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Parallel Session: Re-clarification of corporate character scale (Davies et al., 2003) in upscale hotels

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Re-Clarification of Corporate Character Scale (Davies et al., 2003) in Upscale Hotels

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***Abstract:** This study examines the robustness of corporate character scale (CCS) in hotel industry in Malaysia via parallel analysis of factor analytic methods. A total of 529 respondents were surveyed for the purpose with Shangri-La and Hilton as sample hotels. Principal Axis Factoring and Principal Component Analysis and LISREL 8.8 were used to analyze the scale. Results show four instead of five factors scale and all factors meet necessary validity and reliability requirements.*

***Keywords:** Corporate Character Scale; Factor Analysis; Parallel Analysis; Hotel*

1. Introduction

Organizations find challenges in differentiating their business from those of others in this achieving their competitive advantage in today's business world. Using solely functional or utilitarian values to differentiate their products or services brand makes more difficult to sustain in the market, thus, introducing the symbolic meanings of a particular brand becomes essential. Therefore, scholars have suggested that marketers should create and a meaningful differentiation through symbolic values that is through personality (Aaker 1997, Davies, et al., 2004).

The corporate character scale (CCS) was introduced by Davies and colleagues (2003) to assess organization reputation by adopting human personality trait theory. The authors personify organization as a person, imbued with human characters or personality traits. By doing so, it facilitates the creation of corporate brand image by stakeholders particularly consumers (Syed Alwi & da Silva, 2007). CCS has been linked to organization distinctiveness and stakeholders' satisfaction (Chun & Davies, 2006). Despite its predictive ability, its adoption in the Southeast Asian region has been limited (e.g. Chetthamrongsai, 2010) particularly in the lodging and accommodation (i.e. hotel) industry.

The five dimensions of CCS have showed robust factor structure in retail context, however its factor structure in the lodging industry has yet to be examined. Thus, the objective of this current study is to investigate the robustness of CCS in the lodging industry particularly for upscale 5-star hotels which placed paramount focus on brand image building. The intention is to establish CCS as reliable scale to measure upscale hotels corporate reputation.

2. Corporate Character Scale – The Trait Approach

The appeal to human traits or characters plays a pivotal role in consumers purchasing behaviors (Freling et al., 2010). Most empirical studies confirm the influence of these characters to the overall brand personality concept (Eisend et al., 2013). In service, brand personality or characters may create differentiated identity in hotels when the functional attributes are no longer insufficient to create unique service offerings (O'Neill & Matilla, 2010). As these characters become salient hotel attributes, they are essentially the decisive reason for hotel guests to choose and stay in a particular hotel or eat in a restaurant (Siguaw et al., 1999). One known measurement of characters is the corporate character scale (CCS) originated from the study of Davies and colleagues (2003). CCS is defined as 'how a stakeholder distinguishes an organization, expressed in terms of human characteristics' that concern on perception of corporate reputation (Davies et al., 2004). They use CCS to measure organization reputation by

adopting the lexical approach of human trait descriptors via personification metaphor of ‘company as person’.

Although there are several existing measurement of corporate reputation, CCS is intended to associate human characteristics to organization to which stakeholders, especially customers, could easily relate to³.

CCS comprises 5 first-order factors (i.e. dimensions) reflected by 43 trait items. Davies and colleagues (2003) uncovered 7 factors in their seminal study, however 2 factors (machismo, and informality) were later dropped on their subsequent study (Chun and Davies, 2006) (Please refer to Table 1). The remaining dimensions show significant construct validity in one study (see Chetthamrongchai, 2010), while another study remove several items to achieve good fitting measurement model (see Syed Alwi and da Silva, 2007). Notably, Da Silva and Syed Alwi (2006) adopt CCS to compare corporate brand image of virtual retailer versus bricks and mortars retailer in a British context. Their findings reveal that agreeableness, enterprise, competence, chic and informality are very much relevant in bricks and mortar context in explaining corporate brand image. However, in the context of virtual environment, only agreeableness, enterprise, competence and chic becomes more relevant. Yet, a study by Chetthamrongchai (2010) proves that all five dimensions of CCS are replicable. In another study, Whelan and Davies (2007) investigate the image of Tesco in another non-British market i.e. Ireland. Findings reveal that Tesco’s corporate character in Ireland focuses more on ruthless and competence. They further argue that Tesco Ireland may have acquired certain negative associations as it is a British company in the Irish market.

Table 1 – Corporate Character Scale

Dimensions	Facet	Items
Agreeableness	Warmth	Friendly, pleasant, open, straightforward
	Empathy	Concerned, reassuring, supportive, agreeable
	Integrity	Honest, sincere, trustworthy, socially responsible
Competence	Conscientiousness	Reliable, secure, hardworking
	Drive	Ambitious, achievement-oriented, leading
	Technocracy	Technical, corporate
Enterprise	Modernity	Cool, trendy, young
	Adventure	Imaginative, up to date, exciting, innovative
	Boldness	Extrovert, daring
Chic	Elegance	Charming, stylish, elegant
	Prestige	Prestigious, exclusive, refined
	Snobby	Snobby, elitist
Ruthlessness	Egotism	Arrogant, aggressive, selfish
	Dominance	Inward-looking, authoritarian, controlling

Source: Davies *et al.*, 2003

³ Corporate reputation can be defined as “the collective perception about a firm’s past behavior and outcomes from a multiple stakeholder perspective” (Shamma and Hassan, 2009). Thus, public’s perceptions about company’s reputation is vital to gain public attention and sustain their corporate reputation (Shamma and Hassan, 2009).

Recently, Avis (2012) addresses few underlying concerns in adopting human personality trait theory into branding in general. One of them is composition of factors and items in the measurements which have always been proven to be culturally driven (e.g. Rojaz-Méndez et al., 2013). Replication of CCS in the hotel industry is still unknown. It faces the greatest challenges due to the ever growing volume and hyper competition. The increasing customers demand with the increasing market competition pushes hotel brands to seek differentiation and sustain competitive advantage. Leveraging on the brand characters or personality is promising. The current study examines the robustness of CCS mainly using factor analytic methods. Recent studies in scale development and validation have stressed on the use of Horn's (1965) parallel analysis (PA) as a decision rule to determine the numbers of factors to be retained (Garrido et al., 2013). Thus, this study will adopt PA to decide factors that should be remained. Exploratory factor analysis (EFA) will be then constrained to numbers of factors identified from the results of PA. The study will then investigate construct validity of the extract factors using confirmatory factor analysis (CFA).

2.1. Methodology

2.1.1. Sample and Survey Instrument

The study distributed questionnaires to several business schools in Kuala Lumpur public universities. A total of 529 responses were collected from MBA students (Male = 52%, 58.2% between 21 to 40 years old). Only 3.8% were full-time students while others were doing the MBA degree on a part-time basis. There were two versions of the questionnaire in which respondents were asked to evaluate the brand personality (i.e. characters) of Shangri-La and Hilton hotels⁴. In the first section of the questionnaire, respondents were asked, 'If you were to imagine Shangri-La [Hilton] hotel has come to life as a human being, please rate the following characters that you believe would best describe the hotel on the following items.' This was followed by the lists of 43-items corporate character scale (CCS) adopted from Chun and Davies (2006). It is a reflective scale comprises five first-order dimensions – 12-item agreeableness (facets: warmth, empathy and integrity), 9-item enterprise (facets: modernity, adventure, and boldness), 8-item competence (facets: conscientiousness, drive, and technocracy), 8-item chic (facets: elegance, prestige, and snobbery), and 6-item ruthless (facets: egotism, and dominance). All items were measured using 6-point Likert scale (1 = strongly agree, 6 = strongly disagree). In the second section, respondents filled up several demographics data after completing the CCS items.

2.1.2. Outliers and Normality

All cases were transformed to z-score values. The study removed all cases that were more than ± 3.0 values (Ng, 2010). Sixty five outlier cases were deleted, thus only 464 cases were further analyzed. Item-to-response ratio was 10:1 which exceeded the recommended ratio of 5:1 (Hair et al., 2010). The remaining cases showed significant violations of multivariate normality (Small (1980) test of multivariate normality, $p < .001$) (DeCarlo, 1997). This was supported by Mardia (1970) multivariate kurtosis and skewness ($p < .001$). However, both principal component analysis (PCA) and exploratory factor analysis (EFA) in SPSS 18 do not require data to meet multivariate normality assumption.

2.1.3. Factor Clarification

Horn's parallel analysis (PA) (1965) was performed to identify the number of latent factors (Crawford et al., 2010; Hayton et al., 2004; Reise et al., 2000; Schmitt, 2011). Using STATA 13, PA with principal

⁴ A pre-study identified that most hotel patrons were highly aware of Shangri La and Hilton hotels when asked to recall a five star rating hotels in KL. Probably because these hotels are actively promoting their brand image in the mass media. Thus, the study decided that these hotels becomes the stimuli for the current study.

axis factoring (PAF) method of extraction was ran at 95th percentile eigenvalues of 10,000 iterations (Crawford et al., 2010, Dinno, 2009; O’Connor, 2000). PA-PAF resulted in 4 latent factors with adjusted eigenvalues > 1 (Refer to Table 2).

Component or Factor	Adjusted Eigenvalue	Unadjusted Eigenvalue	Estimated Bias
1	10.08	11.16	1.08
2	5.82	6.86	1.04
3	2.93	3.94	1.00
4	1.18	2.13	0.94
5	0.85	1.72	0.87

2.1.4. Exploratory Factor Analysis

In the following step, the study ran exploratory factor analysis (EFA), specifically using principal axis factoring (PAF) with oblimin rotation and constraining the extracted factor to 4 using SPSS 18. This resulted in reflective items which grouped to each 4 latent factors. Following suggestion from Hair et al. (2010), items that did not meet the minimum communalities values of .50 were removed. After 3 EFA-PAF iterations, all items showed communalities exceeding the recommended value (Please refer to Table 3). However, 2 items (prestigious, and refined) showed weak item loading values of less than .50, while 1 item (up-to-date) cross-loaded into another factor (> .40). The study then ran a separate principal component analysis (PCA) with varimax rotation to each individual factor to remove weak loading items (Conway & Huffcutt, 2003), however PCA results indicated that all items showed strong item loadings (> .70) to their respective factors. In the following analysis stage, the removal of weak and cross-loading items from EFA-PAF results were done using confirmatory factor analysis (CFA).

Table 3 – Pattern Matrix

	Factor			
	1	2	3	4
Ambitious	.869			
Leading	.815			
Exclusive	.754			
Achievement oriented	.709			
Elegant	.579			
Hard working	.575			
Prestigious*	.476			
Refined*	.470			.323
Authoritarian		.943		
Inward-looking		.909		
Controlling		.853		
Selfish		.700		
Young			-.845	
Trendy			-.842	
Stylish			-.651	
Imaginative			-.650	
Up-to-date**			-.614	.419
Exciting			-.585	
Reliable				.855
Secure				.757
Concerned				.508

*Item loadings of < .50,

**Item cross-loadings of > .40

2.1.5. Confirmatory factor analysis

The study used LISREL 8.8 to run CFA on the remaining items. Since multivariate assumption was not met, the study transformed all cases using LISREL 8.8 drop-down menu Normal function. CFA was run individually to each of the 4 remaining factors. By referring to the modification indices (MI) provided by the statistical software output, item with the largest measurement error was removed, and CFA run was repeated until the factor achieved model fit (MacCallum et al., 1992; Schmitt, 2011). The results revealed that factor 1 is reflected by 5 items (hard-working, ambitious, achievement-oriented, leading, and exclusive) which Davies and colleagues (2003) label competence dimension (i.e. factor). However, the current study re-labels this dimension as drive. Factor 2 is reflected by 3 items which are selfish, inward-looking, and controlling all of which group within ruthless dimension. Meanwhile trait items imaginative, up-to-date, and exciting represent factor 3 which is labelled enterprise dimension. Lastly, the remaining trait items concerned, reliable, and secure are labelled conscientiousness. The study then referred to Cronbach’s α , composite reliability (CR), and average variance extracted (AVE) values for convergent validity, and used Fornell and Larcker (1981) method to investigate discriminant validity of the remaining 4 factors. Convergent validity is met when Cronbach’s α and CR values exceed the minimal .70 values, while AVE values meet the minimal .50 values (Fornell and Larcker, 1981; Nunnally and Bernstein, 1994). Whereas, discriminant validity is achieved when the AVE values of two factors are greater than the common variance shared (phi-squared, ϕ^2) between them (Fornell & Larcker, 1981). Table 4 below summarizes the results. Overall, these factors achieved both convergent and discriminant validity.

Table 4 – Convergent and discriminant validity

	Drive	Ruthlessness	Enterprise	Conscientiousness
Drive	$\alpha = .89$ CR = .89			
- Hard-Working				
- Ambitious				
- Achievement-Oriented				
- Leading				
- Exclusive				
Ruthless	0.03	$\alpha = .87$ CR = .87		
- Selfish				
- Inward-Looking				
- Controlling				
Enterprise	0.13	0.07	$\alpha = .78$ CR = .78	
- Imaginative				
- Up-to-date				
- Exciting				
Conscientiousness	0.49	0.07	0.14	$\alpha = .85$ CR = .86
- Concerned				
- Reliable				
- Secure				
AVE	0.62	0.69	0.54	0.67

Note: Diagonal are Cronbach α and composite reliability (CR) values. Below diagonal are ϕ^2 values between respective factors. Bottom row are AVE values.

3. Discussion

The objective of this study is to re-clarify the factor structure of the CCS within the lodging industry particular in the upscale 5-star hotel market. Despite showing structural stability in previous studies

(e.g. Chetthamrongchai, 2010), the results indicate that the current study could partially replicate CCS five-factor structure. Only 4 dimensions emerge from the factor analytic approaches taken (i.e. PA, EFA, and CFA). Specifically, guests of upscale hotels in Malaysia perceives these hotels to be imbued with drive (5 items), conscientiousness (3 items), enterprise (3 items) and ruthless (3 items) characters.

There might be several explanations why the findings are as such. First, trait items operates at highly abstract level (Bao & Sweeney, 2009) and may not be replicable across different cultural contexts (e.g. Valette-Florence & De Barnier, 2013). Insofar, most development in brand personality scale has proven that combined etic-emic approach will result in a robust measurement model which comprises both etic and emic trait descriptors (e.g. Aaker et al., 2001; Rojaz-Méndez et al., 2013). CCS adopts the human trait theory (i.e. Big Five model) and by doing so, not all human traits are applicable to describe corporate brand (further discussion in Caprara et al., 2001; Huang et al., 2012). Scales based on human traits are usually confined within the contexts that they are intended for, though some traits have shown cross-cultural robustness (e.g. Aaker et al., 2001; Sung et al., 2015).

Second, most studies that adopt CCS investigate the retail industry (e.g. Chetthamrongchai, 2010; Syed Alwi and da Silva, 2007) and organizations (Davies, 2008). In fact, the original intent of developing CCS was to find alternative to measure corporate reputations. When adopting CCS to upscale hotel, only 14 items are robust. It is highly possible that there are emic items that are yet to be identified. Such probability is highly probable if one's delve into the development of brand personality specific to Malaysian context.

Third, the current study only used Hilton and Shangri La as the stimuli to measure CCS for upscale hotel. This may have suppressed other traits from being extracted. The samples may have had bad experiences with these two hotel stimuli. More relevant traits could have been extracted if respondents were just asked to recall any 5 star rating hotels that they have patronage. This should improve CCS robustness.

The current study has several limitations. First, as stated above, upscale hotel stimuli was limited to two hotels only. A more comprehensive list of hotels may improve the factor structure stability of CCS. Second, future studies need to investigate the robustness of CCS in other industries. Its application has been limited to retailing with the exception one (see Davies, 2008). Third, the adoption of CCS need to be tested in other cultural contexts. Such would be improving its measurement invariance across other cultures.

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