

# The Use of CSR Disclosure to Determine the Legitimacy of Halal Certificate

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## **Abstract**

*This study aims to show the legitimizing effect of Halal certificate by investigating its role of moderating variable towards the influence of firm characteristics on the level of CSR disclosure. In this research, CSR disclosure is classified into sourcing, environmental, and social disclosures. Year-ending 2011 Annual report disclosures of 43 food processing companies listed in Bursa Malaysia are analyzed. The sourcing, environmental, and social disclosures components of the GRI Sustainability Reporting Guidelines and Food Processing Sector Supplement (FPSS) which is intended for a specific food processing industry are used as the benchmark disclosure index checklist.*

*Based on statistical analysis, the first hypothesis is partially found such as firm size positively influences the level of environmental and social disclosures; firm age positively influences the level of social disclosures; and leverage positively influences the level of sourcing, environmental, and social disclosures. The second hypothesis is partially found such as the degree of the influence of leverage on the level of environmental and social disclosures is decreasing within Halal certified companies.*

*The main implication of the findings is that Halal certificate may increase the legitimacy of food processing companies with higher debt as well as reduce the perceived society's pressures in terms of the impacts on the environment and society, but not in the case of the integrity of Halal food supply chain. This study reveals that the misuse of Halal logo has extensively damaged the reputation of Halal food products as safe, hygienist, high quality, as well as not contaminated with najis things. The amendments of the Trade Description Act 2011 that better protect the rights of consumers in Halal food products allow Halal certificate to increase its reputation.*

*Keywords: CSR disclosure, Legitimacy theory, Halal certificate, GRI, Food Processing Sector Supplement*

## **Introduction**

There are now fundamental changes in regulations relating to the issuance of Halal logo in Malaysia. The Malaysian government has amended the Trade Description Act 2011 in which the Department of Islamic Development Malaysia (JAKIM) is given legal authority to issue Halal certification and carry out enforcement against the misuse of Halal logo. Since January 1<sup>st</sup>, 2012 only Halal certificate issued by JAKIM is recognized. Before the amendments, any organization may issue its own Halal logo which caused decreasing reputation of Halal certificate (Mustafa and Kamilah, 2012). With the purpose to explore the decreasing reputation of Halal certificate, this study identifies legitimizing effect of Halal certificate by investigating its role of moderating variable towards the influence of firm characteristics on the level of CSR disclosure.

The importance of CSR disclosure is increasing as shown by a survey of KPMG (2011) explaining that 95 percent of the 250 largest global companies disclose their CSR or represents an increase of 14 percent compared to 2008 survey. Companies may use CSR disclosure to prove that they are socially responsible and concern with the needs of various stakeholders. CSR disclosure is defined as a means that management can discharge its social responsibility by providing details information of company activities related to the physical environment, energy, human resource, products and community involvement (Haron et al., 2007).

Previous studies of CSR disclosures reveal that the level of CSR disclosure depends on the level of perceived society and government pressures (Watts and Zimmerman, 1978; O'Donovan, 2002). The purpose of companies to provide CSR disclosures is to get legitimacy from society as well as to prove that they are socially responsible and concern with the needs of various stakeholders (Campbell et al., 2003).

Guthrie et al., (2010) examine the level of CSR disclosure in which the Australian Food and Beverage Industry is divided into sub-industries, such as high, medium, and low risk. Brewers, distillers and vitners are classified as "high risk" since its products may cause health problem and negative social

effects in a high level, therefore receive the highest level of society and government pressures. Soft drinks and packaged foods are classified as medium risk” since its products may cause health problem and negative social effects in a medium level, therefore receive medium level of society and government pressures. Agricultural companies are classified as “low risk” since its products may cause minimum health problem and negative social effects in a low level, therefore receive the lowest level of society and government pressures. However, the results show that there is no relationship between sub-industries and the level of CSR disclosure.

With the purpose to extend discussions of the level of CSR disclosures that may vary within an industry, this study classifies the Malaysian food processing industry based on the availability of Halal certification. Such classification is also necessary to provide evidence on the legitimizing effect of Halal certificate in which its role of moderating variable towards the influence of firm characteristics on the level of CSR disclosure might be examined.

### **Theoretical Framework and Hypotheses Development**

Previous studies use legitimacy theory as theoretical framework in explaining how the society’s pressures influence the level and extent of CSR disclosure (e.g. Dowling and Pfeffer, 1975; Haniffa and Cooke, 2005; Guthrie et al., 2010).

The definition of legitimacy theory has been formulated by Dowling and Pfeffer (1975, p. 122) as

*“... a condition or status which exists when an entity’s value system is congruent with the value system of the larger social system of which the entity is a part, and when a disparity, actual or potential, exists between the two value systems, there is a threat to the entity’s legitimacy”.*

Legitimacy theory is derived from social contract between company and society, in which society allows companies to utilize resources such as raw materials, employees, and infrastructures, meanwhile, companies are obliged to provide goods and services for the wellness of society (Lindblom, 1984). The implication of social contract is that companies need legitimacy to enhance its reputation that they run

business in congruence with society norm and values and lack of legitimacy may threaten its existence such as customer boycotts, supplier boycotts, reducing financial capital by investor, and raising taxes by the governments (Khlifi and Bouri, 2010).

There are previous studies examining the relationship between firm characteristics, such as firm size, firm age, leverage, audit firm size, profitability and the level of CSR disclosure (e.g. Haniffa and Cooke, 2005; Al Saeed, 2006; Parsa and Kouhy, 2008; Rahman, Zain, and Al-Haj, 2011; Lucyanda and Siagian, 2012). However, results of the previous studies are inconclusive. The reasons for the inconsistency among others are that the nature and patterns of CSR disclosure vary between different sectors (Gray et al., 2001) and the results of previous studies are less accurate since in conducting content analysis, most of them use general reporting frameworks instead of those intended for one specific sector (Guthrie et al., 2008).

In terms of the relationship between firm size and the level of disclosure, previous studies assume that bigger companies receive higher level of society and government pressures. Therefore, they are most likely to provide CSR disclosure in order to enhance its reputation beside the fact that they have more sufficient resources for collecting, analyzing, and presenting extensive amount of data at minimal cost. As such, this study hypothesizes that:

H1a: Firm size positively influences the level of sourcing, environmental, and social disclosures.

In terms of the relationship between firm age and the level of disclosure, previous studies assume that older companies receive higher level of society and government pressures. Therefore, they are most likely to provide CSR disclosure in order to enhance its reputation beside the fact that they gain more capabilities and experiences in providing CSR disclosure. As such, this study hypothesizes that:

H1b: Firm age positively influences the level of sourcing, environmental, and social disclosures.

In terms of the relationship between leverage and the level of disclosure, previous studies assume that higher leveraged companies receive higher level of pressures from creditors and investors. Therefore, they are most likely to provide CSR disclosure in order to satisfy its creditors and obtain new funds at lower cost. As such, this study hypothesizes that:

H1c: Leverage positively influences the level of sourcing, environmental, and social disclosures.

In terms of the relationship between audit firm size and the level of disclosure, previous studies assume that companies audited by the Big Four audit firms receive higher level of pressures to concern with the reputation of these audit firms. Therefore, they are most likely to provide CSR disclosure since the Big Four audit firms are willing to associate with companies that disclose more information in their annual reports and they have more capability, expertise, experience, reputation, and power to affect the level of CSR disclosure of reporting companies. As such, this study hypothesizes that:

H1d: Audit firm size positively influences the level of sourcing, environmental, and social disclosures.

In terms of the relationship between profitability and the level of disclosure, previous studies assume that more profitable companies receive higher level of society pressures and political risks. Therefore, they are most likely to provide CSR disclosure in order to reduce society pressures and political risks beside the fact that they have more financial resources to provide CSR disclosure. As such, this study hypothesizes that:

H1e: Profitability positively influences the level of sourcing, environmental, and social disclosures.

The food processing industry receives high society pressures in terms of energy efficiency, noise pollution, air pollution, waste water, cooling and temperature, controlled storage and distribution, functions of packaging, disposal of waste and expired inventories, and disposal of packaging (Global Reporting Initiative, 2006). Consequently, the food processing companies need legitimacy to enhance its reputation such as by providing CSR disclosure or adopting symbols to identify the company with legitimate social institutions or practices (Dowling and Pfeffer, 1975).

This study justifies that food processing companies may gain legitimacy by adopting Halal certificate for the following reasons. Firstly, the concept of Halal certification that are *halal* (permissible or Shariah compliant) and *thoyyibban* (wholesome: healthy, safe, nutritious, quality, hygienic, clean) is highly correlated with CSR values (Yusanto and Widjayakusuma, 2002; Dusuki and Dar, 2005; Ismaeel and Blaim, 2012). Secondly, Halal food products gain reputation from consumers in terms of higher quality, hygienic and food safety since Halal certified food processing companies is required to comply with the MS 1500:2009 Halal Food – Production, Preparation, Handling and Storage – General Guidelines; MS 1480 Food Safety according to Hazard Analysis and Critical Control Point/HACCP system; MS 1514 General Principles of Food Hygiene; and MS 1900:2005 Quality Management System - Requirements from Islamic Perspectives (Department of Standards Malaysia, 2009). Thirdly, Halal food products gain reputation from the Malaysian government in which the government provide fully support to the development of Halal food products such as the third Industrial Master Plan (IMP3) 2006-2020 which aims to create Malaysia as regional food production and distribution hub with particular emphasis on Halal food products (MGCCI, 2010).

Based on the above justifications, this study assumes that Halal certificate may act as substitute for CSR disclosure. Therefore, this study hypothesizes that:

H2a: The degree of the influence of firm size on the level of sourcing, environmental and social disclosures is decreasing within Halal certified companies.

- H2b: The degree of the influence of firm age on the level of sourcing, environmental and social disclosures is decreasing within Halal certified companies.
- H2c: The degree of the influence of leverage on the level of sourcing, environmental and social disclosures is decreasing within Halal certified companies.
- H2d: The degree of the influence of firm audit size on the level of sourcing, environmental and social disclosures is decreasing within Halal certified companies.
- H2e: The degree of the influence of profitability on the level of sourcing, environmental and social disclosures is decreasing within Halal certified companies.

## **Research Method**

The research framework of this study is shown in figure 1. The Population of this study is all Malaysian food processing companies listed in Bursa Malaysia. The selection is based on the availability of 2011 annual reports and the eligibility for Halal certification. As final results, the population of 43 food processing companies is classified into 27 Halal certified and 16 Not-Halal certified companies, as shown in table 1.

The annual reports are used to collect data for all variables because they provide important information on corporate activities including CSR and are available to the public (Campbell et al., 2003). Meanwhile, the year 2011 is considered the crucial year in which the Trade Description Act 2011 is amended with the purpose to give the Department of Islamic Development Malaysia (JAKIM) a legal authority to carry out enforcement against the misuse of Halal logo. Since then, the reputation of Halal certificate is expected to increase and gains more legitimacy from the society.

The independent and moderating variables are measured as shown in table 2. With the purpose to minimize the risk of subjectivity and to be consistent with previous studies (e.g. Cahaya et al., 2011), the dependent variables such as the level of sourcing, environmental, and social disclosures are measured by

adopting unweighted index in which each item disclosed in annual reports is treated equally important and awarded with same score.

Firstly, the keywords of disclosure index are derived from the indicators of the GRI Sustainability Reporting Guidelines and Food Processing Sector Supplement (FPSS). There are 46 keywords of which 14 are sourcing keywords intended for sourcing disclosure index, 8 are environmental keywords intended for environmental disclosure index, and 24 are social keywords intended for social disclosure index, as shown in table 3. Secondly, each item disclosed in annual reports is compared with the keywords whereas any conformity will be scored 1 and 0 otherwise. Thirdly, disclosure index is calculated for each company as the ratio of total score awarded to the company divided by the number of keywords available for each type of disclosure.

Firm size is measured by log of the book value of total assets; firm age is measured by the difference between the year of 2011 and established year; leverage is measured by the ratio of total liabilities divided by total assets; audit firm size is measured by using dummy variable, in which it takes a value of 1 if company is audited by the Big Four audit firms (Deloitte Touche Tohmatsu, Ernst & Young, KPMG, and Price Waterhouse Coopers) and 0 otherwise; and Profitability is measured by the ratio of net profit after tax divided by total sales (Al Saeed, 2006). Halal certification is based on the availability of Halal certificate.

## **Results**

Descriptive analysis is undertaken using the Statistical Package for Social Science (SPSS) in which the mean and standard deviation of both dependent and independent variables are used to analyze the pattern of CSR practices.

Descriptive analysis of the independent and moderating variables are shown in table 4. The average total asset of Halal certified companies is RM 517 million ranging from 44 million to 2,112



million which is lower than those of Not-Halal certified that is RM 857 million ranging from 44 million to 7,961 million. It seems one food processing company has significantly contributed to the higher mean of Not-Halal certified.

The average age of Halal certified companies is 26 years ranging from 5 to 52 years which is older than those of Not-Halal certified that is 18 years ranging from 3 to 50 years. It seems the age of food processing companies in Malaysia has been spread evenly.

The average leverage of Halal certified companies is 41% ranging from 11% to 73% which is lower than those of Not-Halal certified companies that is 42% ranging from 7% to 80%. It seems creditor's funds have played an important role in financing the food processing companies in Malaysia.

There are 14 of 27 Halal certified companies or 51.85% are audited by the 4 Big audit firms compared to 9 of 16 Not-Halal certified companies that is 63.16%. It seems more than half food processing companies in Malaysia have been audited by the Big Four audit firms.

The average profitability of Halal certified companies is 11% ranging from -4% to 104% which is higher than those of Not Halal certified companies that is 6% ranging from -22% to 51%. In average, the food processing companies in Malaysia that are Halal certified are more profitable than those Not-Halal certified. It may be explained because the Malaysian government has intensively supported the development of Halal food products as stated in the third Industrial Master Plan (IMP3) 2006-2020.

Descriptive analysis of the dependent variables is shown in table 5. The mean level of sourcing disclosures of Halal certified companies is the same as those of Not-Halal certified that is 12%. Thus, on average, about 2 out of 14 sourcing keywords are disclosed by both Halal certified and Not-Halal certified food processing companies in Malaysia. The mean level of environmental disclosures of Halal certified companies is 19% which is lower than those within Not-Halal certified that is 27%. Thus, on average, about 1 out of 8 environmental keywords is disclosed by the Halal certified food processing companies in Malaysia compared to about 2 out of 8 environmental keywords disclosed by Not-Halal certified. The

mean level of social disclosures of Halal certified companies is the same as those of Not-Halal certified that is 20%. Thus, on average, about 5 out of 24 social keywords are disclosed by both Halal certified and Not-Halal certified food processing companies in Malaysia. It might be concluded that sourcing, environmental, and social disclosure practices of the food processing companies in Malaysia are relatively low.

Descriptive analysis of disclosing companies is shown in table 6. There are 2 out of 27 Halal certified companies and 5 out of 16 Not-Halal certified do not disclose any sourcing keywords. It seems that Halal certified food processing companies in Malaysia (93%) disclose at least 1 sourcing keyword compared to Not-Halal certified (69%). There are 7 out of 27 Halal certified companies and 3 out of 16 Not-Halal certified do not disclose any environmental keywords. It seems that Halal certified food processing companies in Malaysia (74%) disclose at least 1 environmental keyword compared to Not-Halal certified (81%). There is 1 out of 27 Halal certified companies and 1 out of 16 Not-Halal certified do not disclose any social keywords. It seems that Halal certified food processing companies in Malaysia (96%) disclose at least 1 sourcing keyword of disclosure index compared to Not-Halal certified (94%). It might be concluded that most of food processing companies in Malaysia disclose social keywords. Meanwhile, Halal certified food processing companies disclose more on the sourcing keywords and Not-Halal certified food processing companies disclose more on the environmental keywords of disclosure index.

Figure 2 illustrates sourcing practices of the food processing companies in Malaysia whereby the disclosure level of each sourcing keyword is examined. It seems that supplier is the most disclosed keyword by Halal certified companies (89%) followed by breed type (26%), food safety (19%), and ingredients (15%). In the case of Not-Halal certified companies, supplier is the most disclosed keyword (69%) followed by breed type (31%) and food safety (31%). It might be concluded, that overall the disclosure level of sourcing keywords of Halal certified food processing companies is lower than those of Not-Halal certified except for supplier and ingredients.

Figure 3 illustrates environmental practices of the food processing companies in Malaysia whereby the disclosure level of each environmental keyword is examined. It seems that both waste and environmental impacts are the most disclosed keyword by Halal certified companies (52%) followed by recycled (22%). In the case of Not-Halal certified companies, environmental impact is the most disclosed keyword (81%) followed by waste (44%) and recycled (38%). It might be concluded, that overall the disclosure level of environmental keywords of Halal certified food processing companies is lower than those of Not-Halal certified.

Figure 4 illustrates social practices of the food processing companies in Malaysia whereby the disclosure level of each environmental keyword is examined. It seems that compliance is the most disclosed keyword by Halal certified companies (96%) followed by training (93%), employment (78%), and community (78%). In the case of Not-Halal certified companies, both training and compliance are the most disclosed keyword (94%) followed by employment (69%), community (69%) and sanctions (69%). It might be concluded, that overall the disclosure level of social keywords of Halal certified food processing companies is lower than those of Not-Halal certified.

Regression analysis is undertaken using the Partial Least Square (PLS) version 2.0 with the purpose to analyze the influence of each dependent and independent variables as well as the effect of moderating variable (Ghozali, 2006). Analyzing data using PLS is conducted as follows: Firstly, create a research model consisting of structural model (inner model) and measurement model (outer model). Secondly, analyze the measurement model to determine the validity and reliability of the instrument. Thirdly, analyze the structural model to test the hypothesis.

There are three criteria mostly used to test the measurement model (outer model) such as convergent validity, discriminant validity, and composite reliability.

Convergent validity refers to the principle that the indicators should be highly correlated with its construct. Parameters used to determine convergent validity are whether the indicators have loading factor

value  $> 0.70$ ; score of AVE  $> 0.5$ ; and score of communality  $> 0.5$ . The decision is made for any indicator that does not meet these parameters will be removed (Ghozali, 2006).

Table 7 shows test results of latent variable correlations in which all loading factors have value of  $1.00 > 0.70$ . It means that all indicators meet the criteria of convergent validity and are being included in this study.

Discriminant validity refers to the principle that the indicators of a construct are different or negatively related to other constructs. Parameters used to determine discriminant validity are whether indicators have loading factor value higher than cross loadings value and the root score of the AVE is higher than correlation score of the latent variables. The decision is made for any indicator that does not meet these parameters will be removed (Ghozali, 2006).

Table 8 shows test results of quality criteria in which all indicators in correlation with its construct have higher loading factor than cross loading in correlation with other constructs. It means that all indicators meet the criteria of discriminant validity and are being included in this study.

Composite reliability refers to the accuracy, consistency, and precision in measuring the indicators. Parameters used to determine composite reliability are whether indicators have score of Cronbach's alpha  $> 0.6$  and score of composite reliability  $> 0.7$ . The decision is made for any indicator that does not meet these parameters will be removed (Ghozali, 2006).

Table 8 also shows all cronbach's alpha have value of  $1.00 > 0.60$  and all composite reliability have value of  $1.00 > 0.70$ . It means that all indicators meet the criteria of discriminant validity and are being included in this study.

Test results of structural model shows that R-square of sourcing disclosure is 0.40; R-square of environmental disclosure is 0.69; R-square of social disclosure is 0.53. It means that the construct variability of sourcing disclosures can be explained by independent and moderating variables and its

interactions at 40 percent. The construct variability of environmental disclosures can be explained by independent and moderating variables and its interactions at 63 percent. The construct variability of social disclosures can be explained by independent and moderating variables and its interactions at 53 percent.

Path coefficient of structural model (inner model) is used to test the influence of independent variables on dependent variables whereas parameters used are whether  $\beta$  coefficient has positive value and t-statistic has value  $> 1.96$  of significance at 5% (Ghozali, 2006).

Figure 5 and Table 9 show test results of structural model in which  $\beta$  coefficient of firm size to environmental disclosure is 0.31 with t-statistics  $3.26 > 1.96$ .  $\beta$  coefficient of firm size to social disclosure is 0.31 with t-statistics  $2.78 > 1.96$ . Results of this study support hypothesis 1a that firm size positively influences the level of environmental and social disclosures but not in the case of the level of sourcing disclosures.

$\beta$  coefficient of firm age to social disclosure is 0.48 with t-statistics  $2.026 > 1.96$ . Results of this study support hypothesis 1b that firm age positively influences the level of social disclosures but not in the case of the level of sourcing and environmental disclosures;

$\beta$  coefficient of leverage to sourcing disclosure is 0.42 with t-statistics  $2.06 > 1.96$ .  $\beta$  coefficient of leverage to environmental disclosure is 0.37 with t-statistics  $3.73 > 1.96$ .  $\beta$  coefficient of leverage to social disclosure is 0.37 with t-statistics  $2.29 > 1.96$ . Results of this study support hypothesis 1c that leverage positively influences the level of sourcing, environmental and social disclosures.

$\beta$  coefficient of the interaction of leverage and Halal certification to environmental disclosure is decreasing at  $-0.86$  with t-statistics  $5.83 > 1.96$ .  $\beta$  coefficient of the interaction of leverage and Halal certification to social disclosure is decreasing at  $-0.64$  with t-statistics  $2.75 > 1.96$ . Results of this study support hypothesis 3c that the degree of influence of leverage on the level of environmental and social

disclosures is decreasing within Halal certified companies but not in the case of the level of sourcing disclosures.

### **Conclusion, Implication and Limitation**

In general, CSR practices of the food processing industry listed in Bursa Malaysia are relatively low. The level of sourcing and social disclosure of Halal certified food processing companies is as same as those of Not-Halal certified. Based on legitimacy theory, Halal certificate is not proved to reduce society pressures as well as increase the reputation of Halal certified food processing companies in Malaysia. It might explain the reason of the Malaysian government to amend the Trade Description Act 2011 that is to increase the reputation of Halal food products through better protecting the rights of consumers in Halal food products. By further investigating the disclosure level of sourcing and social keywords, supplier and ingredients have been disclosed more by Halal certified than those of Not-Halal certified. It might be explained that the integrity of Halal food supply chain is less legitimated by society. The facts are consistent with Tieman et al., (2012) that the establishment of Halal supply chain in Malaysia is still at its infancy.

Results of this study support hypothesis 1a that firm size positively influences the level of environmental and social disclosures but not in the case of the level of sourcing disclosures. It means that bigger food processing companies in Malaysia are more exposed to public, therefore, they are most likely to provide CSR disclosure in order to prove that they are good companies.

Results of this study support hypothesis 1b that firm age positively influences the level of social disclosures but not in the case of the level of sourcing and environmental disclosures. It means that older food processing companies in Malaysia are more exposed to public, therefore, they are most likely to provide CSR disclosure in order to prove that they are good companies

Results of this study support hypothesis 1c that leverage positively influences the level of sourcing, environmental and social disclosures. It means that higher leveraged food processing

companies in Malaysia provide CSR disclosure in order to satisfy its creditors and obtain new funds at lower cost.

Results of this study support hypothesis 3c that the degree of influence of leverage on the level of environmental and social disclosures is decreasing within Halal certified companies but not in the case of the level of sourcing disclosures. It means that Halal certificate may be used as legitimizing tools by high leveraged Halal certified food processing companies in Malaysia to reduce society pressure on its impacts on the environment and society. In other words, it may explain that there is legitimizing effect of Halal certificate towards investor community in Malaysia.

As conclusion, Halal certificate plays important role for food processing companies to gain legitimacy from society. Therefore, the integrity of the Halal certificate becomes a crucial issue. This study appreciates the amendment of the Trade Description Act 2011 as an effort to maintain the integrity of the Halal certificate through avoiding the misuse of Halal logo. This study suggests the Department of Islamic Development Malaysia (JAKIM) to develop a Halal food supply chain management that effectively prevents the Halal contamination. The effort may raise the confidence of the stakeholders towards Halal certificate.

This study contributes to the development of CSR disclosure for the following reasons. Firstly, it gives foundation for the future researches in which it provides evidence on the legitimizing effect of Halal certificate that may reduce society and government pressures as well as increase the reputation of Halal food products. Secondly, it gives evidence on the importance of the Trade Description Act 2011 against the misuse of Halal logo because the fraudulent may damage the legitimacy of Halal certificate. Thirdly, the results of this study are expected to be more reliable in which it (i) examines the influence of firm characteristics on the level of each types of CSR disclosure, such as sourcing, environmental, and social disclosures rather than the level of total CSR disclosure and (ii) applies the GRI Sustainability Reporting

Guidelines and Food Processing Sector Supplement (FPSS) which is intended for a specific food processing industry as the benchmark disclosure index checklist.

The limitations of this study are that it is focusing on the food processing companies listed in Bursa Malaysia. Therefore, the results of this study might not be generalized to the other food processing companies that not being listed in Bursa Malaysia. The other limitation is that it collects data only from the annual reports, whereby some food processing companies in Malaysia might use the other communication medium to disclose their CSR activities, such as, CSR Report and company's websites. Therefore, the results of this study might not represent CSR activities of these companies which are disclosed in the other communication medium than the annual reports. Finally, this study is only focusing on the Year 2011 annual reports to provide evidence that the misuse of Halal logo before the amendment of the Trade Description Act 2011 has damaged the reputation of Halal certificate. Therefore, results of this study may not be applicable to the other individual years. The future research is expected to show the increasing legitimacy of Halal certificate in Malaysia due to the enforcement against the misuse of Halal logo.

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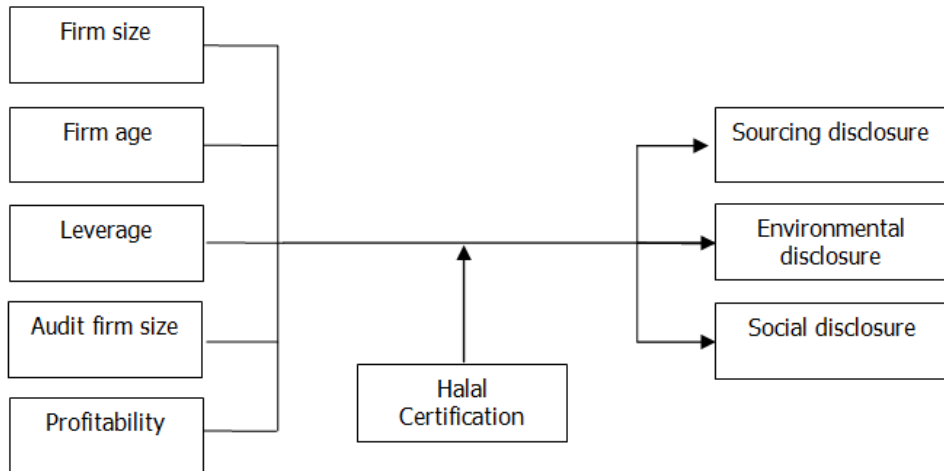
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Figure 1 – Research Model



Note:

Independent Variable : Firm size, firm age, leverage, audit firm size, and profitability

Dependent Variable : The level of sourcing disclosure, environmental disclosure, and social disclosure

Moderating Variable : Halal Certification

<b>No</b>	<b>Halal Certified</b>	<b>Not Halal Certified</b>
1	Ajinomoto (Malaysia) Berhad	Bio Osmo Berhad
2	Apollo Food Holdings Berhad	CAB Cakaran Corporation Berhad
3	CCK Consolidated Holdings Berhad	Farms's Best Berhad
4	Cocoaland Holdings Berhad	Fraser & Neave Holdings Berhad
5	D.B.E. Gurney Resources Berhad	JT International Berhad
6	Dutch Lady Milk Industries Berhad	KBB Resources Berhad
7	Guan Chong Berhad	LTKM Berhad
8	Huat Lai Resources Berhad	Padiberas Nasional Berhad
9	Hup Seng Industries Berhad	Pan Malaysia Corporation Berhad
10	Hwa Tai Industries Berhad	PW Consolidated Berhad
11	Kawan Food Berhad	Sinaria Corporation Berhad
12	Khee San Berhad	Sunzen Biotech Berhad
13	Kuantan Flour Mills Berhad	Teo Seng Capital Berhad
14	Lay Hong Berhad	TPC Plus Berhad
15	London Biscuits Berhad	Tradewinds (Malaysia) Berhad
16	Malayan Flour Mills Berhad	Xian Leng Holdings Berhad
17	MSM Malaysia Holdings Berhad	
18	Nestle (Malaysia) Berhad	
19	Oriental Food Industries Berhad	
20	Power Root Berhad	
21	QL Resources Berhad	
22	Rex Industry Berhad	
23	Silver Bird Group Berhad	
24	Sin Heng Chan (Malaya) Berhad	
25	Spritzer Berhad	
26	Yee Lee Corporation Berhad	
27	Yeo Hiap Seng (Malaysia) Berhad	

Table 2 – Measurement Techniques of the independent and moderating variables		
Variables	Measurement	Type of data
<u>Independent Variables:</u>		
Firm size	Log of the book value of total assets	Continuous
Firm age	the difference between the year of 2011 and established year	Continuous
Leverage	the ratio of total liabilities divided by total assets	Continuous
Audit firm size	1= is audited by the Big Four audit firms 0= otherwise	Categorical
Profitability	the ratio of net profit after tax divided by total sales	Continuous
<u>Moderating Variable:</u>		
Halal certification	1= Halal certification is available 0= otherwise	Categorical

Table 3 – Keywords of disclosure index

<b>No.</b>	<b>Sourcing</b>	<b>Environmental</b>	<b>Social</b>
1	Supplier	Recycled	Employment
2	Sourcing policy	Energy consumption	Employee turnover
3	Production standard	Biodiversity	Collective bargaining
4	Working time lost	Emissions	Collective agreements
5	Healthy food	Effluents	Occupational health
6	Food safety	Waste	Occupational safety
7	Lowered fat	Spills	Training
8	Functional food	Environmental impacts	Diversity
9	Ingredients		Equal opportunities
10	Breed type		Human rights
11	Housing type		Discrimination
12	Anaesthetic policy		Freedom of association
13	Hormone policy		Child labor
14	Slaughter practices		Forced labor

Table 4 – Descriptive statistics of the independent and moderating variables

15			Compulsory labor
16			Community
17			Corruption
18			Public policy
19			Compliance
20			Fines
21			Sanctions
22			Product responsibility
23			Customer health
24			Customer safety

Variables	Minimum	Maximum	Mean	Std. deviation	Frequency	Percentage
Table 5 – Descriptive statistics of the dependent variables						
Firm size (in million)	44	2,112	517	542		
Firm age	5	52	26	16		
Leverage	0.11	0.73	0.41	0.19		
Audit firm size					14	51.85%
Profitability	-0.04	1.04	0.11	0.22		
<u>Not-Halal certified companies</u>					16	37%
Firm size (in million)	44	7,961	857	200		
Firm age	3	50	18	16		
Leverage	0.07	0.80	0.42	0.22		
Audit firm size					9	63.16
Profitability	-0.22	0.51	0.06	0.14		

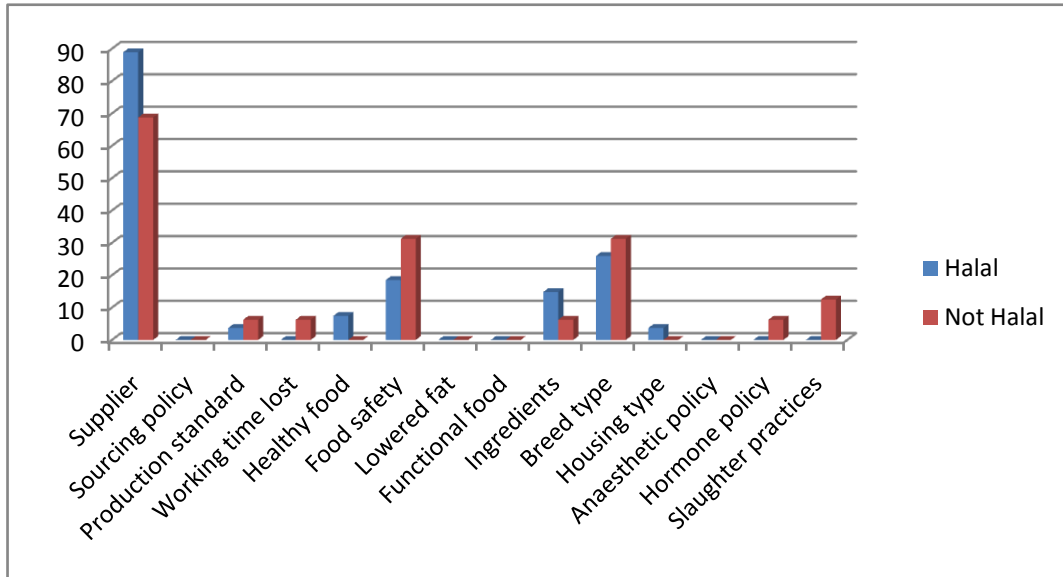


Variables	Minimum	Maximum	Mean	Std. deviation	Frequency	Percentage
<u>Halal certified companies</u>					27	63%
Sourcing disclosure	0	29%	12%	6%		
Environmental disclosure	0	63%	19%	16%		
Social disclosure	0	29%	20%	6%		
<u>Not-Halal certified companies</u>					16	37%
Sourcing disclosure	0	29%	12%	11%		
Environmental disclosure	0	63%	27%	19%		
Social disclosure	0	25%	20%	7%		

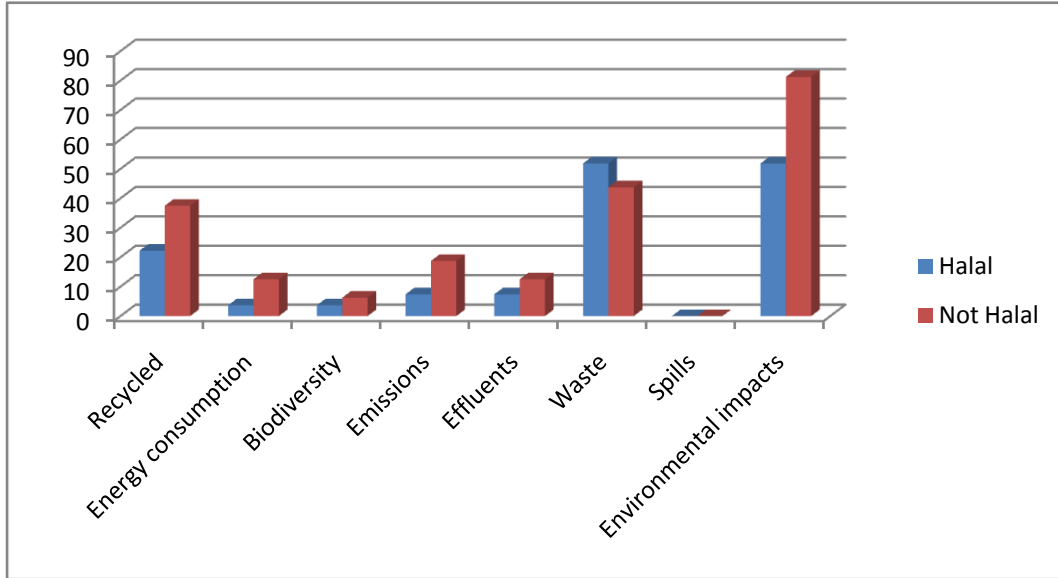
Table 6 – Descriptive statistics of disclosing companies

Variables	Number of disclosing companies		Variables	Number of disclosing companies	
<u>Halal certified companies</u>	27		<u>Not-Halal certified companies</u>	16	
Sourcing disclosure	25	93%	Sourcing disclosure	11	69%
Environmental disclosure	20	74%	Environmental disclosure	13	81%
Social disclosure	26	96%	Social disclosure	15	94%

**Figure 2 – The level of sourcing keywords of disclosure index**



**Figure 3 – The level of environmental keywords of disclosure index**



**Figure 4 – The level of social keywords of disclosure index**

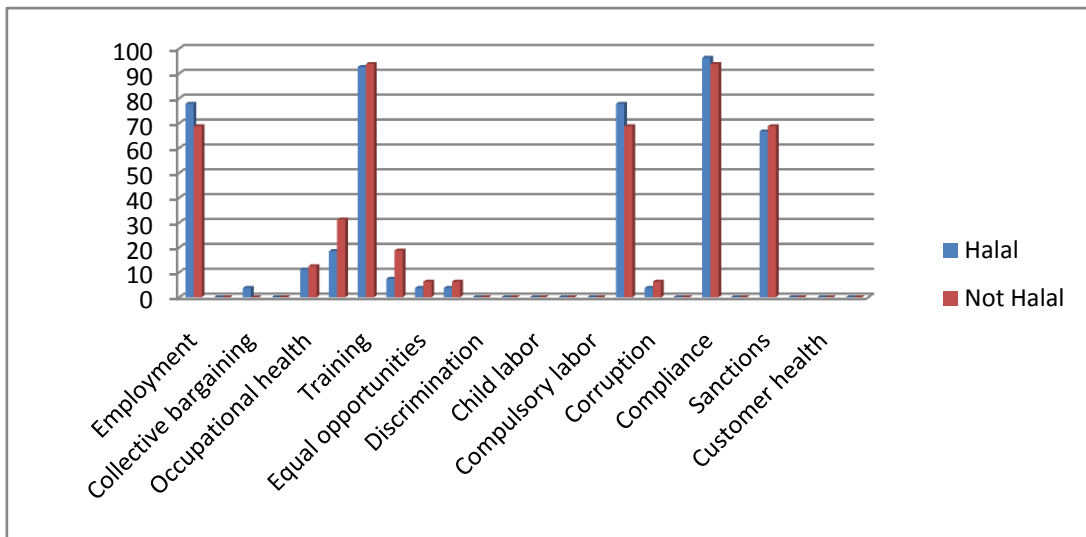


Table 7 – Latent Variable Correlations

	Audit Firm Size	Environmental Disclosure	Sourcing Disclosure	Firm Age	Firm Size	HALAL	Leverage	Profitability	Social Disclosures
Audit Firm Size	1.0000								
Environmental Disclosure	0.1110	1.0000							
Sourcing Disclosure	0.0226	0.4037	1.0000						
Firm Age	0.3844	0.3474	0.1172	1.0000					
Firm Size	0.0471	0.4932	0.0914	0.2953	1.0000				
HALAL	-0.1122	-0.2840	-0.0541	0.0907	-0.1967	1.0000			
Leverage	-0.1275	0.3652	0.3878	-0.0598	0.2115	-0.0672	1.0000		
Profitability	-0.0408	0.0984	0.0683	0.0629	-0.0103	0.1058	-0.2495	1.0000	
Social Disclosures	0.2417	0.5750	0.1286	0.4280	0.2264	-0.2556	0.2173	0.0485	1.0000

Table 8 – Quality Criteria				
	<b>AVE</b>	<b>Composite Reliability</b>	<b>Cronbach's Alpha</b>	<b>Communality</b>
<b>Audit</b>	1.00	1.00	1.00	1.000000
<b>ENVD</b>	1.00	1.00	1.00	1.000000
<b>FPSD</b>	1.00	1.00	1.00	1.000000
<b>Firm Age</b>	1.00	1.00	1.00	1.000000
<b>Firm Size</b>	1.00	1.00	1.00	1.000000
<b>HALAL</b>	1.00	1.00	1.00	1.000000
<b>Leverage</b>	1.00	1.00	1.00	1.000000
<b>Profitability</b>	1.00	1.00	1.00	1.000000
<b>SOCD</b>	1.00	1.00	1.00	1.000000

**Figure 5 – Test Results of Structural Model**

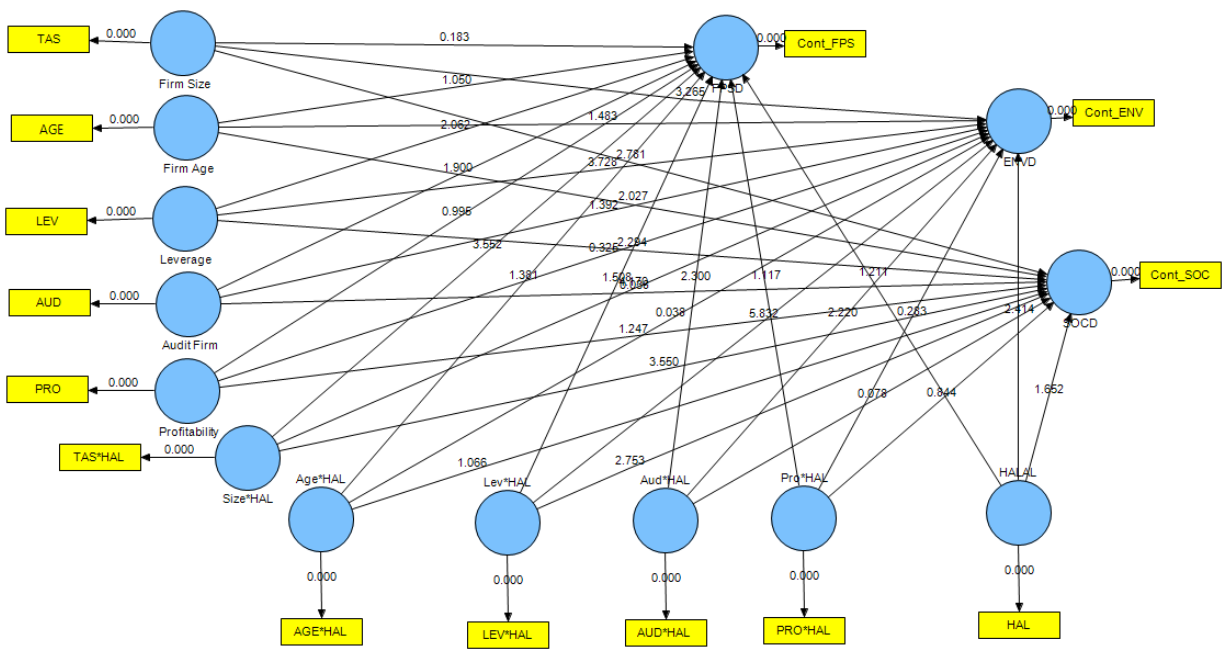
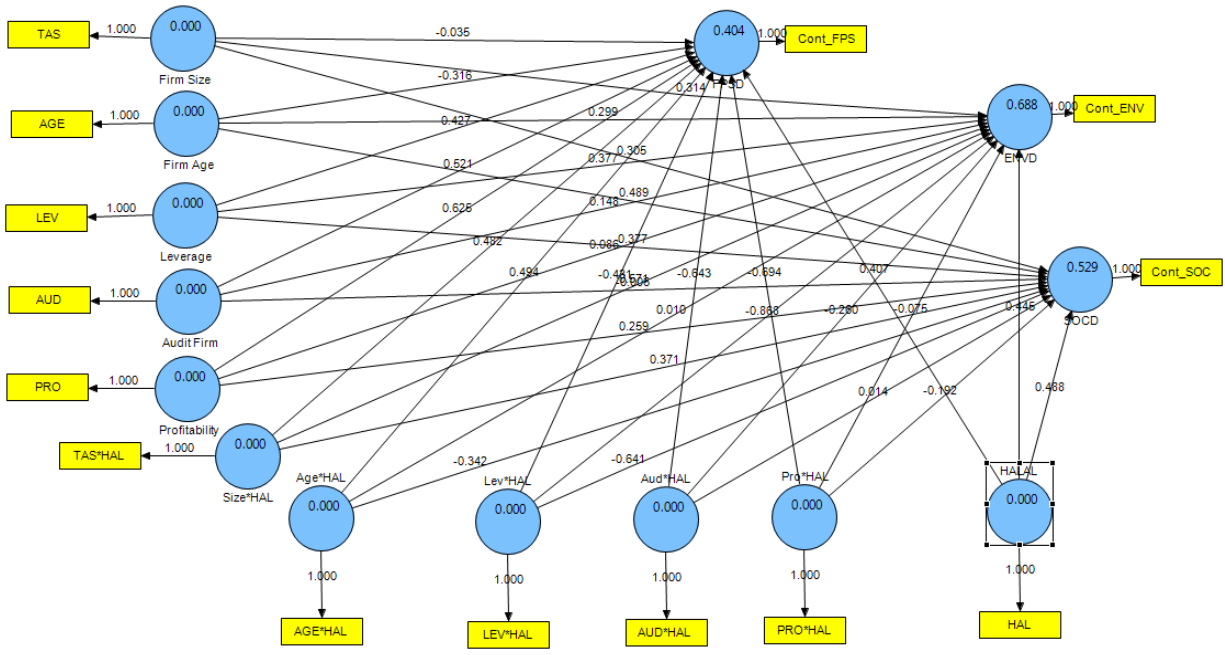




Table 9 – Test Results of Structural Model

Hypothesis		$\beta$ Coefficient	t statistics	Conclusions
H2a.1	Firm Size -> FPSD	-0.034555	0.183261 < 1.96	rejected
H2a.2	Firm Size -> ENVD	0.314432	3.265381 > 1.96	accepted
H2a.3	Firm Size -> SOCD	0.305479	2.780639 > 1.96	accepted
H3a.1	(Firm Size*HALAL) -> FPSD	0.481918	3.552232 > 1.96	rejected
H3a.2	(Firm Size*HALAL) -> ENVD	0.570622	4.170004 > 1.96	rejected
H3a.3	(Firm Size*HALAL) -> SOCD	0.371226	3.550445 > 1.96	rejected
H2b.1	Firm Age -> FPSD	-0.316109	1.050041 < 1.96	rejected
H2b.2	Firm Age -> ENVD	0.299467	1.483452 < 1.96	rejected
H2b.3	Firm Age -> SOCD	0.488707	2.026670 > 1.96	accepted
H3b.1	(Firm Age*HALAL) -> FPSD	0.493803	1.381312 < 1.96	rejected
H3b.2	(Firm Age*HALAL) -> ENVD	0.009757	0.038112 < 1.96	rejected
H3b.3	(Firm Age*HALAL) -> SOCD	-0.341821	1.066252 < 1.96	rejected
H2c.1	Leverage -> FPSD	0.426821	2.061991 > 1.96	accepted
H2c.2	Leverage -> ENVD	0.376831	3.728123 > 1.96	accepted
H2c.3	Leverage -> SOCD	0.376701	2.293531 > 1.96	accepted
H3c.1	(Leverage*HALAL) -> FPSD	-0.431484	1.507902 < 1.96	rejected
H3c.2	(Leverage*HALAL) -> ENVD	-0.867721	5.831810 > 1.96	accepted
H3c.3	(Leverage*HALAL) -> SOCD	-0.641027	2.752935 > 1.96	accepted
H2d.1	Audit Firm -> FPSD	0.521459	1.900002 < 1.96	rejected
H2d.2	Audit Firm -> ENVD	0.147919	1.392248 < 1.96	rejected
H2d.3	Audit Firm -> SOCD	-0.005876	0.037697 < 1.96	rejected
H3d.1	(Audit Firm*HALAL) -> FPSD	-0.643362	2.299617 > 1.96	rejected
H3d.2	(Audit Firm*HALAL) -> ENVD	-0.259845	2.220185 > 1.96	rejected
H3d.3	(Audit Firm*HALAL) -> SOCD	0.013826	0.077917 < 1.96	rejected
H2e.1	Profitability -> FPSD	0.625091	0.994707 < 1.96	rejected
H2e.2	Profitability -> ENVD	0.086040	0.324927 < 1.96	rejected
H2e.3	Profitability -> SOCD	0.258874	1.247417 < 1.96	rejected
H3e.1	(Profitability*HALAL) -> FPSD	-0.694125	1.116984 < 1.96	rejected
H3e.2	(Profitability*HALAL) -> ENVD	-0.075378	0.283145 < 1.96	rejected
H3e.3	(Profitability*HALAL) -> SOCD	-0.192020	0.844258 < 1.96	rejected