

Strategy of Halal Certifications Using the Strategic Assumption Surfacing and Testing (SAST) (Case Study at Riau Indonesia)

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Abstract

The high number of Muslim consumers and a large number of Micro-Small and Medium Enterprises in Indonesia should be in line with the increase in the number of halal-certified products. Thus, it is necessary to formulate the right strategy to increase the number of Halal certifications in Indonesia. The purpose of this study is to provide strategic recommendations to policymakers in increasing the number of halal certificates in Indonesia. The Strategic Assumption Surfacing and Testing (SAST) method were adopted in this study through focus group discussions and interviews with selected experts covering 1 academician, 2 Halal practitioners, and 2 business actors. This study found that there were 20 strategic assumptions formulated to increase the number of halal certifications in Indonesia. The results of the SAST method cluster the strategic assumptions into 4 quadrants. There are 10 items that assume the strategy is at a high level of importance and certainty in quadrant 1 and is a priority to be implemented. Then, the research has limitations in the form of determining the priority of the assumptions that will be applied. Further research is suggested to carry out weighing and ranking in the selection of the best strategic assumptions by policymakers.

Keywords

Halal Product, Certification, SAST, Micro-Small, and Medium Enterprises, Indonesia.

1. Introduction

Indonesia is a country with the largest Muslim population in the world. Due to this situation, Indonesia has the potential to be a market for many halal products. The development of the number of micro, small and medium enterprises (MSMEs) in Indonesia tends to increase until in 2019 there are 65.465.497 business units (Minister of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia 2021). The high number of business actors in Indonesia and a large number of Muslim consumers make guaranteeing halal products a focus of attention for policy makers. The gross domestic product (GDP) of a nation can be raised through micro, small, and medium-sized businesses, which can also overcome employment problems for the community (Adrian 2019). Muslims are required to use or consume a halal product. Interest in halal products increased significantly throughout the year, not just among Muslims but also among non-Muslims (Najmaei *et al.* 2017). This is a result of people becoming more aware of the benefits of consuming halal products. However, the number of these commercial entities does not correspond to the number of goods that have received halal certification.

Additionally, this is against the intent of Law No. 33 of 2014, which mandates that all goods sold and distributed in Indonesia must be halal-certified. According to data from the BPJPH in Indonesia, many business actors will have requested halal certification (Kamsari 2020). MSMEs' ability to execute halal certification is influenced by some issues (Anwari and Hati 2020; Giyanti and Indriastiningsih, 2019; Lestari *et al.* 2021; Puspaningtyas 2021). The variables that affect MSMEs undertaking halal certification are listed in Table 1. By conducting FGDs and open interviews with some experts, academics, and business players, this indicator was obtained based on prior research literature investigations. To address the issues in this study, qualitative descriptive research must be conducted while formulating strategic assumptions for boosting halal certification in Indonesia.

Table 1. Factors influencing MSMEs in halal certification

No	Author	Indicator	Keyword	Code
1	(Lestari <i>et al.</i> , 2021)	Difficult licensing bureaucracy	Licensing (IUMK, IUI, P-IRT, Marketing authorization)	A1
2	(Lestari <i>et al.</i> , 2021)	Limited financial resources	Start-up fund, Certification fee, Budget allocation	A2
3	(Lestari <i>et al.</i> , 2021)	Uncertainly	Complicated, Time-waste, Mileage	A3
4	(Lestari <i>et al.</i> , 2021)	Lack of information	UUJPH knowledge, counseling, Certification procedure, Law awareness	A4
5	(Lestari <i>et al.</i> , 2021)	Overconfident	Religion, Mindset, Awareness	A5
6	(Lestari <i>et al.</i> , 2021)	Short-term validity	Time period	A6
7	(Lestari <i>et al.</i> , 2021; Noordin <i>et al.</i> , 2009)	Issuance of Halal Certification	Waiting time	A7
8	(Lestari <i>et al.</i> , 2021; Noordin <i>et al.</i> , 2009)	Bad service	Lack of direction, Guidance	A8
9	(Lestari <i>et al.</i> , 2021)	Low level of education	Qualified, self-management	A9
10	(Lestari <i>et al.</i> , 2021; Noordin <i>et al.</i> , 2009)	Lack of enforcement	Government agencies (BPOM, LPPOM, BPJPH)	A10
11	(Lestari <i>et al.</i> , 2021)	Consistency	Types of products, SOP	A11
12	(Lestari <i>et al.</i> , 2021)	Customer awareness	Safe and hygienic products	A12
13	(Lestari <i>et al.</i> , 2021)	Business reputation	Customer trust and satisfaction, Branding, Prestige, Responsibilities	A13
14	(Lestari <i>et al.</i> , 2021)	Religious belief	Islamic law	A14
15	(Lestari <i>et al.</i> , 2021)	Role Halal Certification	Stamp of halal, Certainty of halal status, Value proposition	A15
16	(Lestari <i>et al.</i> , 2021)	Increase income	Customer buying interest	A16
17	(Lestari <i>et al.</i> , 2021)	Governmental policy	UU No. 33 of 2014, mandatory	A17
18	(Lestari <i>et al.</i> , 2021)	Islamic business concept	Faith, Halalan thayyiban	A18

19	(Lestari <i>et al.</i> , 2021)	Globalization progress	Trade politicization, trend	A19
20	(Lestari <i>et al.</i> , 2021)	Halal certification program	Financial resources (Government of Indonesia, Communities, NGO)	A20
21	(Lestari <i>et al.</i> , 2021; Prabowo <i>et al.</i> , 2015)	Market product freedom	Market competition	A21
22	(Prabowo <i>et al.</i> , 2015)	Business player awareness	Dissemination	A22
23	(Din and Daud, 2014; Prabowo <i>et al.</i> , 2015)	Weak commitment	Top management, Motivation, Normative Isomorphism	A23
24	(Azmi <i>et al.</i> , 2018; Din and Daud, 2014)	Production facility	Information, Communication, and Technology (ICT)	A24
25	(Azmi <i>et al.</i> , 2018)	Organizational Readiness	Operations management capability	A25
26	(Zulfakar <i>et al.</i> , 2014)	Halal Traceability	Information, Composition	A26
27	(Prabowo <i>et al.</i> , 2015)	Raw material availability	Halal Supplier	A27
28	(Prabowo <i>et al.</i> , 2015)	Social culture	Cultural change	A28
29	(Din and Daud, 2014)	Government Support	Supportive infrastructure, Policy	A29
30	(Azmi <i>et al.</i> , 2018)	Competitive Pressure	Competition	A30
31	(Azmi <i>et al.</i> , 2018; Shafie, 2002)	Halal Market Demand	Halal demand	A31
32	(Anwari and Hati, 2020; Giyanti and Indriastiningsih, 2019)	Product Quality	high-risk products	A32
33	(Giyanti & Indriastiningsih, 2019; Puspaningtyas, 2021)	Good manufacturing practice	fostering good production	A33
34	(Anwari and Hati, 2020; Giyanti and Indriastiningsih, 2019)	Creativity and Innovation	financial performance	A34
35	(Anwari and Hati, 2020; Puspaningtyas, 2021)	Integrity	Awareness of halal entrepreneurship	A35

1.1 Objectives

This study was carried out in a city where there is a wide variety of culinary in Indonesia. The focus of the study is Micro-Small and Medium Enterprises that produce halal-certified food and beverages. This study intends to improve the number of halal certifications in Indonesia by offering strategic assumptions for policymakers or halal assurance organizations by taking into account a variety of elements that affect Micro-Small and Medium Enterprises in conducting halal certification.

2. Literature Review

Allowing consumers to consume a product is referred to as halal in Islamic studies. Halal meals can be consumed by Muslims and customers worldwide because they adhere to Islamic law regarding the use of raw materials, added materials, and production techniques. The determination of halal and haram has been contained in Islamic concepts. There are institutions with the competence to inspect and test a product to ensure and guarantee the halalness of a product. If the product being examined doesn't contain raw materials or other non-halal components, this institution will issue a halal certificate to business actors. Halal certification is a series of product inspection processes from an agency appointed by the Indonesian government and has passed a written fatwa issued by the Indonesian Ulama Council which states the halalness of a product following Islamic law. In Indonesia, halal certificates serve as documentation for acquiring licenses from recognized government organizations, especially LPPOM MUI and BPJPH, to include halal labels on product packaging (Faridah 2019). The first step in the halal certification procedure is the company's application for the submission of halal certification to BPJPH. A legitimate corporation with a government-issued business license is required for applicants seeking halal certification. Complete files and supporting data are submitted to BPJPH for review and determination of the amount of the certification fee. After the applicant pays the certificate processing fee, an audit schedule will be given. The audit is carried out by a halal inspection agency appointed by BPJPH. The results of the audit are submitted to the MUI Fatwa Commission to be discussed in the Commission session, and then the legal fatwa is given. The results of the MUI Fatwa Commission

are submitted to BPJPH for the process of issuing halal certificates for business actors (Akim *et al.* 2019; Yakub and Zein 2022).

By evaluating the level of Important and certainty of an assumption in assuring the success of the goals to be reached, the Strategic Assumption Surfacing and Testing (SAST) approach can be used to determine what strategic assumptions must be taken into account (Wiguna *et al.* 2020). To visualize the relative importance and degree of certainty of each assumption, the SAST findings are presented on a four-quadrant graph. The rating is based on several criteria and expert judgment. The significance and confidence of an assumption are given in Figure 1. A study state that the SAST method is applied to generate and test strategic assumptions which are ideal conditions or requirements that must be met by a system. The limitation of the SAST method is the difficulty of respondents in expressing assumptions in solving problems. This is the initial problem that often arises when identifying problems in a system. Thus, the SAST approach is the first step in solving the system modeling. Many implementations of this method are used to integrate with analytical modeling and structural approaches. Obviously, This approach has been used to help policymakers to formulate strategies for improving a system (Daulay 2020; Zlatanovic 2016).

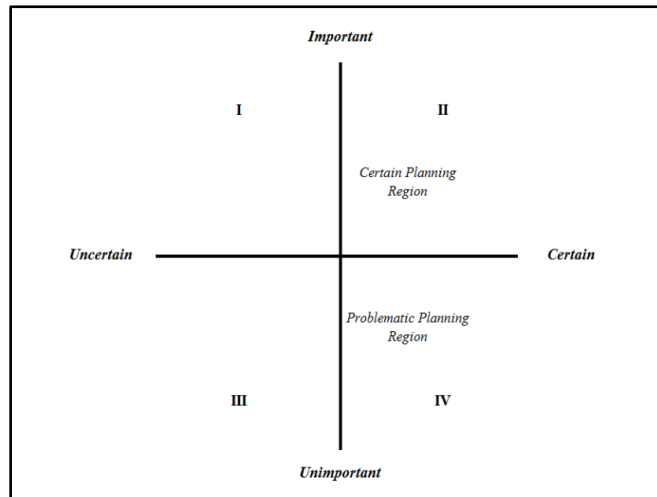


Figure 1. Assumption Rating Chart

3. Methods

To address the issues at hand, this study used a qualitative descriptive technique. A qualitative approach can help create solutions that are suitable and quantifiable (Rashid *et al.* 2019). Focus group discussions (FGD) and open interviews with professionals, academics, and business actors yielded the strategy assumptions. The FGD and interviews were conducted to record and collect key premises concerning the strategy to increase the number of halal certifications. Finding the crucial assumptions that support plans, programs, or strategies is made much easier with this technique. The presence, affordability, reputation, and experience of five experts in their field were among the criteria used to select the experts who answered the SAST questionnaire. Choosing experts who are knowledgeable on the subject uses purpose sampling (Campbell *et al.* 2020). Using a Likert scale of 1–7 (from Unimportant/Uncertain 1 to the important/Certain 7), 5 chosen experts will respond to questions in a questionnaire that includes a list of assumptions. To express their opinion, attitude, or feeling regarding a specific problem, respondents might select a scale. A chart or diagram representing the ranking results will be created. The results of the assessment of 5 experts are taken from the value that appears the most or is also called the mode (the value that often comes out of each assumption that has been answered at the level of importance and level of certainty), with the level of importance as the axis X and the degree of certainty as the Y-axis. Then the final result of the SAST analysis is the acquisition of a SAST quadrant graph and an assumption rating chart.

4. Data Collection

FGDs and interviews with experts in respective domains were used to gather the data. An overview of the responder profiles is provided in Table 2. One academic, two auditors, and two business actors made up the responders. The findings of FGDs and conversations with subject-matter experts who are knowledgeable in their domains led to the

assumption of a plan to expand the number of halal certifications. The discussion's findings revealed 20 strategic hypotheses, which would be coded to make it simpler for academics to explain or depict in a graph. A strategic premise that is mapped through variables about MSMEs in carrying out halal certification is shown in Table 3. Following that, pairwise comparisons are conducted between the items under the presumption that solutions to the issues at hand have been discovered. The level of relevance and certainty of each assumption can then be determined by examining the mode value of each respondent's assessment.

Table 2. Profile Respondent

No	Respondent	Profile	Experience (year)
1	Respondent A	Researcher on Chemistry Department. She also is a national halal auditor in Indonesia	3
2	Respondent B	Auditor Halal in LPPOM MUI Indonesia	16
3	Respondent C	Auditor Halal in Public Sector Indonesia	11
4	Respondent D	Business Owner Frozen food	2
5	Respondent E	Business Owner Dessert Box	2

Table 3. Strategy Assumptions for Increasing the Number of Halal Certifications in Indonesia

Code	Assumption	Indicator
A1	Develop trained human resources in the field of halal products by conducting halal training at all levels and levels of society.	A14, A4, A8, A9, A25, A35
A2	Activating communication, information, and education campaigns in the sphere of halal products with all segments of society to increase the number of people who are aware of halal.	A4, A5, A12, A14, A22, A23, A35
A3	Build a Halal Center as a halal product research and development center to advance science and technology in the development of halal products.	A24, A4, A9, A5, A8, A12, A32, A35
A4	a system coordinates between providers of halal raw materials and business actors to assure the availability of halal raw materials,	A11, A25, A27, A29, A32, A33
A5	The government plays a role in strengthening the role of the halal community so that it can attract producers and consumers to develop the halal product industry.	A1, A4, A9, A12, A35
A6	Simplify the process of making prerequisite documents (IUMK, IUI, P-IRT permits) for halal certification by implementing them online.	A1, A29
A7	Business actors apply the 50 20 30 rule (50% needs, 20% saving, 30% wants) financial storage system to register halal certification	A2, A8, A9, A23, A25, A34
A8	Increase programs and support from both the government and private companies through CSR funds to help finance business actors' halal certification.	A2, A20, A29, A34
A9	The Halal Inspection Agency (LPH) helps direct the parties facilitating the financing so that they are not misdirected.	A20, A29, A17, A34
A10	The Halal Inspection Agency (LPH) provides alternative solutions for raw materials whose halal legality is still unclear.	A13, A5, A15, A19, A20, A33, A32
A11	Affirming and promoting mandatory (mandatory) halal certification by the government by implementing a punishment system for business actors who do not carry out halal certification.	A8, A10, A17, A29, A35
A12	Implementing PP 39 of 2021 regarding the regulation of the validity period of halal certification being four years	A3, A4, A6, A7
A13	The Halal Inspection Agency (LPH) provides guidance and assistance to business actors related to halal products	A4, A8, A12, A14, A22, A29, A33, A35
A14	Accelerate the process of issuing halal certification by not exceeding the specified time limit.	A6, A7
A15	Cross-subsidies should be implemented to make it easier for MSMEs to pay for halal certification.	A2, A17, A29, A34

A16	Making halal certification is one of the requirements in both domestic and international distribution.	A13, A14, A15, A16, A18, A19, A20, A31, A32, A33
A17	Make regulations for halal certification that are clear and easy to grasp for business actors.	A3, A4, A29, A33
A18	Using halal certification as a trade commodity to increase the value proposition.	A13, A15, A16, A19, A120, A30, A32, A33
A19	The presence of traceability and transparency in a halal product that is accessible to everybody.	A14, A18, A25, A26, A29, A32, A33
A20	Creating a trading network for local and overseas halal products through halal certification and international cooperation in the halal product market.	A13, A15, A16, A19, A120, A28, A29, A31, A33

5. Results and Discussion

Determination of the level of importance and certainty of each assumption was done by finding the mode value of each respondent's assessment of the assumptions contained in the graphing. Details of the *very important*, *the very certain*, *the very unimportant*, and *the very uncertain* are divided into four quadrants. Ten strategic assumptions, including A2, A3, A4, A8, A9, A13, A15, A17, and A20, have a level of importance and a level of certainty of seven (7:7) or are in quadrant 1, according to the results of the overall assessment of respondents. This indicates that the strategy assumption is the ideal condition or absolute prerequisite to increasing the number of halal certifications. Then, the strategic assumptions A6 and A16 have a level of importance 7 and a level of certainty 6 (7:6), assumptions A11 at coordinates (7:5), at the level of importance and certainty (6:6), there are 4 assumptions including A1, A5, A10, and A18, assumption A12 has an assessment of (5:6) and the rest of the overall assumptions are at the level of importance and certainty of (5:7). The locations of the 20 assumptions in each quadrant are shown in Figure 2.

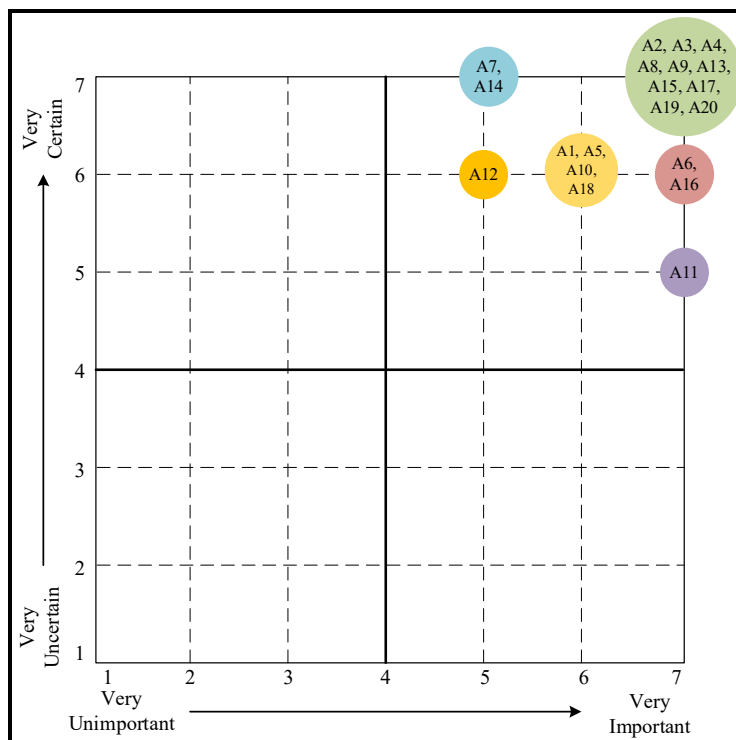


Figure 2. Graph of strategy assumptions for increasing the number of halal certification

The key priority that needs to be carried out to accomplish the goals of the research is the assumption of a strategy with a value of (7:7). The activation of communication, information, and education efforts in the area of halal products with all societal segments in order to increase the number of people who are aware of halal is one of the ten assumptions of the selected strategy; establishing a Halal Center as a hub for halal product research and development

to advance science and technology; establishing a system that coordinates between halal raw material providers and commercial players to assure the availability of halal raw materials; increasing programs and support from both the government and private companies through CSR funds to help finance the halal certification of business actors; The Halal Inspection Agency (LPH) helps direct the parties facilitating the financing so that they are not misdirected; Halal Inspection Agency (LPH) provides guidance and assistance to business actors related to halal products; performing cross subsidies to facilitate MSMEs in making payments for halal certification; Making regulations that are clear and easy to understand for business actors in conducting halal certification; The existence of traceability (traceability) and transparency in a halal product and can be accessed by all people; and creating a trading network of domestic and foreign halal products through halal certification, such as establishing international cooperation in the halal product business.

Following this are strategic assumptions with levels of importance (7) and certainty (6). Then, there is level of importance (7) and certainty (6), which is in quadrant 1 and is the second priority assumption of the proposal following the levels of importance and certainty (7:7). The two strategic presumptions mentioned at level of importance (7) and certainty (6) are to make halal certification one of the requirements in circulating products both inside and outside of the country and to simplify the process of making prerequisite documents (IUMK, IUI, P-IRT permits) for that certification by implementing online. Determining halal certification as a requirement for items to be distributed both domestically and internationally will become a requirement and offer value to halal certification providers. On the other hand, the validity period of halal certification is 4 years, and it is not an assumption of the right strategy. A study argues that the validity period of halal certification for business actors is not a major concern because consumer confidence in business units that have received certification tends to maintain their services (Sahir *et al.* 2021).

6. Conclusion

The Strategic Assumption Surfacing and Testing (SAST) method in this study has succeeded in classifying strategic assumptions for increasing halal certification in Indonesia. There is a distribution of 20 strategic assumptions in 4 quadrants of this method. Thus, policymakers can consider strategies for increasing halal certification in accordance with factors of importance and certainty. Besides, the main strategy assumptions in this study were selected as many as 10 assumptions. Thus, this research is limited in determining the priority of the assumptions to be applied. Further research is recommended to conduct weighting and ranking for the selection of the best strategic assumptions that will be recommended to policy makers in increasing the number of halal certifications in Indonesia.

References

- Adrian, A., "Empowerment Strategies Of Micro, Small, Medium Enterprises (MSMEs) To Improve Indonesia Export Performance", *International Journal of Economics, Business and Accounting Research (IJEBAR)*, Vol. 2 No. 04, pp. 50–60. 2019.
- Akim, A., Konety, N., Purnama, C. and Korina, L.C., "The Shifting of Halal Certification System in Indonesia: From Society-Centric To State-Centric", *MIMBAR : Jurnal Sosial Dan Pembangunan*, Vol. 35 No. 1, pp. 115–126. 2019.
- Anwari, M. and Hati, S.R.H., "Analysis of motivational factors of MSMEs entrepreneurs to be halalpreneurs", *International Journal of Business and Society*, Vol. 21 No. 3, pp. 1122–1138. 2020.
- Azmi, F.R., Musa, H., Sihombing, H. and Fen, F.S., "Adoption Factors of Halal Standards: The Malaysian Perspectives", *Proceedings of the 3rd International Halal Conference (INHAC 2016)*, 2018. available at:<https://doi.org/10.1007/978-981-10-7257-4>.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., *et al.*, "Purposive sampling: complex or simple? Research case examples", *Journal of Research in Nursing*, Vol. 25 No. 8, pp. 652–661. 2020.
- Daulay, A.R., "Strategic Assumptions for The Success of Coal Mining Reclamation to be A Tourism Site; A Case Study in Rantau Pandan Village of Bungo Regency", *Jurnal Ilmu Lingkungan*, Vol. 18 No. 2, pp. 253–260. 2020.
- Din, R.C. and Daud, S., "Critical Success Factors of MS1500:2009 Implementation", *Procedia - Social and Behavioral Sciences*, Elsevier B.V., Vol. 121 No. September 2012, pp. 96–103. 2014.
- Faridah, H.D., "Halal certification in Indonesia; history, development, and implementation", *Journal of Halal Product and Research*, Vol. 2 No. 2, p. 68. 2019.

- Giyanti, I. and Indriastiningsih, E., “Impact of Halal Certification on The Performance of Food Small Medium Enterprises”, *Jurnal Ilmiah Teknik Industri*, Vol. 18 No. 2, pp. 116–123. 2019.
- Kamsari, D.H.A., *Mechanisms for Submission of Halal Certification and Halal Facilitation for MSEs*, 2020. available at: http://halal.go.id/cms/assets/files/Materi_Pak_Amru_compressed.pdf.
- Lestari, F., Nurainun, T., Kurniawati, Y. and Adzkie, M.D., “Barriers and Drivers for Halal Supply Chain on Small-Medium Enterprises in Indonesia”, *International MultiConference of Engineers and Computer Scientists IMECS 2021*, pp. 184–189. 2021.
- Minister of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia., *Regulation of the Minister of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia Number 5 of 2021*, pp. 37–38. 2021.
- Najmaei, M., Mansoori, S., Zakaria, Z. and Raueiser, M., “Marketing from Islamic Perspective, Tapping into the Halal Market”, *Journal of Marketing Management and Consumer Behavior*, Vol. 1 No. 5, pp. 53–62. 2017.
- Noordin, N., Md Noor, N.L., Hashim, M. and Samicho, Z., “Value Chain of Halal Certification System: A Case Of The Malaysia Halal Industry”, *Proceedings of the European and Mediterranean Conference on Information Systems, EMCIS 2009*, pp. 1–14. 2009.
- Prabowo, S., Rahman, A.A., Rahman, S.A. and Samah, A.A., “Revealing factors hindering halal certification in East Kalimantan Indonesia”, *Journal of Islamic Marketing*, Vol. 6 No. 2, pp. 268–291. 2015.
- Puspaningtyas, M., “Is halal certificate socialization effective in increasing the number of MSMEs in the food sector to register for halal certificates?”, *Halal Development: Trends, Opportunities and Challenges*, pp. 69–74. 2021.
- Rashid, Y., Rashid, A., Warraich, M.A., Sabir, S.S. and Waseem, A., “Case Study Method: A Step-by-Step Guide for Business Researchers”, *International Journal of Qualitative Methods*, Vol. 18, pp. 1–13. 2019.
- Sahir, S.H., Fahlevi, M., Kasbuntoro and Sutia, S., “Effect of halal food management system certification on buying interest of Indonesian consumer goods”, *Uncertain Supply Chain Management*, Vol. 9 No. 3, pp. 731–738. 2021.
- Shafie, S., “Halal Certification: an international marketing issues and challenges”, *La Revue de Medecine Interne*, Vol. 23 No. 12, pp. 957–9. 2002.
- Wiguna, G.G., Darkun, K. and Sulistyadi, K., “Sast & Ahp Method in Determining the Best Strategy of Office Ergonomics Program Improvement To Prevent Risk of Musculoskeletal Disorders At Xyz Company Qatar”, *ADI Journal on Recent Innovation (AJRI)*, Vol. 2 No. 1, pp. 186–193. 2020.
- Yakub, A. and Zein, F., “Halal Certification in Government and Non-Governmental Organizations: A Comparative Analysis of Indonesia, Malaysia, and Thailand”, *Jurnal Cita Hukum*, Vol. 10 No. 1, pp. 153–176. 2022.
- Zlatanovic, D., “Combining the methodologies of strategic assumptions surfacing and testing and organizational cybernetics in managing problem situations in enterprises”, *Ekonomski Horizonti*, Vol. 18 No. 1, pp. 15–32. 2016.
- Zulfakar, M.H., Anuar, M.M. and Talib, M.S.A., “Conceptual Framework on Halal Food Supply Chain Integrity Enhancement”, *Procedia - Social and Behavioral Sciences*, Elsevier B.V., Vol. 121, pp. 58–67. 2014.

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