Leakage, entrepreneurship and satisfaction in hospitality

Abstract

Tourism is a very important tool for economic development. However, its economic effects are mainly conditioned by the level of leakage. This work defines leakage, provides an original evaluation of the entrepreneurial environment in showing that it is the one with the lowest level of leakage, and creates a new framework. It also measures leakage in an innovative way using a quantitative approach. In addition, the paper explores and shows how leakage can affect critical business factors, such as customer and employee satisfaction. The empirical study uses structural equations and data from hotels in the Valencian Region (Spain) to show how important leakage is in making businesses more competitive. The results confirm the new model and are of interest for company managers and public organizations.

Key words: leakage, entrepreneurship, tourism, customer satisfaction, knowledge industries

Introduction

The tourism industry is a tool for economic development in many countries. The economic effects of the presence of visitors in tourist destinations stem from the fact that travelers and tourists spend their money on a wide variety of goods and services. This expenditure can be seen as an injection of financial resources into the host economy, thereby creating new levels of consumer demand.

In the information society, companies need to be increasingly competitive (Buhalis, 2003), especially in knowledge industries such as tourism, where information technologies have a tremendous impact. In the new arena, customer satisfaction is one of
the most important objectives for companies, as they aim to obtain optimal long-term results (Parasuraman, Zeithaml & Berry, 1985). In the case of tourism, customer satisfaction is paramount because it is directly related to the choice of destination (Ahmed, 1991) and the decision to return (Stevens, 1992).

In order to obtain maximum customer satisfaction, both internal resources and capabilities (Wernerfelt, 1984; Prahalad & Hamel, 1990) and external variables have to be considered. A large body of literature bears witness to the importance of the resources and capabilities available within each firm (internal variables). However, in this paper, we highlight that external variables, and especially the entrepreneurial environment, also directly affect customer satisfaction.

Much has been written about the entrepreneurial environment. In this regard, academic literature has postulated that the existence of an entrepreneurial environment is essential to achieving most firms’ main goal: business growth (Woodside, 2001). In addition, many authors have written about knowledge industries and their relationship with innovation and the entrepreneurial framework (Li & Atuahene-Gima, 2001).

This research adds a novel contribution to business literature by evaluating the entrepreneurial environment in relation to the level of the leakage in this environment. In addition, we attempt to show that the leakage factor is a determinant for important factors within the firm, such as employee and customer satisfaction.

Leakage is defined in this work as the amounts subtracted from tourist expenditure on taxes, repatriated profits, wages paid outside the region, and on imported goods and services (Lejarraga & Walkenhorst, 2010). Financial leakages occur in many industries and sectors, but since tourism is often billed as one of the few profitable economic sectors for developing countries, it is particularly relevant here (Mowforth & Munt, 2003). Only a small portion of the production value of tourism actually stays in the
host country, and most tourist expenditure is either sent back to its country of origin (for example when a tourist purchases imported goods or services) or it never leaves its home country in the first place (such as travel agency commissions, foreign airline tickets and tour operator profits). Leakage is often analysed with a qualitative approach. However our model also advances on previous literature by calculating and analyzing the effects of leakage from a quantitative approach. In addition, we have also created a new framework which has been contrasted using structural equation models.

An analysis of the most relevant literature on the specific variables in the study is also provided. The next section details the theoretical framework and the appropriate hypotheses, followed by the methodology and findings of the study. The conclusions and limitations of the study are presented in the final section.

**Literature review**

**Theoretical model**

Tourism, like other industries, has been transformed by new technologies. Information technologies (IT) are playing an increasingly critical role in the competitiveness of tourism organizations and destinations (Buhalis, 2003; Sheldon, 1997). They are being used more and more to reduce costs and enhance efficiency, service quality and customer satisfaction (Law et al., 2009; Woodside et al., 2011), whilst the Internet is currently the most important and widely available source of information. Firms are able to distribute products directly to customers via the Internet, as well as creating linkages with intermediary companies (Expedia, Booking…etc.), an aspect we will go on to discuss later (Buhalis & Licata, 2002). Information technologies are also used by tourism companies in order to provide all the information and service quality mechanisms
required for customer satisfaction. Customers can use IT to evaluate information on
different travel choices, prices and offers (Buhalis & O’Connor, 2005).

In this arena, firms have to be tremendously competitive, and customer
satisfaction is one of the main variables to consider. In this work, we posit that customer
satisfaction and other important variables in a firm are determined by the conditions of
the entrepreneurial environment they are located in, and especially by the level of leakage
in this environment.

Tourism leakage has been defined as a portion of tourist expenditure that leaks out
in the form of imports and returns to foreign factors of production (Lejarraga &
Walkenhorst, 2010), or “the failure of tourist spending to remain in the destination
economy” (Sandbrook, 2010).

Many authors define leakage as a secondary effect that occurs when the tourism
industry does not leave significant revenue in a local economy as a consequence of a
destination’s poor development strategy (Mowforth & Munt, 2003). When this occurs,
not all tourist expenditure is retained within the host economy when leakage exists. We
consider that leakage could be used as a variable to measure the level of entrepreneurship
in a region.

The explanation is that an entrepreneurial environment implies that the country
has many or enough industries in the area to attend all demand requirements. Therefore, if
there is a strong industrial structure, imports from foreign countries are reduced and so is
leakage.

In addition, if an entrepreneurial environment exists, this has many impacts on
companies’ behaviour. Herein lies the most important aspect of our study: to demonstrate
that leakage has a strong influence on many critical factors in firms (such as employee
satisfaction, customer satisfaction, etc.). In this vein, reducing leakage could create a
greater level of satisfaction among employees and customers, thereby improving a firm’s
competitive position.

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Several papers have defined and analyzed the importance of entrepreneurship. For instance, from Marshall’s point of view, perfect competition and equilibrium exist in the market. He believes that individual manufacturers do not play a specific role in terms of entrepreneurship (Marshall, 1948). Schumpeter, however, rejects this equilibrium and posits that entrepreneurs have the power to modify economic development. He describes the entrepreneur as an innovator (Schumpeter, 1991). In certain strategic marketing literature (Davis et al., 1991; Knight, 2000), corporate entrepreneurship has three main components: pro-activeness, risk-taking and innovativeness.

Specifically, recent literature has found important relationships between culture and customer behavior, customer predisposition and entrepreneurial spirit (Woodside et al., 2011). Most of these works derive from the pioneering research by Hofstede. According to Hofstede (1980, 2001) there are four main dimensions of national culture that may influence consumer predispositions. In connection with these observations, cultures thus have an important role to play in an entrepreneurial context.

Moreover, the study by Chi and Gursoy (2009) explores the relationships between employee satisfaction, financial performance and the role of customer satisfaction.

For instance, these authors examine three main aspects: the relationship between customer satisfaction and financial performance, the relationship between employee satisfaction and financial performance, and the relationship between employee satisfaction and customer satisfaction. Specifically, the study analyzes the impact of these relations on the financial performance of hospitality firms, using the service-profit-chain framework as the theoretical basis for performance (Heskett et al., 1994).

In terms of the importance of leakage, we would also like to highlight the model put together by Supradist (2004) whose study centred on carrying out a qualitative analysis of economic leakage in a region. To do so, Supradist proposed a very simple tool for examining the main factors that cause leakage. He also analyzed a variety of variables that can affect the local economy and identified points where leakage could be mitigated.
His theoretical model is based on the tourism value chain (Gollub et al., 2004) which is used as a tool for evaluating leakage. However, this study only presented a qualitative approach to the calculation of leakage, a limitation that we would like to eliminate in our work.

Based on this literature, and other studies that we will develop later, we have put together the following hypotheses that will make up our model.

**Leakage, Customer Satisfaction and Employee Satisfaction**

Some studies show that high quality service and improved customer satisfaction are widely recognized as important factors leading to the success of firms in the hotel, catering and tourism industries (Barsky & Labagh, 1992; Legoherel, 1998; Choi & Chu, 2001). Thus the importance of searching for their antecedents is crucial.

In this regard, leakage is directly related to entrepreneurship. This entrepreneurial framework can represent one of the underlying causes for the growth of strong industry in a region and a reduction in the number of imports, which, in turn, could increase employee and customer satisfaction. Low customer leakage mainly shows the strength of firms and the sector (if more money remains in the area, firms can offer better service quality, which is widely recognized as an important factor leading to customer satisfaction. Diverse authors have identified interrelations between service quality, and satisfaction (Cronin et al., 2000; Spreng & Mackoy, 1996), and most of them postulate that customer satisfaction results from service quality, which in turn is related to the quality of the service provider (Bitner & Hubert, 1994).

In addition a customer who perceives economic robustness and whose expectations are met in a hotel stay is more likely to be satisfied (Bowen & Shoemaker, 1998).
In the same vein, employee satisfaction, which is defined by Locke (1969) as “a function of the perceived relationship between what one wants from one’s job and what one perceives it as offering”, can be also be conditioned by the circumstances of the place. Although several researchers have shown the relationship between employee satisfaction and company performance (Lawler & Porter, 1969; Locke, 1970; Tvorik & McGivern, 1997), others have pointed out the reverse. In this sense, high quality means better conditions for employees (if more money remains in the area, firms can offer better service quality and better conditions to their employees). Therefore, a low level of leakage can be related to high service quality.

Based on this literature, we can formulate the following hypotheses.

**Hypothesis 1a.** There is a positive relationship between an absence of customer leakage and customer satisfaction.

**Hypothesis 1b.** There is a positive relationship between an absence of customer leakage and employee satisfaction.

Supplier leakage is the leakage that is produced by company suppliers (maintenance, telecommunications, food, etc.). Logically, its level once again shows the strength or weakness of local industry and the entrepreneurial environment. However, we must point out at this stage that customers tend to prefer products from their own country. In this vein, if supplier leakage is reduced, it means that the company is buying domestic products and, thus foreign customers will be less satisfied.

Nevertheless, and, along the same lines as hypotheses 1a and 1b, if the organization buys domestic products, it means that the sector remains strong, the company can offer better conditions to employees, and, in addition, following Hofstede
(1980) the suppliers will have the same culture as the company’s employees, so the employees will be more satisfied.

Thus, based on the above, we propose the following hypotheses.

**Hypothesis 1c.** There is a negative relationship between an absence of supplier leakage and customer satisfaction.

**Hypothesis 1d.** There is a positive relationship between an absence of supplier leakage and employee satisfaction.

**Growth, Customer Satisfaction and Employee satisfaction**

Much has been written about employee satisfaction. In our model, in addition to the environmental conditions which show the level of leakage, our aim is to analyze and study the impact of internal resources and capabilities on the satisfaction of employees and customers. However, as there are many resources and capabilities we will concentrate on company growth and competitive position, whose importance has been already been highlighted when talking about service quality in its direct relationship with employee satisfaction and its indirect link to customer satisfaction.

In terms of the incidence of the growth and competitive position variable, Lam et al. (2001) found that employees in the hospitality industry are more likely to have a higher level of job satisfaction if there are opportunities for advancement and training. Studies such as these demonstrate that employees are indeed more likely to have a greater degree of job satisfaction if there are opportunities for growth and advancement. At the same time, it has been argued in academic literature that an important trait related to job satisfaction in the hotel industry is the ability to feel connected to the organization in which a person works (Silva, 2006).
In addition, employees are not simply satisfied with their jobs in the hospitality industry because of the positions they hold; the potential for growth that exists within an organization can be also relevant. For instance, Kim et al. (2009) argue, from the results of their research on the effects of role stress and job satisfaction among hotel employees, that employees who feel heightened levels of stress related to the roles they play in their jobs are likely to have lower levels of job satisfaction. In relation to the justification of the theoretical model created herein, this information suggests that when employees feel increased stress and pressure because of the roles they perform in a hospitality organization, the less likely they are to be satisfied with their jobs. This provides further justification for the idea that the growth and competitive position variable does indeed predict overall employee satisfaction.

On the other hand, the direct relationship between customer satisfaction and growth and competitive position has rarely been examined. Many firms do not use customer satisfaction as a tool to improve their position and stimulate growth. Other firms that do utilize customer satisfaction do not always act appropriately in accordance with results (Dutka, 1994). For other authors, there is no direct relationship between firm performance and customer satisfaction (Jones & Sasser, 1995).

Therefore, we suggest the following hypothesis.

**Hypothesis 2.** There is a positive relationship between growth and competitive position, and employee satisfaction.

**Employee Satisfaction and Customer Satisfaction**

Many authors suggest a direct relationship between employee satisfaction and customer satisfaction (Spinelli & Canavos, 2000; Matzler & Renzl, 2007; Kim et al., 2009; Wu & Liang, 2009). They defend the theory that employees with a superior internal working
environment are satisfied employees and thus provide customers with high quality service, which increases customer satisfaction.

In addition, Wu and Liang (2009) provide further justification of the relationship between employee satisfaction and customer satisfaction because the findings of their research show that direct interactions of service employees with hotel guests have an impact on the satisfaction with the service received and their hotel experiences. Thus, we can postulate the following hypothesis:

**Hypothesis 3:** There is a positive relationship between employee satisfaction and customer satisfaction.

Once all the relationships between the diverse kinds of leakage, growth and competitive position, employee satisfaction and customer satisfaction have been explained, and after adding other control variables, we were able to create our theoretical model or framework, as shown in Figure 1.

Our framework mainly analyzes two areas of study. The first part of the model suggests that employee satisfaction is predicted by customer leakage, supplier leakage and growth and competitive position. The second part of the model suggests that customer satisfaction is predicted by employee satisfaction, customer leakage and supplier leakage.

**Methodology**

In order to measure the different constructs, we followed the scales put forward by Garrigos et al. (2005) for measuring the growth, profitability, employee satisfaction and customer satisfaction items. Supplier leakage was measured by considering the items provided by Andriotis (2002a) and Supradist (2004). Client leakage is measured via items that ascertain the percentage of directly booked rooms, either through tour operators, or...
through other travel agencies. We introduced the percentage of foreign visitors and the size of the hotel (number of rooms) as control variables. In order to measure size, authors such as Gartner (1999), Morrison and Thomas (1999) and Andriotis (2002b) prefer quantitative criteria, including the number of employees, number of beds/rooms, total assets and annual revenue, whereas others adopt qualitative criteria. The criterion for different sized hospitality firms used in this survey was the number of rooms, as in the study by Andriotis (2002b), because other measures were not considered appropriate. Finally, we introduced the item “average number of foreign tourists” to measure the amount of foreign custom.

The items in the questionnaire were subsequently examined by experts from the hospitality field (including academic and professional experts), in order to add or avoid a series of items. In this vein, we conducted a pilot test with 25 personal interviews during December 2011. This step allowed us to include a larger number of items and to improve the structure of certain questions.

We used objective measurements, questions with percentages, and, for almost all items, responses were measured on a 1-5 Likert scale ranging from 1= Totally Disagree to 5= Totally Agree. The questions for measuring growth and competitive position, and the satisfaction of customers and employees involved asking managers about the situation of the firm compared to its competitors. The questionnaire was in Spanish. The chosen population included the managers of hotel firms, excluding hostels and others such as guesthouses, halls, and bed and breakfasts. A total of 204 high-ranking hotel managers answered the questionnaire. The data gathering process was carried out between the months of January and February 2012.

Our study was carried out in the Valencian Region. We obtained 204 completed questionnaires, out of a total population of 726 hotels, (this sample represents 28% of the population). In order to corroborate the goodness-of-fit of our sample, and to ensure that it was representative of the population, we used data from the Valencian Tourism Agency.
According to these official data, a geographical breakdown of the population into major towns or cities revealed that there were 205 hotels in Alicante (28%), 137 hotels in Benidorm, (19%), 228 hotels in Valencia (32%) and 156 hotels in Castellon (21%). Our sample also reflects these percentages, as we obtained 57 questionnaires from Alicante (28%), 41 from Benidorm (20%), 66 from Valencia (32%) and 40 from Castellon (20%).

Our study began by calculating leakage with regard to hotels by classifying the concept into two distinct measures: leakage from suppliers, and leakage from customers. In order to do this, we used diverse variables in order to calculate each of the items. In the case of suppliers, we calculated the leakage by looking at the weight of each of the items in terms of the expenses of the different hotels, and multiplying it by the weight of foreign suppliers in each of these items. We considered 12 different types of suppliers, following the study by Andriotis (2002b).

These items include maintenance firms, suppliers of consumable office products, telecommunications, and food and beverage suppliers. In order to calculate the leakage from clients, we used the three kinds of distribution channels for hotels. In this sense, we considered the percentage of rooms booked directly by the hotel, by tour operators, and by other travel agencies respectively. We calculated the weight of these three channels on hotel sales and also weighted the data according to the percentage of money the hotel receives when obtaining clients from them. Finally, we also calculated the percentage of foreign distributors in these three channels.

Table 1 shows the main variables used in our calculations and their weight in the final calculation of each kind of leakage. We weighted these variables in order to calculate leakage from suppliers and leakage from customers.

After calculating the leakage from suppliers and clients, the study used a two-phase structural equation methodology (Anderson & Gerbing, 1988) in line with recommendations made in earlier studies (Calantone & Zhao, 2001; Garcia & Kandemir, 2006; Forgas-Coll et al., 2012). The models were estimated according to the matrices of
variances and covariances by the maximum likelihood procedure. Robust standard estimators, the Satorra-Bentler chi-square (Satorra & Bentler, 2001) and EQS 6.1 statistical software were used (Bentler, 1995).

We first carried out a study of the dimensionality, reliability and validity of the scale to ensure that we were measuring the intended construct. This analysis allowed us to refine the scale and eliminate non-significant items. The final number of items in the growth and competitive position construct was four. In the case of leakages from suppliers and customers, we used the previously calculated composite variables. In addition, we introduced the size of the hotels, measured via the number of rooms, and the percentage of foreign clients as the control variables in our model.

We subsequently contrasted the model presented in the theoretical section by contrasting the causal relationships for the whole sample in order to test our hypotheses.

Findings and discussion

We firstly analyzed all the psychometric properties of the scale used in the model. The probability associated with the chi-square reached a value higher than 0.05 (0.72303), indicating the model’s overall goodness-of-fit (Jöreskog & Sörbom, 1996). Convergent validity was demonstrated because the factor loadings were significant and close to or greater than 0.5 (Hair et al., 2006), and because the Average Variance Extracted was higher than 0.5 (Fornell & Larcker, 1981). In addition, the model was adequate because the Goodness of Fit Index and Average Goodness of Fit Index were close to unity and Root Mean Square Error of Approximation was close to zero. The reliability of the scales was demonstrated because the composite reliability obtained was higher than 0.6 (Bagozzy & Yi, 1988). As some of the items were measured with only one item and the square root of the Average Variance Extracted between each pair of factors was higher than the correlation estimated between the factors, we were able to confirm the discriminant validity (Fornell & Larcker, 1981).
After validating the model, we analyzed the causal relationships for the total sample (Table 2). The model was adequate because, with 31 degrees of freedom, the probability of the Satorra-Bentler chi-square (0.057) was higher than 0.05, Root Mean Square Error of Approximation (0.044 (0.000- 0.080)) and Standardized Root Mean Square Residual (0.065) were close to zero, and the rest of the fit indices reached the appropriate values close to unity (Goodness of Fit Index = 0.951, Average Goodness of Fit Index =0.912, Bentler-Bonnett Normed Fit Index =0.863, Bentler Bonett Nonnormed Fit Index = 0.941, Robust Comparative Fit Index =0.928, Incremental Fit Index =0.967). The result of the analysis shows that most of the relationships posited in the model are supported for the sample as a whole.

Client leakage affects customer satisfaction in a positive and significant way, as we propose in hypothesis H1a. This finding corroborates the models of some authors. High quality service and enhancing customer satisfaction are widely recognized as important factors leading to the success of companies in the hotel, catering and tourism industries (Barsky & Labagh, 1992; Legohrel, 1998; Choi & Chu, 2001). A customer who perceives economic robustness and receives what she or he expects from a hotel stay is more likely to be satisfied (Bowen & Shoemaker, 2004). The variable of client leakage also significantly and positively affects employee satisfaction. This fact corroborates hypothesis H1b.

On another note, findings indicate that the relationship between supplier leakage and customer satisfaction exists but is negative. As previously mentioned, this fact can be explained due to the fact that many consumers want domestic products (Cronin et al., 2000; Spreng & Mackoy, 1996). This fact supports the relationship expressed in hypothesis H1c.

The growth and competitive position variable directly and positively affects employee satisfaction. This finding supports our second hypothesis (H2). This result corroborates the research of Lam et al. (2001) who argue that employees are likely to feel
greater job satisfaction if there are opportunities for growth and advancement. The results described in Silva’s study (2006) present similar findings. This author argues that an important trait for job satisfaction in the hotel industry is the ability to have a degree of control within the organization where a person works.

Employee satisfaction positively affects satisfaction amongst customers. The significance of this variable introduced in our model lends support to the third hypothesis. In this hypothesis we discussed the relationship between employee satisfaction and customer satisfaction. Other researchers have also analyzed this relationship. Research has indicated that the level of service provided by employees is an important factor in determining whether hotel guests are satisfied with their experiences and are likely to return to a particular hotel in the future (Choi & Chu, 2001). The conclusions of these studies and others we have previously mentioned are corroborated by our findings (as shown in Table 2).

The size of the hotel, measured by the number of rooms, significantly affects customer leakage.

Finally, after attempting to analyze the effect of the percentage of foreign customers in our constructs, we found that this variable only affects customer satisfaction. Research has shown that the intention of Chinese customers to stay at a particular hotel is related to the usability and quality of a hotel’s website (Bai, Law & Wen, 2008). If Chinese customers do not feel that a hotel’s website is easy to use, then they are less likely to actually purchase a room from that hotel. Instead, they will seek out a hotel that has a website that they feel is easy to use.

Conclusions

This paper examines the relationships between leakage and employee/customer satisfaction and the growth and competitive position of hotel firms.
Our main contribution lies in demonstrating that an entrepreneurial environment, measured as a low level of leakage, directly and positively affects improvements in employee and customer satisfaction, thereby enhancing company competitiveness.

We analyzed the relationship between customer leakage and employee satisfaction in the tourism industry, using some elements of the theoretical framework developed by Chi and Gursoy (2009) and Supradist (2004). In the study by Supradist, leakage is only analyzed in a qualitative way. We also conducted a quantitative analysis, calculating the leakage produced by customers and the leakage caused by suppliers. In the second part of our model, we used part of the Chi and Gursoy (2009) model, adding more variables, such as growth and competitive position, and foreign customers.

The results of this paper are of interest to tourism firms because they may serve as a means of assessing their economic situation. For example, it might be helpful for a hotel company to know what their level of leakage is and how this can affect the level of satisfaction among their customers and employees. Furthermore, the study may be of interest to the region under study as it provides an approach to the entrepreneur's environment from a viewpoint measured through leakage.

The main limitations of this article are that the calculations are only carried out in a particular region. In addition, we encountered difficulties due to the reticence of many respondents to reply to questions related to financial issues, which would have enriched our model.

Despite these limitations, the study provides interesting findings, which suggest that there is a relationship between growth and competitive position and employee satisfaction. An interesting relationship between employee satisfaction and customer satisfaction has also been found. We calculated the leakage of each hotel and the relationship with customer and employee satisfaction, classifying two kinds of leakage: supplier leakage and customer leakage and found a relationship between leakage and employee/customer satisfaction (as shown in Table 2).
Future research could examine the leakage phenomenon in other sectors, such as transport, holiday planning, and restaurants, in line with the tourism value chain described by Gollub et al. (2004). We could also extend this study to other regions in order to generalize the model.

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Figure 1. Final model: Leakage, Employees Satisfaction and Customer Satisfaction

GS1: Average Growth in Sales

GS2: Market Share Increase

GS3: Wealth Creation

GS4: Overall Competitive Position
<table>
<thead>
<tr>
<th>Type of variable</th>
<th>Name of variables</th>
<th>% of national companies (Scale 1 to 5)</th>
<th>Weight of the variable on the &quot;Absence of Supplier Leakage&quot;</th>
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<tr>
<td>Supplier leakage</td>
<td>Light gas &amp; water</td>
<td>4.8617</td>
<td>30.12%</td>
</tr>
<tr>
<td></td>
<td>Feeding</td>
<td>4.7688</td>
<td>19.82%</td>
</tr>
<tr>
<td></td>
<td>Beverage</td>
<td>4.7796</td>
<td>13.55%</td>
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<tr>
<td></td>
<td>Telecommunications</td>
<td>4.7287</td>
<td>3.82%</td>
</tr>
<tr>
<td></td>
<td>Salaries</td>
<td>4.1101</td>
<td>30.29%</td>
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<tr>
<td></td>
<td>Maintenance</td>
<td>4.8191</td>
<td>0.41%</td>
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<td></td>
<td>Fungibles elements</td>
<td>4.734</td>
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<td>Decoration</td>
<td>4.718</td>
<td>0.31%</td>
</tr>
<tr>
<td></td>
<td>Cleaning</td>
<td>4.7713</td>
<td>0.27%</td>
</tr>
<tr>
<td></td>
<td>Restaurants</td>
<td>4.7727</td>
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<tr>
<td></td>
<td>Trips</td>
<td>4.0826</td>
<td>0.33%</td>
</tr>
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<td></td>
<td>Others</td>
<td>4.155</td>
<td>0.29%</td>
</tr>
<tr>
<td>Customer leakage</td>
<td>% Rooms sold by hotel</td>
<td>4.77</td>
<td>29.91%</td>
</tr>
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<td></td>
<td>% Rooms sold by webs</td>
<td>2.271</td>
<td>31.26%</td>
</tr>
<tr>
<td></td>
<td>% Rooms sold by travel agencies</td>
<td>2.114</td>
<td>38.83%</td>
</tr>
<tr>
<td>Control variable</td>
<td>% Foreign visitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Size (number of rooms)</td>
<td></td>
<td></td>
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Table 1. Description of main variables
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Parameter</th>
<th>T</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>No Customer Leakage – Customer Satisfaction</td>
<td>.204</td>
<td>2.905</td>
<td>Supported</td>
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<td>H1b</td>
<td>No Customer Leakage – Employee Satisfaction</td>
<td>.414</td>
<td>6.163</td>
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<td>H1c</td>
<td>No Supplier Leakage – Customer Satisfaction</td>
<td>-.142</td>
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<td>Supported</td>
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<tr>
<td>H1d</td>
<td>No Supplier Leakage – Employee Satisfaction</td>
<td>.055</td>
<td>.896</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Grow and competitive position – Employee Satisfaction</td>
<td>.215</td>
<td>2.700</td>
<td>Supported</td>
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<tr>
<td>H3</td>
<td>Employee Satisfaction – Customer Satisfaction</td>
<td>.380</td>
<td>5.365</td>
<td>Supported</td>
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<td>Control</td>
<td>% of foreign customers – Customer Satisfaction</td>
<td>.156</td>
<td>2.505</td>
<td>Supported</td>
</tr>
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<td>Control</td>
<td>% of foreign customers – No Supplier Leakage</td>
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<td>-</td>
<td>Supported</td>
</tr>
<tr>
<td>Control</td>
<td>% of foreign customers— No Customer Leakage</td>
<td>-.077</td>
<td>-</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Control</td>
<td>Size – No Customers Leakage</td>
<td>-.379</td>
<td>-</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 2. Evaluation of Hypotheses