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## A Pilot Study on the Success Factors for Small and Medium Accommodation Enterprises in Malaysia: An Exploratory Factor Analysis Approach

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### **Abstract:**

*This paper explained the success factors of small and medium accommodation enterprises in Malaysia as the study of this nature had seen little attempt by scholars in the past. A pilot test was performed and a questionnaire survey was carried out from April to mid July 2015. The pilot study focused on five states namely Johor, Selangor, Penang, Pahang, and Sabah which were considered to be highly representative of each tourism region in Malaysia due to the higher number of hotel guests than other areas. Responses from a sample of 113 respondents were then analysed using the exploratory factor analysis on the BECK and performance constructs. After several rotations, 44 items with factor loadings above .6 were considered suitable for further analyses.*

**Keywords:** Exploratory factor analysis (EFA), factor loading, performance, small and medium accommodation enterprises (SMAEs)

### **1. Introduction**

Small and medium accommodation enterprises (SMAEs) are primary businesses to the economic growth and employment in Malaysia (Liow, Chong, & Yee, 2015). SMAEs are significant contributors for achieving the national tourism goals of Malaysia which means generating a total tourism receipts of RM168 billion, and an additional 497,200 jobs by Year 2020 (Ng, 2010). The purpose of this paper is to determine the items under the BECK and performance constructs that are suitable for further analyses. The scale for all 55 items have been adopted and adapted from past studies with valid and reliable measures.

1. (B) Branding orientation covers three sub-constructs which are brand reputation, brand uniqueness, and brand orchestration with 14 items in total (Ewing & Napoli, 2005).
2. (E) Entrepreneurial orientation covers four sub-constructs which are risk-taking, pro-activeness, innovativeness, and staff responsibilities with 12 items in total (Covin & Slevin, 1989, 1991; Miller & Friesen, 1982; Morris, Kuratko, & Covin, 2008).
3. (C) Customer orientation is unidimensional with 9 items in total (Despandé, Farley, & Webster, 1993).
4. (K) Knowledge creation process covers the four sub-constructs which are socialisation, externalisation, combination, and internalisation with 16 items in total (Sabherwal & Becerra-Fernandez, 2003).
5. Performance construct is unidimensional with 4 items in total (Engstrom, Westnes, Westnes, 2003; Gil-Padilla & Espino-Rodriguez, 2008; Harris & Mongiello, 2001).

All the BECK constructs assumed the role as independent variables except K which assumed the role as the mediating variable. The performance construct assumed the dependent variable role.

### **2. Research Framework**

Based on the related literature in Section 1 that formed the constructs, sub-constructs and the respective measurement items, the research framework of this study investigates the relationship of BECK on the performance for SMAEs. The framework is adopted and enhanced by Liow, Chong and Yee (2015) from three previous studies (Li, Huang, & Tsai, 2009; Peters, Pfurtscheller, Wong, & Kraus, 2010; Tajeddini, 2010). The underpinning theories of this study's research framework support the belief of organisations possessing valuable internal resources (Barney, 1991) forming business strategies for gaining business competitive edge and positively effecting the performance (Barney & Delwyn, 2007) of SMAEs. See Figure 1 that displays BECK constructs and sub-constructs with 6 hypotheses H1 to H6.

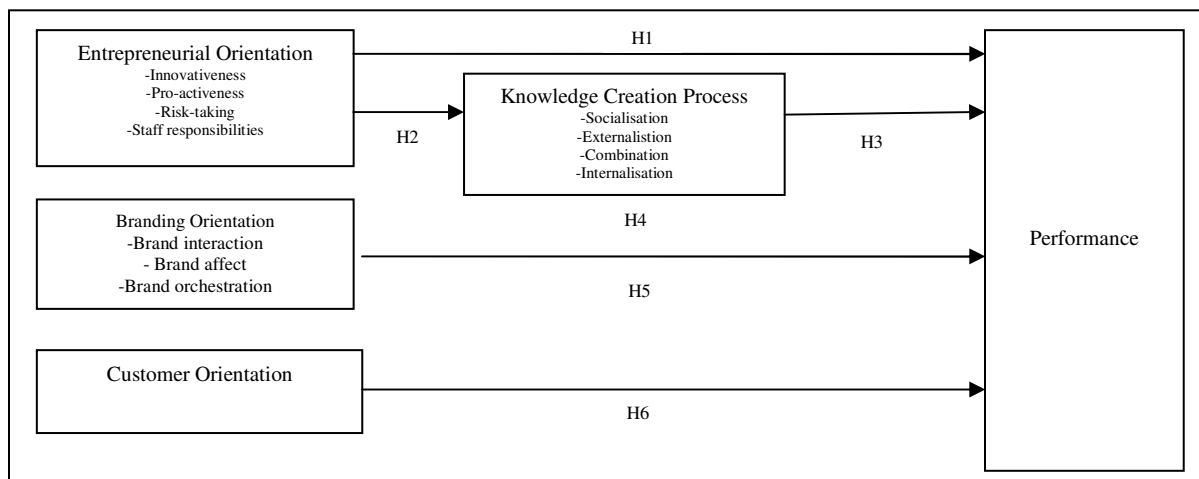


Figure 1: The research framework displaying the impact of entrepreneurial orientation, knowledge creation process, branding orientation, and customer orientation constructs on performance

### 3. Methodology

This section covers the pre-test, sampling procedures, followed with the procedure and findings for the pilot study.

#### 3.1. Pre-test

A pre-test was performed by a focus group to assess face, criterion, and content validity of the measurement scales of the questionnaire (Zikmund, 2003) adopted in this pilot study. A focus group of 10 people consisting of 3 senior tourism and hospitality academicians and 7 SMAE owners-managers have been engaged to ensure the survey content and measurement scales were clear, valid, and appropriate (Zikmund, 2003). Following changes were made which include categorising the questionnaire into 4 sections, including 3 other performance indicators (occupancy rate, average room rate, and annual sales turnover), incorporating 2 reverse coding items, and supporting phrases or examples for 15 items. In addition, the focus group was confident to perform the survey questionnaire in English, the industry's primary language in Malaysia.

#### 3.2. Sampling Procedures

The sampling frame was drawn from a compilation of two sources - Malaysian Association of Hotels (MAH) and Malaysian Budget Hotel Association (MBHA) listed members in five states, namely Johor, Selangor, Penang, Pahang, and Sabah. These five states are considered to be highly representative of each tourism region in Malaysia due to the higher number of hotel guests than other areas as per Tourism Malaysia (2013/2014) website.

It would be important to treat extraneous sampling variation. If the sample characteristics do not fit well, this study's research objective would not be met because of the heterogeneous nature of the sample. For this study, the stratification was based on the five different tourism regions - the South, the Central, the North, the East Coast and the East Malaysia. The sub-population covered successful independent SMAEs with three years of operations and above (ACCCIM, 2012). The SMAEs were then stratified into micro, small, and medium size businesses, and later into a smaller sample. A simple random sample of SMAEs was taken from each size. A number is assigned to each SMAE and was selected randomly. Therefore, each SMAE was likely to be selected while keeping an independent choice of the participants (Tharenou, Donohue, & Cooper, 2007). The total of 113 responses corresponded with the requirement of a total of 60 to 100 subjects (Teare, Dimairo, Shephard, Hayman, Whitehead, & Walters, 2014) for a pilot study.

#### 3.3. Pilot Test Procedure and Findings

At the pilot study stage, a questionnaire survey was performed from April to mid July 2015. Self-administered method was deployed where the researcher promised to response to any queries within 24 hours via email or Skype. Within the first week of administration, feedback was received from the respondents in specific to the following 2 items (1) In the last two years, a lot of small changes took place within my company and (2) In the last two years, radical changes were made within the company. Respondents were not able to differentiate the small changes from the radical changes and have since improved the clarity by including a more suitable example for both items. For the former item, the example of introducing new room packages while for the latter item, a more common example of setting-up a café/bistro/bar have been incorporated. Another feedback was received for the item - My employees are characterized by independence and self-employed actions which seemed vague and has since included the following self-helping description - 'empowered to make decisions'.

A total of 123 responses have been retrieved from the 400 questionnaires that were distributed to the five states, namely Johor, Selangor, Penang, Pahang, and Sabah; about 31 percent response rate. However, only 113 responses were usable as the rest was either incomplete or displayed the central tendency syndrome (Hair, Black, Babin, Anderson, & Tatham, 2006).

Data screening was conducted to identify data errors through frequency distribution with the help of Statistical Package for Social Sciences (SPSS) version 17 (Coakes & Steed, 2007). Reliability analysis test was conducted to establish if the items were representative of the construct domain measured (Zikmund, 2003). Cronbach's alpha is one of the most commonly used indicators of

reliability (Nunnally, 1978; Sekaran, 2000). Table 1 below shows the Cronbach's alpha for the five constructs of this pilot study. Data collected is considered reliable and acceptable for further analyses since all the alpha coefficients are more than minimum guidelines of .7 as cited by Nunnally (1978).

Constructs	Number of Items	N =sample size	Cronbach's alpha
Entrepreneurial Orientation	12	113	.710
Branding Orientation	14	113	.804
Customer Orientation	9	113	.865
Knowledge Creation Process	16	113	.767
Performance	4	113	.843

Table 1: Reliability test results for pilot study (before item deletion)

Next, the exploratory factor analysis (EFA) was conducted. This factor analytic procedure had applied the Principal Component Analysis (PCA) and the varimax rotation (Pedhazur & Schmelkin, 1991, p.615) on the 55 items from the 113 responses. The matrix for each of the BECK construct was found appropriate for factoring before any item deletion since the correlation matrix on the data output showed a number of correlations above .3 (Coakes & Steed, 2007), with Kaiser-Olken-Myer above .6, and Bartlett test of sphericity less than .001. It was also gathered of the total variance explained that only 12 components had eigenvalues above 1.0 and constituted about 76 percent. In other words, only 12 factors were suitable for further analyses. Several rotations were conducted to omit any cross-loading or low factor loading items. The performance construct has been represented significantly with 71 percent of the total variance explained in its role as the dependent variable.

A total of 11 items were not retained which included 5 items from the branding orientation construct, 2 items from the customer orientation construct, and 4 items from the knowledge creation process construct. The factor loadings for the rest of the 44 items were above .6 (with the cut-off point of .5), hence practically significant according to Hair, Black, Babin, Anderson, and Tatham (2010). In the entrepreneurial orientation construct; the 3 innovativeness items were grouped under component 7, the 3 pro-activeness items were grouped under component 4, 3 risk-taking items were grouped under component 12, and 3 staff responsibilities items were group under component 9. The remaining 9 items in the branding orientation construct; the 3 brand interaction items were grouped under component 8, the 3 brand affect items were grouped under component 2, and 3 brand orchestration items were grouped under component 11. In the customer orientation construct, the remaining 7 items were grouped under component 1. The remaining 12 items in the knowledge creation process construct, the 3 socialisation items were grouped under component 10, the 3 externalisation items were grouped under component 6, the 3 combination items were grouped under component 3, and the 3 internalisation items were grouped under component 5. In the performance construct, all 4 items were retained. Based on the factors structure in this pilot study, entrepreneurial orientation construct was found to be 4 dimensional, branding orientation construct 3 dimensional, customer orientation construct unidimensional, knowledge creation process construct 4 dimensional, and performance unidimensional.

The Cronbach's alpha for each construct was recomputed after items deletion. All constructs were found to be reliable since all the alpha coefficients met above the minimum guideline of .7 as per Nunnally (1978), refer to Table 2.

Constructs	No. of Items Retained	No of Items deleted	Cronbach's alpha
Entrepreneurial Orientation	12	0	.710
Branding Orientation	9	5	.752
Customer Orientation	7	2	.887
Knowledge Creation Process	12	4	.786
Performance	4	0	.843

Table 2: Reliability test results for pilot study (after deleting 11 items)

#### 4. Conclusion and Recommendations

This paper wanted to establish if the survey questionnaire items were valid and reliable to measure the research framework in Figure 1. A pre-test was performed to ensure the questionnaire items were valid. As for the EFA approach, interesting findings were drawn from the 113 usable responses and were gathered from five states, one state from each of the five tourism regions in Malaysia. Despite past studies have established the reliability and validity of the survey questionnaire items; not all 55 items were retained. The reason could be related to the BECK and the performance construct items which were drawn from the findings of three different studies (Li, Huang, & Tsai, 2009; Peters, Pfuertscheller, Wong, & Kraus, 2010; Tajeddini, 2010) that formed a novel research framework, with little prior attempt conducted in the SMAE context. The EFA procedure yielded a total of 44 items with factor loadings above .6 with 12 BECK components and 1 performance component and henceforth deemed suitable for further analyses.

The suggestion is to use the survey questionnaire responses drawn from the 44 items and perform a national survey. The aim is to gather a new sample of 322 responses, and is the recommended sample size for a population of 2,817 SMAEs in Malaysia according to Saunders, Thornhill, and Lewis (2012). More robust statistical techniques which include assessing the measurement model using the Confirmatory Factor Analysis and assessing the structural model using the Structural Equation Modelling are to be applied. One limitation is that the survey questionnaire may not be suitable for use in international managed hotels or large accommodation businesses, since a different framework has to be developed since large enterprises would require more factors to enhance their business performance.

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