Dayak Homestay Entrepreneurs Innovation Characteristics

Abstract
The aim of this study was to identify innovative characteristics of the Dayak homestay entrepreneurs in Sarawak and to examine to what extent such characteristics influence their business performance. A quantitative analysis was employed, with a total of 108 active members of various Dayak homestay operators participating in the survey. Respondents were identified through a list provided by the Ministry of Tourism, Sarawak via the Sarawak Tourism Board. Results obtained from the study were validated using an exploratory factor analysis (EFA) and a confirmatory factor analysis (CFA). This study has revealed a series of innovation characteristics, namely: products, participants and principals applied by these entrepreneurs. The findings indicated that innovation constructs were strongly correlated with Dayak homestay business performance. Given the rapidly changing environment of the industry, the findings suggested that innovation characteristics are important within the Dayak homestay business perspective. However, the population of the study has disallowed the findings to be generalized. Future studies may use a larger representation of the sector or may consider a longitudinal approach.

Keywords: Community-based tourism, Homestay, Innovation, Entrepreneurship, Malaysia.

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1. Introduction

Business innovation can come in many forms, but most of these shares three common elements - creativity, problem-solving skills and a new way of thinking (Moscardo, 2008) with the capability to accept, adapt (Rubalcaba et al., 2012) and capitalize on change (Hall & Williams, 2008). Schumpeter (1883-1950), a leading entrepreneurship scholar, has introduced innovation into entrepreneurship study, especially in the creation of new products or services and argued that innovation involves “carrying out new combinations” by dynamic “entrepreneurs” (Decelle, 2004). Hitherto, normal criticism in any industry is that businesses appear to have lacked uniqueness and creativity.

The importance of the tourism sector in the economy is well recognized by relevant parties and it has been categorized as an extremely competitive sector (Sundbo, et al., 2007). In fact, several authors have acknowledged that to survive and grow in the market, tourism firms need to be innovative (Keller, 2006; Sundbo et al., 2007; Weiermair, 2006;) and recognize that innovation is an important element in tourism businesses. In fact, the growth of the tourism industry has been phenomenal; however, the formula of success is yet to be fully defined. The performance could be varied from one to another, depending on the linkages, integration and collaboration of various components within the industry.

Furthermore, the tourism industry has grown significantly over the years and continues to be one of the main contributors to the Malaysian economic sector. In 2014, Malaysia received 25.72 million in terms of tourist arrivals (Malaysia Tourism Promotion Board, 2014) and it is the second largest industry in Malaysia with RM 158.2 billion or 16.1% of total Gross Domestic Product contributions (World Travel & Tourism Council, 2014). In fact, Malaysia is amongst the top most visited countries in the world (Mohebi & Rahim, 2010).

In addition, the tourism sector in Sarawak, Malaysia is constantly showing a positive trend and continues to experience a great boom with an overall income generated in 2013 of RM 2.15 million, an increase by 33.47% as compared to RM 1.61 million in 2012 (Ministry of Tourism, Sarawak, 2014). Likewise, within the sector, the homestay programmes among the Dayak community have also grown over the years.

Given this, the current study focuses on Sarawak’s Dayak homestay programme. The programme has been announced officially by the Tourism Ministry as a tourism product in 1995 (Bhuiyan, et al., 2012). Currently, there are 437 registered operators in the State (Ministry of Tourism, Sarawak, 2014). This suggests that the homestay tourism sector in the state appears to be a lucrative income generator for the community, and the programme itself managed to attract a total of 17,441 visitors in Sarawak in 2013 as compared to 14,310 in 2012 (Sarawak Tourism Ministry, 2014). In fact, the trend continues to be in a positive direction with total earnings of RM 379,780 in the first four months of 2014, attracting around 1,194 visitors (Ministry of Tourism Sarawak, 2014).

A homestay programme cannot be classified as a lodging facility provider alone because the homestay programme provides tourists with the multi ethnic life experience engendered within the cultural lifestyle and economic well being of the local people (Bhuiya et al., 2012). It gives tourists the opportunity to stay with a chosen family, interact with and experience the daily village life, and learn the culture and lifestyle of the rural community. In reality, each homestay programme offers different types of activities, depending on the culture, economic activity as well as the location. In essence, a more significant entrepreneurial value is derived from a homestay programme that has the active participation of the local people and community.

Consequently, to support the programme, in 2014 the Sarawak State government, channeled an estimated RM 11 million to do upgrading works at five homestays namely – Homestay Kampung Pueh Sematan, Homestay Kampung Benuk Padawan, Homestay Annah Rais Padawan, Homestay Rumah Nyuka Sarikei and Homestay Rumah Michael Ancho
Bawang Assan Sibu (Ministry of Tourism Sarawak, 2014). Certainly, within the perspective of homestay businesses, a number of scholars have studied the small rural tourism industry in Malaysia and discussed the potential of the homestay programme (Hamzah, 2008; Ibrahim & Razzaq, 2009; Lo et al., 2012; Razzaq et al., 2011). Nevertheless, most of these studies focused on the community participation, including the economic, social and environmental impacts derived from the activity. However, research on the role of innovation within the homestay programme is still limited (Razzaq et al., 2011). Notably, to enable the homestay tourism programme to reach its potential level, its operators, villagers, and coordinators must work together and be more innovative in their approaches. Therefore, the purpose of this study is to investigate the innovative characteristics of these Dayak homestay entrepreneurs.

2. Literature Review
In general, due to the dynamic state of business environments, organizations are finding it more difficult to compete. Deregulation, increasing competition and rapid changing in technologies has changed the way a business has to operate. According to Higgins (1996) innovation is the way to be competitive, keep on growing and remain at the leading edge of any industry (Cottam et al., 2001; Davis & Moe, 1997). Several empirical studies (Hult et al., 2004; Matsuno et al, 2002) have revealed a positive relationship between innovation and business performance and eventually enhanced firm’s competitiveness (Panayides, 2006; Rosenbusch et al., 2011). However, Rosenbusch et al., (2011) analyzed the relationship between innovation and business performance and failed to obtain a conclusive result. In addition, a few scholars found insignificant relationship (Birley & Westhead, 1990; Heunks, 1998) while others found a negative relationship (Guisado-Gonzalez et al., 2013; McGee et al., 1995).

The tourism industry is highly dynamic and exposed to both global and local competition (Weiermair, 2006) and is constantly going through transformation (Sundbo et al., 2007). Hence, to survive, tourism firms need to be innovative, otherwise they may become obsolete (Tidd & Bessant, 2009). It is interesting to note that the tourism players which have limited knowledge on innovation have a direct impact on a firm’s performance (Hjalager, 2010; Nagy, 2012).

As discussed previously, there are several innovative features which can be applied in the tourism sector. As argued by Sinclair (2003), innovation can be in terms of product (experience), human capital, and marketing. While, innovation also can be mutually dependent in a supply chain – logistic and environment (Shaw & Williams, 2004), visitor management (Bessant, & Davies, 2007), local community involvement (Hall & Williams, 2008; Von Hippel & Katz, 2002) and marketing (Tether, 2004).

In fact, innovation in tourism is very much influenced by customer orientation and it plays a fundamental role in tourism’s innovation perspective (Otto & Ritchie, 1996; Sundbo, 2007; Weiermair, 2006). Within the same line of industry, the homestay tourism sector in particular requires the entrepreneurs/operators to be even more innovative in their approaches (Ibrahim & Razzaq, 2009; Razzaq et al., 2011). Indeed, the idea of the homestay programme in Malaysia can be traced back to the early 1970s after it was pioneered by a local lady by the name of Mak Long when she provided a simple and humble accommodation to visitors at her kampong (village) house at Kampung Cherating Lama in Pahang (Hamzah, 2008). In Sarawak, the Dayak homestay programme is mostly based on cultural immersion, handicraft making, local cuisine and nature, with the unique and major attracting factor being the longhouse lifestyle itself. In fact, the programme is considered to be a community based entrepreneurship initiative (Agarwal et al., 2003), although as argued by Mascardo (2008), it is associated with social impacts and greater opportunities for local communities to be involved apart from acting as an agent for social-cultural and economic development,
especially on rural community development (Ibrahim & Razzaq, 2009; Lo et al., 2012). On the contrary, Mascardo (2008) also argues that community-based tourism is not, however, universally hailed as a positive option for the development of rural regions.

Within the homestay sector, innovation can be derived from the product, participant, and principal (Ibrahim & Razzaq, 2009; Sinclair, 2003). The product innovation has been identified as an important component built on the basis that tourist visitation to various homestay destinations is based on the product’s distinctive attraction. Thus, within the homestay business, the innovation includes attraction such as natural habitat, history and distinguished architecture, arts & crafts, music and cultural activities, traditional food, and agricultural related activities (Ibrahim & Razzaq, 2009). Razzaq et al., (2011) argued that these components are the main attractions for tourists. While, participants from the local people are another key factor (Razzaq et al., 2011; Sinclair, 2003). Indeed, the programme requires a commitment and participation from the local community, village committees and the people who stay within the area. Thus, the local community involvement is critical to the entire homestay programme. Past researchers posited that most studies on rural tourism have focused on the environment, social, and cultural aspects (Kuvan & Akan, 2005) which required intensive participation of their stakeholders (participants) (Brooker et al., 2011).

Alternatively, the willingness of someone, namely the principal to be directly involved in the programme is extremely crucial to the success of the programme (Sinclair, 2003). The principal could be an individual or a group that shares the same aspiration regarding the homestay project. Thus, the principal is often someone who has a high degree of initiative to improve himself/herself and the community. Indeed, the qualities owned by the principal include leadership, charisma, integrity, knowledge, and networking to ensure the success of the homestay project (Razzaq et al., 2011). In fact, Schumpeter argued that an innovative individual is someone who has a visionary approach and an entrepreneurial outlook manifested by their enthusiasm to introduce new products, services, processes, or even marketing concepts (Brooker et al., 2011).

Since the tourism sector is mainly a service sector (Sundbo et al., 2007), the characteristics of innovation are focused primarily on newness of the market (Chandy & Tellis, 2000; Hjalager, 2010), ability to act in a proactive manner (Bessant, & Davies, 2007), being reactive and repositioning (Guisado-Gonzalez et al., 2013), with a strategic or creative manner (Nagy, 2012), showing natural/original/unique features (Brooker et al., 2011; Sundbo et al., 2007), and creative marketing strategies (Brooker et al., 2011). Based on the literature review, the study framework as shown in Figure 1 was developed. Thus, assigned as an independent variables consisted of product, participant and principal innovations, while the dependent variable consisted of entrepreneur performance.

![Figure 1: Conceptual model](image-url)
Consequently, derived from the discussion above and to achieve the study objectives, the current study proposes the following hypotheses to be tested:

**Hypothesis 1: Product innovation will positively associate with entrepreneur performance.**

**Hypothesis 2: Participant innovation will positively associate with entrepreneur performance.**

**Hypothesis 3: Principal innovation will positively associate with entrepreneur performance.**

### 3. Methodology

#### 3.1 Data Collection and Sampling

This study employed a quantitative technique by exploring the extent to which innovation can influence Dayak homestay tourism business performance. A total of 108 active members of various Dayak homestay operators participated in the study, using a non-probability convenience sampling technique. Respondents were identified through the list provided by the Ministry of Tourism, Sarawak via the Sarawak Tourism Board (STB). These respondents were directly involved in tourism related activities, held responsibilities and had information on any novelties, initiatives or improvements introduced in the previous 3 years of the programme. As a result, the study was able to observe the trends of the Dayak homestay innovative behavior concerning the relationship with business performance. The technique used provided an excellent foundation for this study, since the questions were standardized and allowed the respondents to remain anonymous (Leedy & Ormrod, 2011).

#### 3.2 Measures

Instrumentation used for this study was a questionnaire-type survey with application of a basic format of “Likert Scale” ranging from 1, the lowest extent to, 5 the highest, with a short postscript survey. After an intensive literature review related to the factors affecting the homestay entrepreneurs performance based on studies conducted such as Ibrahim & Razzaq, (2009) and Razzaq et al., (2011). As a consequence, a new adapted survey questionnaire instrument was developed consisting of two sections. The first section involved independent variables related to innovation characteristics consisting of 3 major construct items such as product with six measurement items, participant with six measurement items and principal with eight measurements; and the second section involved dependent variables consisting of entrepreneur performance with four measurement items.

#### 3.3 Data Analysis

The data collected were tested for reliability analysis, to check the internal consistency of the items by employing the oblimin rotated technique. As suggested by Pelto and Pelto (1978), the results obtained from the quantitative method needed to be validated. An exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed by using (SPSS) Version 21 and AMOS Graphic 21. Preceding to testing the relationship between the variables using regression techniques, the descriptive analysis was performed.

### 4. Results

#### 4.1 Descriptive Statistics

The empirical findings from the quantitative study were analysed using statistical analysis procedures. The analysis procedures to begin with outline the participant profile with constructs, including gender, age and duration in the business (refer to Table 1).

<table>
<thead>
<tr>
<th>Table 1: Descriptive Analysis Results</th>
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<tr>
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</tbody>
</table>
Frequency | Percentage | Accumulative percentage
--- | --- | ---
Gender | | |
Male | 51 | 47 | 47
Female | 57 | 53 | 100
Age | | |
< 30 years old | 16 | 15 | 15
31 – 40 years old | 23 | 21 | 36
41 – 50 years old | 24 | 22 | 58
51 – 60 years old | 25 | 23 | 81
>60 years old | 20 | 19 | 100
Duration in the Business | | |
3 – 4 years | 18 | 17 | 17
4 – 5 years | 34 | 31 | 48
5 – 6 years | 38 | 35 | 83
>6 years | 18 | 17 | 100

4.2 Psychometric Properties
Subsequently, the internal consistency was established using reliability analysis as suggested by Churchill (1979) with Cronbach’s Alpha procedure, exceeding the deemed acceptable criteria of 0.70 (see also Nunanlly, 1978). In order to determine the goodness of fit of the sample data, CFA was performed in the subsequent steps. The evaluation was based on the model fit criteria using the Chi-square (X²), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), Tucker-Lewis Index (TLI) and root mean square error of approximation (RMSEA) as per Tabachnick and Fidell (2008) and VanVoorhis and Morgan (2007). Table 2 depicts the summary of reliability test based on Cronbach’s Alpha, Kaiser-Mayer-Olkin and Barlett Test of Sphericity. The constructs appear to have high reliability.

### Table 2: A Summary of Kaiser-Mayer-Olkin (KMO), Barlett’s Test of Sphericity and Cronbach’s Alpha for Innovation Constructs and Entrepreneur Performance.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>KMO</th>
<th>Barlett’s Test of Sphericity</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chi-square</td>
<td>df.</td>
</tr>
<tr>
<td>Product</td>
<td>0.612</td>
<td>311.081</td>
<td>16</td>
</tr>
<tr>
<td>Participant</td>
<td>0.731</td>
<td>461.012</td>
<td>20</td>
</tr>
<tr>
<td>Principal</td>
<td>0.701</td>
<td>301.224</td>
<td>15</td>
</tr>
<tr>
<td>Entrepreneur performance</td>
<td>0.803</td>
<td>491.337</td>
<td>17</td>
</tr>
</tbody>
</table>

To ensure the validity of the constructs, a sample EFA result on innovation (product) characteristics (see Table 3) with the initial test for equality of variances and Chi-square means values of 28.801 with 6 degrees of freedom (p<0.000) and RMSEA of 0.051 were carried out. In addition, the statistical test for goodness-of-fit where CMIN/df = 2.0127, GFI = 0.713 AFGI = 0.662, CFI = 0.751 and TLI = 0.811 were determined. Based on these results, it appears that the model (see Diagram 1) is good and met the minimum required index (Byrne, 2005).

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Subsequently, the tenability of the model under configural invariance measurement (CIM) was examined. The Chi-square result was 31.411 with 7 degrees of freedom (p<0.0000) and RMSEA of 0.043. The statistical result of the test of faith were CMIN/DF = 2.146, GFI = 0.708, AGFI = 0.910, CFI = 0.917 and TLI = 0.901 respectively (refer to Table 2). It was suggested the model was good. According to the test in the metric invariance measurement (MIM), the results for Chi-square was 30.233 with 7 degrees of freedom (p<0.000) and RMSEA of 0.041. For goodness-of-fit, the data maintained as the CIM result with CMIN/df = 2.066, GFI = 0.805, AGFI = 0.922, CFI = 0.923 and TLI = 0.911) (refer to Table 3). This matric invariance was supported.

### Table 3: Model of Fit

<table>
<thead>
<tr>
<th>Test</th>
<th>Chi-square</th>
<th>Df</th>
<th>P</th>
<th>CMIN/df</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM</td>
<td>28.801</td>
<td>6.000</td>
<td>0.000</td>
<td>2.012</td>
<td>0.713</td>
<td>0.662</td>
<td>0.751</td>
<td>0.811</td>
<td>0.051</td>
</tr>
<tr>
<td>CIM</td>
<td>31.411</td>
<td>7.000</td>
<td>0.000</td>
<td>2.146</td>
<td>0.708</td>
<td>0.910</td>
<td>0.917</td>
<td>0.901</td>
<td>0.043</td>
</tr>
<tr>
<td>MIM</td>
<td>30.233</td>
<td>7.000</td>
<td>0.000</td>
<td>2.066</td>
<td>0.805</td>
<td>0.922</td>
<td>0.923</td>
<td>0.911</td>
<td>0.041</td>
</tr>
<tr>
<td>SIM</td>
<td>33.226</td>
<td>6.000</td>
<td>0.000</td>
<td>2.006</td>
<td>0.902 (RFI)</td>
<td>0.914 (IFI)</td>
<td>0.902</td>
<td>0.911</td>
<td>0.041</td>
</tr>
</tbody>
</table>

**Diagram 1: Scalar Invariance Model**

Based on the MIM results, a scalar invariance measurement (SIM) was imposed where intercepts of the invariance factor loading were constrained to be equal. The results seemed to have no changes in Chi-square, degree of freedom and probability respectively. At the same
time, values of 0.902 and 0.914 were obtained from the relative fit index (RFI) and incremental fit index (IFI) respectively and same as RMSEA 0.041. Consistent scores were also obtained for CFI = 0.902 and TLI = 0.911 respectively (refer to Table 3). Based on the finalized model derived from EFA and CFA procedures, an investigation to assess the relationship between innovation and entrepreneur performance was carried out through a series of linear regression analysis.

Several assumptions were noted and addressed accordingly by the study. They included: outliers and residuals, influential cases, multicollinearity, homoscedasticity, independence errors (Dublin-Watson test), normally distributed errors, and linearity (Tabachnick & Fidell, 2008; Field, 2005). Then analyses such as multiple R², F ratio, adjusted R² and the overall proportion of variance accounting for significance of regression coefficients, unstandardized (B) weights, standardized (β) weights, prediction equation, and correlations were carried out. Product innovation - was regressed against entrepreneur performance, R was significantly different from zero, indicating that there was an association between these two variables, F (201) = 65.411, p<0.001, and R² at .603. This suggested that 60.3% of the variation in entrepreneur performance could be explained by having product innovation in the model. Therefore, product innovation was positively and significantly associated with entrepreneur performance (β) .323, p< .001. Participant innovation – was then regressed against entrepreneur performance, where R was significantly different from zero, indicating that there was an association between these two variables, F (613) = 66.416, p<0.001, and R² at .598. This suggested that 59.8% of the variation in entrepreneur performance could be explained by having participant innovation in the model. Therefore, participant innovation was positively and significantly associated with entrepreneur performance (β) .301, p<.001. Lastly, principal innovation was regressed against entrepreneur performance, where R was significantly different from zero, indicating that there was an association between these two variables, F (702) = 71.007, p<0.001, and R² at .579. This suggested that 57.9% of the variation in entrepreneur performance could be explained by having principal innovation in the model. Therefore, the principal innovation was positively and significantly associated with DE performance (β) .368, p<.001. Table 4 below depicts the summary findings of the study hypothesis.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Model</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Product innovation will positively associate with entrepreneur performance</td>
<td>Product Innovation ↓ Entrepreneur Performance</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Participant innovation will positively associate with entrepreneur performance</td>
<td>Participant Innovation ↓ Entrepreneur Performance</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Principal innovation will positively associate with entrepreneur performance</td>
<td>Principal Innovation ↓ Entrepreneur Performance</td>
<td>Supported</td>
</tr>
</tbody>
</table>

5. Conclusion, Implications and Limitations
This paper has enhanced our understanding regarding the role of innovation within the Dayak homestay programme and to the extent to which it influences the business performance of the Dayak homestay programme in Sarawak. This study has enabled us to conclude that a series
of innovation characteristics; namely, product, participant and principal could be applied by these entrepreneurs in search of promoting their homestay programme success.

The findings give an implication on the importance of product, participant and principal innovation characteristics within Dayak homestay initiatives or activities. The results also indicate these constructs have emerged as an important and significant factor as highlighted by Ibrahim & Razzaq, (2009) and Razzaq et al., (2011). Consequently, the findings on product innovation are to be observed. The initiative taken on the improvements on existing products and the ability to adopt them to the cultural differences would be a key to a growing segment of the homestay market and could also serve as the basis to influence the entrepreneur’s performance. Similarly, professional presentation of the Dayak cultures and traditions, and longhouse daily lifestyle activities were cited amongst the source factors contributed to the success of the programme. Likewise, the initiative on maximizing the indigenous lifestyle tends to receive the most positive response from visitors. In addition, the authenticity of the Dayak food and outdoor activities appears to be the best element in supporting the operator’s entrepreneurial performance. These findings were similar to arguments posed by Brooker et al., (2011) and Sundbo et al., (2007).

Subsequently, from the participant innovation perspective, the success of the programme was also driven by the participants or the community involvement and connection with the programme. Indeed, nature and cultural resources showcase which would enrich the experiences of most tourists were the most sought after. In fact, such elements were supported by Bessant and Davies (2007); Guisado-Gonzalez, et al., (2013); and Nagy (2012) whose arguments emphasized customer relationships, proactiveness and creativity as key criteria to be successful in the service industry.

From the principal innovation perspective, involvement of the principal or key person in every stage of the homestay programme is a critical element. Indeed, the possibility that the homestay tourism is successful should be on the community’s terms, developed and endorsed by the surrounding community. Leveraging on a wider principal network through the introduction of kampong products, related cultural services, including other forms of village lifestyles, has a significant impact on the programme. Hence, the ability of the principal in developing creative marketing is another critical component which is supported through the findings of Brooker et al., (2011). Thus, continuous observation and application of these characteristics will likely enhance the success of the Dayak homestay programme.

Nevertheless, the results from this study have several restrictions to be observed. Firstly, the outcomes and the determinations of the present study were drawn from 108 out of 437 registered operators in the State. Furthermore, the study draws only on the homestay programme organized by the Dayak communities, with limited numbers of participants, which has led to a limitation of the study. Hence, the outcomes of the study cannot be generalized. Future studies may use a larger representation of the sector in sampling or may consider a longitudinal approach.

References


