Assessing Cultural Orientation as a Reflective-Formative Second Order Construct - A Recent PLS-SEM Approach

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ABSTRACT

It is strongly believed that Hofstede's cultural dimensions do have a significant influence on the behaviours of individuals. The existing studies have mostly examined the five dimensions of Hofstede's cultural framework including power distance, long term versus short term orientation, masculinity versus femininity, uncertainty avoidance, and individualism versus collectivism. However, there is a dearth of empirical studies investigating indulgence versus restraint as the sixth dimension under the Malaysian context. Thus, to fill this research gap, this study was conducted among Malaysian entrepreneurs to examine the significance of all six dimensions of Hofstede's cultural framework under the context of Malaysia. The data was collected using snowball and quota sampling techniques from 450 Malaysian entrepreneurs of wholesale and retail SMEs. SPSS version 20 and Smart-PLS software were used for the descriptive and inferential data analysis respectively. Moreover, the construct of cultural orientation was treated as reflective-formative second order construct and the latest approach proposed by Hair et al. (2017) was used to analyse this construct. The findings of this study have provided the empirical evidence regarding the significance of all six Hofstede's cultural dimensions as the formative indicators of the construct cultural orientations that has been considered as the reflective-formative second order construct in this study. The study limitations, future recommendations, and conclusions are presented at the end.

Keywords: Cultural Orientations, Reflective-Formative Second Order Construct, PLS-SEM, Product Indicator Approach, Common Method Bias.

1. INTRODUCTION

The cultural orientation refers the degree to which people are affected by and are engaged in the norms, traditions, and practices of a particular culture (Tsai & Datton,

2002).Furthermore, the conceptualization of cultural orientation emphasizes the relationship that people have with their cultural environment (Wong et al., 2014). In addition, the culture can be learned and adopted, it can vary from one individual to individual living in the same country, thus, individuals may experience multiple cultures within a similar country (Wong et al., 2014; Yoo & Donthu, 2002). Investigating the cultural orientation at individual-level give more nuanced explanation regarding the cultural factors that shape the behaviours of individuals (Wong et al., 2014). Moreover, a number of studies have used the Hofstede's cultural framework while assessing the cultural orientation at the individual level in the context of entrepreneurship (Wong et al., 2014; Ahmad, 2007). This study has examined the cultural orientations of Malaysian entrepreneurs using Hofstede's cultural dimensions including masculinity, indulgence, uncertainty avoidance, low power distance, long-term orientation, and collectivism. The main purpose of this paper is to investigate the significance of Hofstede's cultural dimensions as formative indicators for the cultural orientation that has been considered as reflective-formative type of second-order construct under the context of Malaysian wholesale and retail SMEs, as well as to validate the formative indicators of cultural orientation in the Malaysian context using the product indicator approach and following the steps proposed by Hair et al. (2017). Thus, cultural orientation has been taken as a multidimensional construct in this study. However, the multidimensional construct should be defined and operationalized based on a theory which should also indicate the relationship of sub-dimensions to the second order construct (Becker et al., 2012; Johnson et al., 2012; Polites et al., 2012; MacKenzie et al., 2011). Therefore, we have identified a study by Thien et al. (2014) in which the Hofstede's cultural dimensions have been taken and proven as formative indicators. Additionally, the higher-order constructs (HOC) minimize the complexity of model and make it parsimony (Becker et al., 2012). In addition, three approaches are recommended to estimate the HOC's parameters namely the repeated indicator approach, two-stage approach, and the hybrid approach (Ringle et al., 2012; Wetzels et al., 2009). However, for the purpose of this study, repeated indicator approach has been used because this study deals with the evaluation of cultural orientation as a reflective-formative second order construct only which is not taken as a predictor for any other construct. Otherwise, the two-stage approach will be more suitable if cultural orientation would be taken as the predictor for any other construct to present a parsimonious model. Moreover, although the reflective-formative Hierarchical Component Models (HCM) type model is widely used but has received a limited concentration in the extant literature of PLS-SEM (Becker et al., 2012; Ringle et al., 2012). This study was conducted to fill the research gap. It will provide guideline to future researchers to treat the reflective-formative type of second order constructs in their studies according to the latest approach proposed by Hair et al. (2017).

2. LITERATURE REVIEW

A number of studies have investigated the impacts of cultural orientations using Hofstede's cultural dimensions on individuals' behaviours (Tehseen et al., 2015; Sajilan & Tehseen 2015, Ratsimanetrimanana, 2014; Ahmad, 2007). Some researchers have even taken the Hofstede's cultural dimensions as moderator in their studies under various contexts (Tehseen & Sajilan, 2016; Al-Ansari, 2014; Rosenbusch et al., 2011). Moreover, Hofstede's cultural framework provides a strong foundation for conducting studies at cross-cultural, intra-cultural, and individual levels (Sandhu & Ching, 2014; Ayobami, 2012). In addition, a few studies found the

association of cultural dimensions with peoples' behaviours in various organization settings (Hayton et al., 2002). Hofstede provides a parsimonious way to explain and categories the national cultural values (Lim, 2001; McGrath et al., 1992). Thus, because of several benefits, this study has examined the Hofstede's cultural dimensions under the context of Malaysian entrepreneurs.

2.1 HOFSTEDE'S CULTURAL DIMENSION THEORY

The culture consists of the ideas, patterns, values and symbolic features that play a vital role in shaping the behaviours of people (Ijaz et al., 2012). Moreover, according to Ratsimanetrimanana (2014), the cultural dimension theory has been widely used to explain the cultural differences among individuals. In addition, the cultural theory was developed to assess the influence of the culture of the society on the individuals' values and to investigate the relationship of these values with the behaviours of people (Hofstede, Hofstede, & Minkov, 2010). Researchers have used cultural dimension theory of Hofstede to explain the cultural values of individuals (Ratsimanetrimanana, 2014). The current paper has adopted the cultural dimensions suggested by Hofstede.

The six dimensions of Hofstede's cultural theory have been explained as below:

2.1.1   POWER DISTANCE

This dimension has been defined as the degree to which the less powerful people do accept the unequal distribution of power (Hofstede, 2011). Nevertheless, it does not indicate the level of power distribution but assesses the feelings and perceptions of individuals regarding the distribution of power. Moreover, a low score of power distance shows that people expect as well as accept the democratic relationships where there is an equal distribution of power. Furthermore, high score of power distance indicates that less powerful people accept the hierarchical relationships within their society (Hofstede et al., 2010; Hofstede, 1980). Additionally, this dimension describes the relationship with individuals in power and deals with social inequality (Hofstede, 2011). It describes the extent of social inequality among individuals at lower as well as higher hierarchies (Thampi, Jyotishi, & Bishu, 2015).

2.1.2 COLLECTIVISM VERSUS INDIVIDUALISM

This dimension describes the extent by which the community's individuals integrate into groups. The collectivistic culture leads towards the importance of group objectives as compared to individual goals. On the other hand, people in the individualistic cultures more prefer to achieve their personal goals. In collectivistic cultures, the individuals may prefer any one of the groups or both groups including in-group and out-group. The individuals of in-group include close friends and family members. Moreover, the in-group indicates the identity of the individuals. Further, the individuals other than in-group can be considered as out-group that may be treated in an individualistic manner relative to in-group individuals (Hofstede et al., 2010; Hofstede, 1980). Furthermore, societies have been classified either as individualistic or collectivistic according to Hofstede (Thampi et al., 2015). In short, the people in

collectivist societies give more preference to group welfare, goals, and loyalties. Whereas, individualism is the extent to which people of a society give more importance to their self-interests only (Hofstede, 2011; Blodgett et al., 2008).

2.1.3 UNCERTAINTY AVOIDANCE VERSUS TOLERANCE FOR AMBIGUITY

This dimension indicates the tolerance of individuals for uncertain situations. It describes the ways in which people may manage the unknown situations. The individuals who belong to a culture of high uncertainty avoidance are less tolerant to unpredictable changes and try to minimize the anxiety of the unknown situations through rigid rules or regulations. Whereas, people in a culture with low uncertainty avoidance cultures accept the uncertain changes and have flexible guidelines, rules, and regulations (Hofstede et al., 2010; Hofstede, 1980). Moreover, this dimension indicates the extent to which people of a society feel uncomfortable due to uncertain situations (Thampi et al., 2015). In other words, it can be stated that this cultural dimension represents the extent to which individuals prefer the structured situations as compare to unstructured situations (Hofstede, 2011).

2.1.4 MASCULINITY VERSUS FEMININITY

This dimension indicates the masculine as well as feminine values. The masculine culture shows the values associated with males including achievement, success, personal gains, money, position materialism, and ambition. Whereas, the feminine culture shows the females' values including caring for relationships and positive perceptions of quality of life. The high score on masculinity indicates that people are more materialistic and ambitious within a society. In contrast, a low score on masculinity shows that individuals give less preference to money, materialist success, and give more importance in developing as well as taking care of relationships (Hofstede, 2011; Hofstede et al., 2010; Blodgett., 2008; Hofstede, 1980).

2.1.5   LONG-TERM VERSUS SHORT-TERM ORIENTATION

The long-term orientation shows the practices for long-term while short-term indicates practices for short-time periods (Thampi et al., 2015). The long-term orientation shows the extent to which individuals show future-oriented perspectives rather than short-term perspectives (Hofstede et al., 2010; Hofstede & Bond, 1988). In short-term oriented cultures, the individuals more prefer their traditional approaches and take a more time to develop relationships. This shows that anything that cannot be done at present moment can be done in future. In contrast, people with long-term orientation look with the perspective of future. People in a long-term orientated society pursue the future or long-term goals and give more importance to rewards.

2.1.6   INDULGENCE VERSUS RESTRAINT

It is a bipolar dimension in which indulgence refers to the tendency to allow free gratification of natural and basic human desires that are associated with enjoying life.

In contrast, the societies with the high restraint cultures view that such gratification needs are to be regulated by its strict norms (Hofstede et al. 2010). In addition, the gratification does not indicate the general human desires but shows enjoying life. For example, individuals belong to the high indulgence cultures pretend to be happy, engage in leisurely and fun-associated activities, and spend more money. Moreover, the individuals in indulgent societies enjoy their life and having fun that are considered to be more important for them than the values of thrift (Kara, 2014). On the other hand, in restraint cultures, the strict social rules and standards exist that give more value to their social traditions and norms. Furthermore, Hofstede et al. (2010) have associated this dimension with the uncertainty avoidance. Additionally, this dimension is associated with loose and tight societies. For example, a loose society accepts alternatives and tolerates deviant behaviours. In contrast, a tight society controls such behavior by group organization and durability formality, solidarity, and permanence (Hofstede et al. 2010). Even though, this dimension is associated with uncertainty avoidance and has a reliable measure as well, but is a relatively new cultural dimension that requires more study (Kara, 2014; Hofstede et al., 2010).

3. HOFSTEDE'S CULTURAL DIMENSIONS AND ENTREPRENEURIAL BEHAVIOURS

Indulgence versus restraint has been recognized an important cultural dimension under various contexts. Dissanayake & Semasinghe (2014) noted that Srilankan entrepreneurs depict more values of indulgence. Moreover, the high indulgence shows that individuals have more tendency to fulfil their desires, and thus, remain happy in their lives. Therefore, entrepreneurs who focus more on leisure activities are optimism and happy in their lives that increase the entrepreneurial motives and intentions (Dissanayake & Semasinghe., 2014). Likewise, Kara (2014) also suggested that this dimension is also relevant with entrepreneurship, and thus, hypothesized the positive influence of indulgence on the entrepreneurship across various regions of European countries. Hofstede et al., (2010) also argued that individuals exhibit more positive emotions and attitudes in indulgent societies than in restraint cultures. Individualism versus collectivism has been found to have the significant impact on the entrepreneurs' behaviours (Morris et al., 1994). Moreover, some studies have found less influence of individualism on entrepreneurs' success and on entrepreneurial behaviours under the context of high collectivistic nations (Zeffane, 2014; Tiessen, 1997). Additionally, researchers considered the collectivism as an antecedent of entrepreneurial competitiveness (Zeffane, 2014). Likewise, studies have related the low uncertainty avoidance with the entrepreneurship by arguing that people can control their environments in low uncertain avoidant societies (Hofstede, 1991). Mc Grath et al. (1992) also argued that the behaviours including innovativeness and risk-taking are embedded in low uncertain avoidant societies. Their study showed that entrepreneurs were having more low uncertainty avoidant values compared to non-entrepreneurs (Mc Grath et al., 1992). Therefore, many studies have associated the high level of high tolerance of ambiguity with the entrepreneurial behaviours under complex environments (Weinzimmer & Nystrom, 2015; Shyti, 2013; Pontikes, 2012). Endres et al. (2009) also considered ambiguity tolerance as an important skill to make high-quality decisions. Moreover, other studies have concluded that low uncertainty avoidance impacts the behaviours of entrepreneurs and enables them to gain unclear goals (Shyti, 2013). Shyti & Paraschiv (2015) have related low uncertainty avoidance with the key characteristic of entrepreneurs. Likewise, the prior researchers have

observed that low power distance is also a key characteristic of successful entrepreneurs (Şahin & Asunakutlu, 2014) that engaged them in more risk-taking behaviours (Ozgen, 2012). Thus, entrepreneurs in low power distance societies were found to depict high entrepreneurial orientations (Engelen et al., 2014). Likewise, some researchers found the negative significant influence of high power distance on entrepreneurship (Şahin & Asunakutlu, 2014; Harun & Mark, 2014). Similarly, researchers have positively related masculinity with start-up intensions (Hayton & Cacciotti, 2013). In addition, Bwisa & Ndolo (2011) claimed for a strong correlation between the need for achievement and entrepreneurial activities of any society. The societies with masculine values prefer more achievement and emphasize on materialistic success through entrepreneurial ventures (Bwisa & Ndolo, 2011). Therefore, it can be assumed that individuals with masculine values will show more essential entrepreneurial behaviours with high masculinity. This is because masculinity considers wealth and materialistic success as the outputs of entrepreneurship (Ostapenko, 2015; Bwisa & Ndolo, 2011). Likewise, many studies found that long-term orientation improves the behaviours of entrepreneurs (Kara 2014; Stephan & Uhlaner., 2010). Similarly, other researchers have considered the importance of long-term orientation for entrepreneurs in developing crucial entrepreneurial behaviours (Cannavale & Wallis, 2015). Thus, based on the existing literature, the values associated with indulgence, collectivism, low uncertainty avoidance, low power distance, masculinity, and long-term orientation have been linked with the essential entrepreneurs' behaviours while operating the SMEs businesses under various contexts. Moreover, since all these six cultural dimensions are different from each other, thus, they are better to form the formative indicators for the cultural orientation (the reflective-formative type of second-order construct).

4. RESEARCH METHODS

4.1 MEASURES

The total measures were 29 in the questionnaire to represent the six cultural dimensions. All the 29 items were adapted/adopted from existing studies. For instance, the five items of high collectivism and seven items of low uncertainty avoidance were adapted from studies of Ahmad (2007), five items of low power distance were adopted from Yoo et al. (2011), four items of masculinity were identified from Hofstede (2001) and Hofstede (1980), three items of long-term orientation were adopted from Yoo et al. (2011), and five items of indulgence were adopted from Urban & Ratsimanetrimanana (2015) and Kara (2014).

4.2 SAMPLE DESIGN AND DATA COLLECTION

The target population included Malaysian entrepreneurs belonged to Malaysian wholesale and retail SMEs. The primary data was collected via a survey conducted at 13 states of West Malaysia including Malacca, Johor, Kuala Lumpur, Negeri Sembilan, Putrajaya, Selangor, Perlis, Kedah, Pahang, Terengganu, Perak, Penang, and Kelantan. Data collection was conducted using snowball and quota sampling and questionnaires were distributed to target respondents. Questionnaires were distributed among 450 Malaysian ethnic business owners including 150 Malay entrepreneurs, 150 Chinese entrepreneurs, and 150 Indian entrepreneurs. Out of these 450 respondents, 42% were male and 58% were female. Less than 10% of business

owners belonged to age group of 21-30 years of age, 37.8% were of age between 31-40 years, 50.2% were between 41 and 50 years, and 6.4% were between the ages of 51–60 years. 7.6% had diploma level education, 63.6% of the total respondents had a bachelor degree whereas 25.8% had a master degree, and 3.1% had the Ph.D. qualification. The non-response bias was not an issue for this study as the data was collected by the researcher with the assistance of enumerators through face to face interaction with the target respondents.

5. DATA ANALYSIS

The partial least squares approach to structural equation modeling (PLS-SEM) was used to validate the model because the model constitutes both reflective and formative constructs and also violates the assumption of multivariate normality (Ali et al., 2016; Gefen & Straub, 2005). PLS-SEM has been now commonly used by different scholars that provides a robust way to analyse the survey data (Herath & Rao, 2009; Simkin & McLeod, 2010). Although, PLS-SEM generally needs an appropriate sample size that should be at least 10 times more than the largest number of construct's indicators in the model (Peng & Lai, 2012). However, G*power analysis is highly recommended in PLS literature to calculate the appropriate sample size (Hair et al., 2017; Hair et al., 2014). We have determined the sample size using G*Power 3 software which is an extension of the previous versions (Faul et al., 2007). Since, our PLS model involves six cultural dimensions, therefore, a minimum sample size of 98 was needed to create a power of 0.80 for our PLS model with medium effect size (Hair et al., 2017: Hair et al., 2014). However, we collected data from 450 business owners that created a power of around 0.99 for our PLS model with medium effect size. Thus, the sample size for our model had exceeded the minimum requirement. The Smart PLS (version 3.2.4; Ringle, Wende, & Becker, 2015) software was used to run the analysis by applying the technique of bootstrapping in order to evaluate the factor loadings' significance, and path coefficients. Moreover, a two-step approach for analysis as proposed by Anderson & Gerbing (1988) was adopted in this study. First, the evaluation of the measurement model was done by performing the reliability and validity analyses on each of the model's measures and then the structural model was analysed by estimating the paths between the model's constructs determining the significance of path relationships and the Goodness of Fit of the model.

5.1 COMMON METHOD BIAS TEST

Since this study has used the same type of respondents (SMEs' business owners) and five-point Likert scale to measure each of the items in the questionnaire, thus, common method bias may arise in this study. A number of researchers have considered it essential to address the issue of common method bias while conducting study among same type of respondents and using same type of Likert scale to measure items (Yüksel, 2017; Palmatier, 2016; Guide & Ketokivi, 2015; Chang et al., 2010; Rönkkö & Ylitalo, 2011; Podsakoff, MacKenzie, and Podsakoff, 2003). Thus, we have seriously analysed the impact of common method bias in this study. Although only a few statistical remedies are available to assess the impact of common method bias for PLS studies, thus, we selected two statistical remedies to detect the common method bias. These techniques involved Harman's single-factor test and correlation

matrix procedure. These tests were performed prior data analysis to identify the issue of common method bias in this study. These are explained as below:

5.1.1 HARMAN'S SINGLE-FACTOR TEST

This study has employed Harman's single factor test as proposed by Podsakoff et al. (2003). In this test, all the items used for this study were entered into a principal component analysis (PCA) with unrotated factor solution to identify if a single factor emerges or one general factor accounts for more than 50% of the co-variation. The results extracted four dimensions from 29 items that were accountable for 61.503% of the total variance. The first factor captured only 48.115% of the variance in data. Moreover, the single factor did not emerge and the first factor also did not produce most of the variance as shown in Table 1. Thus this study did not have a serious problem with common method variance.

Table 1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.953	48.115	48.115	13.953	48.115	48.115
2	1.577	5.439	53.554	1.577	5.439	53.554
3	1.269	4.377	57.931	1.269	4.377	57.931
4	1.036	3.572	61.503	1.036	3.572	61.503
5	.992	3.422	64.925			
6	.889	3.065	67.989			
7	.716	2.469	70.458			
8	.618	2.131	72.589			
9	.563	1.943	74.531			
10	.538	1.856	76.387			
11	.529	1.823	78.210			
12	.516	1.780	79.990			
13	.488	1.683	81.673			
14	.475	1.638	83.311			
15	.426	1.468	84.779			
16	.422	1.457	86.236			
17	.399	1.375	87.611			
18	.388	1.337	88.947			
19	.372	1.282	90.229			
20	.354	1.222	91.452			
21	.349	1.204	92.655			
22	.323	1.115	93.770			
23	.319	1.099	94.869			
24	.292	1.008	95.877			
25	.278	.957	96.834			
26	.252	.870	97.704			

27	.236	.814	98.518			
28	.222	.766	99.284			
29	.208	.716	100.000			

Extraction Method: Principal Component Analysis.

5.1.2 CORRELATION MATRIX PROCEDURE

This study has also determined common method bias by using the correlation matrix procedure. This method was proposed by Bagozzi, Yi, & Phillips (1991), according to them, a substantially large (r > 0.9) correlation among the principal constructs is evident for the existence of common method bias. Thus, the latent variable's correlations were examined among the principal constructs in the correlation matrix, that were not found more than 0.9 between constructs as shown in Table 2. This is the other evidence regarding the lack of common method bias in this study.

Table 2: Latent Variable Correlation

	Collectivism	Cultural Orientations	Indulgence	Long-term orientation	Low power distance	Masculinity	Low uncertainty avoidance
Collectivism	1						
Cultural Orientations	0.862	1					
Indulgence	0.706	0.852	1				
Long-term orientation	0.667	0.782	0.635	1			
Low power distance	0.695	0.851	0.655	0.609	1		
Masculinity	0.652	0.824	0.653	0.608	0.663	1	
Low uncertainty avoidance	0.663	0.870	0.648	0.618	0.654	0.667	1

Since, the issue of common method bias was not found in this study, thus, the data is safe for further analysis. As this study deals with the hierarchical component model, thus, the concept of this type of model has been explained as below prior to measurement and structural model analysis.

6. CONCEPTUAL BACKGROUND OF HCM

The terms such as hierarchical latent variable models, second-order constructs, higher-order constructs, or hierarchical component models represent the multidimensional constructs that occur at a higher level of abstraction that are related to other constructs at the similar abstraction's level and completely mediate the impact to or from their underlying dimensions (Becker et al., 2012; Chin, 1998). In addition, Law et al. (1998) defined a multidimensional construct as a construct when it consists of some interrelated dimensions or attributes and when its sub-dimensions can be conceptualized via overall abstraction which is theoretically more meaningful and parsimonious to use as the representation of all dimensions. Generally, the second-order constructs are characterized by the relationships such as reflective or

formative between the model's constructs (Ringle et al., 2012; Wetzels et al., 2009) and by the levels' number in the model (Becker et al., 2012). According to Becker et al. (2012), a second-order construct is a common concept that can be represented as reflective or formative by its sub-dimensions which are also known as first or lower-order constructs. In type 1 model or reflective-reflective HCM type, the first-order latent constructs are reflectively measured and highly correlated with each other but can be distinguished from each other. Moreover, this type of model is also known as hierarchical common factor model because the second-order construct indicates the common factor of many particular factors (Becker et al., 2012). On the other hand, in type II model which is reflective-formative HCM type, the first-order constructs are reflectively measured that form a general concept that mediate the impact on corresponding endogenous variables but do not share a common cause among themselves (Chin, 1998). Since each of the Hofstede's cultural dimensions represents a separate concept, thus, these dimensions are not conceptually united and do not share a common cause among themselves, therefore, cultural orientation has been taken as reflective-formative type II second-order construct.

6.1 ESTIMATION OF HOC IN PLS-SEM THROUGH REPEATED INDICATOR APPROACH

In the repeated indicator approach, a higher-order construct can be constructed by specifying a construct that indicates all the items of the underlying lower-order construct (Becker et al., 2012; Lohmöller, 1989; Wold, 1982). Thus, the cultural orientation as a second-order construct constitutes six dimensions including indulgence, collectivism, low uncertainty avoidance, low power distance, masculinity, and long-term orientation as underlying first-order constructs, each with their specific manifest variables as shown in Table 3, therefore, cultural orientation as a second-order latent construct can be specified using all (twenty-nine) manifest variables of the underlying dimensions that are taken as first-order constructs. Consequently, the items or the manifest variables have been used twice: (i) for the first-order latent constructs where they represent primary loadings, and (ii) for the second-order construct where they are again taken as secondary loadings. Thus, the measurement model or outer model has been specified in this way. Moreover, the structural model or inner model accounts for the HCM, where the path coefficients between the second-order and first-order constructs represent the weights of the second-order construct. This is because the cultural dimensions have been taken as formative indicators for the second-order construct.

Table 3: Indicators of Constructs

Cultural Dimensions (First-Order Constructs)	Manifest Variables of First Order Constructs	Number of Manifest Variables
Indulgence	IND1, IND2, IND3, IND4, IND5	5
Collectivism	HC1, HC2, HC3, HC4, HC5	5
Low uncertainty avoidance	UT1, UT2, UT3, UT4, UT5, UT6, UT7	7
Low power distance	LPD1, LPD2, LPD3, LPD4, LPD5	5

Masculinity	MAS1, MAS2, MAS3, MAS4	4
Long-term orientation	LT1, LT2, LT3	3
Total items:		**29**

The main benefit of the repeated indicator approach is that it is able to estimate all the latent variables simultaneously instead of estimating the higher-order and lower-order constructs separately. Thus, it avoids the interpretational confounding by taking the whole nomological network into consideration (Becker et al., 2012). While using the approach of repeated indicator, the researchers have to decide regarding the measurement's mode for the higher-order latent variable as well as for the inner weighting scheme. For any latent variable in a PLS-SEM model, the measurement's mode is needed to be specified for the higher-order repeated indicators that is either known as "Mode A" or "Mode B". Generally, "Mode A" measurement is related to the reflective latent variables and "Mode B" is related to formative latent variables (Henseler et al., 2009). However, the standard approach is to use Mode A for the repeated indicators on a hierarchical construct (Wold, 1982) which is usually suitable for reflective-reflective type models. Thus, Mode A is also used to estimate the formative type models, specifically when the first-order latent variables are reflective (reflective-formative type) (Ringle et al., 2012; Chin, 2010). Since, the six cultural dimensions have been taken as the reflective first-order construct in this study but as formative indicators for the second-order construct, therefore, Mode A was used for the higher-order repeated indicators.

6.1.1 ASSESSMENT OF MEASUREMENT MODEL

First of all, the measurement model was evaluated for the convergent validity. This was examined through the factor loadings, composite reliability (CR), and average variance extracted (AVE) (Hair et al., 2017; Hair et al., 2014; Hair et al., 2006). Internal consistency of the constructs was measured using composite reliability (CR) as proposed by Hoffmann & Birnbrich (2012). For CR, 0.70 is the threshold criterion (Herath & Rao, 2009) and all the latent variables involved in this study exceeded the threshold criterion. Moreover, the convergent validity of the constructs was assessed by assessing the factor loadings as well as the average variance extracted (AVE). According to Hair et al. (2017), the factor loadings are acceptable between 0.6-0.7 for social science studies. Likewise, the AVE value above 0.5 suggests an adequate convergent validity (Hair et al., 2017; Bagozzi & Yi, 1988). All the latent variables involved in this study were having factor loadings and AVEs above their recommended levels. Table 4 shows the factor loadings, results of CR, Cronbach's alpha, Rho_A, and AVE for all the constructs. Moreover, Figure 1 shows the factors' loadings and path coefficients that have been obtained from PLS-Algorithm.

Table 4: Assessment of AVE, CR, Cronbach's Alpha, and Rho_A

	Items	Factor loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Collectivism	HC1	0.765	0.848	0.848	0.891	0.621
	HC2	0.781				
	HC3	0.811				

	HC4	0.792				
	HC5	0.791				
Indulgence	IND1	0.799	0.894	0.896	0.922	0.703
	IND2	0.875				
	IND3	0.856				
	IND4	0.827				
	IND5	0.833				
Long-term orientation	LT1	0.841	0.765	0.765	0.865	0.681
	LT2	0.789				
	LT3	0.844				
Low power distance	LPD1	0.794	0.898	0.899	0.925	0.711
	LPD2	0.840				
	LPD3	0.874				
	LPD4	0.875				
	LPD5	0.828				
Masculinity	MAS1	0.790	0.817	0.818	0.880	0.647
	MAS2	0.788				
	MAS3	0.790				
	MAS4	0.847				
Low uncertainty avoidance	UT1	0.835	0.916	0.916	0.933	0.665
	UT2	0.849				
	UT3	0.816				
	UT4	0.817				
	UT5	0.788				
	UT6	0.825				
	UT7	0.775				

Discriminant validity was assessed using three criteria including cross-loadings, Forner-Lacker criterion, and HTMT as suggested by Hair et al. (2017). In assessing the cross-loadings, the outer loading of an item should be greater on its respective latent variable than its cross-loadings on other latent variables. Table 5 reveals that outer loading of each indicator was greater on its respective latent variable than its cross-loadings on any other latent variables.

Table 5: Cross Loadings

	Collectivism (HC)	Indulgence (IND)	Low power distance (LPD)	Long-term orientation (LT)	Masculinity (MAS)	Low uncertainty avoidance (UT)
HC1	0.765	0.558	0.574	0.489	0.495	0.550
HC2	0.781	0.600	0.542	0.517	0.537	0.500
HC3	0.811	0.571	0.534	0.542	0.532	0.518
HC4	0.792	0.536	0.551	0.551	0.499	0.539
HC5	0.791	0.518	0.536	0.530	0.505	0.504
IND1	0.559	0.799	0.494	0.513	0.515	0.469
IND2	0.632	0.875	0.574	0.54	0.562	0.595
IND3	0.592	0.856	0.578	0.555	0.563	0.574
IND4	0.582	0.827	0.527	0.497	0.530	0.515
IND5	0.593	0.833	0.566	0.554	0.565	0.556

LPD1	0.539	0.490	0.794	0.465	0.530	0.525
LPD2	0.610	0.595	0.84	0.548	0.577	0.558
LPD3	0.570	0.564	0.874	0.506	0.565	0.560
LPD4	0.624	0.548	0.875	0.520	0.578	0.554
LPD5	0.583	0.558	0.828	0.526	0.543	0.557
LT1	0.518	0.513	0.471	0.841	0.469	0.478
LT2	0.588	0.521	0.510	0.789	0.520	0.526
LT3	0.544	0.536	0.524	0.844	0.513	0.522
MAS1	0.504	0.501	0.503	0.521	0.790	0.497
MAS2	0.542	0.514	0.562	0.484	0.788	0.530
MAS3	0.501	0.526	0.552	0.503	0.790	0.538
MAS4	0.550	0.558	0.515	0.451	0.847	0.578
UT1	0.535	0.539	0.548	0.501	0.549	0.835
UT2	0.573	0.548	0.546	0.502	0.551	0.849
UT3	0.509	0.521	0.522	0.491	0.533	0.816
UT4	0.554	0.519	0.549	0.516	0.512	0.817
UT5	0.546	0.518	0.517	0.528	0.546	0.788
UT6	0.517	0.533	0.529	0.470	0.543	0.825
UT7	0.546	0.522	0.518	0.517	0.574	0.775

The second approach to examine the discriminant validity is the Fornell-Larcker criterion where the square root of AVE of each of the latent variables should be greater than its correlation with other latent variable. Using this approach, we have found that square root of AVE of each of the latent variables was greater than its correlation with other latent variable as shown in Table 6.
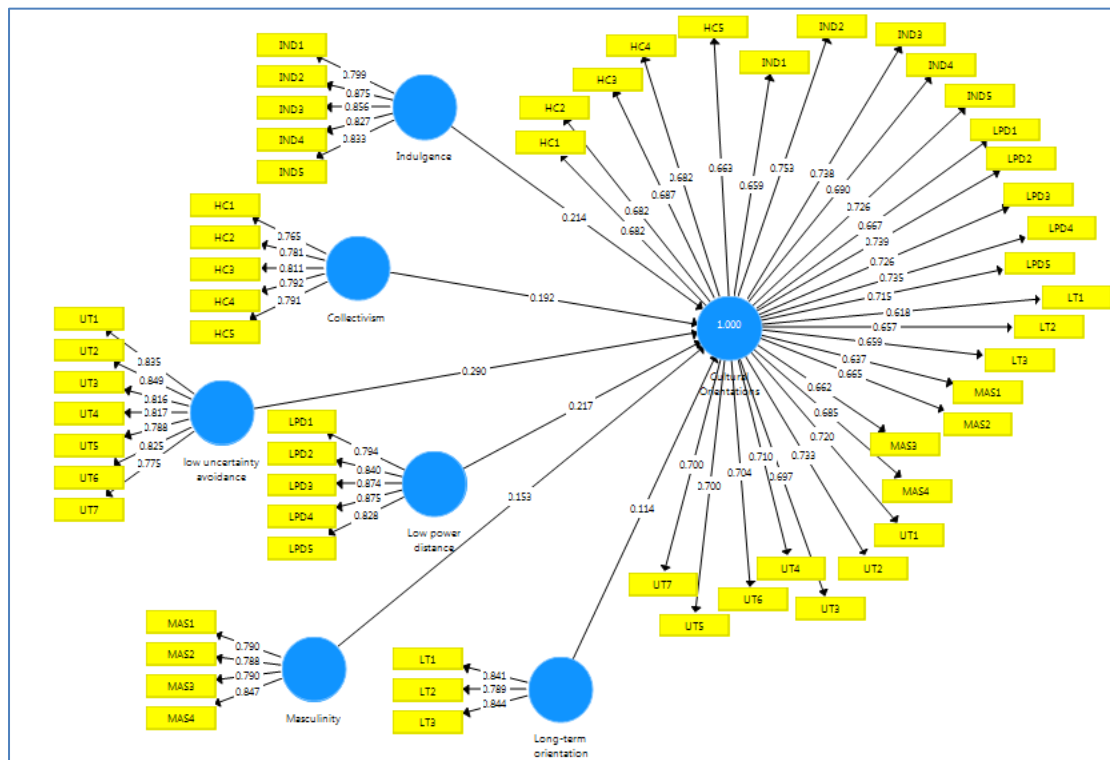
TABLE 6: Fornell-Larcker Criterion

	Collectivism	Indulgence	Long-term orientation	Low power distance	Masculinity	Low uncertainty avoidance
Collectivism	0.788					
Indulgence	0.706	0.838				
Long-term orientation	0.667	0.635	0.825			
Low power distance	0.695	0.655	0.609	0.843		
Masculinity	0.652	0.653	0.608	0.663	0.804	
Low uncertainty avoidance	0.663	0.648	0.618	0.654	0.667	0.815

Henseler et al. (2015) have suggested the assessment of the correlations' heterotrait-monotrait ratio (HTMT) to examine the discriminant validity. This recent approach shows the estimation of the true correlation between two latent variables. A threshold value of 0.90 has been suggested for HTMT (Henseler et al., 2015). Above 0.90 shows a lack of discriminant validity. Furthermore, the confidence interval of the HTMT should not involve the value of 1. Table 7 shows that HTMT criterion has been fulfilled for our PLS model.

Table 7: HTMT Criterion

	Collectivism	Indulgence	Long-term orientation	Low power distance	Masculinity	Low uncertainty avoidance
Collectivism						
Indulgence	0.811 (0.743, 0.860)					
Long-term orientation	0.827 (0.757, 0.885)	0.767 (0.700, 0.830)				
Low power distance	0.796 (0..734, 0.843)	0.729 (0.657, 0.783)	0.733 (0.658, 0.796)			
Masculinity	0.783 (0.723, 0.840)	0.763 (0.700, 0.818)	0.769 (0.698, 0.833)	0.774 (0.715, 0.832)		
Low uncertainty avoidance	0.752 (0.686, 0.815)	0.715 (0.644, 0.775)	0.737 (0.665, 0.806)	0.721 (0.657, 0.778)	0.771 (0.711, 0.822)	

Figure 1: Evaluation of Measurement Model Through PLS Algorithm

7. GOODNESS-OF –FIT INDEX

Tenenhaus et al. (2005) suggested a PLS (GoF) in order to validate the PLS model that is used as a fit measure in CB-SEM but is not able to separate the valid models from invalid models. According to Hair et al. (2017), Henseler et al. (2014) assessed the efficiency of standardized root mean square residual's (SRMR), a model fit measure used in CB-SEM but was not previously applied for PLS-SEM. The SRMR refers to the root mean square discrepancy between the observed and model-implied correlations (Hair et al. (2017). Moreover, the SRMR shows an absolute fit measure where a value of zero indicates a perfect fit. Hu & Bentler (1998) suggested that a value of less than 0.08 represents a good fit while applying SRMR under the context of CB-SEM. A value of 0.072 was found for SRMR for PLS model that indicates a good fit.

8. SECOND ORDER CONSTRUCT ASSESSMENT

The formative indicators may have positive, negative, or even no correlations among themselves (Wong, 2013). Thus, the internal indicator reliability, consistency reliability, and discriminant validity are usually not reported under the context of a formative measurement scale. This is because AVE, CR, and outer loadings are meaningless for any construct that constitutes uncorrelated measures (Wong, 2013). However, only two main criteria were used by researchers for assessing the formative measurement's measurement model (Hair, Ringle, & Sarstedt, 2011) including significance and relevance of indicator weights and indicator collinearity. Recently, Hair et al. (2017) mentioned three basic steps including (i) evaluating the convergent validity; (ii) evaluating the collinearity issues; (iii) and evaluating the significance and relevance of formative indicators. Thus, following Hair et al. (2017), cultural orientation as the reflective-formative construct has been treated as follows:
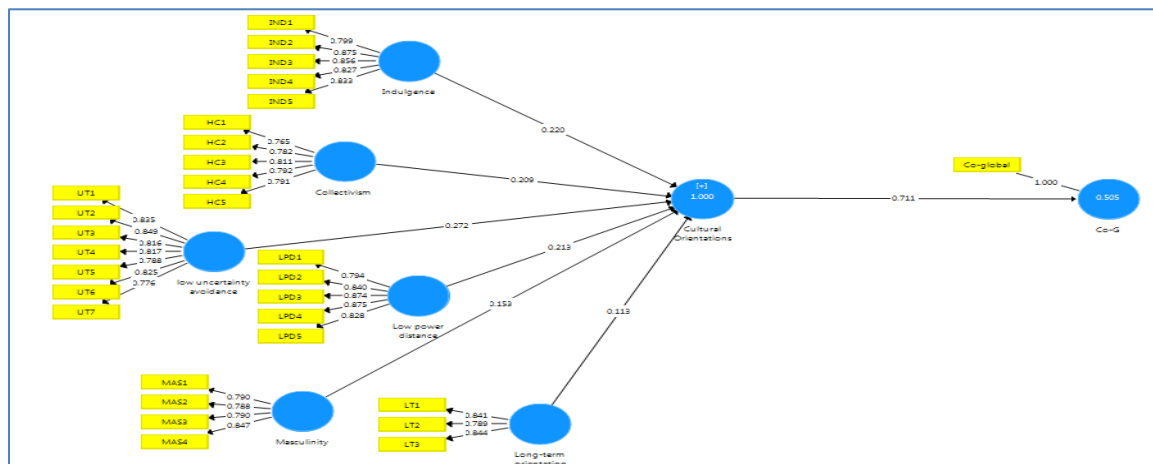
8.1 EVALUATION OF REFLECTIVE-FORMATIVE MEASUREMENT MODEL

8.1.1 ASSESSMENT OF CONVERGENT VALIDITY

Hair et al. (2017) mentioned two ways to assess the convergent validity of the formative latent variables. The first approach is to examine the correlation between the formative latent variable and its other reflective measures. The path coefficient's magnitude should be at least 0.70 between two constructs and R^2 value should be minimum of 0.50 for endogenous construct (Hair et al., 2017). However, to avoid the respondent's fatigue and decreased response rates, we used second way in which we used a global item to examine the validity of reflective-formative construct (Hair et al., 2017). The global item of cultural orientation summarized the construct's essence. Moreover, the global measure was self-constructed that was well pretested among experts before including in the survey instrument for data collection to assess the convergent validity of the cultural orientation. The analysis shows the magnitude of 0.711 for the path coefficients between the constructs and the R^2 value of 0.505 for the endogenous construct (see Figure 2).

Figure 2: Assessment of Convergent Validity of Second-Order Construct

8.1.2   EVALUATION OF INDICATOR'S COLLINEARITY

The high correlations are usually not expected between the indicators of formative measurement models. Moreover, the high correlation between formative items indicates collinearity that is considered problematic (Hair et al., 2014). We have examined the collinearity between the formative items of the construct by examining the value of Variance Inflation Factor (VIF). As we deal with reflective-formative type of second-order construct in this study, thus, we employed inner VIF values to examine the issues of collinearity. Therefore, we have evaluated the constructs including HC, IND, LTO, LPD, MAS, and UT for collinearity as predictors of cultural orientation (CO). According to Hair et al. (2017), the threshold value of VIF is less than 5. The Table 8 shows the value of VIF of all the predictor constructs was less than 5, therefore, collinearity is not an issue between the constructs' formative indicators (Hair et al., 2014; Hair et al., 2011).

Table 8: VIF Values

Formative constructs	VIF values
Collectivism	2.842
Indulgence	2.556
Long-term orientation	2.185
Low power distance	2.502
Masculinity	2.414
Low uncertainty avoidance	2.416

8.1.3   EVALUATION OF SIGNIFICANCE AND RELEVANCE OF INDICATOR WEIGHTS

The significance of weight of each indicator reveals the relative importance and the loading represents the absolute importance that can be examined through bootstrapping. The bootstrapping procedure requires cases of at least equal in number

to original sample's observation (Hair et al., 2011). Smart PLS (version 3.2.4; Ringle et al., 2015) was used to examine the significance and relevance of indicators' weights. The bootstrapping procedure using 1000 resamples was used (Ramayah et al., 2014; Chin, 2010) to assess the significance of weights of the formative indicators. Lohmöller (1989) recommended >0.1 weight for an indicator. The results reveal that the indicators' weights were above the recommended value of 0.1. Table 9 and Figure 3 reveal that all weights of formative indicators were having significant t-values that have provided an empirical support to retain all the indicators (Hair et al., 2011). Moreover, Table 10 also provides the confidence interval as well as t values for formative indicators that have provided additional evidence regarding the significance of weights as 0 did not occur between the higher and lower values of confidence intervals.
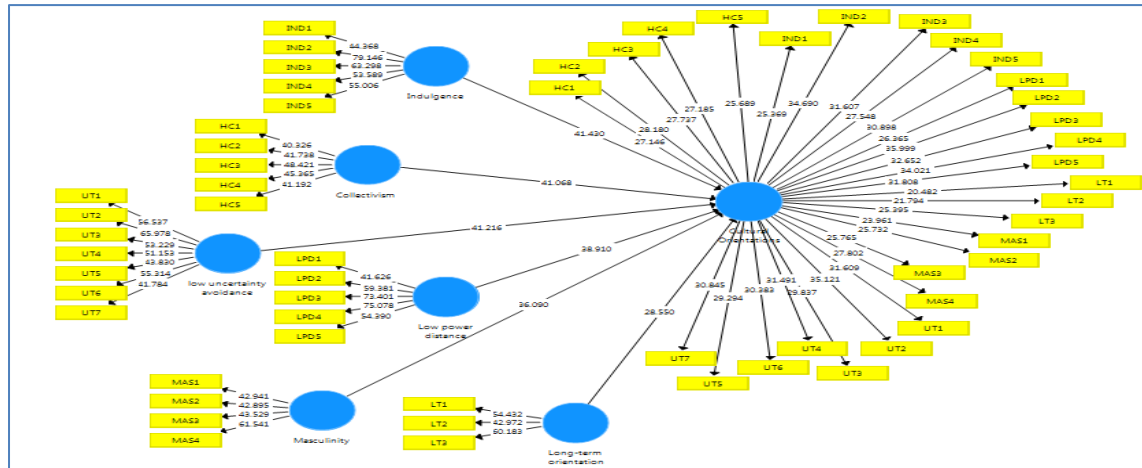
Table 9: Testing of Significance of Weights

Relationships	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Collectivism -> Cultural Orientations	0.192	0.192	0.005	***41.068	0
Indulgence -> Cultural Orientations	0.214	0.214	0.005	***41.430	0
Long-term orientation -> Cultural Orientations	0.114	0.114	0.004	***28.550	0
Low power distance -> Cultural Orientations	0.217	0.217	0.006	***38.910	0
Masculinity -> Cultural Orientations	0.153	0.153	0.004	***36.090	0
Low uncertainty avoidance -> Cultural Orientations	0.290	0.290	0.007	***41.216	0

Note: Critical t values ***2.57 (significance level= 1%)

Table 10: Confidence Interval

Second Order Construct	Formative Indicators	Chinese Sample (N=150)		
		P Value	95% BCa Confidence Interval	Significance (p≤0.05)?
Cultural Orientation (CO)	Collectivism	0.000	(0.183, 0.201)	Yes
	Indulgence	0.000	(0.205, 0.225)	Yes
	Long-term orientation	0.000	(0.106, 0.122)	Yes
	Low power distance	0.000	(0.206, 0.227)	Yes
	Masculinity	0.000	(0.145, 0.161)	Yes
	Low uncertainty avoidance	0.000	(0.276, 0.304)	Yes

Figure 3: Evaluation of Significance and Relevance of Indicator Weights

9. EVALUATION OF PREDICTIVE RELEVANCE (Q2)

According to Chin et al. (2008). for predictive relevance, the predictive sample reuse technique (Q^2) can be used as a criterion. The Q^2 assesses the predictive validity through the blindfolding procedure in which data is omitted for a given block of indicators and then the omitted part is predicted based on the calculated parameters. Therefore, Q^2 shows how well the empirically collected data can be reconstructed with the help of model and the parameters of PLS-SEM (Hair et al., 2017; Akter et al., 2011). Q^2 was obtained through cross-validated redundancy procedure as proposed by Chin (2010). As per Hair et al. (2017), the model has predictive relevance when Q^2 is greater than 0 whereas the model lacks predictive relevance when Q^2 less than 0. Moreover, the guidelines for evaluating the Q^2 value indicate that values of 0.02, 0.15, 0.35 represent small, medium, and large relevance for a specific endogenous latent variable (Hair et al., 2014). Table 11 shows that 0.479 was the Q^2 value for cultural orientation that represents large relevance for the endogenous construct (i.e, cultural orientations).

Table 11: Q^2 of the Cultural Orientation

	SSO	**SSE**	**Q^2 (=1-SSE/SSO)**
Collectivism	2,250.00	2,250.00	
Cultural Orientations	13,050.00	6,795.71	0.479
Indulgence	2,250.00	2,250.00	
Long-term orientation	1,350.00	1,350.00	
Low power distance	2,250.00	2,250.00	
Masculinity	1,800.00	1,800.00	
Low uncertainty avoidance	3,150.00	3,150.00	

10. DISCUSSION AND CONCLUSION

Cultural orientation has been considered as an important factor in shaping the entrepreneurs' behaviours. Thus, a number of studies have been conducted in order to investigate the impact of cultural values on behaviours of individuals under various contexts. Hofstede's cultural framework is widely studied to examine the impacts of its underlying cultural dimensions on the behaviours of the entrepreneurs. Likewise, Hofstede's cultural values have been used in Malaysian studies to assess their influence on individuals' behaviours, however, based on our best knowledge, the new cultural dimension of Hofstede's cultural framework i.e, indulgence versus restraint has been not studied yet under the Malaysian context. Moreover, although the existing studies have taken the Hofstede's cultural dimensions as the formative indicators (Thien et al., 2014), however, did not analyse the convergent validity of the formative indicators according to the recent PLS-SEM approach suggested by Hair et al. (2017). Thus, this study has not only found the indulgence as a significant formative indicator for the cultural orientation but also analysed the formative indicators using the recent PLS-SEM approach. This study has provided a guide line to future researchers to deal with the formative indicators of reflective-formative second order constructs using three step approach as proposed by Hair et al. (2017). Moreover, it has drawn attention to the issue of common method bias while using the same type of respondents and the same type of Likert scale during survey. Thus, it has two major contributions to the existing body of knowledge, firstly, it has provided an empirical evidence the regarding existence of the specific cultural dimensions including low power distance, masculinity, low uncertainty avoidance, collectivism, long-term orientation, and indulgence under the context of Malaysian entrepreneurs of wholesale and retail SMEs. Secondly, it has provided an illustration using the recent PLS-SEM approach to validate the reflective-formative second-order constructs and raised the issue of common method bias for any study using data from the same type of respondents and using the same type of Likert scale.

Despite the significance of this study, there are some limitations as well. For instance, this study did not include the content validity process through which the selected dimensions of Hofstede's cultural framework have been included in the study. In addition, since, it was conducted under the context of Malaysian entrepreneurs, but it did not investigate the differences among the Malaysian ethnic entrepreneurs with respect to their cultural orientations. Likewise, this study has used only two statistical techniques to detect the issue of common method bias but did not use any statistical approach to control the impact of common method bias on the findings of this study.

Thus, to overcome the above study's limitations, this study recommends describing the process of content validity in details through which the researchers can select specific dimensions of culture in any multi-cultural society like Malaysia. Moreover, the further studies should examine the differences among Malaysian ethnic entrepreneurs with respect to their cultural values. Additionally, the researchers should address the issue of common method bias seriously while using the collected data from same kind of entrepreneurs and using the same type of Likert scale. This is because common method bias may have the negative impact on the results of any study and can mislead conclusion and implications (Yüksel, 2017; Chang et al., 2010; Rönkkö & Ylitalo, 2011). This study strongly recommends the future studies to collect data from different types of respondents through different types of Likert-

scale. If researchers are not able to do so, then, they are needed to control the influence of common method bias from the results of their study.

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