Public–Private Partnership Strategy in Increasing Competitiveness Advantage of Malaysia’s Halal Cosmetic and Personal Care Industry

Muhammad Hafeez Zakaria¹, Mohd. Daud Awang², Lee Yok Fee³, Ratna Roshida Ab Razak⁴, Mohd. Mahadee Ismail⁵ and Sayuti Ab Ghani⁶

Abstract

The Halal Industry Master Plan reflects the commitment and effort of the Malaysian government to encourage private business enterprises in the halal cosmetic and personal care industry to be more competitive. The private business enterprises need a more competitive advantage to compete with international non-certificate halal cosmetic products and more capacity to export halal cosmetic and personal care products. This empirical study was conducted to test the relationship between government support programmes and the competitive advantage of private business enterprises and examine the effect of the mediating variable of business opportunity on the relationship between government and public business enterprises. Data were collected from 84 participants from the top management in private business enterprises in cosmetic and personal care products. Data were analysed by using PLS-SEM. A significant positive relationship between contractual programmes and competitive advantage was found. However, this relationship could have been more significant when business opportunity was included as a mediating variable. Meanwhile, the study found a negative relationship between relational programmes and competitive advantage. Surprisingly, the relationship between relational programmes and competitive advantage became positive when business opportunity was added to the model. This study focused only on Malaysia’s halal cosmetic and personal care industry. Future studies may be conducted in other halal sectors and other regions.

Keywords: Halal Cosmetic and Personal Care, Public–Private Partnership Strategy, Competitive Advantage, Private Business Enterprises, Government Programmes, Business Opportunity

INTRODUCTION

Based on the master plan, Figure 1.3 shows that in 2008, HDC introduce the Halal Industry Master Plan to parallel with the Third Industrial Master Plan (IMP3) 2006-2020. The Halal Master Plan sets to transform Malaysia into a global hub focusing on production and trade in halal product and services attracting traders as well as investors (MITI, 2008). The Halal Master Plan is expected to attract various industries to contribute toward Malaysia’s vision to be the world’s prominent halal hub (MITI, 2008). Having said that, the halal industries in Malaysia need to strengthen their marketing strategies to create a sustainable economic impact not by focusing on food production alone but also on other non-food products and services such as cosmetic and personal care, especially processed food, ingredients, tourism, logistics, pharmaceuticals, and healthcare. In this regard, the government is providing relevant support programmes through internationalisation strategy, tax and non-tax incentives, human capital development, and sectoral governance reform (MITI, 2008). With the Halal Master Plan in place, the halal industries are expected to contribute to the national gross domestic product (GDP) to 8.7 per cent in 2020. The implementation of the Halal Industry Master Plan (2008-2020) has entered its final stage where the emphasis is on expanding the business networking and the internalisation of the halal industry (MITI, 2016).

Since Malaysia Halal Industry Master Plan 2023 (HIMP 2030) was set up to draw on Malaysia’s strengths in order of the extensive development of its Halal industry. HIMP 2030 was an effort by

¹ Department of Government and Civilization Studies, Faculty of Human Ecology Universiti Putra Malaysia, Selangor, Malaysia. E-mail: hafeez.zakaria@upm.edu.my
² Department of Government and Civilization Studies, Faculty of Human Ecology Universiti Putra Malaysia, Selangor, Malaysia
³ Department of Government and Civilization Studies, Faculty of Human Ecology Universiti Putra Malaysia, Selangor, Malaysia
⁴ Department of Government and Civilization Studies, Faculty of Human Ecology Universiti Putra Malaysia, Selangor, Malaysia
⁵ Department of Government and Civilization Studies, Faculty of Human Ecology Universiti Putra Malaysia, Selangor, Malaysia
⁶ Pusat Pengurusan Wakaf, Universiti Pertahanan Nasional Malaysia
Malaysia government to improve governance, develop capacity building programs and promote halal sector actors who have the potential to contribute to the country’s economic growth. The HIMP 2030 intends to strengthen the Malaysian Halal ecosystem and make it more competitive on the international stage by reassessing and enhancing current programs, as well as by launching high impact projects high impact projects in line with the government policy. One of the strategic moves of the Malaysian government to enhance the competitiveness of the halal cosmetic and personal care industry is the public-private partnership initiative. The public-private partnership is a cooperation between public-private actors. They jointly develop products and services and share risks, costs, and resources connected with the products and services (Van Ham & Koppenjan, 2001). Some scholars are optimistic that such collaboration will help the industry succeeded (Sungkar, 2008; Fuad & Bohari, 2010). Razali et al. (2013) contended that government programmes through halal certification would positively impact the hotel industry in Malaysia and abroad. Ismail and Kuivalainen (2015) indicated that government assistance with technology-based loans and grants for R&D activities could positively impact Malaysia’s halal biotech SME performance. Despite the speculation that the government and private business partnership will help develop the halal industry, the speculation remains to be empirically validated. Thus, this study sought to apply Porter’s Diamond Model and Transaction Cost Theory to test the relationship between government support programmes and competitiveness advantage.

Porter’s Diamond Model talks about how to develop a competitive advantage for a firm or a country. The model suggests the role of government support in this regard. Attesting the validity of this model to understand the competitiveness of the halal industry is one of the vital contributions of the present study to existing theory since this model has been applied in various contexts, such as the hospitality industry (Nunes, Estevao, & Filipe, 2018), micro, small and medium enterprises (MSMEs) (Kharub & Sharma, 2017), subsidiary success (Holtrügge & Friedmann, 2016), logistic cluster competitiveness study (Chung, 2016), the mineral water industry (Bakshinejad, 2014), various industries (Bakan & Dogan, 2012), the broiler (Barbe & Triay, 2011), highly innovative and less innovative firms in (Eickelpasch, Lejpras, & Stephan, 2010). Furthermore, limited studies use the elements of transaction cost theory, i.e., contractual governance or relational governance related to government support in the halal industry. Hence the present study investigated the dimensions of government support programmes using the contractual governance elements and relational governance developed from the transaction cost theory.

Studies on the relationship between government and competitiveness advantage in the halal cosmetic and personal care industry are scarce. Past research looked at government support in enhancing the halal industry through the development of halal standards (Azmi et al., 2018), halal food (Bohari, et al., 2017; Ab Talib et al., 2016; Zailani et al., 2015) halal supply chain (Ali & Suleiman, 2017; Ab Talib, et al., 2015), halal logistic (Ab Talib et al., 2016; Ngah, et al., 2014a), halal hotel (Idris, & Abdul Wahab, 2015), halal transportation (Ngah, et al., 2014b), and halal biotechnology in SMEs (Bakar et al., 2014; Ismail & Kuivalainen, 2015). Thus, the present study explored the direct effect of government programmes on the competitive advantage of private business enterprises in the halal cosmetic and personal care industry.

Past research also indicated the impact of opportunity on the growth of the halal industry. For instance, Ab Talib, Ai Chin, and Fischer (2017) found that halal certification had opened up an opportunity for the lucrative halal food industry. Anggara (2017) and Qaddahat, Attaalla, and Hussein (2017) found ample marketing expansion opportunity in the development of the halal industry. Muhamad, Nor, Yaacob, Mahussain, and Ahmad (2017) emphasised that the OIC presents a crucial opportunity for their country members to interact and discuss the current issues on halal. Despite the importance of opportunity, only a few studies have investigated the impact of opportunity on the halal industry. Hence, this study explored the relationship between opportunity and competitive advantage in the halal cosmetic and personal care industry.

Previous research also considered the impact of government and opportunity on halal industry development. Handayani and Hidayat (2017) found that the Indonesian government focused on improving the national logistics impact from the opportunity of halal logistic growth. Palupi, Romadhon, and Arifan (2017) argued for the many opportunities for the halal tourism industry since 2012 to contribute to the Indonesian economy. Meanwhile, Ramli, Amin, Zawawi, and Aziz (2018) mentioned that the global halal market would offer an opportunity for the Malaysian government to focus on developing the halal pharmaceutical industry. Furthermore, the government has actively
supported halal industry players to grab market growth opportunities in South Korea (Park & Jamaludin, 2018). However, existing studies failed to address the relationship between government support programmes and opportunities in the halal industry. Also, the studies did not provide a clearer understanding of which aspects of the government support programmes impact the opportunity in the halal industry.

Furthermore, this study proposed opportunity as a mediating variable in the relationship between government support programmes and the competitive advantage of private business enterprises. There was a logical reason to support the effect of opportunity as a mediating variable. Past studies have considered opportunities to mediate the relationship between entrepreneurial passion and entrepreneurial behaviours (Bao et al., 2017). García-Cabrera, García-Soto, and Durán-Herrera (2016) asserted that opportunity motivates an entrepreneur’s decisions as a result of the changes in the environment. Tsai, Chang, and Peng (2016) revealed that opportunity strongly mediated the link between perceived capability and entrepreneurial intention. Meanwhile, Wei and Hisrich (2016) found that opportunity mediated the effects of error orientation on entrepreneurial decision-making in Chinese SMEs. This study aimed to strengthen the Public-Private Partnership between the government and private business enterprises by investigating the impact of government support programmes on the competitive advantage of private business enterprises through opportunities in Malaysia’s halal cosmetic and personal care industry.

LITERATURE REVIEW

The interaction between theory and practice is an expansive debate in academic literature exploring different research designs (Pendry et al., 2007; Gay & Weaver, 2011; Lincoln & Lynham, 2011). The theory used must have practical implications and be interpretable (Lipsey, 1993). A systematic research model will have related theory as an interpretive support on the issue, describing the characteristic of a phenomenon understudied (Henderikus, 2010). Based on the facts, Malaysia’s local halal cosmetic and personal care industry does not have enough competitive advantage to compete with the non-halal cosmetic and personal care product brands that are well-established internationally. The competitive advantages owned by internationally established brands are “…the implementation of a value-creating strategy by the firm that is not simultaneously being implemented by rivals (or potential rivals)” (Grant et al., 2010, p. 15). Poole (1999) states that “a competitive advantage exists when a firm creates value for buyers in a way that is not being implemented by competitors” (p. 26).

Porter (1985) stated that a company has a competitive advantage when competing companies do not engage in similar actions. In line with this concept, through Halal Industry Master Plan 2008 until 2020, the Malaysian government provides opportunities to the private business enterprises of the cosmetic and personal care industry to venture in the halal industry because this industry has the potential to earn greater economic value in the open market. At the same time, the halal value of cosmetic and personal care products in Malaysia makes this industry more competitive than other cosmetic and personal care industries. Thus, competitive advantage can be used as a strategic management tool for the local private business enterprises of halal cosmetics and personal care in Malaysia to sustain the industry impacted by the economic challenge that Malaysia is currently facing. Concerning the theoretical and institutional issue of the need to enhance the competitive advantage of private business enterprises in halal cosmetics and personal care in Malaysia, this study employed Porter’s diamond model and transaction cost theory as a research model. (see Figure 2.2)
The Porter’s diamond model by Porter (1998) of the determinants of competitive advantages is the primary paradigm used to develop the proposed public–private partnership strategy model in increasing competitiveness advantage of Malaysia’s halal cosmetic and personal care industry. This study chose Porter’s diamond model as a critical framework because it helps to explain the relationship between government programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. Competitive advantage is a company’s ability to enforce a value-creating strategy that has not been applied by any current or potential competitors (Barney, 1991; Grant et al., 2010). The concept of competitive advantage of private business enterprises permits the cosmetic and personal care industry to produce a good service in a desirable fashion implementing a value-creating strategy to venture into the halal industry to generate more sales than other market rivals. To Michael Porter’s Diamond Model, factor condition, demand condition, related and supporting industries, and a firm’s strategy, structure and rivalry is the characteristic that determines the competitive advantage of cosmetic and personal care private business enterprises to venture into the halal industry.

The company can use government support programmes to enhance product development and market growth...
as an effort to further improve global competitiveness (Porter, 1998; Daniela & Mirela, 2015). In this study, government support programmes refer to programmes to support the development of the halal industry in Malaysia to become more competitive. According to Transaction cost theory by Williamson (1975, 1999), governance mechanisms can be grouped as contractual governance and relational governance (Williamson, 1981; Poppo & Zenger, 2002; Lioliou, Zimmermann, Willcocks, & Gao, 2014). Thus, based on the assumption underpinning the transaction cost theory, this study proposed that the government support programmes can be categorized as contractual government programmes and relational government programmes. The contractual government programmes represent specific and formal arrangements (Lusch & Brown, 1996; Ferguson et al., 2005; Reuer an Arino, 2007; Lumineau, Frechet, & Puthod, 2011) by government to support the development of the halal industry such as regulation programmes, inducement programmes, and innovation programmes. Meanwhile, relational government programmes are based on interpersonal relationships and informal arrangement (Macneil, 1980; Lusch & Brown, 1996; Poppo & Zenger, 2002) by government to support the development of the halal industry through networking programmes and knowledge-sharing programmes.

Based on Porter’s Diamond Model, ‘chance’ can be used as an element to focus on external opportunity that is outside the control of a company which may affect the company’s performance. This external opportunity can increase the company’s market position (Porter, 1998; Hamad & Duman, 2013). Therefore, this study proposes business opportunity as an external opportunity that may help to strengthen the relationship between government support programmes and competitiveness advantage in the halal cosmetic and personal care industry. Business opportunities for halal cosmetics and personal care can be identified through consumer behaviour and market trend. Consumer behaviour is concerned with product value, faith, and attitude that influences how consumers react (Krueger & Brazeal, 1994; Engel et al, 1995; Foxall et al., 1998), which will create a business opportunity for this industry to grow and meet a competitive advantage in the global halal market. While market trend addresses the direction of the market (Popcorn, 1991; Brooks, 2011; O'Shaughnessy, 2018), at the same time, it provides a business opportunity for the halal industry to grow, creating a competitive advantage in the global halal market. The following section below discusses each variable and its dimensions in Figure 2.2.

The Relationship between Government Support Programmes and Competitiveness Advantage

Past studies on the relationship between government and competitive advantage reported positive findings. Guan, Xu, Jiang, and Jiang (2018) observed that government policies played an important role in enhancing the international competitiveness of the Chinese textile and clothing industry. Enterprises can take advantage of government policies to enhance products and market development efforts to improve further international competitiveness (Daniela & Mirela, 2015). The Indian government used political influences to shape an industry’s competitive structure, especially in developing economies (Ng & Gujar, 2009). Zhao, Zeng, and Zhang (2015) mentioned that a harmonious relationship with the government would enhance a firm’s competitiveness in China.

On the other hand, Rifin (2010) found that Indonesia is more competitive in exporting palm oil products than Malaysia and regards the Malaysian government intervention as being unhealthy since Malaysia is the key competitor. Muli and Pellissier (2014) argued for less government interference in the airline’s operational management and adoption of new strategies because government intervention has a negative impact.

In a different study, Rizal et al. (2017) reported that implementing government programmes positively and negatively impacts the overall development of the Indonesian fishery sector. While the positive effect is that each region can develop their creativity, and build the area following the aspirations and needs of local communities, the negative impact of this autonomy is that the coordination between central and local governments requires more time and effort, compared to the past.

While past studies reported mixed findings on the relationship between government and competitive advantage, none had examined the halal industry. Thus, the following hypothesis was offered:
The Relationship between Business Opportunity and Competitive Advantage

Previous research discovered a positive relationship between opportunity and competitive advantage. Gabriela and Delia (2015) showed that European Union funds served as an opportunity that influenced the Romanian and Bulgarian regions to become competitive. Ionica (2010) found that improved the competitiveness of small, medium tourism enterprises. Lukovics and Zuti (2017) concluded that local knowledge utilisation created an opportunity for universities to enhance their competitiveness. Mitkus and Nédzinskaite-Mitke (2017) observed that the corporation tax relief adopted was a significant opportunity to increase the competitiveness of the Lithuanian film industry. In a different study, Putri (2017) indicated that market opportunity supported establishing the competitiveness pineapple agro-industry. In his study, Saborio (2013) found that mega events such as the 2014 FIFA World Football Cup and the 2016 Olympic Games gave Rio de Janeiro an opportunity to increase its global competitiveness. Tao and Li (2018) revealed that competitive advantage and opportunity positively affected brand competitiveness. On the other hand, Stankevice and Rukaitė (2013) found that corporate social responsibility could become an opportunity for the firm to increase and decrease its competitiveness because the relationship between CSR and firm competitiveness was only sometimes constant.

Since many past studies found a positive influence of opportunity on competitive advantage, the following link was hypothesised in the halal cosmetic and personal care industry:

H3: There is a relationship between business opportunity and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry.

The Relationship between Government Support Programmes and Business Opportunity

Numerous studies have been conducted on the relationship between government and opportunity. Attard, Orlandi, Scerri, and Auer (2015) showed that open government initiatives allowed stakeholders to provide feedback on government actions or collaborate in policymaking. Naresh and Reddy (2015) found that financial support from the government was an opportunity to increase the number of e-learning offerings in higher education institutions in developed countries. Nwogu (2015) revealed that the current unified curriculum in Nigeria country was a cog in the wheels of equalising efforts for educational opportunities by the government. Williams (2015) suggested that the South African government consider the feasibility of using nuclear energy as a partial alleviator to coal to ensure that emissions do not escalate while the country begins creating more high-skilled job opportunities and growing the economy.

Gong and Li (2016) argued that government subsidies would stimulate investment opportunities in renewable projects. Javanparast et al. (2018) found that to gain further opportunities for effective and efficient population health planning, federal and state governments must allocate sufficient resources to primary health care organisations and local governments to build and maintain collaborations for regional-level primary healthcare organisations planning. Lucas (2015) indicated that, rational voters would consider opportunity costs when evaluating government programs. Unfortunately, opportunity costs are usually implicit, and psychologists have shown that decision-makers tend to irrationally ignore implicit information while giving too much weight to salient situational elements. According to Lucas (2015), this presents evidence that the bias against implicit information causes voters to neglect the opportunity costs of government programmes.

The adverse finding of the relationship between government and opportunity can be seen in Hardy’s (2017) work. He argued that government policy, which appears on the surface to facilitate equality of opportunity, is, in effect, marginalising some school subjects and blocking specific appropriate qualifications. Wood, Bylund, and Bradley (2016) also showed a negative impact on tax and regulatory policies of government opportunities given to entrepreneurs. While increases in pricing power resulted in a positive upward base rate opportunity evaluation, the government-mandated use fees and reporting requirements diminished the base rate toward the
negative. This finding suggests that although the likely profits were much higher with the significant pricing power opportunity, entrepreneurs heavily discounted these opportunities because they viewed the combination of economic costs of paying a high fee for use and the non-pecuniary costs of reporting requirements as unappealing.

Based on the literature presented here, it was hypothesised that:

H4a: There is a relationship between contractual programmes and business opportunities in the halal cosmetic and personal care industry.

H4b: There is a relationship between relational programmes and business opportunities in the halal cosmetic and personal care industry.

**Business Opportunity as a Mediating Variable**

To propose the mediator effect of business opportunity, this study considered the methods proposed by Baron and Kenny (1986) and Frazier, Tix, and Barron (2004) where (1) the effect of the independent variables (government support programmes) on the dependent variable (competitive advantage of private business enterprises) as in H2 is observed; (2) the effect of the independent variables on the mediator variable (business opportunity) in H3 is observed; (3) the effect of the mediator variable on the dependent variable in H4 is observed; and (4) the effect of both the independent and mediator variables on the final outcome variable is observed. A full mediator effect exists if the independent variable loses its significant effect on the dependent variable when the mediator is introduced in the regression. If, on the other hand, the independent variable retains its effect on the outcome variable despite the mediator variable being in the regression, only a partial mediation exists.

The role of opportunity in mediating the relationship between entrepreneurial passion and entrepreneurial behaviours was analysed in the study of Bao et al. (2017). Moreover, Garcia-Cabrera et al. (2016) found that opportunity motivation in the institutional environment affected entrepreneurs’ decisions. Tsi et al. (2016) showed that perceived opportunity had a more substantial mediating effect on the link between perceived capability and entrepreneurial intention. Wei and Hisrich (2016) showed that opportunity identification behaviour partially mediated the relationship between error orientation and speed of decision-making. These studies showed that a business opportunity could mediate the relationship between the independent and dependent variables.

The positive effect of opportunity on the relationship between government and private business enterprise was evidenced in Fünfgeld’s (2015) work that found that accessing additional resources through partnership relations presented a significant opportunity for increasing local activity, particularly in countries where local government was poorly resourced. Hingle and Patrick (2016) contended that government and private business enterprises also offer tremendous research opportunities. Liu, Wang, and Wilkinson (2016) drew attention to the whole-of-government approach to enhance the tendering exercise as private sector entities are interested in continuing investment opportunities rather than merely achieving the desired profit level in a particular project. Pittman et al. (2015) maintained that exploring opportunities for government and private business enterprises and social partnerships could be beneficial. Furthermore, Wong et al. (2015) concluded that government support for corporations aims to allow the latter to expand their market and build their profile to enhance profits. Based on the evidence presented here, the following hypothesis was proposed:

H5a: Business opportunity mediates the relationship between contractual programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry.

H5b: Business opportunity mediates the relationship between relational programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry.

**METHODOLOGY**

Quantitative research was employed to evaluate the relationship between government support programmes and the competitive advantage of private business enterprises in Malaysia's halal cosmetic and personal care...
industry. The research was conducted among private enterprises in the halal cosmetic and personal care industry. For selection, the enterprises had to have the following characteristics: (a) they already had halal certification; and (b) those without a halal certification had to have recognition of qualifications such as ISO, GMP, and HACCP for the ingredients used.

This study used proportionate stratified sampling. One hundred eighteen questionnaires had to be distributed to ensure 84 participants would respond. One hundred and eighteen business enterprises were selected randomly from each stratum from the sampling frame. First, the questionnaire was distributed through a mail survey, and a follow-up call was made after three months. Data were collected from the top management of manufacturing, contractual manufacturing, and trading companies to represent the private business enterprise. The top management was chosen as the participant of this study because they were directly involved in the strategic planning and decision-making of the company. Only one cosmetic and personal care private business enterprise representative was requested to answer the questionnaire survey. In the second step, the researcher again mailed the survey and made a follow-up call to those who had yet to respond. An email was also sent to them reminding them to respond. The whole process took six months.

Several statistical tools and techniques were utilised to achieve the research objectives. The SPSS version 22 and partial least squares structural equation modelling (PLS) software version 3 were two vital analytical tools used to analyse the data in this study.

**Private Business Enterprise Characteristics**

The characteristics of the private business enterprises were assessed by the type of business, the position of the participants, years of operation, ownership of halal certification, and impact of halal certification. Table 1.1 shows the result.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of responses</th>
<th>Percentage of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent Position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directors</td>
<td>15</td>
<td>17.9</td>
</tr>
<tr>
<td>Managers</td>
<td>20</td>
<td>23.8</td>
</tr>
<tr>
<td>Executives</td>
<td>33</td>
<td>39.3</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>10.7</td>
</tr>
<tr>
<td>Years of Private business enterprise Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>4</td>
<td>4.8</td>
</tr>
<tr>
<td>1-4</td>
<td>19</td>
<td>22.6</td>
</tr>
<tr>
<td>5-9</td>
<td>15</td>
<td>17.9</td>
</tr>
<tr>
<td>10-14</td>
<td>13</td>
<td>15.5</td>
</tr>
<tr>
<td>15-19</td>
<td>11</td>
<td>13.1</td>
</tr>
<tr>
<td>20-24</td>
<td>6</td>
<td>7.1</td>
</tr>
<tr>
<td>25 and above</td>
<td>9</td>
<td>10.7</td>
</tr>
<tr>
<td>Ownership of halal certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, the company have halal certification.</td>
<td>54</td>
<td>64.3</td>
</tr>
<tr>
<td>No, the company did not have halal certification.</td>
<td>23</td>
<td>27.4</td>
</tr>
<tr>
<td>The company believe on the impact of halal certification.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, having halal certification in producing/supplying halal products will give positive impact on company performance.</td>
<td>74</td>
<td>88.1</td>
</tr>
<tr>
<td>No, having halal certification in producing/supplying halal products will not give positive impact on company performance.</td>
<td>3</td>
<td>3.6</td>
</tr>
</tbody>
</table>

In terms of position, the majority of the participants were executives (39.3%), followed by managers (23.8%) and directors (17.9%). On years of business operation, 22.6% of the companies had been in operation between one and four years, 17.9% between five and nine years, 15.5% between 10 and 14 years, 13.1% between 15 and 19 years, 10.7% above 25 years, 7.1% between 20 and 24, and 4.8% had been operating less than one year. On halal certification, the majority (64.3%) had halal certification, while 27.4% did not have any halal certification. Seventy-four (88.1%) participants believed that having halal certification would positively impact business
performance, while only 3.6% did not believe so. The three companies that did not believe that halal certification would have an impact on the business performance were: (a) a manufacturing company which had been in operation for 15 to 19 years; (b) a manufacturing company that was in operation between 10 and 14 years and did not have halal certification, and (c) a repackaging company with 15 to 19 years of operation and had halal certification.

Assessment of Structural Model

A bootstrap procedure (84 cases, 5000 samples) was used to test the research hypotheses at this stage. The result of the bootstrapping process revealed that contractual programmes and business opportunities significantly affected the competitive advantage of private business enterprises (see Table 1.2).

### Table 1.2 Significance Testing of Structural Model Path Coefficient (Direct Effect)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Path Coefficient</th>
<th>T value</th>
<th>P value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2a</td>
<td>ConP → CA</td>
<td>0.270</td>
<td>1.763</td>
<td>0.078*</td>
<td>Support</td>
</tr>
<tr>
<td>H2b</td>
<td>RelP → CA</td>
<td>0.186</td>
<td>1.111</td>
<td>0.267</td>
<td>Not Support</td>
</tr>
<tr>
<td>H3</td>
<td>BO → CA</td>
<td>0.421</td>
<td>3.898</td>
<td>0.000***</td>
<td>Support</td>
</tr>
<tr>
<td>H4a</td>
<td>ConP → BO</td>
<td>0.191</td>
<td>1.081</td>
<td>0.280</td>
<td>Not Support</td>
</tr>
<tr>
<td>H4b</td>
<td>RelP → BO</td>
<td>0.443</td>
<td>2.746</td>
<td>0.000***</td>
<td>Support</td>
</tr>
</tbody>
</table>

Significance * p < 0.10, ** p < 0.05, *** p < 0.01

H2a stated that there is a relationship between contractual programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. Table 4.9 indicates that contractual programmes significantly increased the competitive advantage of private business enterprises. As such, proposition H2a was supported.

H2b proposed that there is a relationship between relational programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. However, relational programmes did not significantly influence the competitive advantage of private business enterprises. Accordingly, hypothesis H2b was not supported.

H3 stated that a relationship exist between business opportunities and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. The result shows that business opportunity significantly increased the competitive advantage of private business enterprises. Therefore, H3 was supported.

H4a proposed that there is a relationship between contractual programmes and business opportunities in the halal cosmetic and personal care industry. The empirical result for the relationship between contractual programmes and business opportunities was not significant. Thus, H4a was not supported.

H4b stated that there is a relationship between relational programmes and business opportunities in the halal cosmetic and personal care industry. The finding shows that the relationship between relational programmes and business opportunities was significantly positive. With this, hypothesis H4b was supported.

In addition to testing the direct effect, this study also examined the mediation of business opportunity. Table 1.3 shows the result.

### Table 1.3 Significance Testing of the Indirect Effect

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Indirect Effect</th>
<th>P value</th>
<th>Total Effect</th>
<th>Type of mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5a</td>
<td>ConP → BO → CA</td>
<td>0.080</td>
<td>0.348</td>
<td>0.350</td>
<td>Direct only (No mediation)</td>
</tr>
<tr>
<td>H5b</td>
<td>RelP → BO → CA</td>
<td>0.187</td>
<td>0.014**</td>
<td>0.373</td>
<td>Full mediation</td>
</tr>
</tbody>
</table>

Significance * p < 0.10, ** p < 0.05, *** p < 0.01

H5a proposed business opportunity mediates the relationship between contractual programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. Table 1.3 indicates no mediation effect of business opportunity on the relationship between contractual programmes.
and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. As such, proposition H5a was not supported.

H5b stated that business opportunity mediates the relationship between relational programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. However, business opportunity fully mediates the relationship between relational programmes and the competitive advantage of private business enterprises. Therefore, H5b was supported.

Figure 1.2 shows the result of the structural model assessment. It illustrates that contractual programmes and business opportunities significantly affected the competitive advantage of private business enterprises. Additionally, relational programmes were found to influence business opportunities significantly. Based on these results, a business opportunity was run as a mediator between relation programmes and the competitive advantage of private business enterprises.

This study also examined the endogenous constructs’ predictive power by assessing the coefficient of determination ($R^2$). This coefficient represents the exogenous constructs’ combined effects on the endogenous construct. The $R^2$ values of 0.75, 0.50, and 0.25 are generally described as substantial, moderate, and weak, respectively. From the model, the competitive advantage of private business enterprises had a moderate $R^2$ value of 0.582, while business opportunities had an $R^2$ value of 0.368.

Regarding effect size, contractual programmes and business opportunities produced moderate a effect size on the competitive advantage of private business enterprises with an $f^2$ value of 0.061 and 0.267, respectively. In contrast, relational programmes produced a small effect size on the competitive advantage of private business enterprises with the $f^2$ value of 0.112. For the effect size on the business opportunity, both contractual and relational programmes produced a small effect size with the $f^2$ values of 0.021 and 0.027, respectively.

Figure 1.2 Result of the structural model assessment
This study also considered Stone-Geisser’s $Q^2$ value for predictive relevance. A $Q^2$ value larger than zero indicates that the exogenous constructs have predictive relevance for the endogenous construct (Hair et al., 2017). The result from the blindfolding procedure with the omission distance of nine showed that the endogenous constructs’ $Q^2$ values were above zero, with the competitive advantage of a private business enterprise having a $Q^2$ value of 0.225 and business opportunity a $Q^2$ value of 0.248), thus providing support for the model’s predictive relevance.

**DISCUSSIONS**

The discussion of the empirical findings is organised by the research objectives of this study.

**The Relationship between Government Support Programmes and Competitive Advantage of Private Business Enterprise**

This research is the first to investigate the relationship between government support programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. Prior scholars are optimistic that collaboration between government and private business enterprises will help the industry to become competitive (Porter, 1990; Tham and Loke, 2001; Sungkar, 2008; Fuad & Bohari, 2010; Argirov, 2010; Tham and Thakkar, 2014; Jovan and Bradic-Martinovic, 2014; Alberti et al. 2014; Cai et al., 2018). Surprisingly, there needs to be more research on the government’s role in enhancing the halal industry’s competitive advantage.

In contrast to the previous study, this research proposed that government support programmes through contractual and relational programmes might influence the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. This proposition is based on two reasons. First, based on the Porter diamond model, Porter suggests government plays a role in encouraging competitive advantage. Second, scholars who studied the elements of transaction cost, such as Williamson (1981), Poppo and Zenger (2002), Bstieler and Hemmert (2015), Wacker et al. (2016), Liu et al. (2017), Sheng et al., (2018) often argued that inter-organisational relationship does involve contractual governance and relational governance.

The present study hypothesised that contractual programmes increase the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. The result indicated that contractual programmes were positively related to the competitive advantage of private business enterprises. The result supported previous literature on the role of government support programmes through regulation programmes (Bohari et al., 2017; Yusuf et al., 2016; Jinachai et al., 2016; Eniola & Entebang, 2015; Ab Talib et al., 2015; Talib et al.,2014; Adu et al., 2014), inducement programmes (Cai et al., 2018; Ismail & Kuivalainen, 2015; Adu et al., 2014; Pergelova & Angulo-Ruiz, 2014), and innovation programmes (Bakar et al., 2014; Kang, & Park, 2012) in enhancing competitive advantage.

However, contrary to expectation, the result did not show a significant influence of relational programmes on the competitive advantage of private business enterprises. The result is, therefore, not consistent with past findings that networking programmes (Lazzarini, 2015; Adu et al., 2014; Bakar et al., 2014) and knowledge-sharing programmes (Zakaria et al., 2016; Caiazza et al., 2015; Bakar et al., 2014) could enhance competitive advantage.


This study’s last objective involved testing the mediating variable’s proposition on government support programmes and the competitive advantage of private business enterprises. This proposition is based on the underlying assumption of the Porter diamond model, which proposes that business opportunity mediates the relationship between government support programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry.
Unexpectedly, the business opportunity did not mediate the relationship between contractual programmes and the competitive advantage of private business enterprises in the halal cosmetic and personal care industry. This result does not support previous literature by Hingle and Patrick (2016), Liu, Wang, and Wilkinson (2016), Funfgeld (2015), Pittman et al. (2015), and Wong et al. (2015). The result suggests that the link between contractual programmes and the competitive advantage of private business enterprises was direct.

On the other hand, the structural model indicated that business opportunity mediated the relationship between relational programmes and the competitive advantage of private business enterprises. The result suggests that the link between relational programmes and the competitive advantage of private business enterprises was indirect. The result supports past studies by Hingle and Patrick (2016), Liu et al. (2016), Pittman et al. (2015), Funfgeld (2015), Armitage et al. (2015) and Wong et al. (2015).

**Contribution of Study**

**Conceptual contribution**

This study contributes to developing of a new theoretical link between government support programmes and the competitive advantage of private business enterprises by combining Porter’s diamond model and transaction cost theory. The combination of these theories was in contrast to past studies that employed transaction cost theory only (Albalate et al., 2017; Chen et al., 2016; De Schepper et al., 2015; Kumaraswamy et al., 2015; Panayides et al., 2015; Ping Ho et al., 2015; Trebilcock & Rosenstock, 2015).

**Methodological Contribution**

Past studies tended to examine halal cosmetic and personal care from the perspective of consumer behaviour (Nawawi et al., 2018; Haro, 2018; Shahid et al., 2018; Mustafar et al., 2018; Rahim et al., 2015; Majid et al., 2015; Ansari & Mohammed, 2015; Hajipour et al., 2015; Jabar et al., 2014; Hashim & Musa, 2013; Gumbri & Noor, 2012; Daud et al., 2012). This study is different from past studies in that it investigated a new research problem in Malaysia’s halal cosmetic and personal care product industry by focusing on halal certification as a way to develop a competitive advantage for companies in the industry to compete with established international brands. In this regard, the study examined the role of government support programs which create a business opportunity for companies to gain a competitive advantage over private business enterprise.

**Empirical Contribution**

Empirically, the present study was able to show the link between government support programmes and the competitive advantage of private business enterprises through the mediation of business opportunities. The present study is different from past studies that only considered the direct relationship between the two (Ismail & Kuivalainen, 2015; Razali et al., 2013; Fuad & Bohari, 2010; Sungkar, 2008). Furthermore, the present study adds to the literature by employing Porter’s diamond model and transaction cost theory to explain this study’s postulated relationship and underpinning theory. It is noteworthy to suggest that this study is the first to propose business opportunity as a mediating variable in the relationship between government support programmes and the competitive advantage of private business enterprises.

This research revealed a significant positive link between contractual programmes and the competitive advantage of private business enterprises in Malaysia’s halal cosmetic and personal care industry. However, this relationship was not significant when business opportunity was included as a mediator in the model, suggesting that contractual programmes directly influence the competitive advantage of private business enterprises. However, the relationship between relational programmes and the competitive advantage of private business enterprises was not found. Surprisingly, the relationship between relational programmes and the competitive advantage of private business enterprises became positive when business opportunity was included in the model.
Managerial Implication

The research highlights the value of the relationship between the government and private business enterprises as the key players in developing the halal cosmetic and personal care industry to achieve the vision and mission of Malaysia’s Halal Industry Master Plan 2008-2020. The two parties also play an essential role in strengthening the country’s competitive advantage in the halal cosmetic and personal care industry. That is, government programmes allow private business enterprises to be more competitive. The positive relationship between contractual programmes and the competitive advantage of private business enterprises showed the crucial role of the Malaysian government in assisting private business enterprises in developing a competitive advantage in the halal cosmetic and personal care industry. The result indicated that the contractual programmes—regulation programmes, inducement programmes, and innovation programmes—provided by the government are sufficient to enhance the competitive advantage of Malaysia’s halal cosmetic and personal care industry. On the other hand, relational programmes create a business opportunity for private business enterprises to develop their competitive advantage by enabling them to network and share knowledge with other companies about consumer behaviour and market trends.

In June 2016, the Malaysian government agreed to establish the Halal Malaysia Council with the HDC and JAKIM appointed as co-secretariat of the Council. The Council is an advisory body to formulate the National Halal Policy (MITI, 2016). The study's findings will be helpful for the Council to plan how to improve the halal cosmetic and personal care industry by strengthening the relationship between the government and private business enterprises.

CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

The several limitations of this study can direct future research. This study focused only on Malaysia’s halal cosmetic and personal care industry. Future studies may consider other halal sectors in other regions. Secondly, this study used a quantitative approach to generalise the findings. In-depth qualitative studies using interview techniques can be used in future studies to understand better the role of private business enterprises and the government in developing the halal industry.

Malaysia intends to make the halal industry competitive; however, relevant issues must be addressed to be competitive. One of the issues is the lack of competitive advantage of the local private business enterprises in Malaysia’s halal cosmetic and personal care industry. The lack of capacity to export halal cosmetics and personal care affects the local companies’ ability to compete with internationally established brands. Hence, the study examined how the competitive advantage of private business enterprises could be enhanced by investigating the role of government support programmes (i.e., contractual and relational programmes) in creating a business opportunity for companies to capitalise on. In this regard, Porter’s diamond model and transaction cost theory were employed to underpin the research. The result provided empirical evidence of the role of government support programmes in enhancing the competitive advantage of private business enterprises in Malaysia’s halal cosmetic and personal care industry.

Porter’s Diamond Model and Transaction Cost theory have been diagram in the Public–Private Partnership Strategy Model in Increasing Competitiveness Advantage of Malaysia’s Halal Cosmetic and Personal Care Industry of this study. Based on the hypothesis testing, this study has provided empirical evidence on enhancing competitiveness advantage in Malaysia’s halal cosmetic and personal care industry through the relationship between government and private business enterprises.

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