



THE ROLE OF SUPPLIER, TOP MANAGEMENT AND GOVERNMENT IN HALAL PRACTICES INTEGRITY OF MALAYSIAN FOOD BUSINESS



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ABSTRACT

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In the last few years, halal food industry has grown substantively and globally. It become crucial to the Muslim consumers due to its safety, hygiene and quality assurance of what is consumed and used. Muslim consumers follow the Islamic dietary law as explained clearly in Quran and Sunnah, which is called as *halalan-thoyyiban*, i.e. lawful or permissible, wholesome, authentic and safety. In Malaysia, the organization has to comply with MS1500:2009 in the production of *halal* food and to obtain *halal* certification. Suppliers, top management of the companies and government should play their role in ensuring the integrity of *halal* food. Any improper description and inappropriate preparation of *halal* food provide a huge impact to the demand for *halal* food as well as to retain the buyers' trust in consuming the *halal* food. Given the significant role of supplier, top management and government in the *halal* production over the Muslim consumers' life, this study aims to examine the role of supplier credibility, top management capability and government support in *halal* practices integrity of food business in Malaysia. The questionnaires distributed to the *halal* food manufacturers during the Malaysian *halal* food events and festivals. Structural Equation Modeling with Partial Least Square was used to analyze the collected data. The findings show the important role those parties in the *halal* food production. The results also provide a better understanding of their role in sustaining the integrity of *halal* food.

Contribution/ Originality: This study contributes in the existing literature that provides empirical evidence on the role of supplier, top management and government in the *halal* food industry. In addition, this study provides the practitioners some clear exposure on the adherence of *halal* practices integrity along the *halal* food supply chain.

1. INTRODUCTION

According to Fischer (2015) Islam has both produced and is in itself infused by a fascination with the morally proper Islamic way of life in Malaysia. This tendency embraces the consumption of *halal* goods, which have a beneficial impact on family, community and nation. An example of this could be to prefer certain locally produced and certified *halal* goods, as in the case of Darul Arqam. Darul Arqam that emerged in the wider resurgence of Islam in Malaysia starting in the 1970s with its own economic base producing variety of agricultural and petty commodity products (Saravanamuttu, 2010; Fischer, 2015). Darul Arqam's cultivation and marketing of an Islamic

vision of Malay independence and prosperity through the production of a wide range of *halal* products was of the greatest interest to the Muslims especially Malays (Fischer, 2015). Since then, *halal* products had gained high attention in Malaysia.

Today, Malaysia is still the leading global *halal* hub with more than USD11 billion for *halal* exports in 2014. Apparently, a greater purchasing power among the Muslim customers that adhere to Islamic dietary law as required by Islam to consume only those are *halal* (allowable) is the main contribution to the growth of the *halal* market. Furthermore, a boosting trend of people in opting a healthier lifestyle of which cleanliness, hygiene, sanitation, and safety of the food become the main alarmed, and it is parallel with *halal* in Islam that embraces all those elements known as *halalan-thoyyiban* as stated in the Quran:

And eat of what Allah has given you (for food) that which is lawful and wholesome, and fear Allah in whom ye believe (Al-Maida 5:88).

Apparently, this healthier lifestyle becomes an attention not just in the Muslim users (Ambali and Bakar, 2013) but also non-Muslim consumers (Mathew *et al.*, 2014). Growing demand in *halal* food and the healthier lifestyle from both Muslim and non-Muslim users show a significant and positive impact on the *halal* industry. Hence, there is a number of opportunity for the food manufacturers to grasp and fulfill the *halal* market by accommodating the *Shariah* requirements in their food products.

In Malaysia, sustaining the integrity of *halal* products becomes a priority for the government and the consumers (Tieman, 2013a). The Malaysian government has made various efforts to ensure the sustainability of *halal* integrity. Department of Islamic Development Malaysia (JAKIM) is the competent authority body being responsible for *halal* certification in Malaysia. However, there are still many of the *halal* food manufacturers do not comply with the rules and regulation set by the regulatory bodies in Malaysia (Suhaiza *et al.*, 2010). Furthermore, the Muslim consumers do not just only concern on its *halal* status but also curious on the whole activities involved along the supply chain. Thus, to cope with these issues, a comprehensive of *halalan-thoyyiban* food supply chain approach needs to be explored with the involvement of supplier, top management and government in providing a genuine *halal* food.

2. THEORETICAL BACKGROUND AND CONCEPTUAL FRAMEWORK

Supply chain management (SCM) become a critical topic discussed in business field and *halal* food industry such as *halal* food supply chain integrity (Hafiz *et al.*, 2014; Kamisah, 2016) *halal* food supply chain (Suhaiza *et al.*, 2010) and *halal* in SCM (Tieman, 2011). Several issues include detection of pig-DNA, an invalid *halal* logo, and non-compliance to *halal* requirement had shaken the confidence of the Muslim consumers in most of the *halal* food studies (Kamisah, 2016). Therefore, it needs to be managed properly as to provide the *halalan-thoyyiban* food products to the consumers in the competitive market.

The resource-based view (RBV) theories have been used to explain the competitive advantage or supply chain performance of firms (Pulles *et al.*, 2016). According to Hsu *et al.* (2009) RBV of the firm is a particularly appropriate theoretical framework for studying the performance implications of managing the supply chains. As Barney (1991) asserted that firms build competitive advantage by utilizing unique sets of resources. Resources are heterogeneous which include all assets, processes, capabilities, and knowledge controlled by a firm. Barney (1991) also emphasized that resources enable firms to improve their effectiveness by implementing appropriate strategies. Therefore, this study proposes that *halal* practices integrity, supplier credibility, top management capability, and government support play distinct roles in contributing to business performance. The conceptual framework underlying the study is presented in figure 1.

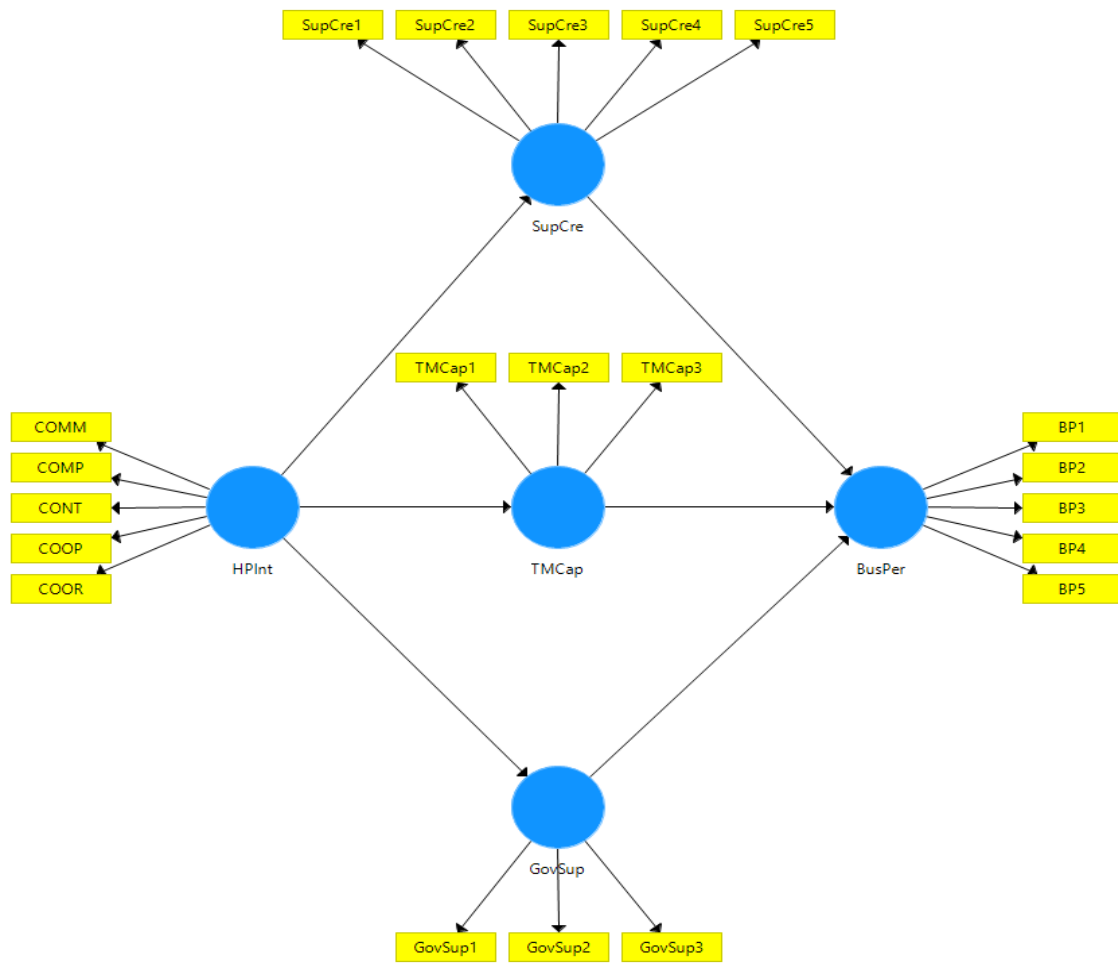


Figure-2.1. Conceptual framework

Source: Rahim *et al.* (2010); Tieman *et al.* (2012); Ming *et al.* (2014); Morgan and Hunt (1994)

3. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

According to Tieman (2011) *halal* and *haram* are universal terminologies that affect the *ibadat* or *muamalat* or *muasharah* of the Muslim everyday doings. Literally, *halal* is a Quranic word means allowed, permissible or lawful. Yusaini *et al.* (2016) emphasized that *halal* is not simply about the resources of food and beverages, the slaughter of animals, the usage of alcohol, but it is about processes and standards together with cleanliness, reliability, safety, and quality assurance. The Muslim are allowed to eat and use all foods that are pure and clean. However, foods that are contaminated from any haram items for instance pig and alcohol turn out to be prohibited and unlawful. Moreover, *halal* is more on values which are implied to Islamic values and obviously specified in the glorious Quran and Hadith.

Furthermore, the concept of *halal* in Islam has very specific motives (*Maqasid al-Shariah*) which includes to preserve the purity of religion; to preserve life; to protect intellect; to protect lineage/progeny/offspring; and to protect property/material wealth. Tieman (2013b) highlighted that *halal* is part of a product specification in the industry. Likewise, *halal* is not only a brand component (Wilson and Liu, 2010) it encompasses a belief practice and moral conduct that integral in a Muslim daily living. Hence, it should be regarded as a basic want and prerequisite detrimental to the well-being of the Muslim consumers especially in the issues of *halal* as religion might influence the devotees' life (Mukhtar and Butt, 2012). Moreover, individual character will vary in their attitudes, behavior and intentions that associated to religion (Rezai *et al.*, 2012). Therefore, it is the role of all parties in the food supply chain to uphold and maintain the integrity of *halal* food.

3.1. Halal Practices Integrity

Integrity is the condition of being whole and complete and it is a vital factor to earn and maintain the trust of others (Palanski and Yammarino, 2011). Previous studies identified integrity as trust antecedents (Viitaharju and Lähdesmäki, 2012). Hassan and Khan (2012) asserted that integrity is a critical issue in the process industry, particularly in the food production. Furthermore, any issues of the *halal* food integrity should be tackled appropriately since it has a considerable effect towards health, safety and confident of the consumers (Helmi *et al.*, 2013). In addition, day-to-day activities of operational integrity which include materials, process, and logistic should also continuously be upheld (Helmi *et al.*, 2013) by the organization downstream and upstream. As the production of *halal* food needs a very thorough process throughout the supply chain in ensuring the integrity food is complied with the *Shariah* law. However, some manufacturers and suppliers did not realise the particularity in handling the *halal* food process. Furthermore, it is an obligation for Muslim consumers to substantiate that the goods they consume are *halalan-thoyyiban* as an actual manifestation of Islamic principles, and are also wholesome and healthy (Manzouri *et al.*, 2013). Thus, the *halal* practices integrity subject disembarks. Accordingly, this will intensify the importance of insightful factors in ensuring the *halal* food supply chain integrity (Hafiz *et al.*, 2014).

Halal is a credence characteristic of *halal* food that reflects the Muslim consumers' perception (Bonne and Verbeke, 2008). For Muslim users, trust in *halal* food is about the process attributes of food processing, handling, and the safety regarding food wholesomeness. Thus, establishing trust became a key approach to upholding long-term relationships among supply chain partners through continuity, trustworthiness, reputation in the eyes of business partners and consumers. Obviously, the long-term business relationship is a result of behaving like a trusted and reliable business partner and thereby satisfying the anticipations of all the stakeholders. Therefore, this study hypothesises:

H1a. *Halal* practices integrity has a significant relationship with supplier credibility.

H1b. *Halal* practices integrity has a significant relationship with top management capability.

H1c. *Halal* practices integrity has a significant relationship with government support.

H2. Supplier credibility, top management and government support mediate the relationship between *halal* practices integrity and business performance.

3.2. Supplier Credibility

Salam (2011) emphasized that supply chain partners acquire confidence through trust to yield long-term advantage. Besides, the perceived trust towards the suppliers in the supply chain gives a positive impact on the long-term buyer-supplier relationships (Mcdowell *et al.*, 2010). According to Williamson (1975) trust development can reduce the supplier's concern on the uncertainty of the buyer's actions. It also increases confidence and willingness to provide services as required by the buyers (Mcdowell *et al.*, 2010). It indicates the credibility of the supplier. Thus, the supplier's credibility refers to the degree of the supplier's credibility in handling *halal* business dealings. Subsequently, trust on suppliers plays a vital role in the *halal* food supply chain to guarantee the food is *halalan-thoyyiban*. Based on the argument, the following hypothesis is proposed:

H3. Supplier credibility has a significant relationship with business performance.

3.3. Top Management Capability

According to Albrecht (2002) top management acts as a vital role in organizational change who bear the main responsibility and accountability for designing and managing organizational change. In addition, the managers perceive mutual trust among their supply chain partners are more likely to commit to a partnership (Salam, 2011). Furthermore, trust among managers can be influenced by careful evaluation of potential partners in the *halal* food production through high-quality cooperation and communication at supply chain (On *et al.*, 2013). Top management capability can be defined as senior executives' capability and concerned about the needs of the *halal* business. Hence,

it is important in sustaining the effectiveness of organizations and the relationships among the supply chain partners through trust towards the top management and proposes the following hypothesis:

H4. Top management capability has a significant relationship with business performance.

3.4. Government Support

According to [Chen \(2013\)](#) the inter-firm trust is more reliably shaped when institutions, for example, legal regulations and industry associations are strong and consistent. Government authorities serve to legitimise norms and standards in ensuring the food safety ([Chen, 2013](#)). Besides, the government gained a moderate degree of trust and seen as knowledgeable, concerned about citizens health and releasing relatively accurate information about food safety ([Liu et al., 2014](#)). Moreover, the consumers' trust in government will lead to severe underestimation of its impacts on consumers' acceptance of the products ([Qiu et al., 2012](#)). Eventually, the government's role in ensuring *halal* food supply chain integrity is very significant which include planning, developing, implementing, regulating, promoting, and educating the Muslim consumers and the *halal* industrial players in the *halal* market ([Hafiz et al., 2014](#)). Thus, government support is the degree of the government's support in assisting and protecting the quality and safety of the *halal* products along the supply chain. It is proposed:

H5. Government support has a significant relationship with business performance.

4. RESEARCH METHODOLOGY

The unit of analysis of this study is at the organizational level, which focused on the management level. Respondents of this study are *halal* manufacturers who attended the Malaysian International *Halal* Showcase (MIHAS) 2016, Penang International *Halal* Expo & Conference (PIHEC), and Fantastic Malaya Food Festivals (FMFF) 2016, from January to March 2016. The aim of this study is to seek information on the role of suppliers, top management and government support in the *halal* food industry. Even though there are other sectors in the *halal* industry, this sector was selected due to an increasing issues of non-compliance to the *Shariah* requirements domestically as well as internationally. As there was a list of exhibitors, a purposive sampling method was used in this study.

4.1. Data Collection

The questionnaires were distributed among 300 selected *halal* manufacturers. As this study only focuses on food companies which are operating in Malaysia, all international participants were excluded from the survey. The process of distributing and collecting of questionnaires was carried out in two to three days. Out of the 300 questionnaires distributed, 253 of them were collected, but due to poor quality of data, only 212 of them could be used for data analysis purposes. As the respondents were limited to the management level only, another 47 exhibitors were reluctant to respond due to their busy schedules.

4.2. Data Analysis

The partial least squares structural equation modeling (PLS-SEM) approach was used to test the model developed in this study. PLS-SEM has gained widespread interest as a method of analysis in the past few years that offer novel perspectives on the method ([Hair et al., 2017](#)). PLS-SEM is a second-generation multivariate technique which many researchers have employed this technique for the past 20 years with the aim of minimizing the measurement error ([Hair et al., 2017](#)). The bootstrapping procedure with 500 resamples follows the procedure mentioned by [Urbach and Ahlemann \(2010\)](#) to determine the significant level of loadings, weight and path coefficients.

4.3. Assessment of Goodness of Measure

The seven-point Likert scale was used to measure variable items. This approach is to avoid the common method variance before data analysis, as suggested by Podsakoff *et al.* (2003). Because there is a lack of literature in the *halal* supply chain field, most of the instruments were adapted from the integrity and trust study and were modified to fit the current study. The newly developed instruments were used to measure suppliers' credibility based on Svensson (2001) top management capability from Mayer *et al.* (1995) and government support from Chen (2013). Table 1 introduces all the constructs along with their definitions, sources and the number of items used in this study.

Table-4.1. Properties of the measurement items

Construct	Definition	Source	No. of items
Suppliers' Credibility	The degree of the supplier's credibility in handling <i>halal</i> business dealings.	Svensson (2001)	5
Top Management Capability	Senior executives' capability and concerned about the needs of the <i>halal</i> business.	Mayer <i>et al.</i> (1995)	3
Government Support	The degree of the government's support in assisting and protecting the quality and safety of the <i>halal</i> products.	Chen (2013)	3
<i>Halal</i> Practices Integrity	Having assurance and reliability of <i>halal</i> food that is produced and consumed by the consumers, starting from the farm to the table, throughout the entire cycle of its processes and chain while protecting health and safety.	Liu <i>et al.</i> (2013); Rahim <i>et al.</i> (2010); Mahama (2006); Carr and Kaynak (2007)	5
Business Performance	Business performance includes supply chain performance, financial performance, and customer satisfaction.	Panayides and Venus (2009); Green <i>et al.</i> (2008); Yu <i>et al.</i> (2013)	5

Source: Svensson (2001); Mayer *et al.* (1995); Chen (2013); Liu *et al.* (2013); Rahim *et al.* (2010); Mahama (2006); Carr and Kaynak (2007); Panayides and Venus (2009); Green *et al.* (2008); Yu *et al.* (2013).

4.4. Convergent Validity

Hair *et al.* (2017) defined the convergent validity as the extent to which a measure correlates positively with alternative measures of the same construct. Following the suggestions of Hair *et al.* (2017) the factor loadings, composite reliability (CR) and average variance extracted (AVE) were used to measure convergent validity.

Table-4.2. Results of measurement model

Model construct	Measurement item	Loading	CR	AVE
Suppliers' Credibility (SupCre)	SupCre1	0.808	0.910	0.669
	SupCre2	0.787		
	SupCre3	0.824		
	SupCre4	0.841		
	SupCre5	0.828		
Top Management Capability (TMCap)	TMCap1	0.747	0.915	0.782
	TMCap2	0.780		
	TMCap3	0.736		
Government Support (GovSup)	GovSup1	0.885	0.927	0.808
	GovSup2	0.874		
	GovSup3	0.895		
<i>Halal</i> Practices Integrity (HPInt)	COMM	0.783	0.880	0.596
	COMP	0.642		
	CONT	0.818		
	COOP	0.830		
	COOR	0.773		
Business Performance (BP)	BP1	0.528	0.862	0.560
	BP2	0.763		
	BP3	0.798		
	BP4	0.846		
	BP5	0.766		

Notes: CR = composite reliability; AVE = average variance extracted

Source: Survey data

Hair *et al.* (2017) recommended the cut-off value for loading should exceed 0.5, and the CR should be greater than 0.7. As shown in Table 2, the loadings for all items are in the range of 0.560–0.808, and all of them are above the recommended value by Hair *et al.* (2017). Table 2 also shows CR values, which portray the degree to which the construct indicators denote the latent construct, range from 0.862 to 0.927, which is higher than the recommended value of 0.7 by Hair *et al.* (2017). Hair *et al.* (2017) recommended the cut-off value for AVE should also be 0.5. AVE is the last measurement, which measures the variance captured by the indicators relative to measurement error, and the cut-off value should exceed 0.5 to justify using a construct (Barclay *et al.*, 1995). Table 2 justifies that all value for loadings, CRs and AVEs are above the recommended values to be confirmed, as the measurement model has a convergent validity.

4.5. Discriminant Validity

To assess the discriminant validity, Fornell and Larcker (1981) criterion was employed after confirming the convergent validity. Discriminant validity measures distinct concepts that is the extent to which items differentiate among constructs. The Fornell and Larcker (1981) criterion for discriminant validity measurement can be measured by investigating the correlations between the measures of the potential overlapping constructs. Items in the model should load higher on their own constructs. According to Compeau *et al.* (1999) the average variance shared between each construct and its measures should be greater than the variance shared between the construct and other constructs as represented in Table 3. Table 3 indicates adequate discriminant validity where the square correlations for each construct are lower than the AVE by the indicators measuring constructs.

Table-4.3. Discriminant validity

Model construct	Business Performance	Government Support	Halal Practices Integrity	Suppliers' Credibility	Top Management Capability
Business Performance	0.749				
Government Support	0.505	0.899			
Halal Practices Integrity	0.531	0.544	0.772		
Suppliers' Credibility	0.553	0.568	0.683	0.818	
Top Management Capability	0.616	0.615	0.594	0.659	0.885

Note: Diagonals (in bold) represent the square root of the AVE and the off diagonals represent the correlations

5. ANALYSIS RESULT

Initially, the squared multiple correlations (R^2) for each endogenous latent variable were assessed and the significance of the structural paths was analyzed in assessing the PLS model. If the corresponding path coefficients had the proposed sign and were significant, it is considered to be supported the proposed relationships. R^2 results denote the amount of variance in the construct that is explained by the model (Chin, 2010). R^2 measures the explained variance of the dependent variable relative to its total variance. Values of approximately 0.350 are considered substantial, values around 0.333 moderate, and values of approximately 0.190 weak (Chin, 2010). Besides that, the path estimates and t-statistics were calculated by using a bootstrapping technique with a re-sampling of 500 for the hypothesised relationships in this study.

Table 4 shows the structural model analysis and clearly indicates that all hypotheses were supported and significant at $p < 0.05$. From the analysis, it was found that HPInt ($\beta = 0.745$, $p < 0.05$) was positively related to SupCre. SupCre ($\beta = 0.219$, $p < 0.05$) was positively related to business performance. This study was also obtained that HPInt ($\beta = 0.594$, $p < 0.05$) was positively related to TMCap. TMCap ($\beta = 0.382$, $p < 0.05$) was positively related to business performance. The findings also depicted that HPInt ($\beta = 0.544$, $p < 0.05$) was positively related to GovSup. GovSup ($\beta = 0.146$, $p < 0.05$) was positively related to business performance.

In addition to the effects of the paths, Hair *et al.* (2014) recommended to examine significant indirect effects, as well as direct effects, to gain insight into possible mediating effects of particular latent variables. This study tested the mediating effect of supplier credibility, top management capability and government support in the HPInt-to-BP relationship. This study used the bootstrapping procedure which has been suggested in the literature to examine the indirect effect, and the results display that the indirect effect ($\beta = 0.455$, $p < 0.05$) was significant, indicating that there was a mediating effect. Hence, *halal* practices integrity achieved a higher rate of business performance through supplier credibility, top management capability and government support.

6. FINDINGS AND DISCUSSIONS

The purpose of this study is to identify the role of supplier, top management and government in the Malaysian food business. The literature shows that the role of supplier, top management and government support have a positive effect on the firms' business performance and supported by the findings of this study. The results of this study found that HPInt has a significant relationship with SupCre, TMCap and GovSup; thus, H1a, H1b and H1c were supported. This study also examined the effect of SupCre, TMCap and GovSup as mediating variables in the relationship between HPInt and business performance; thus, H2 was supported. The significant relationship between HPInt and SupCre, TMCap as well as GovSup shows that *halal* food manufacturers in Malaysia are able to increase their business performance by having a good relationship with all supply chain partners through trust. Furthermore, trust between supply chain partners is vital factors in *halal* food productions that must be given serious attention by *halal* food manufacturers in ensuring the needs and well-being of the *halal* food consumers are fulfilled and well protected (Hafiz *et al.*, 2014). The relationship between SupCre, TMCap, GovSup and business performance were significant, and thereby, H3, H4 and H5 were supported. Involvement of top management, supplier credibility, and government support have a significant influence on business and these findings are supported by previous studies by Qiu *et al.* (2012) and Wai *et al.* (2013).

Table-6.1. Path coefficient and hypothesis testing

Hypothesis	Relationship	Beta	Standard error	t-value	Decision
H1a	HPInt → SupCre	0.683	0.045	15.287*	Supported
H1b	HPInt → TMCap	0.594	0.053	11.256*	Supported
H1c	HPInt → GovSup	0.544	0.054	10.030*	Supported
H2	HPInt → SupCre → BP	0.455	0.049	9.352*	Supported
	HPInt → TMCap → BP				
	HPInt → GovSup → BP				
H3	SupCre → □P	0.219	0.070	3.108*	Supported
H4	TMCap → BP	0.382	0.069	5.513*	Supported
H5	GovSup → BP	0.146	0.071	2.048*	Supported

Note: * $p < 0.05$

Source: Survey data

7. CONCLUSION

The *halal* supply chain is a process and it has to be really *halal* at the point of origin of the supply chain until it be consumed. This study is an early attempt to explore and develop the *halal* practices integrity model that was theoretically grounded in the *halal* supply chain framework. This study has shown that all the four contexts in the framework, which are *halal* practices integrity, supplier credibility, top management capability and government support, have a significant relationship to the business performance. In addition, the findings of this study would contribute to the body of knowledge regarding the adoption study. The results of this study revealed that *halal* practices integrity, supplier credibility, top management capability and government support were positively related to the business performance. Despite investigating only four variables, these findings have important implications for and great value to the *halal* food manufacturers, government agencies and also for academicians. The results of

this study are beneficial to the *halal* food manufacturers, especially in sustaining the *halal* integrity, as it has the largest impact on this study. Suppliers or top management and government agencies who are responsible for promoting *halal* in Malaysia should be more aggressive, as the availability of *halal* food in the market are facing many challenges to compete. Instead of enforcing the manufacturers to follow standards provided by JAKIM to be awarded the *halal* logo, the government could enforce them to meet the *halal* requirements not only on the pre-production and during production processes, but also on the entire supply chain activities. Finally, as there is limited literature regarding the *halal* practices integrity, academicians could embark on these findings to expand further in this area of study. Future research could be conducted more by analyzing the *halal* supply chain in other areas of the *halal* supply chain, such as cosmetics and pharmaceutical. As this study focuses on the food manufacturers, it would be an excellent idea if a new study could be based different types of industries. Future research could also investigate the factors driving of *halal* practices integrity for *halal* supply chain industries.

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