A Study on the Effects of Entrepreneurship and Interpersonal Network on the Business Performance of Bed-and-Breakfast (B&B) Inn Operators in Taiwan

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ABSTRACT

The objective of this research is mainly to understand the effects of entrepreneurship and interpersonal networks on increasing overall business performance for Bed-and-Breakfast (B&B) inns. This study uses B&B operators in Taiwan as its sample, in order to quantify the testing of hypothesis and experiments. Through the 110 valid questionnaires collected and the application of descriptive statistics, factor analysis and reliability analysis, multiply regression analysis, and path analysis on the effects of entrepreneurship and interpersonal network on business performance. This study concluded that entrepreneurship and interpersonal networks have direct and positive effects on the success of the business. B&B operators with higher entrepreneurship could take advantage of interpersonal networks and interaction in order to increase success. This study provides recommendations for future entrepreneurs who are interested in starting their own B&B inns.

Keywords: Entrepreneurship, Interpersonal networks, Business performance, Bed-and-Breakfast (B&B)

INTRODUCTION

The starting point for the rise of B&Bs is in the year 2000. Based on statistics from the Tourism Bureau, there are 1,969 legal B&B inns and 7,854 guest rooms in the country as of April 2006. Because of the government’s efforts in legalizing B&Bs, they have grown by 48.4% and 45.3% respectively compared to the statistics from 2005. By June of 2007, the total number of legal B&Bs reached 2084. Hualien still has the most number of B&Bs with 580, followed by Nantou with 382 and Yilan with 267. With an annual growth rate of 10%, the ratio of B&B inns to tourist is also increasing, encouraging more visits from guests, and likewise more inns being established. Entrepreneurs used various measures to investigate the probability of the development of B&Bs. At present, there is an average of about 83 B&B inns per county, thus these inns are still actively expanding. Hence, this study has chosen B&B inn operators as its research targets.

The type of B&B actually reflects the entrepreneur’s process of constructing his dream. It is because of this trend of constructing dreams that many have taken the road to the B&B industry. Taiwan’s leisure and travel market is dramatically progressing. Also, for the past few years the trend of returning to the country life has been popular in Taiwan, with farms and villages becoming the high-pressured city people’s most desired lifestyle. This has also become the motivation for the modern city residents to move away from the metro and start their own B&B inns. Moreover, as the number of inns in Taiwan continued to grow at a significant rate, with claims of it being a very profitable business and being aggressively promoted in the media, inns have been sprouting all over the country and being open for business. In addition, a positive attitude and openness to taking risks and opportunities are precisely what a successful
B&B operator needs to possess. A majority of the scholars believes there is a correlation between entrepreneurship and performance. Wiklund (1999), believe that there is a direct relationship between innovativeness, risk-taking, pro-activeness, and management efficiency with growth of profitability. Lumpkin and Dess (1996) believe the annotation of entrepreneurship is to apply a “new method of entry” for a new or existing product into a new or existing market. Entrepreneurship represents the strategic decision making process for the “new method of entry”. If a company has foresight and can accurately predict trends, it can gain higher profits with its first mover advantage. Past research results can support the claim that there is a positive relationship between entrepreneurship and performance. Moreover, Lumpkin and Dess (2001) found the pro-activeness of an entrepreneurship is positively related to a company’s performance, while the competitive aggressiveness of an entrepreneurship seems to be less related to a company’s success.

Nesheim (2000) and Hite (1999) all considered interpersonal network as a very important channel for entrepreneurs to attract more business. In the past, the importance of capital and specialization in business have been emphasized, yet at present more studies are being conducted, delving into the important influence of interpersonal network on business. Hills et al. (1997) also mentioned that the interpersonal network of an entrepreneur is important in the confirmation of opportunities, and that an entrepreneur with good network and connections has more opportunities than one without.

Based on the research objectives of the aforementioned studies on B&B inns, this research noticed that studies on B&B inns are mostly conducted from the consumer’s standpoint; only few are about the relationship of the entrepreneur with his interpersonal network. Thus, this research will seek to quantify its study on B&B operators. The quantified questionnaires are primarily focused on the B&B operators in the entire province, analyzing the effects of different types of “entrepreneurships” and “interpersonal networks” on “business performance”. Lastly, the findings and results of this research will be provided to B&B operators as recommendations for their strategic planning.

LITERATURE REVIEW

Entrepreneurship

“Entrepreneurship” can be translated to “business spirit” or “entrepreneurial spirit”. Although different terms were used, many scholars used the variable or edited edition proposed by Miller and Friesen (1982) and Miller (1983) as the measure of the different organizational levels of entrepreneurship. This research views the terms “entrepreneurship” and “entrepreneurial spirit” as interchangeable. Miller (1983) defined entrepreneurship as: “dedicated to product and marketing innovativeness, able to face risky activities and leads in providing creativity”. Naman and Slevin (1993) defined entrepreneurship as: “a business’ ability to be innovative, to initiate change, and to quickly and flexibly respond to the changes in the market”. Convin and Slevin (1989) believe that businesses should construct a strategic decision making model for entrepreneurship, and that decision making and strategies are central to an organization’s success. Morris and Lewis (1995) believe creativity is instructing and searching for innovative, uncommon, and new solutions for problems. Solutions may be accepting new technologies and procedures, new products and services; risk-taking includes investing resources into uncertain wants; pro-activeness is realizing one’s entrepreneurial spirit. Yet the difference between entrepreneurial spirit and entrepreneurship is like the difference between content and process in strategic management (Bourgeois, 1980). In attempting to integrate the aforementioned scholars’ works, this research will define entrepreneurship as: “a kind of organizational culture, wherein the organization tends to change its
behavior as it willingly dedicates itself to the organization or market”. An organization that is geared towards entrepreneurship possesses innovativeness and reforms, further strengthening the organization in an uncertain external environment and maintaining its competitive advantage. With regards to how to become an organization geared towards entrepreneurship. Miller (1983) proposed three aspects for an organization’s entrepreneurship characteristics: innovativeness, risk-taking, and pro-activeness, and these were applied by later scholars. Lumpkin and Dess (1996) further elaborated that entrepreneurship included five major aspects: the three aforementioned aspects, autonomy, and competitive aggressiveness. Each aspect is independent with one another.

**Interpersonal Networks**

Interpersonal networks are also known as relationship networks or interrelationship networks, and can also be directly called as relationships. This research will employ the term interpersonal networks. Person’s richer social network resources would also bring about a bigger influence (Granovetter, 1974). Granovetter’s (1985) embeddedness theory has been applied in network analysis, which states that all economic activities are embedded in interpersonal networks, and transactions and exchanges occur within this social interaction. Kelly and Thibaut (1978) proposed that through an intimate social embedded network relationship and through the sharing of information, transaction partners may understand the outcome of one another’s interaction. Integrating the thesis statements of the aforementioned scholars, this research believe that the establishment and expansion of “interpersonal networks” is a modern form of organizational development and interaction, forming the necessary conditions of a partnership. Yu (2004) used the interpersonal network interfaces of Lee (1998), and reclassified these interfaces as willingness interface, skills interface, and application interface. In view of the above studies, this research will apply the interpersonal network interfaces of Lee (1998), but modify these into the interpersonal communication, friendly interactions, interpersonal interactions, and social skills.

**Business Performance**

Schollhamer (1992) believed that entrepreneurship is an important element in gaining competitive advantage and reaching greater success. The relation of entrepreneurship with business performance is the main motive behind the scholars’ studies on entrepreneurship. Lumpkin and Dess (1996) used sales growth, market share, profitability, overall presentation, and customer satisfaction as measures of organizational performance. Eccles (2000) believed that measures of organizational performance should not only be from financial data. Quality, innovativeness, and market shares are examples of non-financial measures that can more accurately reflect a company’s financial situation and growth. More and more managers are including non-financial targets into their organizational performance measures in order to strengthen their “customer is first” strategy. Integrating the various related literature on this, which includes both financial and non-financial performance measures, this research employed Lumpkin and Dess’s (1996) different interfaces in measuring the B&B inns’ performance and success. This research also believes that intangible success, productivity, profitability, and growth are all important measures for B&B. Thus, this research will use the research method of both Lumpkin and Dess (1996).
RESEARCH METHODOLOGIES

Research Structure

The primary objective of this research is to study “entrepreneurship” through an intermediary variable “interpersonal network”, and their effects on a dependent variable “business performance”. The research structure is illustrated in Figure 1 below:

![Figure 1: Research Structure](image)

Research Hypothesis

1. Entrepreneurship has a positive effect on interpersonal networks
   Hypothesis 1-1: Innovativeness and pro-activeness have positive effects on interpersonal networks
   Hypothesis 1-2: Autonomy has a positive effect on interpersonal networks
   Hypothesis 1-3: Risk-taking has a positive effect on interpersonal networks
   Hypothesis 1-4: Competitive aggressiveness has a positive effect on interpersonal networks

2. Entrepreneurship has a positive effect on business performance
   Hypothesis 2-1: Innovativeness and pro-activeness have positive effects on business performance
   Hypothesis 2-2: Autonomy has a positive effect on business performance
   Hypothesis 2-3: Risk-taking has a positive effect on business performance
   Hypothesis 2-4: Competitive aggressiveness has a positive effect on business performance

3. Interpersonal network has a positive effect on business performance
   Hypothesis 3-1: Friendly interactions have positive effects on business performance
   Hypothesis 3-2: Interpersonal interactions have positive effects on business performance
   Hypothesis 3-3: Interpersonal communication has a positive effect on business performance
   Hypothesis 3-4: Social skills have positive effects on business performance


Questionnaire Design

The questionnaire is divided into four major parts. A total of 40 questions are asked regarding the above topics using interval scale). The fourth part is a 10-question survey collecting personal background data using categorical scale, bringing the total number of questions to 50. The outline of this research and the variables for measurement are described below:

1. Entrepreneurship questionnaire design

   This research used the perspectives of Lumpkin and Dess (1996) and classified entrepreneurship as innovativeness, pro-activeness, risk taking, autonomy, and competitive aggressiveness after factor analysis. It also improved the research measurements of Lumpkin and Dess (2001) in order to fit the objectives of this research. A total of 14 questions were made for this part.
2. Interpersonal network questionnaire design
   Using the review of other related literatures, this research classified interpersonal network as
   interpersonal communication, friendly interactions, interpersonal interactions, and social skills after factor
   analysis. It also contextualized the research measurements of Yu (2004) and Lee (1998) to fit the
   objectives of this research. A total of 18 questions were made for this part.

3. Business performance questionnaire design
   This research used the perspectives of Lumpkin and Dess (1996) in using various interfaces as
   performance measurements. A total of 8 questions were made for this part.

4. Basic data
   There are 9 single questions in this section: gender, age, marital situation, educational attainment,
   B&B year of establishment, B&B annual income, B&B geographical location, B&B management style,
   and B&B interior design and theme; and one multiple choice question with regards to the B&B inn’s
   room style, bringing the total to 10 questions.

Reliability Analysis
   This research also used Cronbach’s α to measure reliability. A higher reliability would mean that the
   results of the experiment are more credible. Results show that the reliability measure α value is 0.6 and
   above, which would mean that this research is within the acceptable scope.

Questionnaire Survey
   The research target is a sample of B&B operators, wherein random sampling was implemented. A
   total of 385 questionnaires were distributed through online surveys and door-to-door interviews. One
   hundred fourteen of these questionnaires were collected back, and four incomplete questionnaires were
   eliminated. The remaining 110 were valid and could be used for this study, which would yield a validity
   return rate of 96.49%. The collected questionnaires were analyzed through SPSS 10.0 version Chinese
   statistical software. The employed statistical methods include: descriptive statistics, validity analysis,
   factor analysis, reliability analysis, regression analysis, and path analysis.

RESEARCH FINDINGS

Sample Data Analysis
   Based on the 110 valid questionnaires, among the entrepreneurs who were surveyed, the ratio of
   male to female was very close, with the males being slightly higher. This shows that entrepreneurship is
   no longer just a privilege for men; more and more women are venturing into entrepreneurship. Majority
   of the entrepreneurs belonged to the 31 to 40 years old age bracket, were already married, and were
   college graduates. On the other hand, tallying of the B&B inn data showed that most B&B inns were
   already operating for 2 to 3 years, with an annual income of below US$15,151. Most of the B&B inns
   were located in the Eastern part of the country. The most common management style was specialized
   management, and no longer the usual part-time or side line management. The design or theme of the B&B
   inns was mostly the country farming leisure theme, showing that the B&B inns are heading towards a
   design trend that is more multiple.
Regression Analysis

In order to understand the degree of effect for each variable and to test the research’s Hypothesis 1, 2, and 3, the study applied regression analysis on the three variables: “entrepreneurship”, “interpersonal network”, and “business performance”. Results are shown in Table 1, 2, and 3.

1. Regression analysis of entrepreneurship and interpersonal network:

The independent variables are innovativeness and pro-activeness, autonomy, risk-taking, and competitive aggressiveness, while the dependent variable is interpersonal network. Regression analysis results show that the DW coefficient was 1.703, and the VIF coefficient of the independent variables on the dependent variable was smaller than 10, which would mean that there is no high correlation problem. On the test of significance, the F coefficient was 24.261. Further study showed that innovativeness and pro-activeness, autonomy, and risk-taking have correlation with interpersonal network, while competitive aggressiveness show no correlation to interpersonal network. Overall, the explanation rate of the four independent variables on entrepreneurship was 48%. The standardized interpersonal network regression would be $Y_1=0.238 X_1+0.521 X_2+0.171 X_3$, as shown in Table 1. It is proved that Hypothesis 1-1, 1-2, and 1-3 are true, while hypothesis 1-4 is false.

Table 1: Regression analysis table of entrepreneurship’s effect on interpersonal network

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Beta</th>
<th>T</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal network</td>
<td>Innovativeness and Pro-activeness X1</td>
<td>0.238</td>
<td>2.572</td>
<td>0.012*</td>
</tr>
<tr>
<td></td>
<td>Autonomy X2</td>
<td>0.521</td>
<td>5.914</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
<td>Risk-taking X3</td>
<td>0.171</td>
<td>2.063</td>
<td>0.042*</td>
</tr>
<tr>
<td></td>
<td>Competitive aggressiveness X4</td>
<td>-0.168</td>
<td>-1.900</td>
<td>0.060</td>
</tr>
</tbody>
</table>

Note. $R^2$: 0.480; adjusted $R^2$: 0.461

2. Regression analysis of entrepreneurship on business performance:

The independent variables are innovativeness and pro-activeness, autonomy, risk-taking, and competitive aggressiveness, while the dependent variable is business performance. Regression analysis results show that DW coefficient is 1.860, and the VIF coefficient of other independent variables on the dependent variable is less than 10, which means that there is no high correlation. In the test for significance, the F coefficient is 16.499. Further analysis reveals that innovativeness and pro-activeness and autonomy are correlated to business performance, while risk-taking and competitive aggressiveness seem to have no correlation to business performance. Overall, the explanation rate of the four variables on business performance is 38.6%. The standardized business performance regression would be $Y_5=0.405 X_1+0.292 X_2$, as shown in Table 2. From this research, it can be determined that Hypothesis 2-1 and 2-2 are true, while hypothesis 2-3 and 2-4 cannot be.

Table 2: Regression analysis table of entrepreneurship’s effect on business performance

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Independent Variables</th>
<th>Beta</th>
<th>T</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business performance</td>
<td>Innovativeness and Pro-activeness X1</td>
<td>0.405</td>
<td>4.025</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
<td>Autonomy X2</td>
<td>0.292</td>
<td>3.053</td>
<td>0.003**</td>
</tr>
<tr>
<td></td>
<td>Risk-taking X3</td>
<td>0.058</td>
<td>0.643</td>
<td>0.522</td>
</tr>
<tr>
<td></td>
<td>Competitive aggressiveness X4</td>
<td>-0.046</td>
<td>-0.483</td>
<td>0.630</td>
</tr>
</tbody>
</table>

Note. $R^2$: 0.386; adjusted $R^2$: 0.363
3. Regression analysis of interpersonal network on business performance:

The independent variables are friendly interactions, interpersonal interactions, interpersonal communication and social skills, while the dependent variable is business performance. Regression analysis show that the DW coefficient is 1.717, and the VIF coefficient of the independent variables on the dependent variable is smaller than 10, which means there is no high correlation problem. In the test of significance, the F coefficient was 17.063. Further analysis show that interpersonal communication seem to have high influence on business performance, while friendly interactions, interpersonal interactions, and social skills seem to have no correlation. Overall, the explanation rate of these independent variables on the dependent variable is 39.4%. The standardized business performance regression would be Y3=0.532 X3, as shown in Table 3. This research showed that Hypothesis 3-3 was true, while Hypothesis 3-1, 3-2, and 3-3 cannot be established.

Table 3: Regression analysis table of interpersonal network’s effect on business performance

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Independent variables</th>
<th>Beta</th>
<th>T</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business performance</td>
<td>Friendly interactions X1</td>
<td>-0.187</td>
<td>-1.108</td>
<td>0.271</td>
</tr>
<tr>
<td></td>
<td>Interpersonal interactions X2</td>
<td>0.052</td>
<td>0.351</td>
<td>0.726</td>
</tr>
<tr>
<td></td>
<td>Interpersonal communication X3</td>
<td>0.532</td>
<td>3.344</td>
<td>0.001***</td>
</tr>
<tr>
<td></td>
<td>Social skills X4</td>
<td>0.246</td>
<td>1.685</td>
<td>0.095</td>
</tr>
</tbody>
</table>

Note. R² : 0.394; adjusted R² : 0.371

Multiply Regression Analysis and Path Analysis

In order to verify the validity of the hypotheses 4, this section will be applying two multiple regression analysis and path analysis on “entrepreneurship”, “interpersonal network”, and “business performance”, as shown in Figure 2.

1. First regression analysis

The independent variable (forecasted variable) is entrepreneurship, while the dependent variable (test variable) is interpersonal network. The coefficient of entrepreneurship on interpersonal network is 0.247(p=0.004<0.01), which has met the standard as shown in Table 4.

Table 4: Multiple regression analysis table for entrepreneurship on interpersonal network

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Beta</th>
<th>T</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal network</td>
<td>Entrepreneurship</td>
<td>0.247</td>
<td>2.971</td>
<td>0.004**</td>
</tr>
</tbody>
</table>

2. Second multiple regression analysis

Independent variable (forecasted variable) is entrepreneurship and interpersonal network, while the
dependent variable (test variable) is business performance. Table 5 shows that the coefficient of entrepreneurship on business performance is 0.235 (p=0.014<0.05), which has met the standard. The coefficient of interpersonal network on business performance is 0.269 (p=0.012<0.05), which has also met the standard. The direct effect of entrepreneurship on interpersonal network is 0.247 (p<0.01). The indirect effect of entrepreneurship on business performance through interpersonal network is 0.247×0.269=0.066. This research showed that Hypothesis 4 can be established.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Beta</th>
<th>T</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business performance</td>
<td>Entrepreneurship</td>
<td>0.235</td>
<td>2.508</td>
<td>0.014*</td>
</tr>
<tr>
<td></td>
<td>Interpersonal network</td>
<td>0.269</td>
<td>2.567</td>
<td>0.012*</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**

This research observed that B&B entrepreneurs believe autonomy, innovativeness, and pro-activeness can increase overall business performance, because when B&B operators decide on new strategies and concepts, they are mostly following their own decisions, and thus plays a huge role in the success of their business. B&B management is very similar to the travel industry. Business is seasonal and is very much affected by natural calamities, which would mean lower revenues. This is why the ability to take risks is important in this business. Although B&B entrepreneurs face risk in a different manner, the end goal of handling crises at the quickest time possible to lower losses in order to continue operations is still similar across industries. B&B entrepreneurs believe innovativeness to be a very important value because endless innovations and improvements increase the customers’ number of visits. These inns develop products and services to set them apart from their competitors. These also deepen the customers’ impression of them and increase customer satisfaction, which would attract and increase more customer visits.

Interpersonal communication is important in entrepreneurship. Clearly understanding how other people thought and interacted would greatly benefit a business. How an entrepreneur establishes and nurtures interpersonal communication and interaction becomes an invisibly powerful resource for business performance. This research observed that in human communication, one party does not necessarily understand the other’s thoughts. Each entrepreneur can have different understandings of a single sentence. Thus, when communicating with customers, it is important that one can understand the customer’s view and needs, respond appropriately, and ensure customer satisfaction.

B&B inns have also developed a theme and motif that is unique to their brand as a way of attracting customers. Thus, B&B entrepreneurs should understand the local specialties of their area and other resources they can make use of in order to develop their own unique selling proposition and competitive advantage. Possessing autonomy could show whether a B&B entrepreneur is equipped with individual decision making skills and independence in handling business matters. This research observed that B&B entrepreneurs would mostly follow their own instincts in making strategies. Keeping in mind that other people’s opinions are merely supplements can avoid the unwanted disorganization to the idea that would make it lose its original objective and direction.

Because innovation has been the emphasis in the past few years, B&B operators have strengthened in their software, hardware, and service lines. This research noticed that some B&B operators have
invested first in product and service research and development in order to preserve their competitiveness, yet they lacked risk-taking. Moreover, because most of the B&B entrepreneurs do not have concrete future plans and adequate utilization of current assets, the rate of growth is very slow. Also, additional concern is needed on the financial aspect. There is a certain risk in managing cash with contractors, thus they should be more precise with their forecasting and increase their cash on hand in order to avoid illiquidity. An abundance in financial resources do not necessary translate to a certain amount of capital, thus extra care in handling cash inflows and outflows would be greatly beneficial. After considering the financial risks, B&B entrepreneurs can enter a niche market or import new products, in order to increase their profits and maintain their competitive position.

This research observed that although most of the entrepreneurs’ personalities were outgoing, their experience in basic interpersonal interactions were insufficient. If they do not strengthen their interpersonal relations, they would not be able to sustain long term relationships with customers and contractors. Thus, entrepreneurs should immerse themselves in social interaction settings and participate in team building activities and lectures with other B&B entrepreneurs.

The study showed that most of the B&B entrepreneurs relied on word-of-mouth for advertising and promotions. They had little of other kinds of advertising and promotional activities. However, in order to attract consumers to visit and patronize their B&B inns, and increase their inns’ brand awareness and profits, they should be more aggressive in their marketing efforts for example magazines, television reports, online ads, and other media promotions, in order to establish their corporate image. Also, most of the B&B entrepreneurs have drafted clear objectives and realistic operating strategies to reach these goals. They also lack funds to implement low-cost high-return projects, which severely affects their annual income. Thus, these inns should first set their business objectives and then pair these with strategies for implementations, in order to increase their growth and profitability.

REFERENCES


