

The Association between Halal Assurance System and Risk of Product Material on Financial Performance

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ABSTRACT

The purpose of this study is to see the association between Halal Assurance Systems (HAS) and risk of product material on a company's financial performance. The focus of this research is on the level of HAS implementation and product risk categories which is audited by The Assessment Institute of Food, Drug, and Cosmetics - Indonesian Council of Ulama (LPPOM-MUI). The study uses data from listed manufacturing companies in Indonesia from 2014-2018 after the issuance of Law Number 33 of 2014 concerning Halal Product Assurance. This study shows that the products with low risk category of halal material traceability and HAS implementation have an influence on company earnings.

Keywords: Halal, Assurance System, Financial Performance.

1. INTRODUCTION

Indonesia as a country with the largest Muslim population. It is a country with a strong religion that provides products specifically offered in the food industry. In order to be consumed by Muslim communities in Indonesia, food products must have a halal certificate issued by the the Assessment Institute of Food, Drug, and Cosmetics (*Lembaga Pengkajian Pangan, Obat-obatan dan Kosmetika* or LPPOM) which is part of the Indonesian Ulema Council (*Majelis Ulama Indonesia* or MUI). Halal certified products are needed for Muslim consumers so they feel safe in consuming products according to their belief in Islam.

The need for halal certification of a company's products is increasing from year to year. Although there is an increasing need for halal certification, the scope of research on halal certification is still very limited. Within the scope of the food and beverage manufacturing industry, existing research only focuses on the presence or absence of halal certification which impacts consumer consumption behavior [1], perceptions [2] and business performance [3]. Specific research needs to be explored not only regarding the presence or absence of halal certification, but also the

attributes in halal certification itself. For example, halal certification in Indonesia can be divided into two types: product certification and production system certification.

Companies made an effort to obtain halal certification on the terms of distribution of their products which were overseen by LPPOM MUI. In the certification process, LPPOM MUI issued the value of implementing HAS on the company's production system in accordance with the halal criteria. The higher the value awarded, the easier it is for companies to extend the halal certificate period and obtain halal certificates for the company's new products. Companies with good HAS implementation will have a good production system, so it will reduce their losses, such as ineffectiveness in making products or rejected products from consumers or retailers.

In addition, a company's products that are monitored by LPPOM MUI can be divided into three types of risk categories (ranging from no risk, low risk to high risk) based on the halal traceability level of the product material used. The difference in risk has an impact on LPPOM MUI's decision whether to issue halal certificates or not for a company's products. If it

does not meet the criteria level of critical ingredients according to the category, then LPPOM MUI does not issue a halal certificate, so the company will find it difficult to sell the product in the market. Therefore, it needs to be proven whether the implementation of HAS and risk of halal product's material traceability have an association with company revenue or not.

There are only few researches about halal certification and halal assurance systems. Previous research still uses primary data in the form of interviews and questionnaires from business people and also consumers of halal products. Thus, previous research is needed which can be proven by secondary data in the form of financial data from companies and certification bodies as well as a halal guarantee system to see how the results of previous research can be scientifically proven. Because of limitations in the number of research related to halal certification, this research also refers to references related to certification, for example ISO 9000 related to production quality. In research on obtaining ISO 9000 certification, there are still inconsistent results. For example the results of some research have not managed find a relationship between certification process and financial performance [4-8], while other studies state the opposite results that ISO impacts several aspects of financial performance [9-12]. This research is based on analyzing secondary data on how the association between HAS implementation and the risk of halal product's material traceability on the company's financial performance.

This research contributes to the research literature related to halal certification in Indonesia, which focuses on the value of HAS implementation on company income. This research is expected to be the basis of future research with a longer research time span. This is due to the limited data on the financial statements of food and beverage manufacturing companies that have only become public companies in recent years.

2. LITERATURE REVIEW

Halal certification is the process of a product or service certification as stated in Islamic sharia law [13]. Specific definitions of halal certification were explained by [14] in [3] in the form of documents issued by Islamic organizations that assurance of products listed meet the Islamic guidelines. To support the certification, a halal assurance system is also needed in a company or producer.

Research on halal certification is still limited only to discussing the presence or absence of halal certificates owned by the company. Several studies link the existence of halal certification with the implications of increasing the number of consumers

[15], market share [16], consumer trust and [17] and company performance [3, 18].

2.1 Halal Assurance System Certification in Indonesia

According to LPPOM MUI [19], Halal Assurance System is a management system developed, implemented and maintained by a halal certificate holder company to maintain the continuity of the halal production process in accordance with the criteria of LPPOM MUI. In Indonesia, halal certificates are issued by LPPOM MUI. The halal certificate is valid for two years and must be renewed approximately 3 months before the validity period expires. The implementation status of the halal assurance system has different levels, namely status A and B. The company obtains a halal assurance system certificate if it receives status A consecutively. If the company can maintain the continuity of the HAS certificate for 3 times in a row, at the next halal certificate extension, no on-site audit is needed as long as there is no change in material, process technology or manufacturing. Audits are conducted only on administrative or documentation aspects.

2.1.1 Resource-Based View Theory

In this study, the resource-based view theory proposed by [20] reveals that the business outcomes desired by companies can be generated from available resources that are used effectively and efficiently. The basis of this theory has the assumption that tangible or intangible attributes, if used correctly, will produce good value. The concept proposed by [20] in this paper positions the implementation of the halal assurance system and product categories as a type of resource owned by food and beverage manufacturing companies as a means to achieve competitive advantage. Differences in the status of implementation of HAS have different treatments from LPPOM MUI to the company, for example by having a certificate of HAS or value A the company does not have to audit at the production location so that the company can differentiate products faster than companies that obtain status B or less.

To support this argument, several previous studies have proven that in order to achieve desired business results, companies use various types of certification as a tool [15, 21-25]. Previous studies only examined the presence or absence of certification of company income, as conducted by [15]. Some various studies have found no relationship between food certification (such as ISO) and financial performance [4, 6-8]. With the different assessment on the status of the implementation of HAS by LPPOM MUI to the company, the hypothesis in this study is:

H1. There is an association between the implementation of HAS and the company's revenue.

2.2 The Halal Product's Material Traceability

The category of halal product material traceability has been determined by LPPOM MUI. The next research hypothesis is made based on the number of halal certificates based on each risk of halal product's material traceability. The product based on the halal material traceability is sensitive, in which the halalness of a sensitive product has an impact on the company's finances [18]. Thus, the next hypothesis can be divided based on the following categories:

H2A : The number of halal certificates for the product category with no risk have an association with company's revenue.

H2B : The number of halal certificates for the product category with low risk have an association with the company's revenue.

H2C : The number of halal certificates for the product category with high risk have an association with the company's revenue.

3. RESEARCH METHODOLOGY

To assess the association between the halal assurance system and company revenue, this study uses a regression based on the status of the implementation of the halal assurance system based on the LPPOM MUI assessment. The population for this research is food and beverage manufacturing companies in Indonesia. Sampling of this study is a public company listed on the Indonesia Stock Exchange and already has a halal certification and halal assurance system. The researchers excluded a beer beverage company even though it has halal certification for one of their products in 2018 because the majority of beer products contain alcohol and are

beverage products. The time frame for selecting the research year is 2015-2018 due to the ratification of the draft Halal Product Assurance Law in Indonesia in 2014. The selection of the time period was chosen in the year after the ratification.

The data used for the value of implementing HAS were obtained from the Global Halal Center Indonesia LPPOM MUI, while other variables such as revenue, total assets, company age were obtained from the company's annual report. The dependent variable is total income divided by total assets (TATURNOVER). The independent variable of this research is the value of implementing the halal assurance system (HAS) which is categorized from number 1 to 4 based on HAS audit result by LPPOM MUI. Score 1 is given if the company is not ready to get the B status of halal implementation. Score 2 if the company gets B status of halal implementation. Score 3 is given if the company gets A status of halal implementation and score 4 is given if the company gets the HAS certification. The other independent variables are the number of certificates of the category of halal traceability, level of product's material that is still valid in year t, whether there is no risk (RISKN), low risk (RISKR), and high risk (RISKD). The control variable of this research is the research focusing on the income of food and beverage products produced by the company. Because all previous researchers used primary data, we try to create our own equation model based on a theoretical model which was proposed by [3]

$$TATURNOVER_{it} = \beta_0 + \beta_1 SJH_{it} + \beta_2 RISKN_{it} + \beta_3 RISKR_{it} + \beta_4 RISKD_{it} + \beta_5 AGE_{it} + \beta_6 LNTOTALASSET_{it} + \beta_7 ROA_{it} + \epsilon_{it} \tag{1}$$

4. RESULTS

4.1 Descriptive Statistics

From the 27 listed companies manufacturing the food

Table 1. Descriptive statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
HAS	44	2,6136	1,2429	1	4
RISKN	44	1,3633	2,1250	0	9
RISKR	44	3,2270	4,0683	0	14
RISKD	44	6,6363	10,6139	0	39
TARURNOVER	44	1,2768	0,7532	0,0236	3,1048
LOGTOTASSET	44	29,2517	1,4913	27,1536	32,2010
ROA	44	0,0761	0,0830	-0,0687	0,2945
AGE	44	38,3180	19,3123	6	85

prohibited products, so that if included in this research, it will cause bias with other halal food and

and beverage industry, only 11 companies met the research criteria in completing the data to be

processed within a span of 4 years. Therefore, the total research observation is 44 years. From Table 1, it can be seen that the average value of implementing a halal assurance system in food and beverage manufacturing companies in Indonesia is 2,6136. This means that the implementation is between the values of A and B, where on average the company has sufficiently met the criteria for implementing HAS. Meanwhile, for the number of certifications based on the category of critical level of product materials, the average number of no-risk categories is the least, then followed by the average number of risk categories and the highest number is for the high-risk material category.

4.2 Regression Result

In interpreting the results of the two-way p-value to see the positive or negative association of a variable, then the p-value needs to be divided in half. In the regression results, the p-value on the HAS variable is 0.112, divided into 2, so the two-way P value becomes 0.0506 so that it becomes significant in the p-value of 10% with a positive coefficient [26]. These results support the hypothesis in *H1* that the value of HAS implementation has a relationship with company income. This means that the higher the implementation of the halal assurance system in companies in production, will make it easier for companies to obtain halal certificates for their new products without the need for more stringent procedures, such as having to audit in place for certain production procedures. Thus, companies can segment

new products more easily thereby increasing company revenue.

In the regression results for the number of certifications of the material halal traceability level category, only the level at low risk has a significant p-value of 10%, that is, the value of 0.190 (divided by 2 to 0.085). Meanwhile, for the number of certifications, the halal material traceability with no risk and high risk is not significant (p-value above 10%). The number of certifications of halal material traceability categories has an average value in the middle among the categories of halal material traceability with no risk and very high risk (mean 3.2270 from Table 1). The category of halal material traceability with low risk of having a association with company revenue which means it can compete with the category of halal material traceability that is below and above, this proves the theory of resource-based view that certain resources used by companies are able to increase the results of outcomes in this case the company's revenue.

5. CONCLUSION

The conclusion of this study is the value of the implementation of HAS has a relationship with company income, this proves that the Resource-Based view theory is proven that a good system which is an attribute of a company will increase outcome results, which is corporate income. For the number of certification of halal material traceability level

Table 2. Regression result

Random-effects GLS regression				Number of obs =	44		
				Number of groups =	11		
R-sq:				Obs per group			
	within =	0,4469		min =	4		
	between =	0,5699		avg =	4		
	overall =	0,5632		max =	4		
				Wald chi2 (7) =	35,72		
				Prob > chi2 =	0,0000		
TATURNOVER	Coef	Std Err.	z	p> z	p> z / 2	[95% Conf. Interval]	
SJH	0,0962907	0,0605752	1,59	0,112	0,056	-0,0224345	0,2150159
RISKN	0,0096466	0,0240086	0,40	0,688	0,344	-0,0374094	0,0567027
RISKR	0,3739040	0,0285269	1,31	0,190	0,095	-0,0185213	0,0933021
RISKD	-0,0146544	0,0118575	-1,24	0,217	0,109	-0,0378947	0,0085860
LOGTOTALASSET	-0,2892177	0,0898398	-3,22	0,001	0,001	-0,4653004	-0,1131350
ROA	3,1993490	0,8781109	3,64	0,000	0,000	1,4782840	4,9204150
Age	0,0144595	0,0070949	2,04	0,042	0,021	0,0005537	0,0283652
_cons	8,6510690	2,6189240	3,30	0,001	0,001	3,5180720	13,7840700
sigma_u	0,2891756						
sigma_e	0,1198893						
rho	0,8533262 (fraction of variance due to u_i)						

categories, only the level of halal product material traceability with low risk can increase company revenue, compared to the other 2 categories. The category of halal traceability of material with low risk is the middle value category of critical material, so based on the resource-based view theory, material attributes whose traceability level is not too high and not too low are the most influential in increasing the company's revenue. The position of the halal traceability with low risk category in the middle is the most competitive category, because it can compete in the upper or lower categories.

The implication of this research is that companies need to implement and improve the HAS in their production in order to facilitate the process of halal product certification so that products sold can be improved. Companies can also know that the category of halal material traceability level with low risk is the most competitive material category in increasing sales of a product.

The limitation of this research is the limited financial statements of listed companies in the food and beverage manufacturing industry, because some companies have just recently become public and have only published their financial reports in recent years. Future research is expected to be carried out in a longer time span with a greater number of companies with different industry variations.

REFERENCES

- [1] Y. A. Aziz and N. V. Chok, "The role of Halal awareness, Halal certification, and marketing components in determining Halal purchase intention among non-Muslims in Malaysia: a structural equation modeling approach", *Journal of International Food & Agribusiness Marketing*, vol. 25, no. 1, pp. 1-23, 2013.
- [2] A. Haque, A. Sarwar, F. Yasmin, A. K. Tarofder, and M. A. Hossain, "Non-Muslim consumers' perception toward purchasing halal food products in Malaysia", *Journal of Islamic Marketing*, vol. 6, no. 1, pp. 133-147, 2015.
- [3] M. S. A. Talib, T. A. Chin, and J. Fischer, "Linking Halal food certification and business performance", *British Food Journal*, vol. 119, no. 7, pp. 1606-1618, 2017. <https://doi.org/10.1108/BFJ-01-2017-0019>
- [4] M. Terziovski, D. Samson, and D. Dow, "The business value of quality management systems certification. Evidence from Australia and New Zealand", *Journal of Operations Management*, vol. 15, no. 1, pp. 1-18, 1997.
- [5] M. Lima, M. Resende, and L. Hasenclever, "Quality certification and performance of Brazilian firms: an empirical study", *International Journal of Production Economics*, vol. 66, no. 2, pp. 143-147, 2000.
- [6] G. P. M. Dick, "ISO 9000 certification benefits, reality or myth?", *The TQM Magazine*, vol. 12, no. 6, pp. 365-371, 2000.
- [7] I. Heras, M. Casadesus, and G. P. M. Dick, "ISO 9000 certification and the bottom line: a comparative study of the profitability of Basque region firms", *Managerial Auditing Journal*, vol. 17, No. 1/2, pp. 72-78, 2002.
- [8] P. W. Morris, "ISO 9000 and financial performance in the electronics industry", *Journal of American Academy of Business*, vol. 8, no. 2, pp. 227-235, 2006.
- [9] H. Sun, "Total quality management, ISO 9000 certification and performance improvement", *International Journal of Quality & Reliability Management*, Vol. 17 No. 2, pp. 168-179, 2000.
- [10] S. J. McGuire, and D. M. Dilts, "The financial impact of standard stringency: an event study of successive generations of the ISO 9000 standard", *International Journal of Production Economics*, vol. 113, no. 1, pp. 3-22, 2008.
- [11] D. S. Sharma, "The association between ISO 9000 certification and financial performance", *The International Journal of Accounting*, vol. 40, no. 2, pp. 151-172, 2005.
- [12] C. J. Corbett, M. J. Montes-Sancho, and D. A. Kirsch, "The financial impact of ISO 9000 certification in the United States: an empirical analysis", *Management Science*, vol. 51, no. 7, pp. 1046-1059, 2005.
- [13] N. Noordin, N. L. Md. Noor, and Z. Samicho, "Strategic Approach to Halal Certification System: An Ecosystem Perspective", *Procedia – Social and Behavioral Sciences*, vol. 121, pp. 79-95, 2014.
- [14] M. N. Riaz and M. M. Chaudry, *Halal Food Production*. Boca Raton, FL: CRC Press, , 2004.
- [15] M. S. A. Talib, A. B. A. Hamid, and T. Ai Chin, "Can Halal certification influence logistics performance?", *Journal of Islamic Marketing*, vol. 7, no. 4, pp. 461-475, 2016.
- [16] N. Noordin, M. Hashim, and Z. Samicho, "Value chain of Halal certification system: a case of the Malaysia Halal industry", *European and*

- Mediterranean Conference on Information Systems 2009 (EMCIS2009)*, pp. 1-14, 2009.
- [17] M. Abdul, H. Ismail, H. Hashim, and J. Johari, "SMEs and Halal certification", East Coast Economic Region (ECER) Regional Conference 2008, UPENA, Kota Bharu, pp. 609-618, 2008.
- [18] M. Tieman, J. G. A. J. van der Vorst, and M. C. Ghazali, "Principles in halal supply chain management", *Journal of Islamic Marketing*, vol. 3, no. 3, pp. 217-243, 2012.
- [19] LPPOM MUI, *Panduan Umum Sistem Jaminan Halal*. Jakarta: Lembaga Pengkajian Pangan Obat-obatan dan Kosmetika Majelis Ulama Indonesia, 2008.
- [20] J. Barney, "Firm resources and sustained competitive advantage", *Journal of Management*, vol. 17, no. 1, pp. 99-120, 1991.
- [21] C.-C. Sum, C.-B. Teo, and K.-K. Ng, "Strategic logistics management in Singapore", *International Journal of Operations & Production Management*, vol. 21, no. 9, pp. 1239-1260, 2001.
- [22] C. Chow-Chua, M. Goh, and T. Boon Wan, "Does ISO 9000 certification improve business performance?", *International Journal of Quality & Reliability Management*, vol. 20, no. 8, pp. 936-953, 2003.
- [23] M. G. Fikru, "Firm level determinants of international certification: evidence from Ethiopia", *World Development*, vol. 64, pp. 286-297, 2014.
- [24] P. Sampaio, P. Saraiva, and A. Rodrigues, "ISO 9001 certification research: questions, answers and approaches", *International Journal of Quality & Reliability Management*, vol. 26, no. 1, pp. 38-58, 2009.
- [25] D. P. Kafetzopoulos, and K. D. Gotzamani, "Critical factors, food quality management and organizational performance", *Food Control*, vol. 40, pp. 1-11, 2014.
- [26] K. MacDonald. "One-sided tests for coefficients," [Online] Available: <https://www.stata.com/support/faqs/statistics/one-sided-tests-for-coefficients/> (Accessed: 30 November 2020).