

# Determinant Factors Influencing Firm's Entry in Halal Business – A Case Study in Taiwan

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## ABSTRACT

This study probes the factors that potentially influence the entrepreneur's decision to address the global Halal market. It explores the direct effects of Halal perceived usefulness (HPU) towards firm's practice in Halal business as well as its prerequisite factors (i.e. internal and external drivers). From 41 Halal certified-firms in Taiwan (Muslim minority country), this study employs partial least squares structural equation modeling for testing and examining relationships among factors. From the findings, HPU are the factors can influence the firm's decision to perform Halal business directly, meanwhile, internal and external drivers are the prerequisites for firm's entry in Halal business. In addition, the internal driver can mediate external driver on affecting Halal perceived usefulness generation.

**Keywords:** Halal Business, Firm's Entry, Muslim-Minority Country.

## 1. INTRODUCTION

Halal (i.e. permissible) is the Islamic term regulating what matter is permissible for Muslims, while on the contrary Haram (i.e. forbidden) mentions what matter must be avoided by Muslim (e.g. pigs and derivatives, alcohol, intoxicants, blood, carcasses, any food material dedicated to other than God, slaughtering process not following Islamic Shariah law) [1-3] The large Halal market size in the world, e.g. Halal food (\$ 1173 Billion), Halal Pharmaceutical (\$ 78 billion), Halal cosmetics (\$ 56 Billion) and Halal Travel (\$ 151 Billion) apparently prove the alluring Halal business opportunity [4].

Regardless of the knowledge level of Muslims, such large market sizes can drive many countries, either Muslim minority or majority country, to encourage their entrepreneurs to exploit the global Halal market. Taiwan is a country with a Muslim minority and gains the world's recognition for its high competence the IT industry [5]. In the recent years, Taiwan has committed the country to build Halal ecosystem in a way of welcoming more Muslims.

Seeing that Halal business is a recent global trend, the necessity to understand Halal business is critical. To understand the consumer's perspective on purchasing,

Halal products and service are the research perspective mostly conducted in existing researches [6-8]. Furthermore, the entrepreneur's perspective has been developed recently the Halal research field [3,4,9]. The entrepreneur's perspective becomes an important consideration that need to be embodied to exploit the Halal business more. An entrepreneur is the right stakeholder to fulfill the market demand and take a big part in developing the country's economic level [4,10,11]. Some researches in this Halal research theme have brought up that Halal business can bring competitive advantage for firms due to its Halal business characteristic, i.e. high value-driven [9], [12-14].

Based on this explanation, the authors argue that it is essential to probe Halal business using entrepreneur's perspective for further study since more countries now are performing Halal business to increase their national economy level. This study examines the determinant factors for firms to perform Halal business, so it can contribute to expanding the knowledge for the manager or government to push the firms to engage in Halal business.

This study developed Halal perceived usefulness (HPU) as a firm's evaluation result of Halal in a favorable way which is manifested in firm's perception of Halal

value and benefit. The linkage of Halal with *Toyyib* (i.e. wholesome and goodness) makes Halal to have following characteristics, such as hygiene, good quality, healthy, and safe [1,15]. Halal value concept is directly derived from Quran once the firm complies with Shariah law [12,16]. From previous researches, this Halal value was also recognized by the customers as the consideration on purchasing Halal product [7,17,18]. Meanwhile, Halal benefit presents the elaboration of Halal in the competitive landscape. It covers what benefits the firm can obtain in terms of competition once the firm engages in Halal business [19]. This concept is necessary as proven by Malaysia's case where the hoteliers were not willing to apply Halal certification since they did not see the benefits coming from Halal [20].

By employing the theories related behavioral idea (e.g. TRA, TPB, TAM), this study perceives doing Halal business (DHB) as the behavioral in question which can be influenced by HPU. Yet, authors do not incorporate the behavioral intention since this study probes the occurred behavior as [21]. According to, the study aims for predicting a behavior must include the behavioral intention to mediate the attitude and behavioral in question. Hence, this study predicts that HPU can influence DHB as shown in Figure 1.

H1: Halal Perceived usefulness positively influences Doing Halal Business.

The role of institutional theory manifested in the social environment with its informative and normative characteristics can affect the decision-making activities, for instance on determining the firm's strategy [22-24]. Specifically, social environment can affect knowledge acquisition as a part of the absorptive capacity dimension which is important to allow the firm to survive in the dynamic market [25,26]. The authors view absorptive capacity matters for addressing the shifting global trend towards Halal. The outcome of absorptive capacity prior to its elaboration with the social environment in this study is drawn as HPU. Hence, from Figure 1 this study predicted that social environment (i.e. external driver) can influence HPU as shown in hypothesis 3 (H3).

H2. External driver positively influences Halal Perceived Usefulness.

The dynamic market can occur as the outcomes of any changing in government policy, industry trend, and market demand [27] which is classified as the external driver in this study. Meanwhile, absorptive capacity will emerge as a response to address the dynamic market changes [26,28]. Hence, the authors view external driver as the driver for absorptive capacity. Following previous researches which described absorptive capacity in the capability and resource (RBV) level [29-31], this study sets assets, leadership & innovation climate [32], as well as R&D [29-34]. Once the firm has a set of this internal

driver, the outcome of absorptive capacity in generating knowledge from external can be achieved. Based on these explanations, this study predicts that ED can influence ID as well as ID can influence HPU as drawn in Figure 1.

H3. External driver positively influences Internal Driver.

H4. Internal driver positively influences Halal Perceived Usefulness.

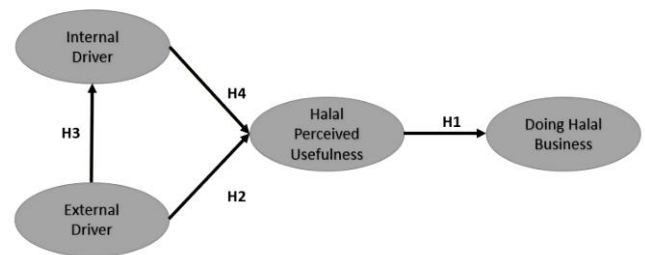


Figure 1 Conceptual model and hypotheses development

## 2. METHODS

### 2.1 Scale Item and Questionnaire Development

Five variables referring to the fundamental management theories as explained in the theoretical background were developed in this study, namely ID, ED, HPU, and DHB. Next, to measure these variables, the authors set up eleven measurement items and 44 questions in a bilingual questionnaire (Chinese and English) to overcome the different language issue. Several literature were used to develop the questions [35-38]. Aiming for good response quality, this study employed five-point Likert scale (1-Strongly disagree, 5-Strongly Agree) [39].

### 2.2 Data Collection

Halal certified-firm in Taiwan which was enlisted in Taiwanese Halal certification bodies was the target respondent in this study. Employing the key-informant technique [40], the representative who was the owner, manager, or marketer for each firm was the only one allowed to fill in the questionnaire the authors had sent by postal and email. From October 2017-April 2018, data collected was 41 responses from Halal-certified firms in product and service business sectors. The majority of the respondents were owner of local Taiwanese firms in food sector (60%), between medium and big size (>90%)

### 2.3 Data Analysis

Due to no strict requirements in sample size and normal data distribution [41,42], this study was carried out partial least squares structural equation modeling

with SMARTPLS 3.0 software for data analysis. Two analysis stages were performed consecutively, namely measurement and structural models [43]. The differences between these two stages were measurement model examines the relationship between the latent variable and the measurement indicator, while the structural model focused on the relationships among latent variables.

In the measurement mode, the authors addressed the reliability and validity issues by probing several criterions. For reliability, there were two criterions used, Cronbach's  $\alpha$  and composite reliability, both having thresholds to be exceed was 0.7 to gain good reliability. For validity, the presence of unidimensionality in latent variables was schecked through convergent (i.e. average variance explained (AVE) and factor loading) and discriminant validities (i.e. Fornell-Larcker criterion and cross-loading). The variable's thresholds of AVE and factor loading were to exceed 0.5. For Fornell-Larcker criterion, no unidimensionality will be found if the correlation value between latent variables is smaller than the value of the SQRT AVE of the related variable [44]. Meanwhile, no unidimensionality will be found on cross loading criterion if an indicator does not have a greater loading value on other variables than the variables it belongs to [45].

In the structural model assessment, there are six criterions to be performed, namely collinearity, path coefficient ( $\beta$ ),  $R^2$  from endogen latent variable, effect size  $f^2$ , prediction relevance  $Q^2$ [43,46]. For VIF, if the variable had VIF value less than 3, it means that there was no co linearity occurred [47]. Secondly, the coefficient value ranged from -1 to +1 present the magnitude and size of the relationship between latent variables [46]. The significance of the strength of the relationship can be determined from t-value with a certain significance level (e.g., 5%, 1%) [43]. Thirdly, the  $R^2$  value can present the percentage of variance of a certain endogen latent variable that could be explained by its exogenous latent variables [46]. According to Chin (1998), there were three values of  $R^2$  that can describe the predictive power level of model, which were 0.19 (weak); 0.33 (moderate); and 0.67 (substantial). Furthermore, the information of  $R^2$  can be enriched by examining the effect size of related exogenous variables using  $f^2$ . According to [48], there were three criteria values of  $f^2$  to represent the level of its effect size, 0.02 (small effect); 0.15 (medium effect); and 0.35 (large effect).

Next, the Stone Geisser's  $Q^2$  can be carried out through blindfolding procedure with a threshold of 0. If the  $Q^2$  value is larger than 0, it indicates that the model has predictive power [49,50].

### 3. RESULTS AND DISCUSSION

From the measurement model, ten questions from ID, ED, and HPU latent variables must be eliminated since

they did not pass the target thresholds for each criterion. This elimination allowed the authors obtained a questionnaire set with the acceptable level of reliability and validity. Table 1 delineated the information of the reliability and validity issues for the rest of 33 questions.

**Table 1** Reliability and Validity of Latent Variables

Var*.	Reliability**			Validity***			
	C. $\alpha$	CR	Con	Div			
				1	2	3	4
1	0.90	0.91	0.52	0.72			
2	0.80	0.83	0.55	0.51	0.85		
3	0.94	0.95	0.73	0.61	0.65	0.85	
4	0.82	0.88	0.65	0.53	0.58	0.61	0.80

a. \* Variable: 1-internal driver (ID); 2-external driver (ED); 3-halal perceived usefulness (HPU); 4-doing halal business (DHB)

b. \*\*Criterions for reliability test: Cronbach's  $\alpha$  (C.  $\alpha$ ) and Composite Reliability (CR).

c. \*\*\* Criterions for validity test: Con (Convergent using AVE) and Div (Divergent using Fornell&Larcker).

After done with the measurement model assessment, the authors continued with examining the structural model. Table 2 showed the hypothesis testing results in which all six hypotheses proposed earlier were significantly proven based on the path coefficient and t-values. Hypothesis H1 ( $\beta = 0.61, p < 0.001$ ) predicted that the HPU had a positive relationship with DHB. For hypothesis H2 ( $\beta = 0.46, p < 0.001$ ), the ED showed a positive relationship with HPU. As shown in hypotheses H3 ( $\beta = 0.51, p < 0.001$ ) and H4 ( $\beta = 0.38, p < 0.05$ ). From those hypotheses, ED was proven to affect the ID whereas ID also showed a positive relationship with HPU. Furthermore, the effect of ED on HPU was also mediated partially through ID since the t-value of ED  $\rightarrow$  HPU through mediation effect was also significant (t-value = 2.227  $p < 0.05$ ). In terms of the coefficient values, though H4 tended to have small coefficient values, the authors still considered these deserve to be taken into consideration for this study.

This conceptual model also explained the variances of the endogen variables (i.e.  $R^2$  value) of ID, HPU, and DHB in the amount of 24.2%, 52.6%, and 36.1% respectively as shown in table 3. According to Chin (1998), in terms of  $R^2$  value, ID construct was at the small level ( $R^2 > 0.19$ ), meanwhile the HPU and DHB were at the moderate level ( $R^2 > 0.33$ ). To support the  $R^2$  value, the value of  $f^2$  as shown in table 4 can explain the effect size of an exogenous variable which influenced the endogenous latent variables drawn on this model, i.e. ID, HPU, DHB. Based on Cohen (1988), the effect size of ED and ID as each endogen variable to HPU was at the medium level ( $f^2 > 0.15$ ), whereas the large level was shown at ED as an endogen variable for ID and HPU for DHB ( $f^2 > 0.35$ ). In addition, the value of  $Q^2$  (table 3) on the endogenous variables of ID (0.109), HPU (0.340), and DHB (0.197) showed this conceptual model had the predictive relevance since these values were greater than 0 [49,50], based on table 2-4.

**Table 2.** Path Coefficient and Collinearity for Structural Model

Hypoth.	Path	Path coefficient			Collinearity	
		$\beta$	t-value	S/NS*	VIF	Y/N*
H1	HPU → DHB	0.61	4.895***	S	1.00	N
H2	ED → HPU	0.46	3.871***	S	1.35	N
H3	ED → ID	0.51	4.955***	S	1.00	N
H4	ID → HPU	0.38	2.516**	S	1.35	N

<sup>d.</sup> \* S (supported); NS (not supported); Y (yes); N (no)

<sup>e.</sup> \*\* Significant at p<0.05

<sup>f.</sup> \*\*\* Significant at p<0.001

**Table 3.** Value of R<sup>2</sup> and Q<sup>2</sup>

Variable	R <sup>2</sup>	Predictive accuracy	Q <sup>2</sup>	Predictive Relevance
ID	0.242	Small	0.109	Yes
HPU	0.526	Moderate	0.340	Yes
DHB	0.361	Moderate	0.197	Yes

**Table 4.** Value Of f<sup>2</sup>

Variable	f <sup>2</sup>	Effect size
ED → ID	0.353	Large
ED → HPU	0.322	Medium
ID → HPU	0.223	Medium
HPU → DHB	0.604	Large

Based on the result, each variable listed in the hypotheses was found to be related to the others in a significant way. The hypothesis result showed from H1 is consistent with [21] where no behavioral intention needs to be included to mediate the relationship of HPU towards DHB. The firm’s perception of Halal usefulness was reflected in the firm’s understanding of Halal value and benefit. From previous Halal researches [17], [18,51], Halal value in this study has also been recognized by the consumers prior to purchase the Halal products. It means that if a company prefers Halal values, it is more likely that the company will value Halal goods as well. The similar idea also works for Halal benefit. It is a line with who founded that the firm’s understanding of what benefits that Halal principles could give to the firm in terms of the competitive landscape was the important factor to push the firm for having Halal certification.

From the R2, It can explain that DHB was in an acceptable level through an exogenous variable of HPU. In other words, the firm’s perception upon Halal usefulness can influence the firm’s decision on performing Halal business. The acceptable explanation was that HPU variable represented the firm’s evaluation on Halal based on their existing knowledge so that HPU was considered as the knowledge outcome. Meanwhile, the firm’s knowledge is the fundamental requirement needed for the firm before doing the exploitation activity for launching the product or service to the market [26,29].

To have a better understanding of what factors can influence the firm in Taiwan performing Halal business,

this study contributed to examine more from the fundamental level of firm, i.e. internal and external firm conditions. From hypothesis H2, the generation of HPU can be influenced by the firm’s external condition which is coherent [1]. They examined that the exposure from the outside environment can affect one’s Halal awareness level. Further, this result is also in line with the works of [52] by using the institutional theory lens as [53] and [54] did. In this study, the external environment can affect the firms for having HPU is that market (normative pressure), government (coercive pressure), industry trend (mimetic pressure). Aligning with the work of [52], these external environments also apparently affect the Halal food industry in Malaysia to have Halal certification.

From hypotheses H3 and H4, ID can mediate ED to influence the generation of HPU. Founding these results consistent with [27], the stronger the ED was, the stronger the firm to reveal its ID. To deal with the strong influence from ED, the firm encouraged to reveal the internal firm condition, especially related with the asset, organizational context (i.e. leadership and innovation culture), and R&D. Thus, this set of internal condition was empirically examined to be able for increasing the experience of searching process and also the firm’s interaction with external environment which is served as external knowledge source [29,30,55,56]. The firm’s interaction and searching experience can enlarge the firm’s chance to be exposed to any beneficial external knowledge and also be able to leverage that exposure for bringing new knowledge into the firm.

#### 4. CONCLUSIONS

This study conduct is provoked by the needs of broadening the knowledge regarding Halal business using the entrepreneur’s perspective. An entrepreneur is an important stakeholder in Halal industry through fulfilling the increasing global Halal demands with Halal product and service. Taiwan is one of the countries now passionately exploiting the business opportunities from Halal industries, even though its knowledge level of Muslim is still developing. Confirming that Halal business can bring the competitive advantage for the firms, a conceptual model with five latent variables is developed in this study to seek what factors can influence the firms in Taiwan to engage in Halal business.

From the findings, the firm’s decision to engage in Halal business can be influenced by the firm’s understanding of Halal usefulness (i.e. Halal Perceived Usefulness). In addition, there are two other factors that can influence the generation of firm’s understanding of Halal usefulness, namely the internal and external firm conditions. The pressures coming from the external environment in this study is represented by the market, government and the Halal trend industry. The way of external firm condition affects the generation of HPU can also be partially mediated with the ID.

This study result is motivated to provide the managerial recommendations for Taiwan pursuing the Halal ecosystem. There are two recommendations the authors offered. First, realizing HPU role to influence the firm's decision for engaging in Halal business, the authors recommend that the Taiwanese governments should pay more attention to any attempts for generating this firm's understanding about Halal usefulness in terms of the Halal value and the benefits the firms can obtain in the competitive landscape. For Taiwan case, to strengthen the relationship and coordinate more with Halal certification bodies in Taiwan can be the effective way to enhance the HPU in the firm. When considering Taiwan as a country with a Muslim minority, the dissemination of Muslim information cannot be as extensive as it is in Muslim-majority countries. Muslims in Taiwan should concentrate their expertise in Halal certification bodies.

Second, the authors also contribute by giving a picture of what managers should do in a way of performing Halal business. This study provides the internal firm condition need to be pursued, such as good assets (i.e., physical, financial, human resource), innovation climate and R&D competence. This set of internal firm condition can potentially lead the firms in Taiwan doing Halal business.

Regardless of its contributions, this study has four shortcomings that could be addressed as suggestions for further studies. Firstly, the authors only considered the influence of general external stakeholders. Even though it can present normative impact through an institutional theory lens, the Halal certification body was not included in the external driver. Secondly, due to budget and time constraints, the total data of 41 responses may be reduced, preventing the authors from performing more rigorous data analysis. For further research, it would be preferable to increase the number of respondents in order to obtain better results and present a larger population of Halal businesses in Taiwan. Thirdly, the authors did not specify the markets aimed by the firms, i.e. domestic or international market. Therefore, this study cannot cover further explanation about Halal business phenomenon regarding the market orientation. Fourthly, moderating effect of Islamic knowledge to generate HPU can be included in future researches.

## REFERENCES

- [1] A.R. Ambali and A.N. Bakar, "People's awareness on halal foods and products: potential issues for policy-makers," *Procedia - Soc. Behav. Sci.*, vol. 121, pp. 3–25, 2014, doi: 10.1016/j.sbspro.2014.01.1104.
- [2] J. Fischer, *The Halal Frontier Muslim Consumers in a Globalized Market*. 2011.
- [3] S.Z.S. Marzuki, C.M. Hall, and P.W. Ballantine, "Restaurant manager and halal certification in malaysia," *J. Foodserv. Bus. Res.*, vol. 15, no. 2, pp. 195–214, 2012, doi: 10.1080/15378020.2012.677654.
- [4] M. Soltanian, S. Zailani, M. Iranmanesh, and A.A. Aziz, "Motivations of sme entrepreneurs to become halalpreneurs," *J. Sci. Technol. Policy Manag.*, vol. 7, no. 2, pp. 173–189, 2016, doi: 10.1108/JSTPM-07-2015-0023.
- [5] L.Y.Y. Lu and C. Yang, "The r&d and marketing cooperation across new product development stages: an empirical study of taiwan's it industry," *Ind. Mark. Manag.*, vol. 33, no. 7, pp. 593–605, 2004, doi: 10.1016/j.indmarman.2003.11.002.
- [6] A. Abd Rahman, E. Asrarhaghighi, and S. Ab Rahman, "Consumers and halal cosmetic products: knowledge, religiosity, attitude and intention," *J. Islam. Mark.*, vol. 6, no. 1, pp. 148–163, 2015, doi: 10.1108/JIMA-09-2013-0068.
- [7] K. Bonne, I. Vermeir, F. Bergeaud-Blackler, and W. Verbeke, "Determinants of halal meat consumption in france," *Br. Food J.*, vol. 109, no. 5, pp. 367–386, 2007, doi: 10.1108/0070700710746786.
- [8] S. Shah Alam and N. Mohamed Sayuti, "Applying the theory of planned behavior (tpb) in halal food purchasing," *Int. J. Commer. Manag.*, vol. 21, no. 1, pp. 8–20, 2011, doi: 10.1108/10569211111111676.
- [9] S. Zailani, K. Kanapathy, M. Iranmanesh, and M. Tieman, "Drivers of halal orientation strategy among halal food firms," *Br. Food J.*, vol. 117, no. 8, pp. 2143–2160, 2015, doi: 10.1108/BFJ-01-2015-0027.
- [10] S. Shane and S. Venkataraman, "The promise of entrepreneurship as a field of research," *Acad. Manag. Rev.*, vol. 25, no. 1, p. 217, 2000, doi: 10.2307/259271.
- [11] R.C. Rose, N. Kumar, and L.L. Yen, "Entrepreneurs success factors and escalation of small and medium-sized enterprises in malaysia," *J. Soc. Sci.*, vol. 2, no. 3, pp. 74–80, 2006, doi: 10.3844/jssp.2006.74.80.
- [12] N. Karia and M.H.A.H. Asaari, "Halal value creation: its role in adding value and enabling logistics service," *Prod. Plan. Control*, vol. 27, no. 9, pp. 677–685, 2016, doi: 10.1080/09537287.2016.1166276.
- [13] M. Tieman and M. Che Ghazali, "Principles in halal purchasing," *J. Islam. Mark.*, vol. 4, no. 3, pp. 281–293, 2013, doi: 10.1108/JIMA-01-2012-0004.

- [14] J.A.J. Wilson and J. Liu, "Shaping the halal into a brand?," *J. Islam. Mark.*, vol. 1, no. 2, pp. 107–123, 2010, doi: 10.1108/17590831011055851.
- [15] M. Tieman, "Establishing the principles in halal logistics," *J. Emerg. Econ. Islam. Res.*, vol. Vol.1, pp. 1–13, 2013.
- [16] N. Karia and M.H. Abu Hassan Assari, "Enhancing Halal Sustainability : Resources and Capabilities of Operations in Third-Party Logistics ( 3PL )," *Adv. Bus. Econ. Dev.*, no. October, pp. 206–211, 2015.
- [17] R. Golnaz, M. Zainalabidin, S. Mad Nasir, and F.C. Eddie Chiew, "Non-muslims' awareness of halal principles and related food products in malaysia," *Int. Food Res. J.*, vol. 17, no. 3, pp. 667–674, 2010, doi: 10.1108/JIMA-04-2014-0033.
- [18] A. Haque, A. Sarwar, F. Yasmin, A.K. Tarofder, and M.A. Hossain, "Non-muslim consumers' perception toward purchasing halal food products in malaysia," *J. Islam. Mark.*, vol. 6, no. 1, pp. 133–147, 2015, doi: 10.1108/JIMA-04-2014-0033.
- [19] D.F. Kuratko, J.S. Hornsby, and M.G. Goldsby, "Sustaining corporate entrepreneurship: modelling perceived implementation and outcome comparisons at organizational and individual levels," *Int. J. Entrep. Innov.*, vol. 5, no. 2, p. 77, 2004, doi: 10.5367/000000004773863237.
- [20] S. Zailani, A. Omar, and S. Kopong, "An exploratory study on the factors influencing the non-compliance to halal among hoteliers in malaysia," *Int. Bus. Manag.*, vol. 5, no. 1, pp. 1–12, 2011, doi: 10.3923/ibm.2011.1.12.
- [21] G.C. Moore and I. Benbasat, "Integrating diffusion of innovations and theory of reasoned action models to predict utilization of information technology by end-users," in *Diffusion and Adoption of Information Technology*, 1996, pp. 132–146.
- [22] Q. Hu, P. Hart, and D. Cooke, "The role of external and internal influences on information systems security - a neo-institutional perspective," *J. Strateg. Inf. Syst.*, vol. 16, no. 2, pp. 153–172, 2007, doi: 10.1016/j.jsis.2007.05.004.
- [23] M. Hanson, "Institutional theory and educational change," *Educ. Adm. Q.*, vol. 37, no. 5, pp. 637–661, 2001, doi: 10.1177/00131610121969451.
- [24] J. Lu, J.E. Yao, and C.S. Yu, "Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology," *J. Strateg. Inf. Syst.*, vol. 14, no. 3, pp. 245–268, 2005, doi: 10.1016/j.jsis.2005.07.003.
- [25] G.P. Huber, "Organizational learning: the contributing processes and the literatures," *Organ. Sci.*, vol. 2, no. 1, pp. 88–115, 1991, doi: 10.1287/orsc.2.1.88.
- [26] S.A. Zahra and G. George, "Absorptive capacity: a review, reconceptualization, and extension," *Academy of Management Review*, vol. 27, no. 2, pp. 185–203, 2002, doi: 10.5465/AMR.2002.6587995.
- [27] C.L. Wang and P.K. Ahmed, "Dynamic capabilities: a review and research agenda," *Int. J. Manag. Rev.*, vol. 9, no. 1, pp. 31–51, 2007, doi: 10.1111/J.1468-2370.2007.00201.X.
- [28] K.M. Eisenhardt and J.A. Martin, "Dynamic capabilities: what are they?," *Strateg. Manag. J.*, vol. 21, no. 10–11, pp. 1105–1121, 2000, doi: 10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E.
- [29] A. Fosfuri and J.A. Tribó, "Exploring the antecedents of potential absorptive capacity and its impact on innovation performance," *Omega*, vol. 36, no. 2, pp. 173–187, 2008, doi: 10.1016/j.omega.2006.06.012.
- [30] W.M. Cohen and D.A. Levinthal, "Absorptive capacity: a new perspective on learning and innovation," *Adm. Sci. Q.*, vol. 35, no. 1, p. 128, 1990, doi: 10.2307/2393553.
- [31] J.J.P. Jansen, F.A.J. van den Bosch, and H.W. Volberda, "Managing potential and realised absorptive capacity: how do organisational antecedents matter?," *Acad. Manag. J.*, vol. 48, no. 6, pp. 999–1015, 2005, doi: 10.5465/AMJ.2005.19573106.
- [32] K. Hafeez, Y. Zhang, and N. Malak, "Core competence for sustainable competitive advantage: a structured methodology for identifying core competence," *IEEE Trans. Eng. Manag.*, vol. 49, no. 1, pp. 28–35, 2002, doi: 10.1109/17.985745.
- [33] D.I. Prajogo and P.K. Ahmed, "Relationships between innovation stimulus, innovation capacity, and innovation performance," *R D Manag.*, vol. 36, no. 5, pp. 499–515, 2006, doi: 10.1111/j.1467-9310.2006.00450.x.
- [34] J. Chen, Y. Chen, and W. Vanhaverbeke, "The influence of scope, depth, and orientation of external technology sources on the innovative performance of chinese firms," *Technovation*, vol. 31, no. 8, pp. 362–373, 2011, doi: 10.1016/j.technovation.2011.03.002.

- [35] J.Chen, Z. Zhu, and H. Yuan Xie, "Measuring intellectual capital: a new model and empirical study," *J. Intellect. Cap.*, vol. 5, no. 1, pp. 195–212, 2004, doi: 10.1108/14691930410513003.
- [36] B.A. Lukas and O.C. Ferrell, "The effect of market orientation on product innovation," *J. Acad. Mark. Sci.*, vol. 28, no. 2, pp. 239–247, 2000, doi: 10.1177/0092070300282005.
- [37] J. Park, S. Yang, and X. Lehto, "adoption of mobile technologies for chinese consumers," *J. Electron. Commer. Res.*, vol. 8, no. 3, pp. 196–206, 2007, doi: 10.1.1.92.2520.
- [38] Zehir, E. Can, and T. Karaboga, "Linking entrepreneurial orientation to firm performance: the role of differentiation strategy and innovation performance," *Procedia - Soc. Behav. Sci.*, vol. 210, pp. 358–367, 2015, doi: 10.1016/j.sbspro.2015.11.381.
- [39] E. Babakus and W. G. Mangold, "Adapting the servqual scale to hospital services: an empirical investigation.," *Health Serv. Res.*, vol. 26, no. 6, pp. 767–786, 1992, doi: January 17,1991.
- [40] N.Kumar, L.W. Stern, and J.C. Anderson, "Conducting interorganizational research using key informants," *Acad. Manag. J.*, vol. 36, no. 6, pp. 1633–1651, 1993, doi: 10.2307/256824.
- [41] D.H. Green and A.B. Ryans, "Entry strategies and market performance causal modeling of a business simulation," *J. Prod. Innov. Manag.*, vol. 7, no. 1, pp. 45–58, 1990, doi: 10.1111/1540-5885.710045.
- [42] D.Y. Lee, "Power, conflict and satisfaction in IJV supplier - Chinese distributor channels," *J. Bus. Res.*, vol. 52, no. 2, pp. 149–160, 2001, doi: 10.1016/S0148-2963(99)00067-3.
- [43] J. Henseler, C.M. Ringle, and R.R. Sinkovics, "The use of partial least squares path modeling in international marketing," *Adv. Int. Mark.*, vol. 20, no. 2009, pp. 277–319, 2009, doi: 10.1016/0167-8116(92)90003-4.
- [44] C. Fornell and D.F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," *J. Mark. Res.*, vol. 18, no. 1, pp. 39–50, 1981, doi: 10.2307/3151312.
- [45] W.W. Chin, "The partial least squares approach to structural equation modeling," in *Modern methods for business research*, 1998, pp. 295–336.
- [46] J.F. Hair, G. Hult, C. Ringle, and M. Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 2016.
- [47] A. Diamantopoulos and J. A. Siguaw, "Formative versus reflective indicators in organizational measure development: a comparison and empirical illustration," *Br. J. Manag.*, vol. 17, no. 4, pp. 263–282, 2006, doi: 10.1111/j.1467-8551.2006.00500.x.
- [48] J. Cohen, "Statistical power analysis for the behavioral sciences," in *statistical power analysis for the behavioral sciences*, vol. 2nd, 1988, p. 567.
- [49] S. Geisser, "A predictive approach to the random effect model," *biometrika*, vol. 61, no. 1, pp. 101–107, 1974, doi: 10.1093/biomet/61.1.101.
- [50] M. Stone, "Cross-validatory choice and assessment of statistical predictions," *J.R. Stat. Soc.*, vol. 36, no. 2, pp. 111–147, 1974, doi: 10.2307/2984809.
- [51] F. Bergeaud-Blackler, *Social definitions of halal quality: the case of Maghrebi Muslims in France*. 2004.
- [52] R. Othman, Z.A. Ahmad, and S. Zailani, "The effect of institutional pressures in the malaysian halal food industry," *Int. Bus. Manag.*, vol. 3, no. 4, pp. 80–84, 2009.
- [53] D.I. Prajogo, "The roles of firms' motives in affecting the outcomes of ISO 9000 adoption," *Int. J. Oper. Prod. Manag.*, vol. 31, no. 1, pp. 78–100, 2011, doi: 10.1108/01443571111098753.
- [54] M.S. Ab Talib, S.S. Siti, A.B. Abdul Hamid, and T. Ai Chin, "Emerging halal food market: an institutional theory of halal certificate implementation," *Manag. Res. Rev.*, vol. 39, no. 9, pp. 987–997, 2016, doi: 10.1108/MRR-06-2015-0147.
- [55] T. Li and R.J. Calantone, "The impact of market knowledge competence on new product advantage: Conceptualization and Empirical Examination," *J. Mark.*, vol. 62, no. 4, p. 13, 1998, doi: 10.2307/1252284.
- [56] J.H. Dyer, H.B. Gregersen, and C. Christensen, "Entrepreneur behaviors, opportunity recognition, and the origins of innovative ventures," *Strateg. Entrep. J.*, vol. 2, no. 4, pp. 317–338, 2008, doi: 10.1002/sej.59.