair of IHSATEC 2023: 16<sup>th</sup> HASIB

## CONFERENCE CHAIR

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***Assoc. Prof. Dr. Winai Dahlan***

**Founding Director, The Halal Science Center Chulalongkorn University (HSCCU)**

Associate Professor Dr. Winai Dahlan is the Founding Director of The Halal Science Center at Chulalongkorn University (HSC). Concurrently, he is also the Vice President for the The Central Islamic Council of Thailand (CICOT) and the Chairman of the Halal Standard Insititue of Thailand (HSIT. He obtained his Ph.D. in Applied Medical Biology with a Magna Cum Laude from The Faculty of Medicine and Pharmacy St-Pierre Hospital, Université Libre de Bruxelles, Brussels, Belgium in 1989. Prior to that, he obtained the degree of M.S. Nutrition from the Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand in 1982. Meanwhile, his B.Sc. Biochemistry was obtained from his study at Faculty of Science, Chulalongkorn University, Bangkok, Thailand in 1976.

His past experiences including:

- Member, The National Reform Steering Assembly (NRSA)
- Member, the National Reform Council (NRC)
- Dean, Faculty of Allied Health Sciences, Chulalongkorn University
- Member, The National Directive Board of Food, Ministry of Public Health
- Member, The Advisory Board of Food, FDA, Ministry of Public Health
- Chairman, Subcommittee on Carbohydrates and Proteins, The National Committee of Thailand Recommended Dietary Allowances, Ministry of Public Health
- Nutrition Advisor in International Events: The 13th Asian Games, The 7th Fespig Games, The 20th World Scout Jamboree, The 24th Summer Universiade Games
- Member, The Advisory Board of Deputy Prime Minister and Ministers

SCIENTIFIC/ACADEMIC TRAININGS & VISITS:

- > 300 visits and trainings in 50 countries.

PUBLICATIONS:

- ~ 350 books (in Thai)
- > 3,000 pieces of documentary articles in science/technology, food/nutrition in several Thai magazines since 1989
- > 50 reviewed scientific articles published internationally/locally
- > 40 original research articles published internationally/locally,

## AWARDS & HONOURS:

- World Halal Day Lifetime Achievement Award 2017, London, United Kingdom by the United World Halal Development
- Listed as “The 500 Most Influential Muslims” of the years by the Royal Islamic Strategic Studies Centre, Jordan for 9 consecutive years of 2010-2019
- The National Award of Best Innovative Civil Services, Office of Public Sector Development Commission 2013
- The Royal Thai Decoration and Awards:
  - The Bravery Medal, The Dushdi Mala. (2425 B.E.) esteemed achievement in science
  - Knight Grand Cordon of the Most Noble Order of the Crown (Major General rank)
  - The Chakrabarti Mala Medal (2436 B.E.)
- Best Innovation award, Halal Science & Innovation Excellence, World Halal Research Summit 2011, 2012, Kuala Lumpur, Malaysia
- Listed as “The 500 Most Influential Muslims” of the years by the Royal Islamic Strategic Studies Centre, Jordan for 8 consecutive years of 2010-2017
- Philippines’ IDCP Recognition Award of Halal Achievement in Halal Science 2009
- Malaysia’s Halal Journal Award of Best Innovation in Halal Industry 2006
- Alumnus of the Year 2009, Graduate Studies, Mahidol University, Bangkok, Thailand
- Alumnus of the Year 2005, Faculty of Science, Chulalongkorn University, Bangkok, Thailand
- Lecturer of the Year 2001, Chulalongkorn University, Bangkok, Thailand

## CO-CONFERENCE CHAIR

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***Dr. Hendrati Dwi Mulyaningsih***

**Founder & Chairperson of Research Synergy Foundation**

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**Dr. Hendrati Dwi Mulyaningsih** is the chairperson and founder of Research Synergy Foundation that has shown great commitment on creating Global Network and Research Ecosystem. This GNR ecosystem has been developing since 2017 up to the present and having increasing numbers of the member up to more than 25.000 from all around the globe. Her passion in how to create impact and co creation value among all the stake holder of RSF has made her focus on upholding integrity in the scientific process through enhancement of RSF's support-support system as like Reviewer track, Scholarvein, Research Synergy Institute and Research Synergy Press. Thus, her work in this area has made her as the Nominee of Impactful Leadership Awards from Tallberg Foundation Sweden 2019.

As lecturer, she has been working in the University since 2008 – at present in Indonesia as assistant professor and she hold her Doctoral Science of Management graduated from School of Business and Management Institute of Technology Bandung (SBM-ITB) and she has strong interest to her research project as well as her research field in Social Entrepreneurship, Social Innovation and Knowledge Management.

As researcher, her work studies and research on this research field made her be invited as reviewer in many reputable Scopus and WOS indexed journals and as keynote speaker in many International Conferences in Philippines, Thailand, Malaysia, Indonesia, Australia, Japan, and US. She also has shown her great passion on writing her research study into some books chapter, papers and contemporary scientific articles that has already been published in Springer, Emerald, Taylor and Francis and in many reputable international publishers. The terrific association between her professional experiences as researcher, lecturer, the certified Trainer & Coach combined with her wider horizon on networking in the research area made her establish the strong commitment on having global learning platform to accelerate knowledge through many workshops and research coaching in Research Synergy Institute as one of RSF's support system.

## SESSION CHAIRS

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***Prof. Dr. Sirichai Adisakwattana***

**Head of Phytochemical and Functional Food Research Unit for Clinical Nutrition, Chulalongkorn University, Thailand**

**Area of expertise:**

Nutrition and Dietetics, Phytochemical, Functional Food

**Qualification & Education:**

Ph.D. Pharmacology, Chulalongkorn University, Thailand (2006)

B.Sc. Chemistry, Chulalongkorn University, Thailand (2000)



***Prof. Dr. Umair Arshad***

**Professor / Chairperson Department of Food Science Government College University, Faisalabad, Pakistan**

**Area of expertise:**

- Regulations related to Health claims and Food labeling
- Food Intake, Appetite and glycemic responses of foods with special focus on dairy products and Components
- Food fortification strategies and related consultancies at national and international level

**Qualification & Education**

- Postdoctorate Food and Nutrition, University of Toronto, Canada, 2016
- Ph.D. Food Science & Technology, University of Agriculture, Faisalabad, 2008
- M.Sc. (Hons.) Food Science & Technology, University of Agriculture, Faisalabad, 2003
- B.Sc. (Hons.) Agriculture (Food Technology), University of Agriculture, Faisalabad, 2001



***Dr. Simab Kanwal***

**Institute of Nutrition, Food Chemistry Unit, Mahidol University, Thailand**

Lecturer at Institute of Nutrition, Mahidol University, Thailand  
Adjunct Faculty at Mahidol University International college (MUIC), Thailand

**Area of expertise:**

Biochemistry, Molecular Biology, Fundamentals of Biotechnology, Enzyme Technology, Microbial Biotechnology

**Qualification & Education**

- Post-Doctorate., (Pharmacognosy and Pharmaceutical Botany) – Chulalongkorn University, Thailand, Period: 2021 – 2023
- Post-Doctorate., (Molecular Biosciences/Structural Biology) – Mahidol University, Thailand, Period: 2019 – 2021
- Post-Doctorate., (Biochemistry/Molecular Biology) – Chulalongkorn University, Bangkok, Thailand. Period: 2014 – 2016
- Ph.D., (Biochemistry/Molecular Biology) – Chulalongkorn University, Bangkok, Thailand. Period: 2010 – 2014, Status: Degree Awarded.
- M.Phil., (Biochemistry/Molecular Biology) – Quaid-i-Azam University Islamabad, Pakistan. Period: 2007 – 2009, Grade A
- M.Sc., (Biological sciences) – Quaid-i-Azam University Islamabad, Pakistan. Period: 2005 – 2007, Rank scored: First class.
- B.Sc., (Biology) – University of Azad Jammu & Kashmir, Pakistan. Period: 2003 – 2005, Division 1



***Assist. Prof. Dr. Muhammad Sajid Arshad***

**Department of Food Science Government College University, Faisalabad, Pakistan**

**Area of expertise:**

Food chemistry, functional foods, Halal Foods, Halal Authentication, plant based foods and use of innovative processing technologies

**Qualification & Education**

- Ph.D. Food Science, NIFSAT, University of Agriculture, Faisalabad, Pakistan, 2013
- MS Food Science and Technology, NIFSAT, University of Agriculture, Faisalabad, Pakistan, 2009
- BS Agriculture Major Food Technology, NIFSAT, University of Agriculture, Faisalabad, Pakistan, 2007



***Asst. Prof. Dr. Sukrit Sirikwanpong***

**Lecturer, Department of Nutrition and Dietetics Chulalongkorn University, Thailand**

**Area of expertise:**

Lipid and Fat Science, Cosmetic Science, Halal Science

**Qualification & Education:**

Research Assistant, Lipid Mass Spectrometry-Lipidomics Research Group, School of Medicine, University of Southampton, United Kingdom

Ph.D. (Biomedical Sciences), Graduate school, Chulalongkorn University, Bangkok, Thailand

B.Sc. (Medical Technology) Hons, Faculty of Allied Health Sciences, Chulalongkorn University, Thailand.



***Asst. Prof. Dr. Pakpum Somboon***

**Lecturer, Bio-Electronic Research Laboratory (BERL), Department of Electrical Engineering, Chulalongkorn University, Thailand**

**Area of expertise:**

Biomedical Engineering, Electrical Engineering

**Qualification & Education**

Ph.D. - Physical Electronics, Tokyo Institute of Technology, Japan, 2007

Master of Engineering - Electrical Engineering, Chulalongkorn University, Thailand, 2000

Bachelor of Engineering - Electrical Engineering, Chulalongkorn University, Thailand, 1997



***Prof. Dr. Mosaad Attia Abdel-Wahhab***

**Professor of Toxicology and Pharmacology, Food Toxicology & Contaminants Department, Food Industries and Nutrition Division, National Research Center, Egypt**

**Dr. Mosaad Attia Abdel-Wahhab** is a professor at Department of Food Toxicology & Contaminants, National Research Center, Egypt. He got his Ph.D in Toxicology from Texas A & M University, Texas, USA. He is the president of Egyptian Society of Science and Halal Products and a member in several professional organizations. He acted as a visiting Professor in several universities at several countries. He conducted more than 25 research projects in the area of food safety, food contaminants; nanotechnology and natural products funded by National and International agencies and got 6 patents. He published more than 220 research articles in the International Journals and several book chapters. He supervised more than 35 MSc and PhD thesis and participated (till now) in 45 international conferences as invited or keynote speaker. He is a co-editor for 20 International Journals and was honored and awarded several prizes from many International and National agencies.



***Dr. Pawinee Panpetch***

**Department of Biochemistry, Faculty of Science, Chulalongkorn University, Thailand**

**Area of expertise:**

Carbohydrate-metabolising enzymes and their functions  
Carbohydrate biotechnology

Protein engineering  
Plant molecular biology  
Bioactive compounds in plants

**Qualification & Education:**

Ph.D. Biochemistry and Molecular Biology, Chulalongkorn University, Thailand. 2018  
B.Sc. (2nd Class Honour) Microbiology, Chulalongkorn University, Thailand. 2006



***Dr. Karan Wangpaiboon***

**Department of Biochemistry, Faculty of Science, Chulalongkorn University, Thailand**

**Area of expertise:**

Carbohydrate-active enzymes  
Biological activities and Application of oligosaccharides and polysaccharides

Bacterial biofilms  
Starch metabolism in plants

**Qualification & Education:**

Ph.D. Biochemistry and Molecular Biology, Chulalongkorn University, Thailand. 2012-2018  
B.Sc. Biochemistry, Chulalongkorn University, Thailand. 2008-2011.



***Assist. Prof. Dr. Pradorn Sureepong***

**The Halal Science Center, Chulalongkorn University, Thailand**

**Area of expertise:**

Software Engineering, Innovation, Halal Science

**Qualification & Education**

PhD, Dual Degree Program at Université Lumière Lyon 2, France and Chiang Mai University, Thailand, 2005 – 2009

Master of Economics, Faculty of Economic, Chiang Mai University, 2003 – 2004

Bachelor of Engineering, Computer Engineering, Faculty of Engineering, Chiang Mai University, 2002



***Prof. Dr. Suraini Binti Abd Aziz***  
**Professor at Faculty of Biotechnology & Biomolecular Sciences,  
Universiti Putra Malaysia**

**Area of expertise:**

Biochemical Engineering specializing in Enzyme Technology &  
Industrial Biotechnology

**Qualification & Education**

- Doctor of Philosophy Research Programme in Biochemical Engineering,  
University of Wales Swansea, United Kingdom  
(October 1993 – February 1997)
- Master of Science Programme in Biochemical Engineering,  
University of Wales Swansea, United Kingdom  
(October 1992 – September 1993)
- Bachelor of Clinical Biochemistry,  
Universiti Kebangsaan Malaysia  
(June 1988 – April 1992)



***Assoc. Prof. Dr. Muhammad Ilyas Yahprung***  
**Faculty of Political Science, Ramkamheang University, Thailand**

**Area of expertise:**

Political Science, Islamic Studies

**Qualification & Education**

Ph.D. The Muslim World Issue, The International Islamic University Malaysia (IIUM), 2014  
M.A. International Studies, Birmingham University, United Kingdom, 1999  
B.S. Forestry, Kasetsart University, Thailand, 1995



***Dr. Alhuda Chanitphattana***

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**Burapha University International College, Thailand**

**Area of expertise:**

Marketing, Middle East Market, Business Development

**Qualification & Education:**

Doctor of Philosophy in Communication Arts and Management Innovation, National Institute of Development Administration. 2013 – 2017

Visiting Scholar, Department of Marketing, Kelley School of Business, Indiana University, USA. 2017

Master of Arts in International Relations and Development Studies, University of East Anglia, UK. 2011 – 2012

Bachelor of Arts in Political Science, International Relations Major, Kasetsart University. 2006 – 2010



***Prof. Mian N. Riaz***

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**Texas A&M University, USA**

IFANCA's Professor of Food Diversity, USA

**Area of expertise:**

Food Diversity, Food Science and Technology, Halal Food

**Qualification & Education:**

Ph.D. Food Science, University of Maine, Orono, Maine, USA. 1992

M.S. (Honors), Food Technology, University of Agriculture, Faisalabad, Pakistan. 1987

B.S. (Honors), Food Technology & Agriculture, Univ. of Agriculture, Faisalabad, Pakistan. 1985



***Prof. Dr. H. Sapta Nirwandar, S.E., DESS***

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**Chairman of Indonesia Halal Lifestyle Center & Indonesia Tourism Forum, Indonesia**

**Area of expertise:**

Tourism, Halal lifestyle, Islamic Marketing

**Qualification & Education:**

- Honorary Professor, Silk Road International University of Tourism and Cultural Heritage. 2021
- Alumni, Ecole Nationale D'Administration (ENA), Paris. 1988
- Doctor, Universite Paris IX - Dauphine, Paris. 1988
- Master, Universite Paris I - Sorbone, Paris. 1985
- Master, Universite Paris XI Secaux Entreprise Publique, Paris. 1984
- Diploma, Institut international d'administration publique, Paris. 1982
- Bachelor of Economy, Padjajaran University, Bandung. 1978



***Prof. Dr. Ir. Elfi Anis Saati, M.P.***

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**Head of Halal Center, Universitas Muhammadiyah Malang, Indonesia**

## SPEAKERS

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***Assoc. Prof. Shahid Bashir***  
**The University of Lahore**

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***Assoc. Prof. Dr. Moohamad Ropaning Sulong***  
**Universiti Islam Sultan Sharif Ali**

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***Prof. Dr. Lela Nurlaela Wati***  
**Universiti Malaysia Sabah, Malaysia**

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**Dr. Lela Nurlaela Wati, SE, MM, CRA, CRP** is the Rector of UTMJ. She holds a doctorate from UNPAD (Universitas Padjadjaran) Bandung, her expertise as a Senior Finance Analyst has been recognized by achieving a Professional Qualification from the National Professional Certification Agency (BNSP) in the field of Risk Management.

Having a professional competence for more than 5 years, Dr. Lela has been taking care of every stage of risk management, such as planning, implementation, monitoring, analysis and calculating potential company risk. Her precious experiences provide worthy recommendations. She actively takes parts in national and international seminars and reputable publications as the speaker and the writer.

Apart from that, since 2018, Dr. Lela is also actively involved as a National BKD assessor and National reviewer. Active as a speaker and writer in various national and international seminars, as well as reputable national and international publications.

***Mr. Mohd Hazim Mohd Yusop***

**Universiti Malaysia Sabah, Malaysia**

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***Dr. Nita Rusdiana***

**Universitas Muhammadiyah A.R. Fachruddin**

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***Sheraz Ali***

**University of the West Indies**

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# CONFERENCE PROGRAM

Saturday-Sunday | 2-3 December 2023



December 2, 2023  
Day-1 (SATURDAY)

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC
08.30 - 09.00	Participants Registration
<b>Grand Opening Ceremony</b>	
09.00 - 09.15	• Recitation of the Holy Al-Quran
09.15 - 09.20	• Opening Ceremony presentation
09.20 - 09.30	• Welcoming Remarks by Prof. Dr. Chakkaphan Sutthirat, Vice President for Research Affairs, Chulalongkorn University, Thailand
09.30 - 09.40	• Welcoming Remarks by Police Major General Surin Palarae, Secretary General of the Central Islamic Council of Thailand (CICOT)
09.40 - 09.50	• Congratulatory Remarks by H.E. Ihsan ÖVÜT, Secretary General, The Standards and Metrology Institute for the Islamic Countries (SMIC)
09.50 - 10.00	• Report Notes by Assoc. Prof. Dr. Winai Dahlan, Founding Director, The Halal Science Center, Chulalongkorn University (HSC-CU)
10.00 - 10.10	• Opening Remarks by Chairman of Ceremony, Mr. Wan Muhamad Noor Matha, President of the National Assembly, Thailand
10.10 - 10.15	• Dua
10.15 - 10.25	• Chairman of Ceremony receiving token of appreciation
10.25 - 10.35	• Photo Sessions
10.35 - 10.45	• Exhibition visit by Chairman of Ceremony
10.45 - 11.00	Tea/Coffee Break



Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
11.00 - 12.00	<b>The International Halal Science and Technology Conference (IHSATEC) 2023; The 16<sup>th</sup> Halal Science Industry and Business (HASIB) Conference</b> Session-1: <b>“Keynote Speech: Digitalizing Halal Initiatives for Fostering Halal Trust”</b>  Session chair: Dr. Hendrati Dwi Mulyaningsih, Research Synergy Foundation, Indonesia  • <b>Keynote Speaker: Assoc. Prof. Dr. Winai Dahlan</b> , Founding Director, The Halal Science Center, Chulalongkorn University (HSC-CU), Thailand Title: <b>Digitalizing Halal Initiatives for Fostering</b>	11.00 - 12.10	Oral Presentation (OP) <b>Science, Technology, and Innovation session-1</b>	11.00 - 12.00	Oral Presentation (OP)- <b>Online Science, Technology, and Innovation session-1</b>	11.00 - 12.00	Poster presentation
11.00 - 11.25		11.00 - 11.10	Welcoming Academic Presentation and Group Photo Session Chair 1: Prof. Dr. Sirichai Adisakwattana Head of Phytochemical and Functional Food Research Unit for Clinical Nutrition, Chulalongkorn University, Thailand Session Chair 2: Prof. Dr. Umair Arshad Professor/ Chairperson Department of Food Science Government College University, Faisalabad, Pakistan	11.00 - 11.15	Welcoming Academic Presentation and Group Photo Session Chair 1: Dr. Simab Kanwal Institute of Nutrition, Food Chemistry Unit, Mahidol University, Thailand Session Chair 2: Dr. Pawinee Panpetch, Department of Biochemistry, Faculty of Science, Chulalongkorn University, Thailand	11.00 - 11.10	Welcoming Academic Presentation and Group Photo Session Chair 1: Asst. Prof. Dr. Sukrit Sirikwanpong Lecturer, Department of Nutrition and Dietetics Chulalongkorn University, Thailand Session Chair 2: Asst. Prof. Dr. Pakpum Somboon, Lecturer, Bio-Electronic Research Laboratory (BERL), Department of Electrical Engineering, Chulalongkorn University, Thailand
		11.10 - 11.25	Presenter: Dr. Pg Dr Siti Rozaidah Pg Hj Idris – HST23114 Title: <b>“Exploring Halal Mobile</b>	11.15 - 11.30	Presenter: <b>Usman Mir Khan-HST23101</b> Title: <b>“Halal yoghurt production aspects related to halal and kosher foods production”</b>		

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)	
11.25 - 11.50	<ul style="list-style-type: none"> <li><b>Keynote Speaker: H.E. Ihsan ÖVÜT</b>, Secretary General, The Standards and Metrology Institute for the Islamic Countries (SMIIC)</li> <li><b>Title: Importance of Standards and Quality Infrastructure for the Halal Economy</b></li> </ul>	11.25 - 11.40	<b>University Students in A Multicultural Society"</b>  Presenter: Nicky Sunjaya - HST23111 Title: "The Influence of Fake News and the Intensity of Social Media Use on the Mental Health of Generation Z in West Jawa"	11.30 - 11.45	Presenter: Anna Abdolshahi - 557765 Title: "Reduction of Aflatoxin MI contamination in milk using probiotic Lactic Acid Bacteria isolated from halal source"	11.10 - 11.20	Presenter: Moza Andina Sopharia - HST23106	
11.50 - 12.00		<b>Panel Discussion, Question and Answer session</b>	11.40 - 11.55	Presenter: Syeda Areeba - HST23110 Title: "Detection and Quantification of Genetically Modified Organisms (GMOs) in Halal Food Products by qPCR method— Utilization of GMO Positive Cabbage Seeds"	11.45 - 12.00	Presenter: Maryam Jamilah Asha'ari- 846876 Title: "Impact of Alcohol: The Role of Local Councils on Alcohol Regulation in Malaysia"	11.20 - 11.30	Presenter: Muhamad Irfan Florid - HST23107
			11.55 - 12.10	Presenter: Wila Munaowaroh - HST23150			11.30 - 11.40	Presenter: Ferdi Zannur Azan - 555166
						11.40 - 11.50	Presenter: Allya Roosallyn Assyofa - HST23124	
						11.50 - 12.00	Presenter: Dr. Pg Dr Siti Rozaidah Pg Hj Idris - HST23113	
						12.00 - 12.10	Presenter: Ili Intansari – 290003	

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
			Title: "Multiplex droplet digital PCR assay for Simultaneous quantification of porcine bovine and fish DNA in gelatin-based products"				
12.00 - 13.00	Lunch and Dhuhur prayer						
13.00 - 14.30	<b>IHSATEC2023; 16<sup>th</sup> HASIB Session-2: "Tech-Driven Halal Assurance: Innovations for the Current Era"</b>  Session chair: Assist. Prof. Dr. Pradorn Surcephong, The Halal Science Center, Chulalongkorn University, Thailand	13.00 -14.00	<b>Oral Presentation (OP) Science, Technology, and Innovation session-2</b>  <b>Welcoming Academic Presentation and Group Photo</b> Session Chair 1: Prof. Ts. Dr. Suraini Abd Aziz Professor at Faculty of Biotechnology & Biomolecular Sciences, Universiti Putra Malaysia Session Chair 2: Prof. Dr. Ir. Efi Anis Saati, M.P. Head of Halal Center, Universitas	13.00 -15.00	<b>Oral Presentation (OP)- Online Science, Technology, and Innovation session-2 &amp; Business &amp; Marketing, Social Science session-1</b>  <b>Welcoming Academic Presentation and Group Photo</b> Session Chair 1: Prof. Dr. Mosaad Attia Abdel-Wahhab, Professor of Toxicology and Pharmacology, Food Toxicology & Contaminants Department, Food Industries and Nutrition	13.00 -15.00	<b>Poster presentation</b>  <b>Welcoming Academic Presentation and Group Photo</b> Session Chair 1: Asst. Prof. Dr. Sukrit Sirikwanpong Lecturer, Department of Nutrition and Diabetics Chulalongkorn University, Thailand Session Chair 2: Asst. Prof. Dr. Pakpum
13.00 - 13.20	<ul style="list-style-type: none"> <li><b>Speaker: Prof. Dr. Abdelaziz Bouras</b></li> </ul>	13.00 - 13.15		13.00 - 13.15			

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
13.20 - 13.40	Engineering, Qatar University, Qatar <b>Title: Impact of Climate Change on Halal Food Industry and Role of AI In Terms of Mitigation and Prediction</b>  • <b>Speaker: Assoc. Prof. Dr. Meirambek ZHAPAROV</b> , Associate Professor VR for Student Affairs, at Paragon International University, Phnom Penh, Cambodia. <b>Title: How Halal Technology Can Build Strong Relationships</b>	13.15 - 13.30	Muhammadiyah Malang, Indonesia  Presenter: Tuanyasmin Saerae - HST23158 <b>Title: "Monitoring Ethanol Levels: A Forensic Analysis of Halal-Certified Food Products in Thailand"</b>	13.15 - 13.30	Division, National Research Center, Egypt <b>Session Chair 2: Dr. Karan Wangpaiboon</b> , Department of Biochemistry, Faculty of Science, Chulalongkorn University, Thailand  Presenter: Sithy NY- HST23116 <b>Title: "Removal of heavy metals from agricultural wastewater by forward Osmosis process for water reuse"</b>	13.10 - 13.20	Electronic Research Laboratory (BERL), Department of Electrical Engineering, Chulalongkorn University, Thailand  Presenter: Suwalbah Sulong – HST23152
13.40 - 14.00	• <b>Speaker: Prof. Dr. Ahmed Selfah</b> , College of Technological Innovation, Zayed University UAE.	13.30 - 13.45	Presenter: Phyto Thiri Kyaw - HST23157 <b>Title: "Optimizing Dental Waste Management for Sustainable Practices: A Case Study of Dental Clinics in Yangon, Myanmar"</b>	13.30 - 13.45	Presenter: Saif Ahmed- HST23163 <b>Title: "Navigating Digital Transformation: A Study on the Role of Change Sensing and Seizing Capabilities in Malaysian Manufacturing Firms"</b>	13.20 - 13.30	Presenter: Pitak Ardmore – 377624
		13.45 - 14.00	Presenter: Sely Astuti - HST23146 <b>Title: "Emotional-Focused Coping and Problem-Focused Coping as Strategy for</b>			13.30 - 13.40	Presenter: Maya Lestari – HST23138
						13.40 - 13.50	Presenter: Fitri Utami – HST23132
						13.50 - 14.00	Presenter: Firadao Boonmalert – HST23164

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
14.00 – 14.30	<b>Title: A Digital Twin to Supporting the Concept from Farm to Fork</b>  <b>Panel Discussion, Question and Answer session</b>		<b>Reducing Stress among Gen Z at The Workplace"</b>	13.45 - 14.00	Presenter: Lia Amalia - 388970 <b>Title: "Profile of Beef and Pork Protein Using Sds-Page (Sodium Dodecyl-Sulfate Polyacrylamide Gel Electrophoresis)"</b>	14.00 - 14.10	Presenter: Anat Denyingyhot – HST23165
				14.00 - 14.15	Presenter: Mazzida Mat Deli- HST23109 <b>Title: "Assessing the Readiness of Malaysian Society for Society 5.0: Opportunities and Challenges"</b>	14.10 - 14.20	Presenter: Fakrudin Tapohtoh – 200702
				14.15 - 14.30	Presenter: Ainul Huda Jamil – 995650 <b>Title: "Assessing Halal Professionals' Influence on Fraud Mitigation in Halal Supply Chains"</b>	14.20 - 14.30	Presenter: Suwainah Sa-i – 345401
						14.30 - 14.40	Presenter: Lulu Fatihatul Uyun – HST23127
						14.40 - 14.50	Presenter: Suwalbah Sulong – HST23167
						14.50 - 15.00	Presenter: M Qoshid Al Hadi – HST23135

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
				14.30 - 14.45	Presenter: <b>Ratna Januarita - HST23126</b> Title: "Legal Compliance Frameworks on Halal Certification for MSMEs in Indonesia"		
				14.45 - 15.00	Presenter: <b>Siska Nia Irasanti - HST23171</b> Title: "Social Media Selection to Enhance Health Promotion in Indonesia"		
14.30 - 14.45	Tea/Coffee Break	14.30 - 15.00	Tea/Coffee Break			15.00 - 15.15	Tea/Coffee Break
14.45 - 16.00	IHSATEC2023; 16 <sup>th</sup> HASIB / 9 <sup>th</sup> IHSACC Session-3: " Harnessing Technology for Halal: Advancements in Food, Cosmetic, and Natural Product Industries "	15.00-16.00  15.00 - 15.15	Oral Presentation (OP) <b>Business &amp; Marketing, Social Science session-1</b>  Welcoming Academic Presentation and Group Photo Session Chair 1: Assoc. Prof. <b>Dr. Muhammad Ilyas Yahprung</b> , Faculty of Political	15.00-16.45  15.00 - 15.15	Oral Presentation (OP)-Online <b>Business &amp; Marketing, Social Science session-1</b>  Welcoming Academic Presentation and Group Photo Session Chair 1: Prof. Dr. <b>Mosaad Attia Abdel-Wahhab</b> , Professor of Toxicology and Pharmacology, Food Toxicology	15.00 - 16.20  15.00 - 15.10	Poster presentation  Welcoming Academic Presentation and Group Photo Session Chair 1: Prof. Dr. <b>H. Sapt Nirwandar, S.E., DESS</b> , Chairman of Indonesia Halal

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
14.45 - 15.05	Scssion chair: Assoc. Prof. <b>Dr. Pakorn Priyakorn</b> , Director of the Halal Standard Institute of Thailand.  • <b>Speaker: Ir. Elvina Agustia Rahayu, MP</b> Vice Chairman, Director of Assessment and Domestic & Foreign Affairs, The Assessment and Research Institute - Halalan Thayyiban of Muhammadiyah, Indonesia <b>Title: Halal Ingredient Traceability Corner (HITC): A Solution for MSEs to provide Halal Thayyiban Food and Its Traceability</b>	15.15 - 15.30	Science, Ramkhamhaeng University, Thailand <b>Session Chair 2: Dr. Athuda Chanitphattana</b> , Burapha University International College, Thailand,  Presenter: <b>Syahmardi Yacob - HST23117</b> Title: "The Influence of Sharia Financial Literacy and Sharia Financial Inclusion in Generation Z on the Use of Fintech in West Java Province, Indonesia"	15.15 - 15.30	& Contaminants Department, Food Industries and Nutrition Division, National Research Center, Egypt <b>Session Chair 2: Assist. Prof. Dr. Pradorn Sucephong</b> , The Halal Science Center, Chulalongkorn University, Thailand  Presenter: <b>Syajarul Inna Mohd Amin - HST23142</b> - Title: "The effect of Institutional Governance and Shariah Governance on Sukuk and Bond Performance in GCC"	15.10 - 15.20	Lifestyle Center & Indonesia Tourism Forum, Indonesia <b>Session Chair 2: Asst. Prof. Dr. Pakpum Somboon</b> , Lecturer, Bio-Electronic Research Laboratory (BERL), Department of Electrical Engineering, Chulalongkorn University, Thailand  Presenter: <b>Suraiya Malec - 109179</b>
15.05 - 15.25	• <b>Speaker: Mr. Çağrı Cankurtaran</b> Secretary of the SMIC Committee on	15.30 - 15.45	Presenter: <b>Mageswari Ranjanthran - HST23129</b> Title: "Utilising Fluid Intelligence in Online Grocery Shopping (OGS) using E-SERQUAL Model Among	15.30 - 15.45	Presenter: <b>Ummu Ajirah Abdul Rauf - 749362</b> - Title: "Spicing up Risk Management: Halal Compliance in Malaysian Non-	15.20 - 15.30	Presenter: <b>Sahera duereh - 599917</b>
						15.30 - 15.40	Presenter: <b>Acharee Suksuwan - HST23141</b>



Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
15.25 - 15.45	Standards for Conformity Assessment Title: <b>New Developments on OIC Global Halal Quality Infrastructure (OHAQ) and the Use of Technology and AI at SMIC Standardization Activities</b> • <b>Speaker: Dr. Damir Alihodzic</b> Director of Islamic community in Bosnia and Herzegovina, Agency for Halal Quality Certification, Bosnia	15.45 - 16.00	Presenter: <b>Yogi Gumilar - 958366</b> Title: <b>"Introducing Halal Snacks to Children: A Phenomenological Study in Indonesian Kindergartens."</b>	15.45 - 16.00	Presenter: <b>Rayhan Azis - HST23108</b> Title: <b>"The influence of halal labeling on food purchasing decisions: Case study of Islamic University Bandung and UITM Kedah Malaysia"</b>	15.40 - 15.50 15.50 - 16.00	Presenter: <b>Bella Fajhita - HST23140</b> Presenter: <b>Md. Touhidul Islam - HST23145</b>
15.45 - 16.00	• <b>Speaker: Dr. Damir Alihodzic</b> Director of Islamic community in Bosnia and Herzegovina, Agency for Halal Quality Certification, Bosnia Title: <b>Reliability of Rapid Tests for The Detection of Specific Haram Ingredients in Products</b>  <b>Panel Discussion, Question and Answer session</b>	15.45 - 16.10	Presenter: <b>Junaidi - 551410</b> Title: <b>"The Influence of Several Macroeconomics, Oil Prices on Jakarta Islamic Index Share Prices in Indonesia"</b>	16.00 - 16.15  16.15 - 16.30	Presenter: <b>Zainul Arief- 977403</b> Title: <b>"Prophetic Marketing of Halal Products to Generation Z"</b>  Presenter: <b>Habilla Chapakiya - 292144</b> Title: <b>"Developing Product by Increase Value of the Salted Fish Kulao by Pa Aon Tak Bai Community Enterprise"</b>	16.00 - 16.10 16.10 - 16.20	Presenter: <b>Saiful Mozumder - HST23103</b>  Presenter: <b>Mira Sofyaningsih - HST23147</b>

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
16.00 - 16.15	<b>IHSATEC2023; 16<sup>th</sup> HASIB Session-4:</b> <b>" Innovations in Food and Ingredients: From Nature's Bounty to Advanced Solutions "</b>  Session chair: <b>Dr. Simab Kanwal</b> Institute of Nutrition, Food Chemistry Unit, Mahidol University, Thailand  • <b>Speaker: Prof. Dr. Nazimah Hamid</b> Professor of Food Science at Auckland University of Technology, New Zealand Title: <b>Unlocking the Hidden Potential of Food By-Products: Converting Food Waste into Sustainable Functional Food Ingredients</b>			16.30 - 16.45	Presenter: <b>Wint Thiri Marn - HST23151</b> Title: <b>"Understanding Tenant Satisfaction and Preferences in Green Buildings: A Post-Occupancy Evaluation Approach"</b>		



Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
16.30 - 16.45	<ul style="list-style-type: none"> <li>Speaker: Prof. Dr. Muhammad Umair Arshad Professor / Chairperson Department of Food Science Government College University, Faisalabad, Pakistan  <b>Title: Role of Form of Dairy Products on Short Term Food Intake, Satiety and Postprandial Glycemia in Young Healthy Adults</b></li> <li>Speaker: Prof. Ts. Dr. Suraini Abd Aziz Professor at Faculty of Biotechnology &amp; Biomolecular Sciences, Universiti Putra Malaysia  <b>Title: Bromelain Enzymes from Pineapple Leaves as Source of Halal Ingredients for</b></li> </ul>						

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)	Time (GMT +7)	ARCHWAY (Nana Bhirom Room) IHSATEC2023 (Poster Academic Presentation)
16.45 - 17.00	<b>Therapeutic Usage</b> <b>Panel Discussion, Question and Answer session</b>						
18.00 - 19.00	Maghrib prayer and visit Expo at Asiatique the Riverfront						
19.00 - 21.00	Welcome Dinner						

December 3, 2023  
 Day-2 (SUNDAY)

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)
08.30 - 09.00	Participants Registration				
09.00 - 09.20	<b>Signing Ceremony</b> of Memorandum of Understanding (MOU) and Memorandum of Agreement (MOA)	09.00 - 10.20	<b>IHSATEC2023; 16<sup>th</sup> HASIB Session-6:</b> "Halal Assurance and Technological Advancements"	09.00 - 10.00	Academic Judging Committee Meetings
09.20 - 10.20	<b>IHSATEC2023; 16<sup>th</sup> HASIB Session-5:</b> "Innovations in Halal Sustainability and Healthcare"	09.00 - 09.20	<b>Session chair:</b> Dr. Simab Kanwal Institute of Nutrition, Food Chemistry Unit, Mahidol University, Thailand.		
09.20 - 09.40	<b>Speaker &amp; Session chair:</b> Prof. Dr. Mian N. Riaz, IFANCA's Professor of Food Diversity, USA <b>Title:</b> Upcycled Food and Its Halal Certification		<b>Speaker-1:</b> Prof. Dr. Lela Nurlaela Wati, Universitas Teknologi Muhammadiyah Jakarta, Indonesia <b>Title:</b> Digital Innovation and Gender-Based Competitive Advantage: Evidence from Indonesian Indonesia Micro, Small, And Medium Enterprises (MSMEs)		
09.40 - 10.00	<b>Speaker-1:</b> Assoc. Prof. Dr. Shahid Bashir, The University of Lahore, Pakistan <b>Title:</b> Consumer Confidence in Halal Products: The Influence of Transparent Regulatory Assessment	09.20 - 09.40	<b>Speaker-2:</b> Mr. Mohd Hazim Mohd Yusop, Universiti Malaysia Sabah, Malaysia		

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)
10.00 - 10.20	<b>Speaker-2:</b> Assoc. Prof. Dr. Moohamad Ropaning Sulong, Universiti Islam Sultan Sharif Ali, Brunei Darussalam <b>Title:</b> Utilizing Anacardium occidentale Leaves Extract as Alternative to the Conventional Antibiotics Against Antimicrobial-Resistant Microorganisms	09.40 - 10.00	<b>Title:</b> "Detection of Porcine DNA Using Isothermal Nucleic Acid Amplification for Halal Forensic"		
		10.00 - 10.20	<b>Speaker-3:</b> Dr. Nita Rusdiana, Universitas Muhammadiyah A.R. Fachrudin, Indonesia <b>Title:</b> Determination of Pork Fatty Acid in Bulk Cooking Oil		
			<b>Speaker-4:</b> Mr. Sheraz Ali, University of the West Indies, Trinidad, and Tobago <b>Title:</b> The Influence of Religiosity on the Purchase Intention of Halal Foods in Trinidad and Tobago		
10.20 - 10.30	Tea/Coffee Break	10.20 - 10.30	Tea/Coffee Break	10.00 - 10.30	Tea/Coffee Break
10.30 - 11.00	<b>IHSATEC2023 Academic Award Ceremony</b>				
11.00 - 12.00	<b>Closing Ceremony</b>				
	<ul style="list-style-type: none"> <li><b>Closing Remarks and Conference Resolution</b> by Assoc. Prof. Dr. Winal Dahlan, Founding Director, The Halal Science Center, Chulalongkorn University (HSC-CU)</li> <li><b>Dua closing</b></li> <li><b>Vote of Thanks and Group photograph</b></li> </ul>				
12.00 - 13.30	Lunch and Dhuhr prayer				

December 3, 2023  
 Day-2 (SUNDAY)

Time (GMT +7)	Room-I (Samat Nana Room) IHSATEC2023; 16 <sup>th</sup> HASIB/9 <sup>th</sup> IHSACC	Time (GMT +7)	Room-II (Nana Bhirom Room) IHSATEC2023 (Onsite Academic Presentation)	Time (GMT +7)	Room-III (Banglumphu Room) IHSATEC2023 (Online Academic Presentation)
13.30 - 17.00	Site visit Thai Muslim friendly culture, Halal route, Bangkok <b>**Only for registered attendees**</b>				
17.00	Departure of all delegates				

--- End of The Conference ---

# Track: Islamic Finance

Supported by :



# Does the Merger of Large Sharia Banks Work? A Study of Islamic Bank in Indonesia |

<sup>1</sup>Moza Audina Sopharia, <sup>2</sup>Pupung Purnamasari, <sup>3</sup>Innez Assyffa Andien Wahyuningtyas

<sup>1,2,3</sup>Universitas Islam Bandung

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## Abstract

**Background** - In 2021 the Indonesian government merged three large state-owned Islamic banks to support the halal industry in Indonesia, there have been many studies on financial statement ratio analysis comparing the conditions of Bank Syariah Indonesia (BSI) before and after the merger. However, financial statement ratios are highly dependent on the accounting treatment that companies use so this study uses Economic Value Added (EVA) as a perfect measurement of BSI's financial performance before and after the merger.

**Purpose** - This study aims to test and provide empirical evidence about the Economic Value Added (EVA) approach to show financial performance can provide economic added value to BSI before and after the merger.

**Design/Methodology/Approach** - This research uses a quantitative approach. The data source is secondary data obtained from the financial statements of Bank Syariah Indonesia (BSI) before and after the merger.

**Findings** - The results showed that the financial performance of financial performance before and after the merger of BSI provided economic added value for the company and was able to meet stakeholder expectations.

**Research Limitations** - This study only adds Economic Value Added (EVA) to see whether financial statements have economic added value, there are still many approaches that can be applied in measuring the quality of financial statements other than using the ratio level.

**Originality** - Research on the quality of financial statements using Economic Value Added at BSI before and after the merger is still rare, most studies use ratio analysis to measure financial performance at BSI.

Keywords : Sharia Bank, Halal Ecosystem, Economics Development, Islamic Finance, Indonesia Economy

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# The Influence of Micro Factors (Liquidity and Profitability) and Macro Factors (Inflation and Interest Rates) on the Stock Prices |

<sup>1</sup>Safira Rahmawati, <sup>2</sup>Donita Nawangayu, <sup>3</sup>Amelia Pulukadang, <sup>4</sup>Bella Fujitha, <sup>5</sup>Juariah Fitri

Master of Management Study Program, Faculty of Economics and Business,

<sup>1,2,3,4,5</sup>Bandung Islamic University, Bandung, Indonesia

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## Abstract

**Background:** The contribution of Islamic banks to a country's overall economic growth has been considered a noteworthy performance metric. The provision of financing to support the real sector and active participation in development initiatives has been perceived as enhancing the significant role played by Islamic banks in the economic landscape. Over a specific period, a phenomenon characterized by a decline in stock prices has been observed, driven by various factors associated with performance. One such factor was the historical lack of corporate issuers in the Sharia banking sector, which could have contributed to the decrease in bank stock prices through various mechanisms, including both micro and macro factors.

**Methodology/Approach:** This research employed quantitative methods. The data utilized in this research consisted of secondary data obtained from the website <https://idx.co.id>. The sampling technique in this research involved the use of a purposive sampling technique with a sample of 4 Sharia banks in Indonesia listed on the Indonesia Stock Exchange (BEI). It utilized 60 financial reports covering the period from the first quarter of 2019 to the fourth quarter of 2022 for BRI Sharia, BTPN Sharia, and PNB Sharia. The period from the first quarter of 2020 to the fourth quarter of 2022 was used for Aladin Sharia Bank. For data analysis employed unbalanced panel data regression, which analyzed cross-sectional units with an uneven distribution of time periods. This data imbalance could be caused by missing data (missing values) in certain units or time periods.

**Purpose:** The aims of this research was to ascertain the influence of various micro factors, including liquidity and profitability, and macro factors such as inflation and interest rates, on stock prices within the Islamic banking sector in Indonesia.

**Findings:** The independent variables, specifically Micro Factors (Liabilities and Profitability) (X1), and Macro Factors (Inflation and Interest Rates) (X2), were found significant influence on the dependent variable, Stock Prices (Y).

**Originality/Value:** This study provides valuable insights into the dynamics of financial stock prices within the Islamic banking sector in Indonesia and underscored the significance of considering or integrating macro and micro financial factors into financial analyses for making well-informed investment decisions. In contrast to prior research that employed balanced data, the utilization of unbalanced panel data represented a distinct approach. The presence of data imbalance allowed for a more nuanced exploration of heterogeneity among study units. The inclusion of units with diverse characteristics enhanced the precision of the study, capturing variations within a broader population.

**Keywords:** Liabilities, Profitability, Inflation, Interest Rates, Stock Prices

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# The effect of Institutional Governance and Shariah Governance on Sukuk and Bond Performance in GCC |

<sup>1</sup>Alyamani Ghalib Mohammed, <sup>2</sup>Aisyah Abdul Rahman, <sup>3</sup>Syajarul Imna Mohd Amin, <sup>4</sup>Mohd Hafizuddin Syah Bangaan Abdullah

<sup>1,2,3,4</sup>Universiti Kebangsaan Malaysia

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## Abstract

**Background** – Sukuk and bond are two financial instruments used by governments and organizations to attract funds. There are differences between the two methods. Most of previous studies focused on bond while few examined the sukuk performance. Previous studies also focused on corporate governance (CG) while the role of shariah governance (SG) and institutional governance (IG) was examined in limited studies.

**Purpose** – Building on stakeholder theory and agency theory, this study examined the effect of SG on the sukuk performance and the effect of IG on the sukuk and bond performance.

**Design/methodology/approach** – The study collected data from financial and non-financial institutions active in sukuk and bond issuance in the region of Gulf Cooperation Council (GCC).

**Findings** – The findings showed that the SG affected positively the sukuk performance. In addition, the IG affected positively the sukuk and bond performance. Improvement in the shariah and IG will enhance the performance of sukuk and bond.

**Research limitations** – While this study provides useful insights into the impact of Shariah Governance (SG) and Institutional Governance (IG) on sukuk and bond performance, the findings are based on data from the Gulf Cooperation Council (GCC) region, potentially limiting generalizability to other global contexts.

**Originality/value** – Nonetheless, the study contributes to the existing literature by offering a comprehensive examination of the distinct impacts of Shariah Governance (SG) and Institutional Governance (IG) on both sukuk and bond performance, a perspective that has been relatively underexplored in prior research.

Keywords: Institutional Governance, Shariah Governance, Sukuk, Bond, GCC

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# The impact of fintech on market power and Non-Performing Financing (NPF) risks at Rural Banks (BPRS) in West Jawa |

<sup>1</sup>Syahmardi Yacob, <sup>2</sup>Junaidi, <sup>3</sup>Handri, <sup>4</sup>Achmad Kemal Hidayat, <sup>5</sup>Hendrati Dwi Mulyaningsih

<sup>1,2</sup>Universitas Jambi, <sup>3,5</sup>Universitas Islam Bandung, <sup>4</sup>Universitas Padjadjaran

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## Abstract

**Background** – The presence of financial technology (fintech) has led to increased competition between sharia financial banks in financing, thanks to advances in digital access. Rural Banks (BPRS) which consist of various sizes, ranging from small, medium and large, face different challenges in terms of the Information Technology (Core Banking System) they utilize. Larger SRBs may not face problems because they develop CBS internally to meet their specific needs. On the other hand, medium and small scale SRBs often choose to outsource through third-party CBS service providers.

**Purpose** – Based on the above phenomenon, research needs to be carried out to examine the impact of penetration of financial technology institutions on challenges to the strength and stability of the BPR and Sharia BPR markets. The data used consists of a panel of 27 BPRS in West Java.

**Design/methodology/approach** – With a non-structural approach, market strength can be measured using the Lerner Index (in the Giokoli 2012 literature). Meanwhile, non-performing loans are a measure of banking stability. Using dynamic panel regression: the generalized method of moments.

**Findings** – The research results show that fintech has a positive influence on market forces and a negative impact on the stability of Rural Banks (BPRS). The data used consists of a panel of 27 BPRS in West Java from 2020 to 2022

**Research limitations** – The data used consists of a panel of 27 BPRS in West Java from 2020 to 2022. Limited time and energy, it is hoped that further research can be carried out with the data expanded further to the provincial scale in Indonesia.

**Originality/value** – Fintech penetration actually provides resilience to BPRS market power through institutional collaboration. Not only that, economic growth has been proven to contribute to higher market power. On the other hand, the decline in banking stability was caused by other BPRS not exploring cooperation opportunities, thereby increasing financing risk.

Keywords: Fintech, Market power, Non-Performing Financing (NPF), GMM

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# The Influence of Sharia Financial Literacy and Sharia Financial Inclusion in Generation Z on the Use of Fintech in West Java Province, Indonesia |

<sup>1</sup>Handri H, <sup>2</sup>Hendradi Dwi Mulyaningsih, <sup>3</sup>Syahmardi Yacob, <sup>4</sup>Azib

<sup>1,2,3,4</sup>Universitas Islam Bandung

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## Abstract

**Background** – This study explores the great potential that Generation Z has, so it requires an in-depth study of their sharia financial literacy and sharia financial inclusion in relation to global financial and economic dynamics. As active consumers, Generation Z has knowledge and control over financial matters, driven in part by media influence. The increasing prominence of sharia finance on the global stage has encouraged the government's aspirations to position West Java as a pioneer, spearheading the development of sharia finance and becoming a model for other regions.

**Purpose** – This research aims to determine the extent of the influence of sharia financial literacy and sharia financial inclusion of Generation Z on the use of Fintech financial technology with the phenomenon of Gen Z who are heavily involved in online loan debt in West Java Province, where more than half of the population is Generation Z.

**Design/methodology/approach** – Methodologically, this research uses a qualitative descriptive approach involving 400 Generation Z respondents in West Java Province using the Slovin method. Likert scales, frequency tabulation, and multiple regression serve as the main instruments and analysis techniques.

**Findings** – The findings reveal a substantive correlation between sharia financial literacy, financial inclusion, and the expansion of financial technology. Notably, Generation Z's sharia financial literacy is deemed insufficient. Moreover, it is observed that religiosity exerts a more pronounced influence on the millennial generation than on Generation Z, while social influence holds greater sway over the latter compared to the former. In conclusion, this research posits that Islamic financial literacy and sharia financial inclusion significantly shape the financial technology landscape for Generation Z in West Java.

**Research limitations** – Sample size can be a major obstacle in identifying relevant patterns and relationships. Time available to explore the research problem. Limited access to polls of certain people or groups

**Originality/value** – There has been no research on how much influence sharia financial literacy and sharia financial inclusion have on the use of technology, the Gen Z phenomenon, which is heavily involved in online loan debt.

Keywords: Islamic financial literacy, FinTech, Islamic financial principles

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# Track: Food science

Supported by :



# Halal yoghurt production aspects related to halal and kosher foods production |

Usman Mir Khan

University of Agriculture, Faisalabad, Pakistan

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## Abstract

**Background** – The gelatin production is always remained a concern of great debate worldwide. The collagen found in animal bones, skins, and connective tissues is partially hydrolyzed to produce gelatin, a water-soluble protein. Gelatin has wide range of uses in many different industries, including the food, pharmaceutical, and cosmetics industries. But in Halal and Kosher food industries, it is regarded as one of most contentious components. The acceptability of items containing gelatin is determined by the animal from which it was derived and it is impossible to determine the source animal from which the gelatin originated after it is combined with food or pharmaceutical products. As a result, there is a chance of financially motivated adulteration or mislabeling. In yoghurt production, milk is incorporated with gelatin to counter the syneresis problem during storage but gelatin source is unknown which led to Halal or Haram ethical issues.

**Purpose** – This study focused on yoghurt production from transglutaminase enzyme extracted from plant source as gelatin replacer and to examine the rheological properties of yogurt.

**Design/methodology/approach** – The effects of varied transglutaminase enzyme concentrations ranging from 0.02%, 0.03% and 0.04% with various setting temperatures of 35OC, 45OC, and 55OC with different time treatment of 60, 90 and 120 minutes were evaluated.

**Findings** – The enzymatic treatment of milk proved beneficial to retard the syneresis phenomenon during yogurt storage at 4OC which improved water holding capacity during centrifugation. The post-acidification procedure and stability of yogurt samples were both effected by cross-linking of transglutaminase with milk protein that proved effective tool for improving functional properties of yoghurt.

**Research limitations** – Although, transglutaminase enzyme concentrations showed less syneresis problems but curd showed weak gelling properties which later on affected the sensorial properties of the yoghurt. The halal and kosher food production is big challenge in dairy industries, so alternative plant based gelling agents must be identified as transglutaminase enzyme is costly so trend must be shifted toward the easily available, economical and efficient gelling agents.

**Originality/value** – As consumer concerns about the authenticity of Halal and Kosher food and non-food products have grown. Therefore, Gelatin species origin must be detected and quantified in order to ensure its integrity with regard to Halal and Kosher issues.

Keywords : *Gelatin, Kosher, Yoghurt, Tranlglutaminase enzyme, Halal source*

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# Halal Food and Inclusivity in Children's Literature: A Case Study from Cultural and Religious Perspectives in Early Childhood Education in Indonesia |

<sup>1</sup>Maya Lestari, <sup>2</sup>Yogi Gumilar, <sup>3</sup>Fitria Budi Utami

<sup>1,2,3</sup>Universitas Muhammadiyah A.R. Fachruddin

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## Abstract

**Background** – Halal food holds profound cultural and religious significance in Indonesian society. In the context of ECE, understanding halal food becomes pivotal in ensuring genuine inclusivity for all children

**Purpose** – This paper aims to examine how halal food is integrated into children's literature in kindergarten and how the integration impacts the inclusivity of children from diverse cultural and religious backgrounds.

**Design/methodology/approach** – This paper adopts a case study approach to comprehend how cultural and religious perspectives influence the understanding and implementation of halal food in children's literature in kindergarten.

**Findings** – The findings provide deep insights into how halal food can serve as a crucial tool in promoting inclusivity in kindergarten while respecting the cultural and religious diversity in Indonesia. This paper also offers practical recommendations for educators and policymakers in the field of ECE to ensure that halal food and inclusive children's literature become integral components of children's learning experiences in kindergarten

**Research limitations** – This paper contributes to enhancing a more inclusive education system aligned with the cultural and religious values in Indonesia

**Originality/value** – This paper attempts to explore the importance of halal food within the context of inclusivity in early childhood education (ECE) settings, specifically in Indonesian Kindergarten through children's literature

Keywords: halal food, Inclusivity, Children's Literature, Cultural, Religious

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# Exploration of Nutritional Impact of Tilapia Noodles enriched with wolffia (*Wolffia globosa*) |

<sup>1</sup>Firadao Boonmalert, <sup>2</sup>Sarin Chaovasuteeranon, <sup>3</sup>Najwa Yanya Santiworakun, <sup>4</sup>Kunthira Salae, <sup>5</sup>Winai Dahlan, <sup>6</sup>Nareeya Waloh

<sup>1,2,3,4,5,6</sup>The Halal Science Center, Chulalongkorn University

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## Abstract

**Background** – Wolffia or watermeal, a small and floating aquatic plant, has been recognized for its high protein content, making it a promising candidate for fortification in various food products.

**Purpose** – This study investigates the development of tilapia noodles fortified with Wolffia, a protein-rich aquatic plant.

**Design/methodology/approach** – The methodology comprises of total protein analysis, water activity, proximate analysis, and vitamin B12 analysis.

**Findings** – Four formulations of tilapia noodles were examined: without Wolffia, with 0.5% Wolffia, with 1% Wolffia, and with 1.5% Wolffia. Total protein analysis revealed that the tilapia noodles fortified with 1.5% Wolffia exhibited the highest protein content at 13.93 g/100g, making it an attractive source of dietary protein and thus this formulation was selected for further analysis. The water activity of this formulation was reported to be 0.99. Proximate analysis of this formulation showed total carbohydrate content of 5.50 g/100g, moisture content of 80.55 g/100g, ash content of 1.05 g/100g, and total fat content of 1.16 g/100g, indicating a balanced nutritional profile. Moreover, the tilapia noodles fortified with 1.5% Wolffia contained 0.48 mg/100g of vitamin B12, contributing to the essential micronutrient intake in the diet. These findings underscore the potential of Wolffia-fortified tilapia noodles as a nutritious food product, offering a rich source of protein and vitamin B12, which are vital components of a healthy diet.

**Research limitations** – Research should consider the acceptability of Wolffia-enriched Tilapia Noodles. Consumer preferences, cultural attitudes, and taste factors may affect the adoption of this novel food product.

**Originality/value** – The study on the nutritional impact of Tilapia Noodles enriched with Wolffia has the potential to address various global issue, such as nutrition, sustainability, and food security. It can contribute to scientific knowledge, economic development, and improved public health, making it a valuable and relevant area of research.

Keywords: Wolffia, tilapia noodles, protein enrichment, sustainable protein source

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# Evaluating the Impact of Microencapsulated Black Cumin Seed Oil on the Physical and Nutritional Profile of Orange Sweet Potato Custard |

<sup>1</sup>Suwaibah Sulong, <sup>2</sup>Netnapa Ontao, <sup>3</sup>Najwa Yanya Santiworakun, <sup>4</sup>Winai Dahlan, <sup>5</sup>Hasam Chebako, <sup>6</sup>Baddariyah Sohsansa

<sup>1,2,3,4,5,6</sup>The Halal Science Center, Chulalongkorn University

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## Abstract

**Background** – In light of the growing concern over the rising incidence of chronic non-communicable diseases (NCDs) attributed to unhealthy dietary habits.

**Purpose** – this study aimed to develop a healthier sweet potato-based-custard product fortified with microencapsulated black cumin seed oil (MNSO) and sweetened with stevia.

**Design/methodology/approach** – The methodology comprises color analysis, Fatty acid composition analysis, Water activity, and antioxidant activity.

**Findings** – Four formulations with varying MNSO concentrations (0%, 1%, 2%, and 4%) were examined in terms of physical characteristics, nutritional facts, and sensory attributes. The color analysis revealed that the control custard had the highest brightness ( $L^*$  value) due to the absence of MNSO, resulting in a decrease in sample brightness with MNSO supplementation. Fatty acid composition analysis showed that linoleic fatty acids in the custard with 1.0% MNSO were similar to the control, while the 2.0% and 4.0% MNSO-fortified custards were significantly different. Water activity measurements for different MNSO concentrations ranged from 0.982 to 0.986, demonstrating the product's suitability for long-term storage. The antioxidant activity tests indicated that MNSO supplementation significantly enhanced the antioxidant ability of the custard. The custard with 4.0% MNSO exhibited the highest antioxidant activity with an inhibition rate of 38.86%, followed by 2.0% (38.52%), 1.0% (26.72%), and the control (24.30%). However, the study revealed that the custard with 1.0% MNSO exhibited the highest overall satisfaction compared to the 2.0% and 4.0% concentrations.

**Research limitations** – Sensory Characteristics: The addition of Black Cumin Seed Oil may alter the sensory characteristics of the custard, potentially impacting its taste, aroma, and texture. Evaluating consumer acceptability is important, but the sensory experience can be subjective.

**Originality/value** – The evaluation of the impact of microencapsulated Black Cumin Seed Oil on Orange Sweet Potato Custard offers a range of values, from enhanced nutritional content and potential health benefits to food innovation.

**Keywords:** Non-communicable diseases (NCDs), Microencapsulated black cumin seed oil, stevia, orange sweet potato

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# Development of a Halal Plant-Based Egg Prototype for Conscious Consumers |

<sup>1</sup>Kasinee Katelakha, <sup>2</sup>Najwa Yanya Santiworakun, <sup>3</sup>Nadia Dahlan, <sup>4</sup>Pongpol YodmuangCharoen, <sup>5</sup>Firadaw Boonmalert, <sup>6</sup>Suwaibah Sulong, <sup>7</sup>Winai Dahlan

<sup>1,2,3,4,5,6,7</sup>The Halal Science Center, Chulalongkorn University

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## Abstract

**Background** – The current food trend is shifting towards "future food." Ethical consumer concerns regarding food arise due to its alignment with their beliefs. Halal is a special meal that is not only for Muslims but is also considered safe for everyone. When it comes to the development of Halal plant-based foods, the ingredients, and chemicals used in the formula need to assure their Halal status since most of them may contain or even be extracted from animal origins. Therefore, the screening and selection of ingredients and chemicals used in plant-based food development must be a priority

**Purpose** – In this study, we aim to develop a Halal plant-based egg was undertaken as a product prototype.

**Design/methodology/approach** – The screening of ingredients and food additives or chemicals used in the formula was carried out according to H numbers. The formula of a Halal plant-based egg consisted of a combination of pea protein and mungbean protein at a total concentration of 8.0% (w/w), along with 2.0% of a mixture of plant hydrocolloid. Soy lecithin was employed as an emulsifier for the formula to ensure that the developed egg substitute contains a similar amount of lecithin as a real egg. All ingredients were mixed with overhead blending for 30 minutes at room temperature.

**Findings** – The prototype of a Halal plant-based egg contained fiber, which is beneficial for health and is not naturally present in eggs, at a concentration of 0.51%. A reduced calorie content of 65.30 kcal/100g was achieved while maintaining a total fat content of 3.26 g/100g. Additionally, the fatty acid profile analysis demonstrated a notable concentration of unsaturated fatty acids. The eight essential amino acids, including Leucine, Lysine, Phenylalanine, Valine, Isoleucine, Threonine, and Histidine, were abundantly found in the formula.

**Research limitations** – -

**Originality/value** – Therefore, this Halal plant-based egg substitute has the potential to appeal to consumers, especially Muslims and all ethical consumers.

Keywords: Halal-Plant-Based, Egg Substitute, Nutritional Profile, Consumer Acceptance, fiber-enriched food alternatives.

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# Developing Product by Increase Value of the Salted Fish Kulao by Pa Aon Tak Bai Community Enterprise |

<sup>1</sup>Habilla Chapakiya, <sup>2</sup>Chutima Wangbenmad, <sup>3</sup>Thanapong Wunsaeng, <sup>4</sup>Jinatda Wittayapanpracha, <sup>5</sup>Nisaporn Muhamad, <sup>6</sup>Ameen Mhamad, <sup>7</sup>Arseeyah Lateh

<sup>1,6,7</sup>The Halal Science Center Chulalongkorn University, <sup>2,3</sup>Hatyai University, <sup>4</sup>Thaksin University, <sup>5</sup>Yala Rajabhat University

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## Abstract

**Background** – The Ministry of Industry's DIP initiated the Creative Industry Village (CIV) to elevate local industries. These villages aim to transform community enterprises like Pa Aon's traditional salted kulao fish into sustainable SMEs, introducing new products and diversifying income for health-conscious consumers while preserving the unique flavor.

**Purpose** – 1. To create a new product, the smooth taste of healthy salted fish kulao in sunflower oil, the ready-to-eat product for Pa Aon Tak Bai Community Enterprise, Jeahe Sub-district, Takbai District, Narathiwat Province. 2. To disseminate knowledge about the production process of the smooth taste of healthy salted fish kulao. 3. To study consumer acceptance of the formula for the smooth taste of healthy salted fish kulao in sunflower oil, the ready-to-eat product.

**Design/methodology/approach** – This participatory action research (PAR) project involves community enterprises, staff, and academics to create a prototype salted fish kulao. Steps include formulating three fermentation times, sun-drying, tasting evaluations, and experimental production of a healthy version in sunflower oil. The final product's satisfaction is assessed by a target group through questionnaires and data analysis.

**Findings** – 1. The study found that the team selected formula 3 to develop the smooth taste of healthy salted fish kulao in sunflower oil. 3. After taste testing, it was found that the sample group had a high level of satisfaction with the smooth taste of healthy salted fish kulao in sunflower oil, the ready-to-eat product (average score = 4.32).

**Research limitations** – In this program, industry cultural village only Pa Aon community enterprise was selected. Future R&D project will include more community enterprises joining together in the collaboration for transferring and generating new knowledge to communities.

**Originality/value** – The community enterprise has gained new knowledge and can use this knowledge to produce and distribute the product, thereby increasing income for the community that have made them a competitive advantage in the market.

Keywords: New product, Increase Value of the Salted Fish Kulao, Pa Aon Tak Bai Community Enterprise

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# Reduction of Aflatoxin M1 Contamination in Milk Using Probiotic Lactic Acid Bacteria Isolated from Halal Source |

<sup>1</sup> Anna Abdolshahi, <sup>2</sup> Ashkan Jebeli Javan, <sup>3</sup> Negin Rasooli, <sup>4</sup> Bahador Bagheri, <sup>5</sup> Mosaad A. Abdel-Wahhab

<sup>1,2,3,4</sup>Semnan University, <sup>5</sup>National Research Centre

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## Abstract

**Background** – Aflatoxin M1 (AFM1) is a hepatocarcinogenic compound found in milk from lactating animals fed diets contaminated with aflatoxin B1. The efficient and safe strategies for degradation/detoxification of AFM1 in contaminated milk are rare.

**Purpose** – Since probiotic bacteria recorded as notable aflatoxin binder, the present study aimed to evaluate

**Design/methodology/approach** – the reduction of AFM1 was evaluated in PBS and milk by different lactic acid bacterial strains including *Lactobacillus plantarum*, *Lactobacillus casei*, and *Lactobacillus paracasei* isolated from halal source

**Findings** – The highest AFM1 reduction obtained by *Lactobacillus paracasei* in PBS (71.35%) and also in milk (68.53%). The assessment of AFM1 reduction during contact time (12 to 48 h) of *Lactobacillus paracasei* and contaminated milk was 67 to 71.2 % in which the most adsorption was occurred in first 12 h. Regarding these results, the studied strains could reduce AFM1 content in PBS from 53.5 to 71.35 % ( $p < 0.001$ ) and in milk from 68.53 to 57.20%

**Research limitations** – no limitation

**Originality/value** – These results indicated that the isolated probiotic strains could recommend to as halal agents applied in milk and dairy product to decrease AFM1 level. Besides, the use of halal probiotic bacteria as a safety promotion approach suggest to dairy industry.

Keywords: AflatoxinM1, Halal, Lactic acid bacteria, Milk

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# Consumer Confidence in Halal Products: The Influence of Transparent Regulatory Assessment |

<sup>1</sup>Shahid Bashir, <sup>2</sup>Waseem Khalid

<sup>1,2</sup>The University of Lahore

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## Abstract

**Background** – The expanding global market for halal food highlights the significance of preserving Islamic dietary principles. Maintaining customer trust relies heavily on ensuring the authenticity and compliance of halal products. Strict adherence to Halal regulations is essential for upholding the credibility of the food sector.

**Purpose** – This study shows the influence of transparent regulatory evaluations on molding consumer perspectives. It is also aid in mitigating apprehensions associated with halal commodities.

**Design/methodology/approach** – The data was carried out using scientific databases comprising of Scopus, Science Direct, PubMed, Cochrane Library, Science Hub and Google Scholar. Managing the Halal sector's growth involves handling legal complexities, various certifications, and unique challenges while implementing strategies for overall progress. Understanding how the Halal market grows means considering transparent rules, Halal certifications, factors affecting consumer trust, and past experiences. It's important to focus on the complex laws and certifications for making and labeling Halal products—they build trust with consumers. Dealing with sector challenges like tracing products, following rules, preventing fraud, and accurate labeling is crucial. Evaluating laws authentically affects how consumers see things, emphasizing the importance of clear rules. Assessing the situation involves looking at rules, trusted organizations, clear supply chains, regular checks, accessible information, global teamwork, public awareness, laws, and feedback.

**Findings** – A combination of best practices from the industry and real-life case studies offers valuable insights into areas that need improvement as well as effective solutions. This review concludes by highlighting the basic relationship between customer trust in Halal products and transparent regulatory assessment.

**Research limitations** – Inadequate consumer awareness of complex regulatory processes may undermine the efficacy of transparent assessments. Discrepancies between perceived transparency and actual regulatory practices could erode consumer trust along with cultural and regional variations in interpretations of Halal standards may pose challenges to achieving universal consumer confidence.

**Originality/value** – Transparent regulatory assessment is integral to building and maintaining consumer confidence in Halal products. It involves clear standards, credible certification processes, supply chain transparency, regular audits, and effective communication to ensure that consumers can make informed choices based on trust in the regulatory framework.

Keywords: Halal Products, Regulatory Assessment, Consumer Confidence, Compliance, Traceability

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# Track: Health and Physical Science

Supported by :



# Maternal Health Services in Disaster Prone Areas: A Case Study of Sharonkhola and Morelganj Upazillas of Bagerhat, Bangladesh |

Saiful Mozumder

North Pacific International University of Bangladesh (NPIUB)

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## Abstract

**Background** – Not unlike many other developing countries condition of women, especially that of pregnant women in Bangladesh is very vulnerable.

**Purpose** – Women in the disaster-prone areas are more susceptible among the vulnerable groups. After a disaster, the relief efforts do not take into consideration of the health, especially reproductive health and general obstetric care needs of women.

**Design/methodology/approach** – 3.4.1 Selection of Study Area The study area was Sharankhola and Morrelganj Upazila of Bagerhat district. There are a total of two Surjer Hashi Clinics in the two Upazilas which were selected for this study. 3.4.2 Study Population The study population was health care seeking women from Surjer Hashi Clinics of these intervention areas. 3.4.3 Sample Size and Distribution For data collection of health care seeking women were randomly selected from each of the Surjer Hashi Clinics, with a total of 181 women of which 90 of Morrelganj and 91 of Sharankhola were sampled from Bagerhat district.

**Findings** – Women respondents of study area are mostly depend on village quack for taking treatment due to nearby access to better health care facilities. • In most of the cases, they face problem for getting time bound treatment support due to inadequate health infrastructure, more distance, bad communication, financial crisis and lack of emergency transport. • Though a significant number of women go outside alone for taking different services, their mobility is limited to few places only like- Upazila health complexes, Banks, Community clinics, Union Parishad offices and Village hat/bazaars. • Most of the women mainly face two types of discriminations in the family, one is in the allocation of food to them and another is for providing treatment by the family. • Significant portion of respondents have knowledge on medical check-up during pregnancy but they do not get timely support from their family. • Major portion of women are not aware about sexually transmitted disease, so they do not go for received treatment in this regard.

**Research limitations** – While the background information has been collected and reported for all disaster prone areas of Bangladesh but the evaluation has been limited in two upazillas.

**Originality/value** – This thesis is my original work.

Keywords : Maternal Health Services

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# The Influence of Fake News and the Intensity of Social Media Use on the Mental Health of Generation Z in West Jawa |

<sup>1</sup>Fathan Auzan Abdullah, <sup>2</sup>Nicky Sunjaya

<sup>1,2</sup>Universitas Padjajaran

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## Abstract

**Background** – The global spread of the coronavirus disease has forced people to use the internet more intensively, and triggered the rapid spread of information. Amidst this situation, the spread of fake news on social media platforms has become an integral part of many people's lives due to the increasing intensity of social media usage.

**Purpose** – Therefore, the aim of this research is to determine the influence of fake news and the intensity of social media use on the mental health of Generation Z in West Java.

**Design/methodology/approach** – The data used comes from a population of 48 million individuals belonging to Generation Z in West Java, with a total sample of 385 individuals selected through an internet-based survey method (monkey survey), with a time period of 1 August 2023 to 25 December 2023. Research inclusion criteria This includes investigating the impact of fake news and the intensity of social media use on the mental health of Generation Z in West Java. The results of the regression analysis show that there is a significant and negative relationship with mental health.

**Findings** – The analysis findings show that fake news and its intensity influence the level of anxiety or psychological distress resulting from the spread of misinformation. This condition is reflected in the fear, uncertainty and panic experienced by Generation Z in West Java. Based on this series of findings, the conclusion that can be drawn is that in the context of fake news related to mental health, infodemic knowledge can act as a trigger for psychological disorders, including anxiety, fear, depression, fatigue and other negative consequences.

**Research limitations** – This survey was conducted with the assistance of an online questionnaire, where respondents were evaluated based on age criteria, specifically the Generation Z. Although individual identification has been verified, there is a possibility of sample bias in this research. However, due to time and budget constraints, the study did not sample a large number of participants.

**Originality/value** – This study raises awareness of the responsible use of social media and helps prevent the occurrence of mental health disorders in Generation Z.

Keywords: Fake news, Intensity of social media use, Mental health

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# Emotional-Focused Coping and Problem-Focused Coping as Strategy for Reducing Stress among Gen Z at The Workplace |

<sup>1</sup>Sely Astuti, <sup>2</sup>Nasywa Annisa Salsabilla, <sup>3</sup>Silsy Aziza Meidisty

<sup>1,2,3</sup>Universitas Islam Bandung

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## Abstract

**Background** – The result of Deloitte’s survey of Gen Z and millennials showed that 46% of Gen Z was often affected by stress and anxiety most of the time, which involved 32.330 respondents, with 14.808 from Gen Z and 8.412 millennials from 46 countries. This finding was consistent with Deloitte's survey results over the last two years. A third of Gen Z showed workplace-triggered stress with a 34% workload percentage and 32% poor work balance. From this phenomenon, writers were strongly insightful in proposing Emotion-Focused and Problem-Focused Coping strategies that could be solutions for Gen Z to reduce their stressful conditions.

**Purpose** – In order to assist Generation Z in stress management and reduction, this paper will suggest two strategies: Emotion-Focused Coping and Problem-Focused Coping.

**Design/methodology/approach** – The method used in this paper is a literature review that was published between 2017 and 2022. This was collected through journal provider engines such as Science Direct, Sage Journals, Springer, PubMed, and Google Scholar. By combining keywords relevant to the topic, such as Problem-Focused Coping, Emotional-Focused Coping, Stress, and Workplace in the context of Generation Z.

**Findings** – Previous research indicated that today's generation is experiencing increased stress and burnout. This paper tries to find ways to overcome this problem with problem-focused coping, including one of the most dominant in the world of work. Also, one of them is the emotion-focused emotion technique, which is an effort to overcome this problem.

**Research limitations** – The lack of further research on Gen Z’s coping stress makes this paper need more validity proven by the measurement instruments.

**Originality/value** – There isn't much research on Gen Z's stress management methods, such as emotion-focused coping and problem-focused coping, so this paper's suggestion for further research is extremely beneficial.

Keywords: Gen Z, Problem-Focused Coping, Emotion-Focused Coping, Stress, Workplace

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# Track: Food Safety and Security

Supported by :



# Determination of Pork Fatty Acid in Bulk Cooking Oil |

<sup>1</sup>Oktaviona Dwi Fatwa Az-Zahra, <sup>2</sup>Dina Pratiwi, <sup>3</sup>Nita Rusdiana

<sup>1,2,3</sup>Universitas Muhammadiyah A.R. Fachruddin

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## Abstract

**Background** – The increase in cooking oil prices in early 2022 will force people to switch from packaged cooking oil to bulk cooking oil which does not have a brand or label. People cannot differentiate between bulk cooking oil produced by factories and recycled used cooking oil. Currently, people not only use vegetable cooking oil in their daily lives, but many people mix vegetable cooking oil with animal cooking oil to produce a more savoury taste in their dishes.

**Purpose** – The aim of the research is to determine the fat content of pork based on the fatty acid composition and fatty acid levels in bulk cooking oil circulating in the community using the GC-FID method.

**Design/methodology/approach** – The research method uses the GC-FID instrument to determine the fatty acid composition in the sample. The first step was to determine the fat content in the pork fat samples, then the second step was fatty acid analysis with GC-FID on the pork fat and bulk cooking oil samples. Analysis of the results obtained was then carried out to identify the fatty acid profile of the bulk oil, and a comparison was made between the fatty acids of the bulk cooking oil and pork fatty acids.

**Findings** – The level of the fatty acid 11,14-Eicosadienoic Acid (C20:2) in pork fat, which is a marker for the presence of pork fat in the sample, is 0.57%, whereas in the bulk oil sample it was not detected.

**Research limitations** – The limitations of the problem in this research refer to the inclusion criteria set by the researcher, namely bulk cooking oil that has no brand, no label, price below Rp. 15,500/litre and sold in the BANTEN area.

**Originality/value** – The existence of food adulteration, especially in oils, fats and alcohol, has become a problem for Muslim consumers. To detect lard in bulk oil sold by traders, a lard analysis method is needed which is capable of providing accurate and fast analysis results.

Keywords : bulk cooking oil, GC-FID instrument, pork fatty acid, and Lard

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# Multiplex droplet digital PCR assay for Simultaneous quantification of porcine bovine and fish DNA in gelatin-based products |

<sup>1</sup>Pornpimol Mahamad, <sup>2</sup>Saveeyah Kahong, <sup>3</sup>Wila Munaowaroh, <sup>4</sup>Sukanya So audon, <sup>5</sup>Winai Dahlan, <sup>6</sup>Vanida Nopponpunth

<sup>1,2,3,4,5,6</sup>The Halal Science Center, Chulalongkorn University

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## Abstract

**Background** – Gelatin, a complex processed food additive derived from collagen, plays a crucial role in various food and pharmaceutical products. With its origins often traced to pig, cattle, and fish, the need for accurate species identification in gelatin-based products is vital for addressing health, ethical, and religious concerns. Traditional DNA detection methods face challenges due to DNA degradation in gelatin-based production, necessitating the development of a more effective approach.

**Purpose** – This study aims to develop a multiplex droplet digital PCR (multiplex ddPCR) assay, utilizing ZEN™ Double-Quenched Probe, as a cost-effective and highly sensitive method for simultaneous absolute quantification and detection of porcine, bovine, and fish DNA in gelatin-based products. The goal is to provide a reliable solution for commercial applications, combating species fraud and ensuring accurate labeling in food and pharmaceutical products.

**Design/methodology/approach** – The study optimized multiplex ddPCR parameters, including annealing temperature, primer, and probe concentrations. After testing against 20 target and non-target species to prevent cross-detection, the assay's specificity was confirmed. Sensitivity was evaluated with a low detection limit of 0.01 ng/μl. Validation involved analyzing fifty commercial gelatin-based capsules from food supplements and herbal medicines, employing the developed multiplex ddPCR method.

**Findings** – The optimized multiplex ddPCR assay demonstrated specificity to porcine, bovine, and fish DNA. Analysis of commercial gelatin-based capsules revealed that two samples contained pig gelatin, 19 samples had bovine gelatin, and 7 samples contained a combination of both porcine and bovine gelatin. Further examination of both hard and soft gelatin capsules identified additional combinations of gelatin sources, including bovine and fish. Notably, some capsules contained undetectable levels of specific gelatin sources.

**Research limitations** – While this study successfully addresses gelatin source detection in capsules, further investigations may be required to extend the analysis to a broader range of gelatin-based products, considering the diverse nature of the food and pharmaceutical industry.

**Originality/value** – The developed multiplex ddPCR assay offers a practical and precise solution for the identification and quantification of porcine, bovine, and fish DNA in gelatin-based products. Its application provides a valuable tool for ensuring product integrity, meeting regulatory standards, and addressing consumer concerns related to health, ethics, and religious considerations.

Keywords: ddPCR, porcine, bovine, fish, gelatin

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# Advancing Indonesia's Rice Industry: Embracing Tayyib Principles Beyond Halal |

<sup>1</sup>Ferdi Zanuvar Azan, <sup>2</sup>Nunung Nurhayati, <sup>3</sup>Ahliis Fatoni, <sup>4</sup>Muhammad Irfan Florid, <sup>5</sup>Moza Audina

<sup>1,2,4,5</sup>Bandung Islamic University, <sup>3</sup>International Islamic University, Malaysia

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## Abstract

**Background** – Indonesia's rice industry stands as a vital component of its economy and culture. This paper delves into the prospects of elevating this industry by integrating Tayyib principles, surpassing the conventional emphasis solely on halal. While halal guarantees compliance with Islamic law, Tayyib encompasses broader ethical and quality considerations. By exploring the application of Tayyib principles within the rice production and supply chain

**Purpose** – this paper aims to highlight how adherence to ethical, sustainable, and quality-driven practices can foster not only industry growth but also consumer trust and satisfaction. The discussion delves into potential strategies, technological advancements, and policy implementations that can harmonize Tayyib values with the rice industry, ultimately contributing to a more resilient, ethical, and prosperous sector within Indonesia.

**Design/methodology/approach** – Qualitative research methods were employed, incorporating observations, and thematic analysis to explore the integration of Tayyib principles into Indonesia's rice industry, examining ethical and quality considerations beyond the scope of halal compliance.

**Findings** – The investigation revealed that conventional farming practices often introduce harmful inputs that leave residual elements in rice, potentially impacting its quality and safety, thus underscoring the importance of embracing Tayyib principles for a more holistic approach to ensure purity, quality, and ethical production.

**Research limitations** – One limitation of this research is the focus primarily on qualitative data, which may benefit from complementary quantitative analysis to provide a more comprehensive understanding of the scale and specific impact of harmful inputs on rice quality within the industry.

**Originality/value** – This research pioneers a comprehensive exploration of Tayyib principles beyond halal in the context of Indonesia's rice industry, offering a novel perspective that extends beyond mere compliance, focusing on ethical, sustainable, and quality-driven practices. The emphasis on integrating these principles to address harmful inputs and residual elements in rice presents an innovative approach towards fostering industry growth and ensuring consumer trust and satisfaction.

Keywords: Halal, Tayyib, Rice, Indonesia

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# Molecularly Imprinted Polymers in Halal Food Authentication: A Mini Review |

<sup>1</sup>Acharee Suksuwan, <sup>2</sup>Kasinee Katelekha, <sup>3</sup>Najwa Yanya Santiworakun, <sup>4</sup>Nureesun Mahamad, <sup>5</sup>Sunainee Mahama, <sup>6</sup>Winai Dahlan

<sup>1,2,3,4,5,6</sup>The Halal Science Center Chulalongkorn University

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## Abstract

**Background** – This comprehensive review provides a detailed exploration of the pivotal role of Molecularly Imprinted Polymers (MIPs) in ensuring the halal integrity of food products. With the global demand for halal food on the rise, the need for advanced analytical techniques has become paramount. MIPs are characterized by their tailor-made recognition sites to selectively binding to specific target molecules, presenting a promising solution to address the challenges associated with halal food authentication.

**Purpose** – Highlighting the applications of MIPs, the review focuses on their ability to selectively detect and quantify specific markers, including DNA, proteins, and suspicious compounds from complex food matrices crucial for halal compliance.

**Design/methodology/approach** – The integration of MIPs into various analytical platforms, such as sensors and chromatographic systems, is discussed in detail, emphasizing their effectiveness in providing accurate and rapid halal authentication. Furthermore, the review addresses the challenges and prospects of MIPs in halal food analysis.

**Findings** – It explores the potential for MIPs to contribute to advancements in food safety protocols, cross-contamination prevention, and adherence to halal certification standards. In conclusion, this review not only consolidates the current state of MIPs in halal food authentication but also anticipates future advancements and challenges of MIP-based technologies as a robust tool for supporting the halal authenticity of food products.

**Research limitations** – limitations including the limited number of halal related molecules, the pro and cons, and also prospects for the future development of MIP-based system will also be discussed.

**Originality/value** – MIP-based technologies as a robust tool for supporting the halal authenticity of food products.

Keywords: Molecularly Imprinted polymers, MIPs, Halal Food, Halal Authentication

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# Evaluation of the Application of the HAL-Q System in the Development of Halal Food Production Processes in Hospital Kitchens

| <sup>1</sup>Suwainah Sa-l, <sup>2</sup>Erfun Waehama, <sup>3</sup>Anat Matimu, <sup>4</sup>Arseeyah Lateh, <sup>5</sup>Anat Denyinghot, <sup>6</sup>Pornpimol Mahamad, <sup>7</sup>Monrudee Khemtham, <sup>8</sup>Winai Dahlan, <sup>9</sup>Warawut Krusung, <sup>10</sup>Kasinee Katelakha

<sup>1,2,3,4,5,6,7,8,10</sup>The Halal Science Center, Chulalongkorn University, <sup>9</sup>King Mongkut's Institute of Technology Ladkrabang

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## Abstract

**Background** – After the outbreak of COVID-19, Thailand's public health has gained acceptance by many countries. As a result, there will be more tourists and groups willing to travel to access public health services in Thailand. Therefore, there is a need for special foods. Among the types of special foods is Halal food, which complies with Islamic religious principles. Thus, hospital kitchens that meet safety standards and Halal standards are essential to meet the needs of hospital users, including both patients and their relatives. However, a Halal management system in hospital kitchens is required to facilitate the production of Halal food and ensure quality and safety in terms of physical, chemical, biological, and Halal aspects.

**Purpose** – This independent study aims to investigate the implementation of the Halal Assurance and Liability Quality system, known as HAL-Q, in hospital kitchens to produce Halal food.

**Design/methodology/approach** – This investigation involves a safety analysis consisting of four components: 1. a kitchen readiness assessment, 2. training courses to create an understanding of the Halal food production process, 3. on-site consulting to develop a QM manual for hospital kitchens, and 4. audits. Additionally, to verify contamination according to Halal standards, alcohol content and porcine DNA were determined.

**Findings** – The results showed that there is no contamination of alcohol and porcine DNA in any of the 20 raw materials used in the Halal kitchen. Chemical hazards were identified in the form of contamination with borax, pesticide residues, and formaldehyde in a total of nine samples. However, the results showed that there is no contamination of chemical hazards in any of the samples tested. To monitor microbiological quality, coliform bacteria were examined in 10 samples; however, no coliform bacteria were found. Furthermore, the results of the personal hygiene assessment of two cooks and employee involved in preparing Halal food indicated that all two cooks and employee passed the assessment for good personal hygiene.

**Research limitations** – Limit of data source, which is from individual information to evaluated.

**Originality/value** – In conclusion, this study found that the Halal kitchen analyzed in the hospital has the potential and readiness to provide food services according to Halal standards.

Keywords: Halal Food, Halal Hospital's Kitchen, Halal Assurance and Liability Quality system; HAL-Q, Halal Hazards, Halal Standards

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# Track: Biotechnology

Supported by :



# Utilizing *Anacardium occidentale* Leaves Extract as Alternative to the Conventional Antibiotics Against Antimicrobial-Resistant Microorganisms |

<sup>1</sup>Assoc Prof. Moohamad Ropaning Sulong,<sup>2</sup>Sulaiman Abdul Haq Hazman,<sup>3</sup>Farrah Nazuha Mansor, <sup>4</sup>Rozila Alias

<sup>1</sup>Universiti Islam Sultan Sharif Ali, <sup>2,3,4</sup>Universiti Selangor

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## Abstract

**Background** – Antimicrobial resistance (AMR) poses a significant worldwide public health challenge, as it can result in treatment failures, elevated healthcare expenditures, and an increased susceptibility to complications and fatalities arising from infections. Consequently, numerous initiatives are underway, including the development of novel antimicrobial agents.

**Purpose** – In the context of this research, extracts derived from both mature and young leaves of the *Anacardium occidentale* plant were subjected to evaluation against a spectrum of pathogenic bacterial strains. A total of 22 pathogenic bacterial species, including *Staphylococcus aureus*, *Staphylococcus epidermis*, *E. coli* V517C, *Salmonella* sp., *Listeria monocytogenes* ATCC9150, *Enterococcus faecalis* ATCC51299, *Pseudomonas aeruginosa* ATCC25619, *Pasteurella multocida* ATCC12945, and *Klebsiella pneumoniae* sub *pneumoniae* ATCC13883, were assessed using seven distinct antibiotic discs, namely penicillin, streptomycin, gentamicin, ampicillin, tetracycline, carbenicillin, and kanamycin.

**Design/methodology/approach** – Measurement of the diameter of inhibition zones, in millimeters (mm), was carried out using a Vernier digital caliper after the bacterial cultures had been incubated at 37°C on Mueller Hinton agar plates. Whilst for the plant extraction process, 10 grams of dried leaves were dissolved in 100 ml of distilled water (w/v). Following dissolution, the mixture was filtered using Whatman's filter paper No. 1. The active compounds obtained from both young and mature *Anacardium occidentale* leaves were then assessed for their capacity to inhibit the growth of the targeted microorganisms. It is noteworthy that all extraction procedures adhered to the principles of Islamic Shariah and comply to the halal practices.

**Findings** – The results of this study have shown that extracts from *Anacardium occidentale* leaves are effective in inhibiting the growth of selected pathogenic microorganisms. The zone of inhibition of *Anacardium occidentale* young leaf extract using aqueous extraction against *Pseudomonas aeruginosa* ATCC25619 is 18.69 mm, *Enterococcus faecalis* ATCC51299 is 15.85 mm, *Staphylococcus aureus* is 25.93 mm and *Listeria monocytogenes* ATCC7644 is 20.51 mm. In addition, the results of the study also show that the extract of the young leaves of *Anacardium occidentale* are able to inhibit the growth of *Staphylococcus aureus* ATCC49476 that are known to resist penicillin and *E. faecium* ATCC51299 that resist against streptomycin, gentamicin and kanamycin.

**Research limitations** – This study on the plant extract of *Anacardium occidentale* leaves

**Originality/value** – It is collaborative research

Keywords : *Anacardium occidentale*, Leaves extract, Antimicrobial, Halal, AMR.

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# Detection and Quantification of Genetically Modified Organisms (GMOs) in Halal Food Products by qPCR method— Utilization of GMO Positive Cabbage Seeds |

Syeda Areeba

Industrial Analytical Center HEJ ICCBS University of Karachi

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## Abstract

**Background** – The use of GMOs in the food industry is widespread. Therefore, safeguarding the Muslim consumer community from genetically modified (GM) products containing haram or unsafe substances is crucial.

**Purpose** – The current study aims to detect and quantify the minimum amount of GM events present as contamination in both raw and processed food samples using the qPCR technique.

**Design/methodology/approach** – A 10-fold serial dilution generated a qPCR standard curve with 0.1% upto 0.0001% concentrations of each sample and the reference material. The soy bean GMO-positive Certified Reference Material (CRM) was used as a reference. The processed samples, namely china noodles, mixed spices, and rice protein, whereas unprocessed food samples, such as brown rice, basmati rice, and IRRI-6 rice, contaminated with or without GMO-positive cabbage seed, were tested and quantified.

**Findings** – The samples were analyzed based on the detection of the NOS terminator sequence by qPCR. The CRM was detected and quantified to generate a standard curve at a specific concentration. The results revealed that detection of GMO at a concentration of 0.001% using NOS terminator primers was assessed successfully compared to CRM.

**Research limitations** – One study's limitations was the application of pesticides to cabbage seeds, which formed a substantial barrier to DNA extraction and reduced the yield of DNA that could be extracted unless pesticide-free seeds were utilized or were removed with bleach. In addition, it is worth noting that increasing the number of samples beyond those used in this study might provide greater benefits for places without access to these specific foods. However, owing to time constraints, it was not feasible to cover a wide range of samples.

**Originality/value** – The focus of study revolved around the novel findings. There is no evidence of plagiarism in this research. To best of our knowledge, this study was the first to identify the presence of GMO-positive contamination in both raw and processed food samples. Consumers hold the belief that labeling minimum limit of detection for determining the source, distinguishing GM foods from non-GM foods and ensuring long-term safety are basic consumer rights. The detection of such low quantities of GMOs in these samples is of great importance in protecting these rights.

Keywords: Genetically modified organism (GMO), quantitative PCR (qPCR), GMO positive cabbage, haram food, food adulteration.

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# Detection of Porcine DNA using Isothermal Nucleic Acid Amplification for Halal Forensic |

Mohd Hazim Mohd Yusop

Universiti Malaysia Sabah

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## Abstract

**Background** – The consumption of pig (*Sus scrofa*) meat is a severe concern in Islam since food containing swine elements is forbidden (haram) for Muslims. To safeguard Muslim consumers against intentional or unintentional fraud, a reliable technique for detecting pork adulteration in food is required.

**Purpose** – The goal of this research is to create a porcine DNA rapid test kit (RTK) that uses isothermal DNA amplification in conjunction with a lateral flow strip (LFS) to identify the presence of pig DNA in meat and food products.

**Design/methodology/approach** – Recombinase polymerase amplification (RPA) in conjunction with lateral flow assay was employed as a diagnostic technique in this investigation. Primer3 Plus software was used to create oligonucleotide primers from the pig gene mitochondrial DNA. Forward primer was labeled with fluorescein (FAM), whereas reverse primer was labeled with biotin. To avoid mismatches with other species, the primers' porcine specificity was tested using simple local alignment search techniques (BLAST). The DNAeasy Mericon Food kit was used to successfully extract DNA from pig flesh. Implen Nanophotometer was used to assess the quality and amount of isolated DNA. The RPA assay for defined primer sets was optimized using the Twist Amp basic liquid kit reaction component and the directions in the kit's manual. Agarose gel electrophoresis and lateral flow device (LFD) were used to detect endpoints of species-specific amplified RPA products.

**Findings** – The outcome of positive amplification with a single clear band for porcine DNA proved the primers' 100% specificity. The amplification time was 20 minutes, and the detection limit is 0.001 ng/l DNA.

**Research limitations** – The sensitivity of assay seems to be lower than real time PCR assay. Optimization and good design of the primer could be done to increase the sensitivity of the assay.

**Originality/value** – Finally, the outcomes of this study can be used as a reference for Halal forensic.

Keywords: Porcine DNA, Isothermal Nucleic Acid Amplification, Lateral Flow Device, Halal Forensic

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# Track: Islamic Finance

Supported by :



# Sustainability and Green Accounting in Halal Tourism: A Comprehensive Literature Review |

<sup>1</sup>Dewi Intan, <sup>2</sup>Muhamad Irfan Florid, <sup>3</sup>Ade Yunita Mafruhah, <sup>4</sup>Pupung Purnamasari

<sup>1,2,3,4</sup>Universitas Islam Bandung

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## Abstract

**Background** – There is still a lack of understanding and studies related to green accounting. Meanwhile, on the one hand, green accounting is needed to realize the concept of sustainability (the existence of economic, social and environmental balance) in a business. Currently, the growth of halal business is increasing. As a result, demand for halal tourism has increased. When halal tourism is emphasized to be sustainable, it is certain that green accounting needs to be applied in this business. However, the problem is, there is no clear model of green accounting that can realize sustainable halal tourism.

**Purpose** – This article has four main objectives; first, identifying challenges and opportunities to realize sustainable halal tourism; second, identifying the challenges and opportunities faced in realizing green accounting; third, formulate a sustainable halal tourism model; fourth, formulate a green accounting model that can realize sustainable halal tourism.

**Design/methodology/approach** – To answer the four study objectives that have been determined, the study method used is qualitative descriptive research with literature analysis. The data source used in this research is secondary data in the form of articles obtained from Science Direct, Emerald, Taylor & Francis, and Sage.

**Findings** – The results of the literature review show four main findings. First, there are 5 challenges and 4 opportunities in realizing sustainable halal tourism. Second, there are 5 challenges and 5 opportunities in realizing green accounting. Third, the sustainable halal tourism model consists of 4 important elements. Fourth, the green accounting model that can realize sustainable halal tourism consists of 5 important elements.

**Research limitations** – This study uses a literature approach so that the study results are only based on previous research. Based on this, an empirical study needs to be carried out to ensure a more appropriate model regarding the green accounting model in sustainable Halal Tourism.

**Originality/value** – No study has yet been carried out regarding a comprehensive green accounting model for creating sustainable halal tourism, either through literature approaches or field studies. Thus, the green accounting model for sustainable halal tourism is a new study.

Keywords : Green Accounting, Sustainable Halal Tourism

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# Track: Halal Studies

Supported by :



# The Influence of Halal Labelling on Food Purchasing Decisions: Case Study of Islamic University Bandung and UITM Kedah Malaysia |

<sup>1</sup>Rayhan Azis, <sup>2</sup>Nurleli

<sup>1,2</sup>Bandung Islamic University

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## Abstract

**Background** – The halal label is often a parameter for Muslims in buying food. Indonesia and Malaysia are one of the many countries where the majority of the population is Muslim, as consumers, halal labels are often not a concern in buying food products. However, others still hold a strong principle that a product must have a halal label.

**Purpose** – The purpose of this study is to determine whether students at the Islamic University in Bandung City and UITM Malaysia in Kedah City pay attention to the halal label when buying food products.

**Design/methodology/approach** – using a quantitative verification approach, and using the convenience sampling method with a sample size of 150 students.

**Findings** – The results showed that the halal label has an influence on decision making to buy food products, both for students of the Islamic University in Bandung City and for students of UITM Malaysia.

**Research limitations** – The city of Bandung, which is located in Indonesia and also the city of Kedah, which is located in Malaysia, is one of the big cities with a majority of Muslim religions, for this reason we developed research in both of them. With 2 universities located in the city, namely, Bandung Islamic University and UITM Malaysia.

**Originality/value** – There is still no research that compares the behavior of students in two countries with a majority Muslim population in product purchasing decisions by looking at the halal label. our discussion material.

Keywords : halal label, decision and product

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# Track: Green technology

# Technological Provision on Employee Green Behavior: Implementation on Technology-Based Start-up Company in Indonesia |

<sup>1</sup>Allya Roosallyn Assyofa, <sup>2</sup>Nindya Saraswati, <sup>3</sup>Muhammad Iqbal Santosa

<sup>1,2,3</sup> Universitas Islam Bandung

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## Abstract

**Background** – The significance of sustainability in today's world has forced enterprises to concentrate on attaining sustainable performance through managing its social, economic, and environmental aspects over time. The implementation of green behavior on employees is an initiative to comprehensively address various environmental problems, which is formed by advanced technology owned by the organization.

**Purpose** – This research focuses on technological provision on green human behavior in the implementation of technology-based start-up companies in Indonesia. Using The Green Five Model-a taxonomy for understanding the many types of environmental behaviors that people engage in their lives. This model consists of avoiding harm, working sustainably, preserving, influencing others, and taking initiative, which is used to identify employees' green behavior.

**Design/methodology/approach** – This research uses quantitative research to determine the role of technological provision on green human behavior. As for the analysis method, descriptive analysis is used to describe and explain the phenomena that occur based on the facts and data obtained which was used to answer the formulation of problems related to technological provision and green human behavior. On the other hand, verification data analysis is used to verify the truth of the hypothesis by using SmartPLS 4.0 for statistical calculations.

**Findings** – Company programs aimed at implementing environmentally friendly business activities will optimize green behavior in daily activities. Therefore, organizations need to design technological provisions so that they can form green behavior patterns. Result shows that technological provision has great influence on green human behavior in tech-based start-up company in Indonesia.

**Research limitations** – This research is limited to employees who work in technology-based startup company in Indonesia. Further research can be carried out by expanding the scope of the research object.

**Originality/value** – Previous research only focused on companies that were well established, while this research contributes to the development of knowledge in the field of green behavior, especially in technology-based startup businesses in Indonesia.

Keywords: environmental awareness, green human behavior, green human resources management, technological provision

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# Removal of heavy metals from agricultural wastewater by forward Osmosis process for water reuse |

<sup>1</sup>Sithy NY, <sup>2</sup>Chavalit Ratanatamskul

<sup>1,2</sup>Chulalongkorn University

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## Abstract

**Background** – Agricultural wastewater (AWW) has become a significant concern due to its complex nature and the presence of heavy metals (HMs). These heavy metals are highly toxic to humans and crops when their concentrations exceed standard levels.

**Purpose** – This work aimed to study the removal of heavy metals from agricultural wastewater using forward osmosis (FO) with two draw solutions (DS), including sodium chloride (NaCl) and magnesium chloride (MgCl<sub>2</sub>).

**Design/methodology/approach** – The FO process used two solutions, such as feed and draw solutions, which were individually prepared in glass beakers with a capacity of 0.5 liters. Also, the operating performance and heavy metal removal efficiencies of the DS were experimentally investigated at varying solution concentrations from 0.5M to 2M. The pH of the feed solution was adjusted to 7 by using 1 molarity (M) of sodium hydroxide, and the flow rate was maintained at 10 liters per hour on the flow meter.

**Findings** – The results showed that the efficiency of heavy metal removal by FO with NaCl as a draw solution was higher than the case with MgCl<sub>2</sub> as a draw solution due to its higher osmotic pressure and strong affinity of heavy metal ions for chloride ions. The removal efficiencies of the FO with 1M NaCl draw solution were 99.41% (copper), 92.25% (lead), 98.14% (zinc), and 95.89% (chromium), while those of the FO with 1M MgCl<sub>2</sub> were 98.69% (Cu), 70.81% (Pb), 95.6% (Zn), and 84.96% (Cr), respectively. Furthermore, the removal efficiency was enhanced by increasing the concentration of the draw solution. Interestingly, the level of heavy metals in the treated water was found to comply with the irrigation standards set by both Thailand and the Food and Agricultural Organization.

**Research limitations** – The research focused on four heavy metals, including Cu, Pb, Zn, and Cr. The FO process may be effective in removing other heavy metals from agricultural wastewater, but this was not tested in this study.

**Originality/value** – As a result, the FO process may be a viable technology for the treatment of agricultural wastewater, as it offers a novel and encouraging strategy for tackling a significant environmental issue.

Keywords: Agricultural wastewater, Forward osmosis, Osmotic pressure, Draw solution, Feed solution

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# Optimizing Dental Waste Management for Sustainable Practices: A Case Study of Dental Clinics in Yangon, Myanmar |

<sup>1</sup>Phyo Thiri Kyaw, <sup>2</sup>Pichaya Rachdawong

<sup>1,2</sup>Chulalongkorn University

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## Abstract

**Background** – Dental waste, a part of healthcare waste, is an important concern because of its potential risks to human health and the environment. Improper waste management can lead to injuries, infections, and environmental pollution. This paper presents a case study on dental waste management practices in Yangon, former capital of Myanmar.

**Purpose** – The aim of this study is to bridge the knowledge gap concerning the importance of dental waste management, an area that has received less attention in comparison to healthcare and pharmaceutical waste. The research is centered on enhancing understanding of dental waste practices in clinics within Yangon City, with a specific focus on conducting a survey to assess the current state of dental waste management.

**Design/methodology/approach** – The research methodology involves surveying 13 dental clinics, each situated in a distinct township within the western districts of Yangon City. Online questionnaires will be used as the primary means of data collection, focusing on quantitative information related to patient loads, waste generation amounts, waste sorting practices, and the frequency of waste collection by authorities.

**Findings** – The study aims to reveal the current state of dental waste practices in Yangon, identifying strengths and areas for improvement. The expected outcome includes practical recommendations to enhance efficiency, sustainability, and regulatory compliance, fostering a healthier and more environmentally responsible dental care environment.

**Research limitations** – The research limitations may include constraints on the sample size of dental clinics and data availability. Nevertheless, efforts will be made to ensure that the research is as comprehensive as possible within these kinds of limitations.

**Originality/value** – This research focuses on making dental waste management more sustainable in Yangon, Myanmar. By incorporating green technology and sustainable healthcare solutions, the study aims to contribute to better dental waste management practices, promoting a healthier future for the city and its communities.

Keywords: Dental Waste, Healthcare Waste, Route Optimization, Green Technology, Environmental Impact

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# Understanding Tenant Satisfaction and Preferences in Green Buildings: A Post-Occupancy Evaluation Approach |

<sup>1</sup>Wint Thiri Marn, <sup>2</sup>Achariya Suriyawong

<sup>1,2</sup>Chulalongkorn University

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## Abstract

**Background** – The building industry is changing to produce more environmentally and energy-efficient buildings as the world addresses environmental issues and the need for sustainable development.

**Purpose** – The purpose of this study is to determine the factors that affect building rental rates, with an emphasis on comparing green and conventional buildings. It also aims to investigate tenant preferences, satisfaction levels, and willingness to pay for certified green buildings.

**Design/methodology/approach** – The research is conducted as a Post-Occupancy Evaluation (POE) survey, and it was proportionately distributed with Google Form through social media platforms (i.e., Facebook, LinkedIn) and email. It obtained responses from a total of 118 participants: students (27.1%), business owners (23.7%), real estate agents (16.9%), environmental consultants (12.8%), and potential immigrants to Thailand (11.8%). The data will be analyzed for the statistical significance of the responses from the questionnaire survey using Statistical Package for the Social Sciences (SPSS), and various types of statistical tests will be performed based on the data and research objectives.

**Findings** – The analysis methods will include descriptive statistics which identify frequencies and percentages for each response option in the demographic questions (gender, age, education, income) to get an overview of the sample's composition, and also includes means and standard deviations for Likert-scale questions (satisfaction levels with the building that respondents are currently working / living), and priority rating scale (in consideration of renting and buying a building) to understand the central tendency and variability of responses, and regression analysis to model the relationship between various independent variables (age, gender, income, knowledge of green building) and dependent variables of interest (tenants' preference on choice of Green Building).

**Research limitations** – The local context may have an impact on preferences and willingness to pay differently, even though the study focuses on tenant satisfaction and preferences. Regional and geographical variations can have a significant impact on rental prices and preferences for green buildings, but those factors are not considered in this research.

**Originality/value** – The findings will contribute to the knowledge in the field of green building, providing stakeholders in the building industry and policymakers with information on how to encourage environmentally friendly and green building practices.

Keywords: Green Building, Post-Occupancy Evaluation, Building Rental Rates, Tenant Preferences, Willingness-to-pay

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# Track: Mobile Commerce

Supported by :



# Exploring Halal Mobile App Usage Among Muslim University Students in A Multicultural Society |

<sup>1</sup>Dr. Pg Siti Rozaidah Pg Hj Idris, <sup>2</sup>SFPD Musa, <sup>3</sup>Hakimah Sumardi

<sup>1,2,3</sup>Universiti Brunei Darussalam

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## Abstract

**Background** – The rise of mobile applications has transformed numerous aspects of modern life, and mobile technology usage among university students is widespread. As such, it is essential to understand the specific usage patterns and preferences of different cultural and religious groups. As a result, it is critical to comprehend the unique usage patterns and preferences of various cultural and religious groups. The purpose of this study is to investigate the use of Halal mobile applications among Muslim university students living in a multicultural society.

**Purpose** – The aim of this research is to examine the usage, attitudes, and perceptions of Muslim university students towards Halal mobile apps. By understanding their preferences and concerns, this research aims to identify potential gaps in the existing mobile application market and offer recommendations for developers to cater better to the needs of Muslim users.

**Design/methodology/approach** – Through semi-structured interviews with Muslim university students, this study uses a qualitative research methodology. The participants were selected through purposive sampling to ensure diversity among students of different backgrounds and levels of religiosity. To find trends and themes regarding the use of Halal mobile apps, the interviews were transcribed and subjected to thematic analysis.

**Findings** – The results of this investigation showed that Muslim university students have a high reliance on Halal mobile apps for various purposes such as halal food finding, prayer time reminders, Quran recitation, and prayer direction. Participants expressed the importance of reliable and accurate halal certification information, community reviews, and user-friendly interfaces. Privacy and security concerns related to personal information sharing also emerged as key findings.

**Research limitations** – This study is limited to a small population of Muslim university students in a multicultural culture, which may limit the generalisability of the findings and restricts the representation of the wider population of Muslim mobile app users.

**Originality/value** – *This research contributes to the growing body of literature on mobile app usage by focusing specifically on the Halal app market and its usage among Muslim university students. It offers insights into the unique preferences, needs, and challenges faced by this specific group, highlighting potential areas for improvement and innovation in Halal mobile app development.*

Keywords : Halal mobile apps, Muslim university students, multicultural society, usage patterns, preferences.

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# Track: Halal Tourism/Service

Supported by :



# Challenges and Issues in Halal Certification for Restaurants in Japan: A Perspective from Halal Certification Bodies |

Pg Siti Rozaidah Pg Hj Idris

Universiti Brunei Darussalam

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## Abstract

**Background** – The background section provides an overview of the Halal certification industry in Japan, emphasizing its importance in the context of the country's growing Muslim population and the rise in international Muslim tourists. It discusses the necessity of Halal certification for restaurants to ensure compliance with Islamic dietary guidelines and boost consumer trust.

**Purpose** – In this section, the purpose of the article is defined. It aims to explore the challenges and issues faced by Halal certification bodies when certifying restaurants in Japan. By addressing these challenges, the article seeks to improve the Halal certification framework and enhance the overall experience of Muslim consumers.

**Design/methodology/approach** – To gain insights into the challenges faced by halal certification bodies, a qualitative research methodology was employed. In-depth interviews were conducted with representatives from halal certification bodies and case studies were analyzed to understand the complexities of certifying restaurants. Relevant data on the unique cultural context, government regulations, diverse cuisine offerings, ingredient sourcing complexities, and consumer awareness challenges were collected and analyzed.

**Findings** – This section presents the key findings derived from the research conducted. It highlights the specific challenges and issues identified by Halal certification bodies in certifying restaurants in Japan. These include difficulties related to sourcing Halal-certified ingredients, ensuring proper food handling processes, and maintaining accurate labeling of Halal products.

**Research limitations** – The study acknowledges the limitations of sample selection and possible biases in interviews due to resource constraints. This helps provide a comprehensive understanding of the study's scope and potential areas for future research.

**Originality/value** – It emphasizes how the identified challenges and issues can drive improvements in the certification process and create a more inclusive dining experience for Muslim consumers. It discusses potential opportunities for collaboration between certification bodies, restaurants, and government agencies to further enhance the Halal certification framework in Japan.

Keywords: Halal certification, restaurants, Japan, challenges, Muslim consumers

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# Get ready for preparation on tourism and services friendly to Muslim tourists in Thailand post COVID-19 |

<sup>1</sup>Anat Denyinghot, <sup>2</sup>Nanthachai Dangwijitr, <sup>3</sup>Erfun Waehama, <sup>4</sup>Tuanyasmin Saerae, <sup>5</sup>Monruedee Khemtham, <sup>6</sup>Pakorn Priyakorn, <sup>7</sup>Winai Dahlan

<sup>1,2,3,4,5,6,7</sup>The Halal Science Center, Chulalongkorn University

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## Abstract

**Background** – Thailand, a predominantly non-Muslim country, has gained recognition as a favored destination for Muslim tourists. This study investigates the interplay between religion and the acceptance of Muslim-friendly tourism and service standards in a post-COVID-19 context. The specific focus areas include food and beverage services, hotels and residences, and tourism services.

**Purpose** – The objective of this research is to explore the relationship between religion and the acceptance of Muslim-friendly tourism and service standards in Thailand after the COVID-19 pandemic. The study aims to discern whether religious beliefs influence the perception of these standards across different service domains.

**Design/methodology/approach** – A sample of 300 respondents participated in a questionnaire-based survey designed to evaluate their satisfaction with the proposed standards for tourism and services accommodating Muslim tourists. Statistical analyses, including one-way ANOVA, Chi-square tests, and t-tests (with a significance level of  $p \leq 0.05$ ), were conducted to scrutinize the collected data.

**Findings** – The research findings reveal a significant correlation between religion and the acceptance of food and beverage service standards in the context of Muslim-friendly tourism. However, it was noteworthy that no substantial relationship was observed between religion and the acceptance of hotel accommodation requirements or travel service standards.

**Research limitations** – Several limitations must be acknowledged in this study. Firstly, the sample size of 300 respondents may not represent the entire population of Muslim tourists visiting Thailand. Secondly, the research primarily focuses on perceptions rather than actual behaviors of tourists. Additionally, the study does not account for the diversity within the Muslim population, which may have varying preferences and requirements. Lastly, the findings are confined to the post-COVID-19 period and may not be applicable in different circumstances or locations.

**Originality/value** – the originality of this abstract lies in its unique research context, the exploration of the religion-tourism relationship, the empirical approach, significant findings, and forward-thinking implications for the post-COVID-19 tourism industry. It adds to the body of knowledge in tourism research by shedding light on a less-explored dimension of the field.

Keywords: Halal tourism, Muslim friendly, Halal food, Halal standard, COVID-19

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# Prototype of A Multi-Language Interactive Game to Facilitate Muslim Children's Understanding of Halal |

<sup>1</sup>Sisca Wulandari, <sup>2</sup>Ilfi Intansari, <sup>3</sup>Nurul Setiani, <sup>4</sup>Lulu Fatihatul Uyun

<sup>1,2,3,4</sup>Muhammadiyah A.R. Fachruddin University

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## Abstract

**Background** – Halal has been popular since early childhood, but there are still many children, both early childhood and elementary school children, who cannot differentiate between what is halal and what is haram. They also don't really understand the meaning of halal itself. In fact, for them, halal is only food and drink, even though it is not that halal that is halal in everyday life. Many media have been created to make it easier for children to learn about halal, but there is no interesting media such as interactive games and there is no media that makes it easier for children from various ethnic groups to learn their language. Therefore, it is necessary to develop interactive games about halal in various languages for Muslim children.

**Purpose** – To develop an interactive game prototype created has been assessed for validity, practicality and effectiveness.

**Design/methodology/approach** – The method used in this research is ADDIE which consists of analysis, design, development, implementation and evaluation.

**Findings** – The interactive game prototype created has been assessed for validity, practicality and effectiveness. The validity level of the interactive game prototype received a score of 96% by material experts, 86% by media experts, and 90% by teachers, all of which were in the very valid category. Individual test results show that the practicality level of the interactive game prototype is very good with a percentage of 88%. The results of small-scale tests show that the level of effectiveness of the interactive game prototype is very good with a percentage of 94%. Based on the assessment results, it can be concluded that the product is very valid, practical and effective. So it can facilitate children learning about halal more easily and happily.

**Research limitations** – This research is limited by: (1) it is still a prototype, and (2) its effectiveness has only been tested on a limited scale.

**Originality/value** – No one has yet developed an interactive game on a halal theme and given it a multi-lingual touch

Keywords: Interaktive game, muslim children, multi-language, halal

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# Halal Tourism and Technology: Meeting the Needs of Muslim Travelers |

Syed Mirza

The HANDS Institute of Development Studies

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## Abstract

**Background** – Halal tourism, also referred to as Muslim-friendly tourism, is gaining increasing prominence within the global tourism industry. It caters to the specific needs and preferences of Muslim travelers who seek destinations respecting their religious and cultural beliefs. These travelers require access to Muslim-friendly facilities, including halal dining options, prayer spaces, gender-segregated amenities, and accommodations conducive to their religious practices.

**Purpose** – This study aims to identify the primary needs and concerns of Muslim travelers when exploring non-Muslim-majority countries and provide practical recommendations for enhancing their travel experiences.

**Design/methodology/approach** – A comprehensive review of existing literature, drawing from sources like ScienceDirect (SD), is conducted to identify key issues related to Halal tourism and propose solutions to enhance the overall travel experience for individuals of diverse backgrounds.

**Findings** – The study reveals that Muslim travelers are primarily concerned with access to prayer spaces and convenient halal dining options. They invest time in thorough destination research, emphasizing the need for destinations to offer a range of Muslim-friendly amenities and services to attract and retain these travelers.

**Research limitations** – The study explores implications related to Halal tourism, with a focus on regional variations in Halal products. However, this research may offer a more comprehensive understanding of Halal tourism if considered in a broader global context.

**Originality/value** – This paper addresses a critical question for countries aiming to attract Muslim travelers: Can their existing practices and infrastructure meet the expectations of this growing demographic? Understanding the travel behavior of Muslim visitors is crucial for ensuring their satisfaction, especially within the rapidly expanding Halal tourism industry. The paper also provides insight into the historical and future perspectives of Halal tourism, emphasizing key points to promote the tourism industry.

Keywords: Halal tourism, Muslim travelers, Muslim behavior, Muslim-friendly amenities, destination marketing.

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# The Development of a Web Application Digital Innovation for Smart Masjid (DIMAS) Community-Level Mosques Management in Pattani Province |

<sup>1</sup>Ameen Mhamad, <sup>2</sup>Pitak Ardmare, <sup>3</sup>Fakrutdeen Tapotoh, <sup>4</sup>Habilla Chapakiya, <sup>5</sup>Arseeyoh Lateh, <sup>6</sup>Zunnur-i Seede, <sup>7</sup>Kunthira Salae, <sup>8</sup>Nifarid Radenamad

<sup>1,2,3,4,5,6,7,8</sup>The Halal Science Center Chulalongkorn University

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## Abstract

**Background** – Mosques are not only spaces for religious activities. But it is the center of the way of life of people in terms of society, education, economy, and various activities in the community. Developing an appropriate management system will help in managing the available resources in a cost-effective manner.

**Purpose** – This research aims to 1) develop a prototype web application for mosque management and 2) study the satisfaction of the use of the Digital Innovation for Smart Masjid Platform (DIMAS) in community-level mosques in Pattani Province.

**Design/methodology/approach** – The research method has the following steps: 1) Determining needs through the design thinking process, mosque stakeholders participating in determining needs, and designing the system. 2) Development of the DIMAS web application prototype 3) Installation and testing. The tools used in the research were the web application DIMAS and the satisfaction assessment. Statistics used in research include mean and standard deviation.

**Findings** – The results of the satisfaction evaluation of the DIMAS web application prototype are as follows: The highest system security evaluation was 4.20. Assessments of satisfaction in terms of compliance with mosque management, system usability, system capabilities, and design aspects of the system (screen expression, font size, and graphics) had averages of 4.15, 4.10, 4.05, and 3.60, respectively, at a very satisfactory level. Additional suggestions from system users include training in using the system for actual operation. Ready to follow up on operations in order to further develop the community-level mosque management system in Pattani Province.

**Research limitations** – Testing and developing the system based on the specific needs of mosques in Pattani Province. Application at the national level may require further study.

**Originality/value** – Developing innovations that meet the needs of users in Pattani Province Precisely meets the needs of mosque management

Keywords: web application, mosque management, Pattani Province

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# Track: E-Business

Supported by :



# Utilising Fluid Intelligence in Online Grocery Shopping (OGS) using E-SERQUAL Model Among Malaysians |

Mageswari Ranjanthran

Sunway University

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## Abstract

**Background** – This study investigated the influence of fluid intelligence on the online grocery shopping (OGS) behaviour of Malaysians, employing the E-SERQUAL model as the theoretical framework. Through the rapid growth of e-commerce, understanding the cognitive factors that influence consumer behaviour in the online grocery sector has become vital.

**Purpose** – This study aims to understand how individual cognitive abilities, specifically fluid intelligence, influence the way people engage with OGS platforms. This research underscores the magnitude of fluid intelligence in influencing perceptions and behaviours.

**Design/methodology/approach** – The research was conducted using a sample of 353 respondents. The participants were required to complete the online questionnaire, which included measures of fluid intelligence, perceived service quality, perceived value, satisfaction, and intention to continue using OGS platforms and the data was analysed with SPSS Version 29. Participants will be assessed for their fluid intelligence using established cognitive tests, while their satisfaction with OGS will be measured through a validated survey instrument.

**Findings** – The findings revealed a significant positive correlation between fluid intelligence and perceived service quality in the context of OGS. This suggests individuals with higher levels of fluid intelligence tend to have a more discerning assessment of the service quality. The study found a positive relationship between perceived service quality and both perceived value and satisfaction, indicating that higher levels of service quality perception led to greater perceived value and satisfaction among online grocery shoppers.

**Research limitations** – The study may not have explored the long-term effects of fluid intelligence on OGS behaviour. It might be valuable to investigate how fluid intelligence influences consumer behaviour over an extended period.

**Originality/value** – The E-SERQUAL model offers a robust framework for comprehending the intricate dynamics of OGS, paving the way for future studies in this evolving field of e-commerce. The E-SERQUAL model proved to be a valuable framework for understanding the complexities of OGS behaviour among Malaysians. By incorporating a niche researched area, fluid intelligence the key factor, this study contributes to the growing body of literature on consumer behaviour in the e-commerce domain. The findings provide valuable insights for OGS platforms and marketers aiming to enhance customer satisfaction and retention.

Keywords: Fluid Intelligence, E-SERQUAL, Online Groceries Shopping (OGS), Digital Customer Buying Behaviour

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# Track: Nutrition (outline)

Supported by :



# Implementation of Halal Practices in Providing Supplementary Food in Kindergartens, Tangerang, Indonesia |

<sup>1</sup>Fitria Utami, <sup>2</sup>Maya Lestari, <sup>3</sup>Yogi Gumilar

<sup>1,2,3</sup>Universitas Muhammadiyah A.R. Fachruddin

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## Abstract

**Background** – The provision of supplementary food is outlined in the guidelines for the development of the health of students in kindergarten, as stated in the Minister of Health Regulation of the Republic of Indonesia No. 66 of 2014. In this context, the provision of supplementary food constitutes nutritional education in the form of communal meals once a week. This activity is also utilized by kindergarten teachers as a means of implementing halal practices among early childhood learners.

**Purpose** – The aim of this research is twofold: 1) to describe the implementation of halal and healthy supplementary food activities in kindergartens; 2) to delineate the roles of class teachers and school principals in planning and executing the provision of halal and healthy supplementary food in kindergartens.

**Design/methodology/approach** – This study uses a qualitative descriptive approach. The research subjects include the implementation of halal practices in supplementary food provision, with participants comprising school principals, class teachers, parents, and children. The data analysis model employed in this research is the Miles and Huberman model. Data was collected through in-depth interviews, direct observations, and document analysis.

**Findings** – The findings of the study reveal that the implementation of halal practices in supplementary food provision in three schools in Tangerang is relatively successful. Both teachers and school principals meticulously plan the sourcing, production, and use of halal-certified food items. Additionally, teachers provide explanations to the students about the nature of the food they are about to consume, emphasizing its halal and healthy attributes.

**Research limitations** – However, it is important to note the limited involvement of parents in these activities. Their support is crucial not only for ensuring the nutritional quality but also the halal status of the supplementary food provided.

**Originality/value** – This research investigates the successful implementation of halal and healthy supplementary food activities in kindergartens in Tangerang, Indonesia, emphasizing the roles of class teachers and school principals while highlighting the importance of parental involvement in ensuring both nutritional quality and halal status of the provided food.

Keywords: halal, supplementary food, kindergarten, indonesia, teacher

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# Fatty Acid Analysis for Halal Authentication of Baked Cheese Stick Product Fortified with Chia Seed Flour (*Salvia hispanica*) |

<sup>1</sup>Mira Sofyaningsih, <sup>2</sup>Imas Arumsari, <sup>3</sup>Ony Linda, <sup>4</sup>Winai Dahlan, <sup>5</sup>Pornpimol Mahamad, <sup>6</sup>Uarna Nungarlee, <sup>7</sup>Najwa Santiworakun, <sup>8</sup>Acharee Suksuwan, <sup>9</sup>Arnakorn Ruangprach

<sup>1,2,3</sup>University of Muhammadiyah Prof. Dr. HAMKA, <sup>4,5,6,7,8,9</sup>The Halal Science Center Chulalongkorn University

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## Abstract

**Background** – Halal food market is increasing in the past decades which eventually leads to the halal as a food branding in the marketing strategy. One of the issues of halal authentication in the bakery product industry is the potential adulteration of the butter from lard.

**Purpose** – This study investigates the halal status as well as nutritional aspects of baked cheese stick fortified with chia seed flour (*Salvia hispanica*).

**Design/methodology/approach** – As for the halal authentication, the butter with halal and non-halal logo were compared in this study. For the nutritional aspects, this study identified the content of essential fatty acids as well as the trans fat. The fatty acid profile was analysed using GC (Gas Chromatography) and FT-IR (Fourier-Transform Infrared Spectroscopy). Principal Component Analysis (PCA) was applied for data interpretation.

**Findings** – From the GC analysis, it was found that the most abundant fatty acid in margarine and butter sample are palmitic acid (C16:0) and oleic acid (C18:1cis). The chia seed flour consists of linolenic acid (C18:3n3) and linoleic acid (C18:2cis). The findings also showed that the baked cheese stick also contain slight amount of linolenic acid showed by both GC and FT-IR. The result from FT-IR showed that further confirmation to identify the peak at wavelength 668.1 cm<sup>-1</sup> and 2950– 2990 cm<sup>-1</sup>. No trans fatty acid detected in the products. From the result of the 3D PCA score plot, it could be shown that there is grouping between the samples with a Q2 coefficient value of 0.411. Halal logo butter is grouped with non-halal logo butter, and neither of them is grouped with lard oil. Untreated baked cheese stick (without chia seed flour) is grouped with the both treated baked cheese stick (added with: 1) chia seed flour and halal logo butter; 2) chia seed flour and non-halal logo butter) and all baked cheese sticks are not in the same group with lard oil.

**Research limitations** – However, more research with a greater number of samples—including butter with lard—is necessary to confirm these results.

**Originality/value** – The originality and value of this research lie in the holistic approach to halal authentication for bakery products.

Keywords: chia seed flour; fatty acid; halal authentication

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# Track: Digital Marketing

Supported by :



# Digital Innovation and Gender-Based Competitive Advantage: Evidence from Indonesian Indonesia Micro, Small, and Medium Enterprises (MSMES) |

<sup>1</sup>Lela Nurlaela Wati, <sup>2</sup>Rita Yuni Mulyanti, <sup>3</sup>Abdul Mukti Soma

<sup>1,2,3</sup>Universitas Teknologi Muhammadiyah Jakarta

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## Abstract

**Background** – The research on the drivers of digital innovation and its impact on micro, small, and medium enterprises (MSMEs), particularly those managed by women, remains significantly limited despite the growing significance of digital innovation.

**Purpose** – The author's research is driven by the recognition of a gender disparity in digital technology. This prompts an investigation into two main areas: (i) the impact of digital innovation in facilitating the relationship between entrepreneurial characteristics, digital orientation, and digital capabilities on the digital innovation and competitive advantage of MSMEs led by both women and men.

**Design/methodology/approach** – The sample was 325 MSME owners or managers consisting of 211 women and 114 men from Jakarta, Bandung, and Bogor. The research method uses SEM analysis and Multi Group Sample difference tests to test the hypothesis.

**Findings** – Digital capabilities are not a decisive factor for digital innovation in MSMEs managed by women, whereas entrepreneurial traits, digital orientation, and digital capabilities are for MSMEs managed by males when it comes to digital innovation. Digital orientation and entrepreneurial traits influence competitive advantage indirectly through digital innovation rather than directly. Innovation cannot buffer the influence of digital capabilities on the competitive advantage of MSMEs managed by women, but digital capabilities and innovation have a growing effect on the competitive advantage for MSMEs managed by both men and women. There is a gender gap in digital technology, as evidenced by the differences in test results between men and women. To close this gap, the government should implement digital literacy initiatives and reach a technology agreement to encourage more women and girls to pursue STEM careers.

**Research limitations** – The research results are not validated by conducting in-depth interviews with respondents, it does not distinguish between urban and rural MSME samples, and the digital innovation output solely evaluates the benefits of singing.

**Originality/value** – Previous researchers have not yet undertaken this particular study, as it investigates the disparities in digital innovation models and competitive advantage within micro, small, and medium enterprises (MSMEs) that are overseen by individuals of different genders. Additionally, the study aims to establish evidence of a gender gap in the utilisation of digital technology.

Keywords: Digital orientation, digital capabilities, digital innovation, competitive advantage, gender.

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# Navigating Digital Transformation: A Study on the Role of Change Sensing and Seizing Capabilities in Malaysian Manufacturing Firms |

<sup>1</sup>Saif Ahmed, <sup>2</sup>Norzalita Abd Aziz, <sup>3</sup>Ummu Ajirah Abdul Rauf

<sup>1</sup>Universiti Kebangsaan Malaysia, <sup>2,3</sup>Graduate School of Business

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## Abstract

**Background** – Digital transformation readiness is becoming increasingly critical in manufacturing sectors worldwide, especially under burgeoning technological advancements and market pressures. In this context, understanding the underlying factors that drive readiness for digital transformation in emerging economies, such as Malaysia, is of paramount importance.

**Purpose** – This research investigates the influence of organizational culture, resource availability, change management competency, and employee attitudes on the readiness for digital transformation in the Malaysian manufacturing sector. It also examines the mediating role of change management competencies and employee attitudes in this relationship.

**Design/methodology/approach** – Adopting a mixed-methods research design, the study collected quantitative data from 320 manufacturing firms across Malaysia, supplemented by qualitative insights from focus group discussions. The analysis integrated structural equation modeling to ascertain relationships between variables and thematic analysis for the qualitative data.

**Findings** – The study found that while organizational culture and resources available are critical, their impacts on digital readiness are significantly mediated by change management competency. Employee attitudes also play a mediating role, influencing how organizational culture shapes readiness for digital transformation. Additionally, resistance to change emerged as a pivotal theme, indicating its latent effect on digital transformation efforts.

**Research limitations** – The cross-sectional nature of the study and the reliance on self-reported measures may introduce bias. Generalizations are limited due to the unique socio-economic context of Malaysia and the manufacturing sector focus.

**Originality/value** – This study enriches the digital transformation literature by highlighting change management competency and employee attitudes as key mediators, offering a novel perspective on the readiness for digital transformation in the manufacturing sector. Its findings provide a valuable framework for industry leaders and policymakers to strategize and foster digital transformation effectively, emphasizing a balanced emphasis on human and organizational elements.

Keywords: Digital Transformation Readiness, Manufacturing Sector Malaysia, Organizational Culture Impact, Change Management Competency, Resource-Based View (RBV)

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# Green Practices, Image, Trust, Environmental Awareness and Purchase Intention: A Moderated Mediation for Muslim Consumers |

<sup>1</sup>M Qoshid Al Hadi, <sup>2</sup>Abdul Wahab, <sup>3</sup>Iman Setya Budi

<sup>1,2,3</sup>Universitas Islam Kalimantan Muhammad Arsyad Al Banjari

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## Abstract

**Background** – This study is prompted by the phenomena of Muslim consumers about green behavior in Indonesia, because Indonesia has the world's largest Muslim population, however the literature evaluation shows that this study is still in its early stages. For this reason, researchers need to explore green practices in Muslim consumers further.

**Purpose** – The aims of the research are to determine (1) the impact of green practices on green image, green trust, and purchasing intention. (2) the role of green image and trust in mediating the relationship between green practices and purchasing intention, and (3) the impact of environmental awareness in moderating the mediation of green image and green trust.

**Design/methodology/approach** – This study was carried out during July-September of 2023. A questionnaire distributed using Google Form was used to collect data. This survey collected 393 respondents from 10 Indonesia provinces using multistage sampling. The data was subsequently examined through structural equation modelling with AMOS v.26 software.

**Findings** – According to the conclusions of this research, green practices have an impact on green image and green trust. Similarly, green image and trust maintain Muslim consumers' purchasing interest. Green trust and green image are both capable of completely mediating the relationship between green activities and green purchase intention. Furthermore, this study found that environmental awareness moderates the indirect effect of green practices and green image on green purchase intention, as well as the interaction between green practices and green trust on green purchase intention.

**Research limitations** – This research is constrained in terms of time to collect more data and analyzed through qualitative method that may not provide a deep understanding of the context.

**Originality/value** – There is few empirical research to explore the role of environmental awareness as a moderator in the mediation of green image and green trust.

Keywords: Reen Image, Green Trust, Green Practices, Purchase Intention, Environmental Awareness

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# Track: Halal Studies

# The influence of Religiosity on the Purchase Intention of Halal Foods in Trinidad and Tobago |

Sheraz Ali

University of the West Indies

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## Abstract

**Background** – Islam is a religion which provides holistic guidelines to its followers regarding all facets of life, including their economic and personal life. Trinidad and Tobago is a multi-ethnic, developing country with a Muslim population of just eight percent. The impact of the Muslim consumers' religiosity on their decision to purchase halal food as a minority in Trinidad and Tobago has never been investigated.

**Purpose** – This study aims to investigate the influence of intrinsic and extrinsic religiosity on the purchase intention of halal certified food products by Muslim consumers as a minority in the multi-ethnic Caribbean island of Trinidad and Tobago.

**Design/methodology/approach** – Data were collected through questionnaires to 165 Muslim consumers who attend the largest masjid on the island located in north Trinidad as well as living in the vicinity. Many demographic categories were included such as gender, age, economic status and level of education. The data analysis is done using simple linear regression analysis. Cronbach's alpha was used to determine the reliability of the items.

**Findings** – The result of this study shows that religiosity has a significant effect toward the purchasing decisions of halal certified food products by the Muslims living in Trinidad and Tobago as a minority. It was found that as the personal religiosity of the Muslims increased there was a greater desire to source and purchase halal food.

**Research limitations** – The study investigates the role of Muslims' commitment to purchase halal foods. It does not take into account various ideologies among Muslims which may impact their halal purchase options, nor does it establish differences in purchase intention between imported and local halal food.

**Originality/value** – The role of religiosity for Muslims as a minority in the Caribbean has never been investigated. The research has implications in many areas, and it can help marketers of halal certified products, religious scholars and others to make efficient strategies for the future, especially considering the multi-ethnic nature of the society. The research also has implications for halal labelling and advertising especially in areas of higher concentrations of Muslims.

Keywords: Purchase Intention, Religiosity, Muslim Minority, Halal Food

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# Monitoring Ethanol Levels: A Forensic Analysis of Halal-Certified Food Products in Thailand |

<sup>1</sup>Tuanyasmin Saerae, <sup>2</sup>Pornpimol Mahamad, <sup>3</sup>Wila Munaowaroh, <sup>4</sup>Uarna Nungarlee, <sup>5</sup>Anat Denyinghot, <sup>6</sup>Monruedee Khemtham, <sup>7</sup>Vanida Noppornpunth, <sup>8</sup>Winai Dahlan

<sup>1,2,3,4,5,6,7,8</sup>The Halal Science Center Chulalongkorn University

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## Abstract

**Background** – Ethanol is commonly used as an organic solvent in the food and beverage industries. However, from a religious perspective, ethanol presents a sensitive issue for Muslim consumers. In Thailand, the permissible limits for ethanol content in Halal-certified food products are defined as 0.5% (w/v) for non-naturally fermented products and 1.0% (w/v) for naturally fermented products.

**Purpose** – This study conducted forensic laboratory testing to investigate the ethanol level in Halal-certified food products.

**Design/methodology/approach** – The products were randomly collected from the markets in Thailand between 2018 and 2022, totaling 1,804 samples. Gas chromatography with the Flame Ionization Detector (GC-FID) was used as the analytical method to find out how much ethanol was present.

**Findings** – The results revealed that approximately 99% of the samples (1,789 out of 1,804 samples) met the ethanol level limitations for Halal-certified food products. However, 1% of the samples (15 out of 1,804 samples) exceeded these limitations. Specifically, the group of seasonings (vinegar, soy sauce, and fermented soybean paste) surpassed the limitations, with the highest ethanol content found in vinegar (1.862% w/v). The fermented soybean paste had the highest incidence of exceedance 21% (8 out of 39 samples), soy sauce had a 7% exceedance (5 out of 75 samples), and vinegar had a 4% exceedance (2 out of 50 samples).

**Research limitations** – Further investigations are required to evaluate other product categories, including herbal drinks.

**Originality/value** – These findings offer valuable insights for government agencies promoting Halal compliance in the food industry, as well as for Halal food businesses engaged in import and export and for Muslim consumers.

Keywords: Ethanol, Halal, Fermented, Vinegar, Soy sauce

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# Healthy & Halal Food Contributes to Children's Growth and Development in Indonesia After the COVID-19 Pandemic: Opportunities and Challenges |

<sup>1</sup>Ilfi Intansari, <sup>2</sup>Sisca Wulandari, <sup>3</sup>Ujang Sugara

<sup>1,2</sup>Muhammadiyah A.R. Fachruddin University, <sup>3</sup>State University of Yogyakarta

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## Abstract

**Background** – This community service addresses the crucial role of healthy and halal food in the post-COVID-19 growth and development of Indonesian children. Concerns arise from the ease with which children purchase unregulated roadside food, posing potential dangers to their well-being. Knowledge and behavior significantly influence children's food choices, emphasizing the need for awareness and education in ensuring safe and nutritious consumption.

**Purpose** – This research aims to 1) provide education to children about healthy and halal food, urgency and opportunities, also challenges and obstacles in the growth and development of children 2) provide experience to children about healthy and halal food practices 3) Analyze the improvement of children's post-service knowledge about healthy and halal food.

**Design/methodology/approach** – The data analysis used quantitative and qualitative descriptive techniques. Quantitative analysis was used by researchers to see the difference between pre-test and post-test. The difference was then explained. Qualitative analysis was used by researchers on observational data. The results of these observations were then described.

**Findings** – The results of this study are: 1) children get education about healthy food and halal urgency and opportunities, as well as challenges and obstacles in the growth and development of children as evidenced by the results of observations during the activities of children listening to explanations submitted by researchers 2) children enthusiastically working on questions and answers evidenced by children who are eager to answer questions from researchers 3) children enthusiastically working on practical activities evidenced by the results of observations that they enthusiastically seek and paste pictures and words. In addition, it can be seen from the higher post-test scores compared to pre-tests, from an average of 50 to 74, it can be said that it has succeeded in increasing children's knowledge about healthy and halal food, urgency, and opportunities, halal food contributes to children's growth and development.

**Research limitations** – The limit of community service is only conducted at one elementary school.

**Originality/value** – This particular community service initiative distinguishes itself by placing a distinctive emphasis on imparting knowledge to children regarding the complexities and advantages of nutritious and halal food for optimal growth in the aftermath of the COVID-19 pandemic in Indonesia. It aims to fill a crucial gap in children's education.

Keywords: Healthy and Halal Food, Childrens Growth, Post Pandemic

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# Impact of Alcohol: The Role of Local Councils on Alcohol Regulation in Malaysia |

<sup>1</sup>Maryam Jamilah Asha'ari, <sup>2</sup>Amalia Nabilla Azman, <sup>3</sup>Ainul Huda Jamil, <sup>4</sup>Mazzlida Mat Deli, <sup>5</sup>Ummu Ajirah Abdul Rauf

<sup>1,3,4,5</sup>UKM-Graduate School of Business (UKM-GSB), <sup>2</sup>Petroleum Nasional Berhad

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## Abstract

**Background** – Alcohol is widely recognised as a cultural element in numerous civilizations throughout history; nonetheless, it is important to note that Islam strictly prohibits the intake of alcohol. The influence of alcohol is a topic that has been extensively discussed in several contexts.

**Purpose** – The primary objective of this research is to examine the specific role of the local government in Malaysia in regulating alcohol consumption, with the aim of mitigating its adverse effects. Moreover, this essay endeavours to analyse the domestic and foreign policies pertaining to Malaysia.

**Design/methodology/approach** – This paper is a conceptual paper which discusses the role of the local council towards alcohol regulation which is aimed to reduce the impact of alcohol consumption in Malaysia. It is a qualitative study which has been done by reviewing the literature and secondary data. This paper intends to analyse the domestic policies as well as the international policies involving Malaysia by reviewing the Malaysian policy.

**Findings** – Alcohol in a Muslim country with a majority Muslim, this regulation is not strange and does not deteriorate any non-Muslim right. They are allowed to consume but, in a way, it is more private and not as much as they want because while alcohol is haram for Muslims, it does not mean, it is good for non-Muslims. Malaysia has not fully utilised the role of local council in leading the city. With that being said, looking at how local council in Malaysia operated, many of important roles a local council should be concentrated in order to rule a city are being simply neglected. Over the years, issues and problems due to poor management, malpractice, and poor finance makes local 20 authorities in long dilemmas.

**Research limitations** – The amount of research conducted in this particular field of study remains inadequate. The scope of this study is limited to the examination of regulatory frameworks specific to Malaysia. Further research should encompass more countries in order to gain a comprehensive understanding of their regulatory frameworks.

**Originality/value** – This article aims to provide an analysis of both internal and foreign policies pertaining to Malaysia, an area that has been overlooked in existing research on the country.

Keywords: Impact, Alcohol, Local Councils, Regulation, Malaysia

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# Introducing Halal Snacks to Children: A Phenomenological Study in Indonesian Kindergartens |

<sup>1</sup>Yogi Gumilar, <sup>2</sup>Fitria Budi Utami, <sup>3</sup>Maya Lestari

<sup>1,2,3</sup>University of Muhammadiyah A.R. Fachruddin

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## Abstract

**Background** – This study examines how kindergarten teachers in Tangerang, Indonesia, introduce the concept of halal snacks to young children within the country's diverse cultural and religious background.

**Purpose** – Halal food holds great importance in Indonesia, both due to religious beliefs and public health policies, making it a complex subject to teach in early childhood education.

**Design/methodology/approach** – Using a phenomenological approach, the research explores teachers' experiences in teaching young children about halal snacks. The findings reveal the challenges faced by these teachers and the opportunities they seize to simplify the concept for their students. Teachers actively engage with children, using examples and practical demonstrations to convey the importance of halal food. They also navigate cultural and religious factors, which significantly influence policies and practices within kindergartens.

**Findings** – This study highlights the crucial role of teachers in shaping children's understanding of halal snacks during early education. It not only uncovers the challenges but also provides practical solutions, emphasizing the importance of incorporating halal values into children's learning experiences.

**Research limitations** – The insights from this research are valuable for educators and policymakers in the field of early childhood education.

**Originality/value** – This study's uniqueness lies in its in-depth exploration of how kindergarten teachers in Tangerang, Indonesia, address the complexities of teaching young children about halal snacks within the diverse cultural and religious context. By offering these insights, the research contributes significantly to promoting inclusive education and food diversity in Indonesian kindergartens, enhancing the educational experience for young learners.

Keywords: halal, foods, kindergarten, indonesia, teacher

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# Assessing Halal Professionals' Influence on Fraud Mitigation in Halal Supply Chains |

<sup>1</sup>Ainul Huda Jamil,<sup>2</sup>Mohd Helmi Ali, <sup>3</sup>Ummu Ajirah Abdul Rauf, <sup>4</sup>Mazzlida Mat Deli,  
<sup>5</sup>Maryam Jamilah Asha'ari

<sup>1,2,3,4,5</sup>Graduate School of Business, Universiti Kebangsaan Malaysia

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## Abstract

**Background** – With the worldwide halal market's growing importance, guaranteeing religious conformity and preventing fraud are critical.

**Purpose** – This study examines the critical role of halal professionals in ensuring the integrity of halal supply chains. We explore how these essential elements influence their evaluation of organizations seeking halal certification by focusing on their awareness, competency, and ethical values.

**Design/methodology/approach** – This study illuminates the human factor in risk management by adopting a thorough research approach that focuses on analyzing the awareness, competency, and ethical principles of halal professionals. We hope to obtain important insight into the decision-making process of halal professionals when reviewing organizations for halal certification through case studies.

**Findings** – The findings of this study provide an additional perspective on the impact of professionals' awareness, competency, and ethical principles on fraud mitigation measures. By utilizing this data, firms and certification bodies can build focused strategies to improve the integrity of their halal supply chains. This research contributes to the broader discourse on halal supply chain management, ultimately bolstering consumer trust and market credibility.

**Research limitations** – The study does not engage in a comparative analysis with non-halal supply chains or industries and did not incorporate other external factors in the research, thus missing an opportunity to provide additional insights into the unique challenges and opportunities within the halal context. Thus, it creates opportunities for future studies to explore the area of research.

**Originality/value** – Nevertheless, this paper underscores the paramount significance and urgency of understanding the nuanced interplay of awareness, competency, and ethical values among Halal professionals in assessing companies for halal certification, providing a novel framework to enhance fraud risk mitigation within the rapidly growing halal supply chain industry.

Keywords: fraud, mitigation, halal professional, halal supply chain, case study

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# Spicing up Risk Management: Halal Compliance in Malaysian Non-Muslim Restaurant |

<sup>1</sup>Ummu Ajirah Abdul Rauf, <sup>2</sup>Aisyah Abdul Rahman, <sup>3</sup>Ainul Huda Jamil, <sup>4</sup>Maryam Jamilah Asha'ari, <sup>5</sup>Mazzlida Mat Deli

<sup>1,3,4,5</sup>Graduate School of Business, Universiti Kebangsaan Malaysia, <sup>2</sup>Faculty of Economics and Management, Universiti Kebangsaan Malaysia

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## Abstract

**Background** – Malaysia, known for its diverse culinary landscape in a multicultural setting with a significant Muslim population, sees the concept of "halal" extending to non-Muslim restaurants seeking certification. This study proposes a conceptual model for Malaysian non-Muslim restaurants, integrating risk management principles with halal compliance to navigate challenges and leverage opportunities in this dynamic context.

**Purpose** – This study aims to identify, analyze, and mitigate risks in halal compliance for non-Muslim restaurants, providing insights for researchers and practitioners in the field to enhance understanding of risk management strategies in this dynamic setting.

**Design/methodology/approach** – This study will gather relevant literature from academic databases and culinary or halal repositories, focusing on risk management in halal compliance for non-Muslim restaurants in Malaysia. Exclusion criteria include non-relevant and non-English articles. Selected articles will undergo screening based on titles and abstracts, followed by a full review. Extracted data will be organized into a framework to develop a conceptual model for risk management and halal compliance in Malaysian non-Muslim restaurants.

**Findings** – The study's conceptual model will be refined through expert consultation in risk management, culinary arts, and halal certification, ensuring practicality within the broader field. It links risk management (RM) and halal compliance (HC), providing insights for researchers and practitioners in these fields and enhancing understanding of strategies in this dynamic setting.

**Research limitations** – Limited literature on risk management, halal compliance, and non-Muslim restaurants in Malaysia may impact the review's comprehensiveness. The study, primarily in English, may introduce language bias, potentially overlooking relevant studies in languages like Malay. The conceptual model may be context-specific to Malaysia, limiting generalizability to regions with diverse culinary, cultural, and regulatory contexts. Refining the model through expert consultation may introduce bias, neglecting the perspectives of non-Muslim restaurant owners.

**Originality/value** – There is a lack of research on the relationship between risk management (RM) and halal compliance (HC), specifically in Malaysian non-Muslim restaurants (NMR). This study integrates RM and HC concepts into a conceptual model for NMR, providing valuable insights for researchers and practitioners to enhance risk management strategies in this dynamic setting.

Keywords: Risk Management, Halal Compliance, Non-Muslim Restaurants, Malaysia

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# Satisfaction and Comparison of Knowledge for High School Innovation Project Advisors Regarding Halal Science, Technology, and Innovation Training Courses |

fakrutdin tapohtoh

The halal science center chulalongkorn university

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## Abstract

**Background** – Thailand has also developed the Thailand 4.0 vision, which aims to transform the country into a "value-based economy" that leverages creativity, technology, and information to break free from the middle-income country rut and become one of the new engines of economic growth. In the field of manufacturing, Thailand has attempted to cultivate innovators, as evidenced by the National Education Development Plan 2017–2021. In order to create an innovative learning environment and a learning universe, the idea of an innovative learning ecosystem is offered as a means of enhancing the current educational system.

**Purpose** – The objectives are to: 1) study project advisors' satisfaction with their training courses. 2) Compare the self-assessment knowledge level before and after attending the training.

**Design/methodology/approach** – The questionnaire was designed entirely using Google Forms. The questionnaire was divided into two parts: Part 1 asked for general information. Part 2 was a satisfaction questionnaire consisting of 1) satisfaction of the speaker, 2) satisfaction with the content, and 3) satisfaction. Satisfaction with the training, and 4) self-assessment of knowledge level before and after training. The research sample consisted of 30 high school innovation project advisors who received training in the science, technology, and halal innovation course. In February 2022, statistical data analysis using sample t-tests, means, percentages, and standard deviations will be used for this study.

**Findings** – The results of the study revealed that satisfaction with the training course is at a high level, arranged in order of satisfaction from highest to lowest as follows: content, process and service, and speaker ( $\bar{x}$  = 4.58, 4.41, 4.24, respectively) and self-evaluation of the level of satisfaction. Knowledge before training was at a medium level ( $\bar{x}$  = 3.23) and the knowledge level after attending the training was at a high level ( $\bar{x}$  = 4.37), significantly different at the P-value level  $> 0.05$ .

**Research limitations** – Limitations in evaluating knowledge gained from training is a self-evaluation which may provide preliminary information for evaluating knowledge in training.

**Originality/value** – It is beneficial for organizations educational institutions in creating innovation ecosystems to encourage high school students' inventive talent development. Because, in line with the Thailand 4.0 vision, it is the country's advancement in shifting to an economy driven by innovation.

Keywords: Halal, Halal science, technology, training courses, high school

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# Track: Cosmetic Science

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# Development and Characterization of Skin Care Cream from Luk Neing Peel Extracts |

<sup>1</sup>Suraiya Malee, <sup>2</sup>Ladawan Khongsichan

<sup>1,2</sup>Yala Rajabhat University

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## Abstract

### Background – -

**Purpose** – 1. To study the antioxidant activity of Luk Neing Peel Extracts 2. To study the total phenolic contents of Luk Neing Peel Extracts 3. To study the formulation of facial cream products of Luk Neing Peel Extracts 4. To study the stability of skin care cream products of Luk Neing Peel Extracts

**Design/methodology/approach** – 1. Extraction of luk neing peels with ethanol. 2. The total phenolic contents of Luk Neing Peel Extracts. 3. The antioxidant activity of Luk Neing Peel Extracts. 3. The formulation of facial cream products of Luk Neing Peel Extracts 4. The stability of skin care cream products of Luk Neing Peel Extracts

**Findings** – 1. This research studied the total phenolic contents and antioxidant activity of ethanol. The total phenolic content of the crude extract from luk neing peels was found to be between 10 and 20 mg/mL, corresponding to the results. The extract has the total phenolic contents, measuring  $0.0311 \pm 0.019$  mg GAE/g and  $0.0724 \pm 0.0085$  mg GAE/g, respectively. 2. The crude extract of luk neing peels was found to have antioxidant activity at a concentration of 10 mg/mL. At  $2.651 \pm 1.8693$   $\mu$ g TAE/ml, it exhibited the highest antioxidant activity (IC<sub>50</sub>) value, while 20 micrograms of luk-neing peel extract yielded a value of  $7.5180 \pm 2.9718$   $\mu$ g TAE/ml. 3. The creation of a formula for skin care products and testing of its stability using a luk neing peel extract at varying temperatures and heating-cooling cycles at 4 °C and 45 °C for 12 hours. The A1 formula has been found to have a pH of 5.56, a fine texture, ease of spreading, no stains, quick skin intake, and a light scent.

### Research limitations – -

**Originality/value** – 1. Cosmetic prototype 2. Knowledge of Cosmetic

Keywords: luk neing, cream, skin care

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# Track: Internet of Things (IoT)

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# Assessing the Readiness of Malaysian Society for Society 5.0: Opportunities and Challenges |

Mazzlida Mat Deli

UKM-Graduate School of Business

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## Abstract

**Background** – Society 5.0 is a novel concept that aims to incorporate sophisticated technologies such as artificial intelligence, big data, and the Internet of Things into society in order to improve people's lives

**Purpose** – The purpose of this research is to analyse Malaysian society's preparation for Society 5.0 and to identify the opportunities and difficulties that may result from its implementation.

**Design/methodology/approach** – The project will collect data from both qualitative and quantitative sources using a mixed-methods methodology.

**Findings** – The study's findings will provide significant insights into Malaysian society's preparation for the implementation of Society 5.0 and will assist policymakers and stakeholders in developing measures to ease the transition to this new technology era.

**Research limitations** – The research will concentrate on determining Malaysia's present level of technology adoption, the challenges that may impede the implementation of Society 5.0, and the possible benefits that can be derived from its implementation

**Originality/value** – The study will also add to the existing literature on Society 5.0 and its possible societal impact especially in Malaysian's context.

Keywords: Readiness, Society 5.0, Opportunity, Challenges, Internet of Things (IoT)

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# CLOSING SPEECH

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Assalamualaikum Warahmatullahi Wabarakatuh,

Excellencies, Presenter, Attendees,

Ladies and Gentlemen,

It is a great honor and joy for me to deliver the closing remarks for this year's IHSATEC 2023: 16<sup>th</sup> HASIB. The committee has successfully managed the conference, ensuring that breakout sessions and presentations proceeded with minimal technical issues. Throughout the event, we engaged in insightful discussions and had the opportunity to share the outcomes of our research.

I extend my gratitude to all participants, speakers, presenters, attendees, and session chairs from various countries for their significant contributions to IHSATEC 2023: 16<sup>th</sup> HASIB. Special thanks to the hardworking committee members for their dedication.

IHSATEC 2023: 16<sup>th</sup> HASIB highlighted the need of further and diverse research on the subjects of Halal studies, both in industry business, and technology. The presented research in this conference underscored the vital role of universities, higher education institutions, government, society, and related stakeholders in leading the application of the concept of halal studies in all fields.

In conclusion, IHSATEC 2023: 16<sup>th</sup> HASIB, hopefully has provided valuable insights into the strategic approach needed for the modern and changing world. I appreciate the significant contributions made during this conference and hope that the shared knowledge and thoughts, along with new networks and friendships, will bear new collaborations ahead. Congratulations to the award winners for the best presentation, best papers, and all session chairs involved in this conference.

See you at our upcoming event.

Keep in touch and thank you very much for your attention. Stay safe and healthy.

Best regards,

**Assoc. Prof. Dr. Winai Dahlan**

Conference Chair of IHSATEC 2023: 16<sup>th</sup> HASIB

# Future Events

**JICRISD 2023**

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Jakarta International Conference on Research Innovation and Sustainable Development

<https://jicrisd.com>

Virtual conference – 5 December 2023

**IC-STEM**

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International Conference on Interdisciplinary Research of Science, Technology, Engineering, and Mathematics (IC-STEM)

<https://ic-stem.com>

Virtual conference – 18 December 2023

**IPC-MHR**

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International Psychology Conference on Mental Health and Resilience (IPC- MHR)

<https://ipcmhr-psiunisba.com>

Virtual conference – 22 February 2024

**3<sup>rd</sup> ICMRSI**

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3rd International Conference on Multidisciplinary Research for Sustainable Innovation

<https://icmrsi.com>

Virtual conference – 13-14 March 2024



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