



EXPLORING HOW GUESTS' SATISFACTION AND COMPLAINTS EFFECT ON HOTEL PERFORMANCE

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Abstract

This paper investigates the effects of two critical customer voice variables on hotel performance. Specifically, the research provides a customer equity model in which the influences of both customer satisfaction and complaints are considered. The impact of the customer voice variables on hotel performance is investigated while considering the potential for moderating effects by hotel size and star rating. We use a more robust approach to measure firm performance than is traditionally used in satisfaction-performance studies. Finally the paper reports on the results of these investigations and outlines implications for both theory and practice.

Keywords: Hotel performance, Customer satisfaction, Customer complaints, Equity model

Introduction

A significant portion of the service literature focuses on assessing the impact of customer satisfaction on firm performance (Anderson and Mittal, 2000). Customer satisfaction is a form of customer voice. Specifically it is a post-consumption consumer response that leads to greater customer loyalty and help firms “secure future revenues, reduce the costs of future transactions, decrease price elasticities, and minimize

the likelihood that customers will defect if quality falters” (Anderson et al., 1997, p. 129). Positive word-of-mouth from satisfied customers also makes it simpler and less expensive to attract new customers (Luo, 2009). Customer satisfaction also links to improve overall reputation, economic return, and shareholder value (Fornell et al., 2006). In service industries such as hotels, customer satisfaction is not only an important goal, it is also a vital marketing tool for attracting future customers and ensuring

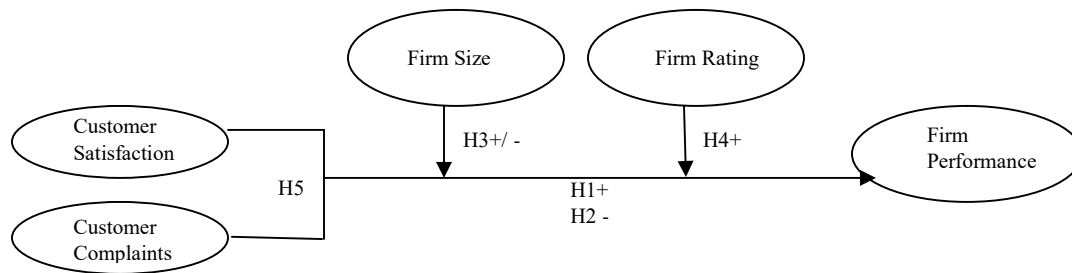


Figure 1: Conceptual framework: the relationship between consumer responses and firm

stronger market positions (Luo and Homburg, 2007). However, customers may not only voice their satisfaction but also their dissatisfaction, and recently, scholars have also investigated customer complaints as an important customer voice (Luo, 2009).

Despite the attention and contributions to understand customer satisfaction and complaints on firm performance, few studies analyze how they affect hotel performance (Chi & Gursoy, 2009). The goal of this paper is to contribute to the literature on customer satisfaction in a service context, focusing on two important gaps. First, customer satisfaction and complaints are two essential customer voice variables. Although these two have been analyzed separately regarding their impacts on firm performance, to date no study has included their impacts on firm performance in a single model. This is a major gap. Thus, we provide an investigation of such a more complete customer equity model in which we analyze the impact of both customer satisfaction and customer complaints on hotel performance simultaneously.

Second, this study uses a more ro-

bust approach to measure firm performance than extant satisfaction performance studies. Instead of using financial indicators used commonly in the literature, we focus on technical efficiency gap, which offers two advantages. It measures overall firm performance based on multiple inputs and outputs, not partial indicators alone. It also reveals a company's efficiency gap when benchmarked against optimum, best-performing competitors. Hence, it provides a complete assessment of performance by measuring performance of every firm relative to the maximum performance it can achieve.

Literature Review

Consumers' post-consumption responses (e.g., expressing satisfaction or complaining) are important to managing loyalty and repeat purchases. Expressing low satisfaction is not synonymous with expressing dissatisfaction by complaining, and vice versa; research from sociology and psychology (Cashdan, 2001) suggest positive and negative dispositions are distinct. We investigate whether creating satisfied customers leads to higher performance. Further, we investigate whether firms with less complain-

ing customers perform better than firms with more complaining customers. Our framework that includes the impact of consumer responses on firm performance is illustrated in Figure 1.

The hospitality management literature suggests that customer satisfaction is at “the core of hospitality operations” (Sun and Kim, 2013, p.70). Hotel revenues rely heavily on the service quality delivered by its employees, and consequently, customer satisfaction occupies an important role in the hotel industry, leading to improved brand reputation, faster market penetration, accelerated cash flows (Anderson et al., 2000).

Although the literature supports these theoretical advantages of customer satisfaction, the empirical evidence remains inconclusive. Banker et al. (2005) demonstrate that while Hotelcorp enjoyed positive effects on revenue as a result of implementing an incentive plan to improve customer satisfaction, the impact on operating costs was negative. Customer satisfaction influences a firm’s revenue positively, but it might not always result in increased profits (Bernhardt et al., 2000). For example, to increase customer satisfaction, firms often invest in training and upgraded facilities (Chi & Gursoy, 2009), but this might affect profits and obscure the potential relationship between customer satisfaction and firm performance – at least in the short term (Bernhardt et al., 2000).

In view of contradicting findings in this literature, it is difficult to hypothesize the nature and direction of the relationship between customer satisfaction

and hotel performance. Following theoretical arguments found in the majority of the literature (Anderson et al., 2000; Luo and Homburg, 2007), we expect customer satisfaction to influence hotel performance positively.

H1. Customer satisfaction correlates positively with hotel performance.

The focus on decreasing complaints should also be important for hotels just as customer satisfaction is. In a recent extension of the satisfaction literature, marketing scholars have focused on customer complaints (Luo, 2009; Luo and Homburg, 2007). For most firms, the cost of generating a new customer is higher than retaining a customer (Yavas et al., 2004), and because complaints is a more extreme effect of being dissatisfied, these complaining customers may exit. Therefore managing customer complaints is important, particularly in industries such as hotels in which competition is fierce and customers can easily switch among service providers.

Some researchers often use complaints as a proxy for customer satisfaction (Steven et al., 2012). More typically, however, in much of the extant literature customers’ complaining behaviors are viewed as a consequence of low satisfaction, but recent studies demonstrate that complaints do not always originate from dissatisfaction, and dissatisfaction does not always result in complaints (Tronvoll, 2007). According to Hirschman (1970) exit-voice theory, dissatisfied customers have two options: exit or voice; customers either stop buying or voice complaints to a firm. Customer complaints is one of the two

feedbacks for dissatisfaction, and dissatisfaction in turn is a necessary but insufficient condition for customer complaints (Jacoby & Jaccard, 1981). Thus, customer complaints should not be used as a reverse proxy for customer satisfaction. This study distinguishes customer satisfaction from complaints. Thus:

H2. Customer complaints correlate negatively with hotel performance.

Hotel size. Hotel size has been linked to the resources that a hotel has. It also represents a prominent contingency variable that distinguishes hotels (Huang et al., 2012). Hotel size can, for example, influence a hotel's learning opportunities, and the size of promotions (Barros and Dieke, 2008). Larger hotels with greater resources will want to draw on experiences from those of their hotels which have particularly positive customers, and then implement corresponding procedures across other hotels in the hotel chain (Assaf and Agbola, 2011). Larger hotels have more resources and can better to capitalize on such higher-satisfaction information in promotional campaigns. As such, larger hotels draw both internal (e.g., learning from the experiences of other hotels in the chain) and external (e.g., leverage higher customer satisfaction) benefits from size. Therefore, regarding customer satisfaction, we predict that size will strengthen the impact of customer satisfaction on hotel performance.

Regarding customer complaints, we argue that firm size weakens the negative impact of complaints on firm performance. Larger firms tend to be less flexible, and react more slowly to environmental

changes (Fiegenbaum & Karnani, 1991). If customers increasingly complain, larger firms might react more slowly than smaller firms do (Perry-Smith & Blum, 2000). Larger firms are subject to inertial forces and rigidity that limit change. Systems and processes that characterize smaller firms make them inherently more flexible and receptive (Perry-Smith & Blum, 2000). Similarly for customer satisfaction, larger hotels may be less flexible in terms of reacting to customer satisfaction once identified (Baum & Wally, 2003) Overall, we do not expect flexibility to outweigh positive size mechanisms, and suggest a strengthening effect of hotel size on the customer satisfaction-hotel performance relationship, and a weakening effect of hotel size on the customer complaint- hotel performance relationship.

H3a. The impact of customer satisfaction on firm performance is stronger for larger firms than for smaller firms.

H3b. The impact of customer complaints on firm performance is weaker for larger firms than for smaller firms.

Star rating. The star-rating system in the hotel industry is a quality signal (Israeli, 2002) that allows higher-rated hotels to support premium-pricing strategies. We argue that star rating has a moderating influence on the relationship of both customer voice variables on performance.

Regarding the impact of customer satisfaction on hotel performance, we argue that this relationship is stronger for higher rated hotels than for lower rated hotels. This is the case as higher rated

hotels are in a better position to leverage high levels of customer satisfaction than are lower rated hotels (Barros and Dieke,

2008). Higher rated hotels are more likely to have systems in place in terms of promotion to leverage positive

Table 1 Correlation matrix and descriptive statistics

	Mean	SD	1	2	3	4	5	6	7
1. TEG	0.64	0.15							
2. Satisfaction	193.69	208.98	- 0.02						
3. Complaint	5.64	0.77	0.04	0.01					
4. Star rating	3.55	0.62	- 0.08	0.04	0.23				
5. Size	14.02	1.40	0.02	0.43	0.06	0.24			
6. Years in business	0.27	0.44	- 0.07	0.18	0.06	0.20	0.33		
7. Part of a group	0.40	0.49	0.18	- 0.14	0.14	0.01	- 0.43	- 0.31	
8. Advertising spending	1,173,773	3,049,400	0.05	0.29	0.12	0.07	0.62	0.31	- 0.3

customer satisfaction (Israeli, 2002)

Regarding customer complaints, we argue that hotels with a higher star rating experience a more negative relationship between customer complaints and hotel performance. We rely on the expectancy-confirmation theory (Ahluwalia and Gürhan-Canli, 2000) and the notion of negativity bias which states that negative disconfirmations (in this case indicated by customer complaints) are punished harder when the expectation for quality is higher such in the case of higher rated hotels. Recent studies (Darke et al., 2010) also emphasized that negativity bias such that negative disconfirmation is punished harder than positive disconfirmation is rewarded.

H4. The impacts of (a) customer satisfaction, and (b) customer complaints on firm performance are stronger for firms with a higher rating than for hotels with a lower rating.

Researchers are increasingly focusing on the importance of complaints and whether complaint management represents an opportunity to increase profit-

ability (Johnson et al., 2001). Prospect theory asserts that “people are more sensitive to losses than gains. Thus, in most service encounters, customers perceive service failures as losses, and weigh failures heavily” (Smith et al., 1999, p. 360). Lou and Homburg (2007) test the effects of both customer satisfaction and complaints on firms’ stock-value gap, finding that customer complaints have a stronger impact on gaps than satisfaction. This implies that negative experiences of service failure are more impactful than positive experiences. Based on these arguments, we suggest that the effect of complaints is stronger than satisfaction on hotel performance.

H5. Customer complaints have a stronger influence on hotel performance than customer satisfaction does.

Methodology

The paper adopts a two-step procedure to test the hypotheses. First, we estimated performance using the technical efficiency gap concept. Second, we estimated the impact of customer satisfaction, customer complaints, and modera-

tors on the gap. Table 1 presents a correlation matrix for all variables for the full sample.

We tested hypotheses on a sample of 56 hotels from Taiwan for the 2018–2019 period. We measured performance using the technical efficiency gap metric; the degree of producing as much output as technology and inputs allow or using as few inputs as required by technology and production. The concept recently gained increased popularity in the hospitality and marketing literature (Luo and Homburg, 2007) due to several advantages over simpler performance metrics such as ROA and Tobin-q. For example, the technical efficiency gap is a relative measure of performance that compares a firm’s performance with its optimum performance. It provides the distance (i.e., gap) between a firm’s performance and the maximum performance it could achieve. In contrast to other, simpler measures of performance, the technical efficiency gap is also a more comprehensive measure of performance since it depends on multiple inputs and outputs. Measurement of the technical efficiency gap involves estimating a stochastic frontier production function in “which a firm’s output is a function of its inputs and a standard, two-sided error term that measures the effects of unobservables, and another technical efficiency gap term that has a minimum value of zero” (Assaf et al., 2011, p. 197). The stochastic frontier production function is expressed as:

$$y_{it} = x'_{it} \beta_i + v_{it} - u_{it}, \text{ for each firm } i = 1, \dots, n, \\ \text{at time } t = 1, \dots, T$$

where y_{it} is firm output, x_{it} is a $k \times 1$

vector of input and explanatory variables, and β_i is a $k \times 1$ vector of parameters.

v_{it} , and u_{it} denote measurement error distributed as normal $N(0, \sigma_v^2)$ and the technical inefficiency gap distributed as half-normal $N^+(0, \sigma_u^2)$. Hence, the technical efficiency gap enters the production function negatively since it measures the shortfall of a firm’s performance to its optimum performance. Eq. (1) is usually estimated using the maximum-likelihood (ML) method since the combined error ($v_{it} - u_{it}$) is not distributed normally. For specification of input and output variables, we followed the hotel literature (Assaf et al., 2011), selecting total revenue (output), number of hotel rooms (input), number of employees (input), cost of materials (input), and other operational costs excluding labor (input). We normalized the technical efficiency gap (u_{it}) between zero and 1 (or 100%) since this simplifies comparisons across firms, and Eq. (2) enables straightforward interpretation of results (zero means the firm achieved optimum technical efficiency). The larger the parameter, the wider the gap is between a firm’s performance and optimum performance. We collected data for input and output variables from hotels’ financial statements, available from the Taiwan Tourism Bureau.

Data for customer satisfaction and complaints were collected directly from hotels, all of which collect data on these variables regularly. We calculated average customer satisfaction per year for each hotel, and for complaints, we summed the number of complaints per year for each hotel. Data on star ratings were collected from hotel websites. We

measured size as the log of total assets, in line with the literature (Assaf et al., 2011), We added control variables to the model, including the number of years the hotel had been in business, type of own-

ership (i.e., independently owned versus part of a group), and advertising expenditures. The first two control variables are used in most performance studies on the topic (e.g., Assaf &

Table 2. Impact of customer satisfaction and complaints on the technical efficiency gap

	Column 1 Hypothesis	Two-limit robust Tobit Model				Random parameter Tobit Model			
		Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
		Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Customer satisfaction	H1	- 1.811		- 1.107		- 1.816		- 1.124	
Customer complaints	H2	2.493		2.507		2.491		2.487	
Customer satisfaction, hotel size	H3a			- 1.807				- 1.804	
Customer complaints, hotel size	H3b			- 1.699				- 1.698	
Customer satisfaction, star rating	H4a			- 1.404				- 1.376	
Customer complaints, star rating	H4b			1.567	n.s.			1.489	n.s.
Star rating		- 0.491		- 0.501	n.s.	- 0.478		- 0.506	n.s.
Size		- 0.566	n.s.	- 0.523	n.s.	- 0.564	n.s.	- 0.527	n.s.
Years in business		- 1.470		1.345		- 1.469		- 1.344	
Part of group versus individual		- 1.527		- 1.780		- 1.525		- 1.783	
Advertising spending		- 2.470		- 2.469		- 2.473		- 2.469	

* $p < 0.10$, ** $p < 0.05$, n.s., not significant

Agbola, 2011; Barros & Dieke, 2008). Several studies test the impact of advertising expenditures on firm performance (Joshi and Hanssens, 2010) In the present context, advertising might help firms reap benefits from customer satisfaction or decrease the negative impact of customer complaints.

Results

Technical efficiency gap was the dependent variable, and independent variables were customer satisfaction, customer complaints, the moderators, and control variables. Since technical efficiency gap was bound to 0–1, we used a two-limit Tobit model to estimate hypotheses. The model was:

$$\begin{aligned}
 TEG_{i,t+1} = & \beta_0 + \beta_1 CuSat_{i,t} + \beta_2 CuCom_{i,t} \\
 & + \beta_3 CuSat_{i,t} \times Size_{i,t} \\
 & + \beta_4 CuSat_{i,t} \times Star_{i,t} \\
 & + \beta_5 CuCom_{i,t} \times Size_{i,t}
 \end{aligned}$$

$$\begin{aligned}
 & + \beta_6 CuCom_{i,t} \times Star_{i,t} + \beta_7 Size_{i,t} \\
 & + \beta_8 Star_{i,t} + \beta_{controls} Controls_t + \varepsilon_{i,t+1}
 \end{aligned}$$

and

$$TEG_{i,t+1} = \begin{cases} TEG_{i,t+1} & \text{if } 0 \leq TEG_{i,t+1} \leq 1 \\ 0 & \text{if } TEG_{i,t+1} < 0 \text{ or } 1 \text{ if } TEG_{i,t+1} > 1 \end{cases}$$

where $TEG_{i,t+1}$ is the technical efficiency gap, $CuSat_{i,t}$ is the lag of customer satisfaction, $CuCom_{i,t}$ is the lag of customer complaints, $Size_{i,t}$ is the lag of hotel size, $Star_{i,t}$ is the lag of hotel star rating, and $\varepsilon_{i,t+1}$ is error. Since panel data involves unobserved, cross-sectional heterogeneity that can lead to bias, we also estimated a random-parameter, robust Tobit model to account for bias. The model also accounted for both firm-wise and time-wise heteroscedasticity (Greene, 2003).

The results of both models are shown in Table 2. Since the dependent variable is technical efficiency gap, a variable

that has a negative estimated effect (i.e., a negative impact on technical efficiency gap) has a positive impact on performance (i.e., closing the technical efficiency gap). All variables seem to be correctly signed. The control variables seem also to be in line with the literature. For example, advertising has a positive impact on performance supporting previous studies in the literature (Osinga et al., 2011).

Both Tobit models in Table 2 (columns 2 and 6) support H1. For example, increased customer satisfaction had a negative influence on technical efficiency gap (i.e., a positive impact on performance). Both models also support H2 (columns 2 and 6). Customer complaints, for example, had a positive impact on technical efficiency gap; when customer complaints increase, technical efficiency gap increases.

We hypothesized with H3a and H4a that the impact of customer satisfaction on firm performance is stronger for larger hotels and hotels with higher ratings. Results shown in Table 2 (columns 4 and 8) support these hypotheses since both moderators were negative (i.e., positive impact on performance), indicating both size and rating strengthened the impact of customer satisfaction on firm performance. We hypothesized with H3b and H4b that the impact of customer complaints on firm performance is weaker for larger hotels and stronger for hotels with higher ratings. Results in Table 2 (columns 4 and 8) indicate that size reduced the impact of complaints on increasing the technical efficiency gap, but the interaction of complaints and ratings was not significant. Hence, only

H4b was supported.

We suggested with H5 that customer complaints have a stronger impact than customer satisfaction on hotel performance. As shown in Table 2, customer complaints had a stronger impact than customer satisfaction on firm performance. To confirm the hypothesis, we conducted a Wald coefficient test to confirm statistical significance between the two. Results suggested rejection of the null hypothesis ($F = 16.322, p < 0.05$); customer complaints and satisfaction had the same impact on firm performance. Hence, H5 was supported.

Conclusions

This study advances the traditional customer equity model by analyzing the impact of both customer satisfaction and complaints on firm performance simultaneously. Results suggest increasing customer satisfaction affects firm performance positively, and increasing customer complaints has a negative effect on firm performance. These findings confirm extant theoretical assumptions regarding relationships with firm performance. Relationships often change (i.e., weaken, strengthen, or reverse) when added to a more complete model in comparison to individual testing. These results empirically confirm that both concepts are important and must be included in the same model. To the best of our knowledge, this is the first time that both variables have been investigated simultaneously. The next question was whether a firm's limited resources are better allocated toward increasing satisfaction or limiting complaints? This is a key question for any service firm.

Including customer satisfaction and complaints in the same model allowed us to test which of the two had the strongest impact on performance. Results show that customer complaints had the stronger impact. Demonstrating that a negativity bias exists contributes to customer service literature.

We also address another gap in customer satisfaction and firm performance literature: lack of studies that use a contingency approach to examine circumstances under which customer satisfaction is a more or less important determinant of firm performance. Regarding hotel size, results show that the impact of customer satisfaction on firm performance was stronger for larger hotels.

As suggested, the impact of customer complaints on firm performance was weaker for larger hotels. Concerning the impact of perceived quality, we used hotel ratings, and findings suggest performance of hotels with higher ratings is influenced more by customer satisfaction than for hotels with lower ratings. Although hotels with higher ratings were more sensitive to variations in customer satisfaction, highly rated hotels were no more sensitive regarding customer complaints. Results thus show that the effect of customer complaints on firm performance is similar for hotels regardless of rating.

This study also has several implications for practitioners. The finding that customer complaints have a stronger effect on hotel performance than satisfac-

tion allows hotel managers to allocate limited service management resources better. This implication also gives impetus to future research trying to find thresholds at which optimum resource allocation switches between satisfaction and complaints. Although this study suggests that hotels benefit more from investing in lowering complaints rather than investing in increasing satisfaction, the added value of investing in lowering complaints decreases the lower the number of complaints. Similarly, the value of increasing satisfaction might be higher the lower satisfaction is. There might exist degrees of customer satisfaction and complaints with which hotels do better allocating resources to increasing satisfaction, an interesting opportunity for future research.

Managers of larger hotels should particularly allocate resources to managing customer satisfaction, and managers of smaller hotels should minimize complaints rather than increase satisfaction. Hotel managers should also consider ratings. Customer satisfaction should be a focus for highly rated hotels, and customer complaints are equally important for all hotels, those with both low and high ratings. This study shows that customer satisfaction and complaints are important customer equity variables that influence hotel performance. We provide several insights into their relative importance, including contingency criteria in which they are particularly important to determining hotel performance.

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