



THE INFLUENCES OF EMPLOYEES' SERVICE QUALITY AND ORGANIZATIONAL COMMITMENT ON FINANCIAL PERFORMANCE AS EXEMPLIFIED BY TAIWAN-LISTED INTERNATIONAL TOURIST HOTELS

MEI-HSIEN HUANG¹, YU-JE LEE²

1 National Taiwan University of Arts

2 Takming University of Science and Technology

ABSTRACT

In response to the increasing growth in tourism, the government has made related policies less and less restrictive to facilitate the development of tourism in Taiwan. How international tourist hotel employees improve the quality of their service is closely associated with the sustainability of hotel businesses. In particular, whether the frontline employees who deal with customers face to face have the right market-oriented work attitude and behavior will have a direct effect on the quality of customer service or customer satisfaction. In turn, the financial performance of the organization will also be affected. The main purpose of this study is to examine the influence of employees' service quality and organization commitment on financial performance in Taiwan-listed international tourist hotels by using customer satisfaction as the dual mediator. Simple random sampling is applied to select study samples from among section chiefs and managers in Taiwan-listed international tourist hotels and then they are interviewed. Linear structural equation modeling (SEM) is used to verify the goodness of fit of the overall model adopted in this study, including the structural model and the measurement model. Subsequently, the Sobel test, bootstrapping and Mackinnon PRODCLIN2 are performed to examine the effect of the dual mediator. The results indicate that in Taiwan-listed international tourist hotels, (1) employees' service quality has positively significant influence on customer satisfaction; (2) employees' service quality also has direct, positive and significant influence on financial performance; (3) customer satisfaction has positively significant influence on financial performance; (4) organizational commitment has positively significant influence on customer satisfaction; and (5) organizational commitment has direct, positive and significant influence on financial performance. These results show that "customer satisfaction" has "double" mediating effects and this implies that customer satisfaction can serve as an important bridge in financial performance promotion. However, this by no means suggests that promotion of financial performance can entirely rely on customer satisfaction. Efforts must be invested through other channels as well. It is hoped that the results of this study can serve as



references for the managerial departments of Taiwan-listed international hotels in their choice of using employees' service quality, organizational commitment or satisfaction as the strategy for financial performance improvement.

Keywords: *Employees' Service Quality, Organizational Commitment, Customer Satisfaction, Financial Performance, Dual Mediation Effects*

1. Research Background & Purpose

In response to the increasing growth in tourism, the government has made related policies less and less restrictive to facilitate the development of tourism in Taiwan. As a result of continuous investment and buildup in the international tourist hotel industry, the number of rooms in international tourist hotels in Taiwan has escalated and competition in the hospitality market has become fierce. Operating costs have gone up while business profits have shrunk by a large margin. Under such circumstances, besides improving service quality to attract more customers, cutting down on personnel costs and making other changes have also become important strategies for cost reduction to increase profits.

International tourist hotels are more than just impressive and magnificent buildings. It is more significant that each one has its own unique "human" touch since "humans" are the most important asset of an enterprise (Yan, 1997). Tsao and Wang (2001) believed "employees" are a critical asset in the tourism industry whereas whether the "service" provided by the employees in an international tourist hotel can be perceived by customers as "worthwhile" will have the strongest influence on the

management performance of the hotel. This means how the employees of an international tourist hotel provide quality service to customers is closely related to the sustainability of the hotel. In particular, whether the frontline employees who deal with customers face-to-face have the right market-oriented work attitude and behavior will have a direct effect on the quality of customer service and in turn affect the financial performance of the organization. In other words, the level of the frontline employees' loyalty to the organization will have an effect on each individual employee's service attitude. Those loyal to the organization (organizational commitment) will consider everything, big or small, in the organization of their own business and devote themselves accordingly (Shen, Chen and Lin, 2010). This will also have a direct impact on the quality of customer service. Decent customer service will increase customer satisfaction and subsequently influence the organization's financial performance.

Because of the above-mentioned, this study intends to examine and understand the employees' service quality and organizational commitment on financial performance in Taiwan-listed international tourist hotels by using customer satisfaction as the mediator. The



purposes of the study include the following:

- (1) To verify whether employees' service quality has positively significant influence on customer satisfaction in Taiwan-listed international tourist hotels;
- (2) To verify whether employees' service quality has positive and significant influence on financial performance in Taiwan-listed international tourist hotels;
- (3) To verify whether customer satisfaction has positively significant influence on financial performance in Taiwan-listed international tourist hotels;
- (4) To verify whether organizational commitment has positively significant influence on customer satisfaction in Taiwan-listed international tourist hotels;
- (5) To verify whether organizational commitment has positive and significant influence on financial performance in Taiwan-listed international tourist hotels.

2. Literature Review

The main constructs of this study include employees' job satisfaction, leadership styles, organizational commitment and organizational performance. Below is a review of relevant literature.

2.1 Literature Concerning Employees' Service Quality

Service quality is how different consumers perceive the service they receive, assessing whether their consumption is worth the while as a kind of invisible feedback and giving their ratings. If the service provided satisfies

consumers, the quality of service is good. The following is a brief description of the definition and constructs of service quality.

2.1.1 Definition of Service Quality

The definition of service quality applied in this study is the definition from Cheng (2013); it means "the perception of customers toward whether service is good or bad, the result of comparison between the service customers 'expect' to get and what they actually 'perceive.' When the former is subtracted from the latter and the difference is greater than zero, the quality of service customers get is ideal or satisfactory." Other literature containing similar definitions is described as follows:

Parasuraman, Zeithaml & Berry (1985) tried to define and assess service quality and concluded that for consumers, service quality is harder to define than the quality of regular products. They believed the service quality perceived is the result of comparison between the quality of service customers expect to get and what they actually receive. Moreover, customers do not determine service quality only according to the service they receive. They also decide on the level of their satisfaction by assessing the overall service product. It is the level of difference between perception and expectation. Ho and Su (1995) thought service quality is the long-term and to-some-extent stable satisfaction of a group of representative consumers with a certain service. Lin (1996) suggested that service quality is consumers' evaluation of the overall positive of a service. Unlike objective quality, it is perceived. Service



quality is the result of comparison between the quality of service expected and the performance of service perceived.

In addition, Hong (1999) thought service quality is a rather complicated topic and, therefore, it is the most important concept in marketing management in common service industries.

2.1.2 Service Quality Measurement Constructs

It is not easy to evaluate service quality. The most important standard in measurement of service quality is whether customers are satisfied. It is entirely subject to the perception of the recipients of service.

The constructs of PZB service quality model put forward by Parasuraman et al (1985) include: (1) tangibles: referring to physical equipment of service, such as the hardware in the venue where service is provided, the space, architecture, decoration, facilities and equipment, the attire and manners of the personnel and the objects used for communication, like documents and advertisements; (2) reliability: referring to the level of trustworthiness of the personnel in execution of service, fulfilling the needs of customers by providing service the first time; (3) responsiveness: including the dexterity and willingness of service personnel to provide quick service or help customers by responding to customers' service needs promptly and exhibiting the capacity to handle quickly and properly customers' problems to make customers feel satisfied; (4) assurance: referring to the level of professionalism and politeness of the

employees being able to win the trust of customers and make them feel reassured; and (5) empathy: referring to the employees' ability to show they care for customers, communicate to understand their needs, help them acquire service and make active efforts to satisfy the needs and expectations of customers.

In practice, the service quality scale, SERVQUAL, applied focuses on assessing the subjective opinions of customers by measuring the expectation of customers before receiving service and their perception after receiving service. The level of difference in between then serves as the basis for service quality assessment. This scale has been extensively applied by academics and practitioners to measure service quality.

The classification of employees' service quality in this study is adopted from the classification proposed by Parasuraman et al (1985).

2.2 Literature Concerning Organizational Commitment

2.2.1 Definition of Organizational Commitment

Staw(1981) defined organizational commitment from the perspective of behavior. It is a process of not giving-up when people are confronted to make an irrevocable decision.

Allen & Meyer (1990) defined organizational commitment as the emotional attachment toward an organization and the costs/risks perceived regarding the departure from the organization. It is also a moral commitment, i.e. the responsibility and



obligation an individual feels about the employer. Meanwhile, Allen & Meyer (1990) argued that organizational commitment is a multiple construction and can be divided into personal emotions, costs and risks perceived and social relationships. Organizational commitment can be decomposed into (1) affective commitment: the level of emotional attachments toward an organization; (2) continued commitment: perceived costs and risks regarding the departure from the organization; (3) normative commitment: a moral commitment, i.e. the responsibility and obligation felt toward the organization.

Meyer, Allen & Smith (1993) defined organizational commitment as an individual's identification with and devotion to a specific organization. It is the behavioral inclination of the members of an organization to not want to leave the organization because of their pay, positions, freedom to be professionally creative, and friendships with colleagues (Tsai, 2006).

Tsai (1999) defined organizational commitment as the identification with the organization and willingness to make extra efforts for the organization to achieve organizational goals.

Robbins (2001) believed that organizational commitment is the level of loyalty to and identification with an organization, as well as the involvement in organizational activities.

Based on the above, this study adopts the definition of organizational commitment by Tsai (1999) and the three sub-dimensions, i.e. affective commitment, continued commitment and

normative commitment, developed by Allen et al (1990) as the measurement of organizational commitment.

2.3 Literature Concerning Financial Performance

Many studies have been conducted on constructs of organizational performance measurement and the financial performance measurement in this study is conducted in accordance with the financial dimension of organizational performance measurement proposed by Huang (2008) and by Ling and Hung (2010). For this reason, "EPS" and "ROE" are adopted to be the financial performance measurement indices. The outlines of the main related literature are as follows:

Huang (2008) used financial growth and profitability metrics for the measurement of organizational performance. Such metrics include above-industry EPS, ROE or ROA (Ling and Hung, 2010).

2.4 Literature Concerning Employee Satisfaction

Cardozo (1965), the first scholar to introduce the concept of customer satisfaction (CS), suggested that customers satisfied with a product are likely to purchase it again; they will also have confidence in other products from the same product line and spread such positive opinions through word of mouth. The definition of customer satisfaction and constructs are as follows:

2.4.1 Definition of Customer Satisfaction

Anderson, Fornell & Lehmann (1994)



defined customer satisfaction as “consumers’ complete experience of purchasing a product or service and it becomes an overall evaluation over time.”

Kotler (1999) thought customer satisfaction can generate the willingness to make repurchases and satisfied consumers will discuss the products of the company with others and are loyal to the brand. Hence, in recent years, every big corporation has made unsparing effort to establish a customer satisfaction rating system to provide indices for business competitiveness assessment (Chou, Huang and Kuo , 2000).

Hernon, Nitecki and Altman (1999) pointed out that customer satisfaction should include (1) satisfaction with personnel directly contacted: whether customers are satisfied with service personnel; (2) overall satisfaction with service: customers’ satisfaction with service personnel based on their past experience.

Giese and Joseph (2000) considered the three principal elements of customer satisfaction being (1) a reaction in consequence of emotional or perceptive judgment; (2) a reaction resulted from a specific event (target of customer satisfaction); and (3) the outcome of comparison between the feelings before and after the purchase.

The definition of customer satisfaction applied in this study is established in accordance with the definition from Anderson et al (1994).

2.4.2 Customer Satisfaction Measurement Constructs

Scholars have had dissimilar opinions about customer satisfaction measurement constructs.

Czepiel (1974) suggested that customer satisfaction can be the outcome of overall evaluation that represents the aggregation of customers’ subjective reactions to the different attributes of a product. Day and Ralph (1977) on the other hand believed ”satisfaction” is an overall and inclusive phenomenon; measuring the overall satisfaction with a single product can help understand the results of customers’ use of the product and such satisfaction can affect the post-purchase behavior of consumers.

Ostrom and Iacobucci (1995) asserted that measurement of customer satisfaction involves five constructs: (1) product price; (2) service efficiency; (3) service personnel’s attitude; (4) overall performance of the company; and (5) closeness to the ideal company.

Nicholls, Gilbert and Roslow (1998) thought the constructs in customer satisfaction measurement include (1) service of the personnel and (2) service environment.

Gronholdt, Martensen and Kristensen (2000) suggested that overall satisfaction is the customer satisfaction measurement dimension.

The two customer satisfaction measurement constructs proposed by Nicholls et al (1998) are adopted in this study.

2.5 Literature Concerning Employees’ Service Quality and Customer Satisfaction

Yang, Chen & Wu (2007) point out that service quality has significant influence on overall satisfaction.

Chuang and Chen (2012) concluded that service quality has significant influence on customer satisfaction.



Kuo (2013) indicated that the percentage of the attribute of service quality in the influence on overall customer satisfaction is not entirely linear and, therefore, using one-dimensional linear service quality viewpoint to assess customer satisfaction can easily mislead businesses into investing excessive resources to improve customer satisfaction.

Despite the subjects of discussion in the above-mentioned literature being related to different industries, scales or scopes, there is a degree of consensus. Therefore, this study develops the following hypothesis:

H1: Employees' service satisfaction has positive and significant influence on customer satisfaction in Taiwan-listed international tourist hotels.

2.6 Literature Concerning Employees' Service Quality and Financial Performance

So far, not much literature associated with financial performance is available. The following is literature related to this study:

Chen, Fang and Chung (2007) discovered the surveyed subjects are obviously satisfied with the quality of service provided by financial units.

Lin and Chu (2010) proposed establishment of service quality and performance assessment standards and criteria for evaluation of Key Performance Indicators (KPI) in the business and management constructs to force property management businesses to understand the necessity to improve the systemization and standardization of service quality and performance evaluation.

Based on the above literature analysis, this study develops the following hypothesis:

H2: Employees' service quality has positive and significant influence on financial performance in Taiwan-listed international tourist hotels.

2.7 Literature Concerning Customer Satisfaction and Financial Performance

Huang (2009) suggested that pursuing customer satisfaction has positive influence on a business' financial performance when industrial concentration is low.

Lin, Huang and Yang (2009) empirically proved a positive correlation does exist between customer satisfaction and management performance. Increasing customer satisfaction will heighten the probability of customers' making repurchases, an implication that "making customers satisfied" can indeed help enterprises improve business profits.

Chou, Huang and Li (2011) thought customer satisfaction has positive and significant influence on financial performance.

On the basis of the above literature review, this study develops the following hypothesis:

H3: Customer satisfaction has positive and significant influence on financial performance in Taiwan-listed international tourist hotels.

2.8 Literature Concerning Organizational Commitment and Customer Satisfaction

Cheng, Wang, Wu and Liang (2004) suggested that the higher the customer satisfaction, the stronger the organizational commitment of an enterprise to its customers will be.



Chang (2009) believed increasing employees' job satisfaction and organizational commitment through excellent internal marketing measures to cultivate customer-oriented service concepts is an issue businesses should seriously look into.

Despite the above-mentioned literature being examined different industries, scales or scope, there is a degree of consensus. Therefore, this study develops the following hypothesis:

H4: Organizational commitment has positive and significant influence on organizational commitment in Taiwan-listed international tourist hotels.

2.9 Literature Concerning organizational commitment and financial performance

Lin (2005) concluded that the value commitment in organizational commitment has significant and positive influence on organizational performance in the constructs of finance, customers, internal process and learning & growth, while employee retention commitment has significant and positive influence on the financial dimension of organizational performance.

Chen (2006) discovered that among the various types of corporate culture, hierarchical corporate culture and family business culture will have an effect on organizational commitment and the affective commitment of such organizational commitment will have influence on company performance.

Through empirical analysis, Su (2009)

discovered distribution of bonuses to employees can stimulate motivation and in turn has significant influence on job satisfaction, organizational commitment and job performance, whereas job satisfaction also has significant influence on organizational commitment and job performance. In the end, organizational commitment will have significant influence on job performance.

Despite that the abovementioned literature examines different industries, scales or scope, there is a degree of consensus. Therefore, this study develops the following hypothesis:

H5: Organizational commitment has positive and significant influence on financial performance in Taiwan-listed international tourist hotels.

3. Research Methods

Based on the above research purposes, hypotheses and literature review, this study comes up with the following research structure (Figure 3.1):

3.1 Research Structure

3.2 Questionnaire Design and CMV Test

3.2.1 Questionnaire design

This study uses simple random sampling for the questionnaire survey. To enhance the content validity and reliability of the questionnaire, this study conducts an expert questionnaire based on the initial questionnaire design for a pilot test. Inappropriate questions

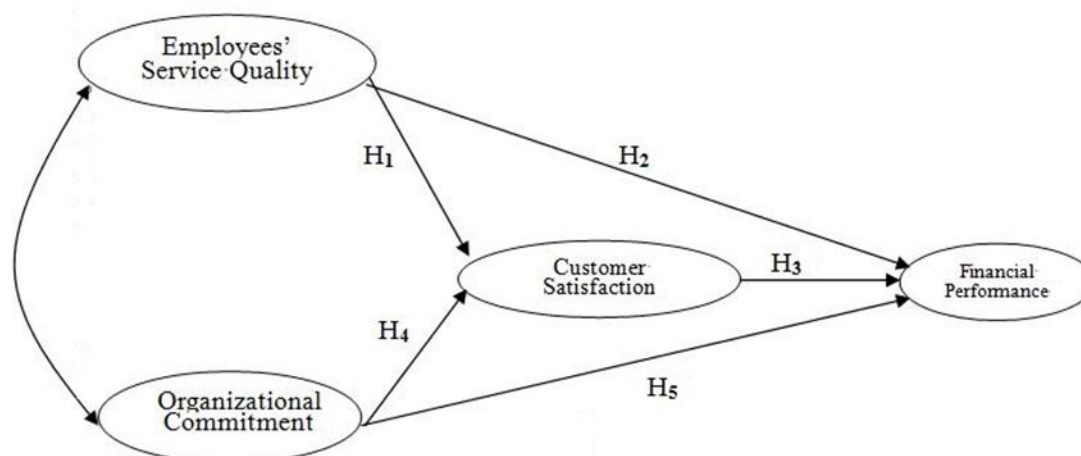


Figure 3.1 Research Structure

are either modified or deleted before the post test. The questionnaires are issued to managers and directors working in Taiwan-listed international tourist hotels. A total of 520 questionnaires are posted, and 202 effective questionnaires, or at 38.85% effective recovery rate, are collected after the elimination of incomplete and invalid questionnaires. All the measurable constructs in the questionnaire are evaluated separately in individual section. The measurement is based on Likert's scale of 1~7, with 7 indicating "extreme agreement" and 1 indicating "extreme disagreement". The stronger the level of agreement, the higher the score is (Fritz and Mackinnon, 2007).

The design of the questionnaire section concerning employees' service quality is based on the five constructs proposed by Parasuraman et al (1985) for employees' service quality. These five constructs are tangibles, reliability, responsiveness, assurance and empathy. A total of 10 questions are developed.

The design of the questionnaire section on organizational commitment is referenced to the classification by Allen et al (1990). A total of nine questions are developed to cover the three sub-constructs, i.e. affective commitment, continued commitment and normative commitment.

The "customer satisfaction" questionnaire is designed in accordance with the viewpoints of Nicholls et al (1998) about customer satisfaction. It is divided into two sections respectively covering the constructs of service of personnel and service environment. There are eight questions altogether.

The measurement of financial performance is a reference to the financial dimension elaborated by Huang (2008), and Ling & Hung (2010). The dimension indicators for financial performance are EPS and ROE. This study designs and modifies the questionnaire section, which consists of six questions.



3.2.2 CMV Test

This study takes into account how to reduce common method variances at the initial stage of the questionnaire design and survey. After the completion of CFA, this study performs Haman’s single-factor test and single-factor confirmatory factor analysis (i.e. CMV test for single-factor CFA) to examine the presence of common method variances. In other words, this study performs chi-squared tests. If the variances are statistically significant, it is possible to state that the common method variances are not significant (Chang and Zheng, 2012).

3.3 SEM and Measurement System

To validate the research structure, this study adopts linear Structure Equation Modeling (SEM) for Confirmatory Factor Analysis (CFA). The

questionnaire measures four latent variables, i.e. employees’ service quality, organizational commitment, customer satisfaction and financial performance. Each latent variable can be divided into secondary variables, for which multiple questions are developed. The collated survey data is processed and the data file for the questionnaire responses is established. Despite that the questionnaire is designed into individual sections for the measurement system of the research model, this study performs dual measurements in order to facilitate software processing (Chen, 2010). Table 3.1 summarizes the number of questions and reference sources of individual implicit variables and explicit variables (Lee, 2011).

Table 3.1 Questionnaire structure

Implicit dimension	Explicit dimension	No. of questions	References
Employees’ Service Quality	Tangibles	2	Parasuraman et al. (1988)
	Reliability	2	
	Responsiveness	2	
	Assurance	2	
	Empathy	2	
Organizational Commitment	Affective Commitment	3	Allen et al (1990)
	Continued Commitment	3	
	Normative Commitment	3	
Customer Satisfaction	Service of personnel	4	Nicholls, Gilbert, and Roslow (1998)
	Service environment	4	
Financial Performance	EPS	3	Huang (2008); Ling et. al (2010)
	ROE	3	
		3	



3.4 Linear Structural Model

Confirmatory Factor Analysis (CFA) is a type of analysis in contrast with Exploratory Factor Analysis (EFA). This study conducts pairwise CFA on the four constructs, i.e. employees’ service quality, organizational commitment, customer satisfaction and financial performance. Structural equation modeling (SEM) consists of structural modeling and measurement modeling. It can effectively solve the causal relationship between implicit variables. Hence, this study sets out to examine three elements of the model: (1) the compliance of the fit measurement for the overall model with the requirement; (2) the fit of the measurement model and (3) the fit of the

structural model (Lee, 2011).

4. Research Analysis & Findings

4.1.1 Overall Fit Tests

After the literature review and the factor analysis on sampled data, this study constructs the overall model and, as suggested by Hair, Anderson, Tatham and Black (1998), classifies the measurement of the overall model fit into three categories, i.e. measures of absolute fit, increment fit and parsimonious fit. Table 4.1 shows the results of the overall fit tests (Chen, Fang, Chen & Chien, 2008).

Table 4.1 Overall fit tests

Fit measures		Criteria	Research results
Absolute fit	GFI	>0.9	0.904
	AGFI	>0.8	0.901
	RMR	<0.05	0.024
Increment fit	NFI	>0.9	0.903
	CFI	>0.9	0.901
Parsimonious fit	PNFI	>0.5	0.614
	PGFI	>0.5	0.612

4.1.2 CMV Test Results & Analysis

Multi-factor CFA is the nested structure of single-factor CFA. In other words, multi-factor CFA is nested under single-factor CFA. Therefore, this study performs chi-square tests. The null hypothesis is that there is no difference between the single-factor CFA model (Figure 4.1) and the multi-factor CFA model (Figure 4.2). The test results show the chi-square variances

are statistically significant, indicating that these two models are different. Hence, there is no evidence proving the existence of common method variances (Chang and Zheng, 2012).

The test procedures are as follows:

- (1) A drawing on the single-factor CFA is made and analyzed to derive the chi-square, degree of freedom and model fit.



one factor CMV
 chi-square=468.642
 degree of freedom=209
 norm chi=10.376
 gfi=0.903; agfi=900
 msea=0.027

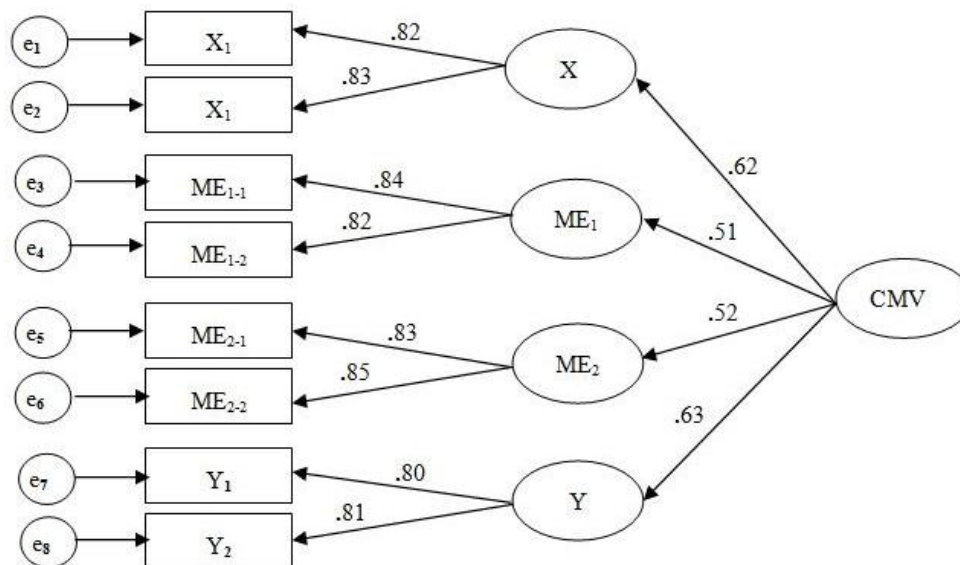


Figure 4.1 Single-factor CFA

multi-factor CMV
 chi-square=138.552
 degree of freedom=63
 norm chi=1.745
 gfi=0.903; agfi=0.901
 msea=0.028

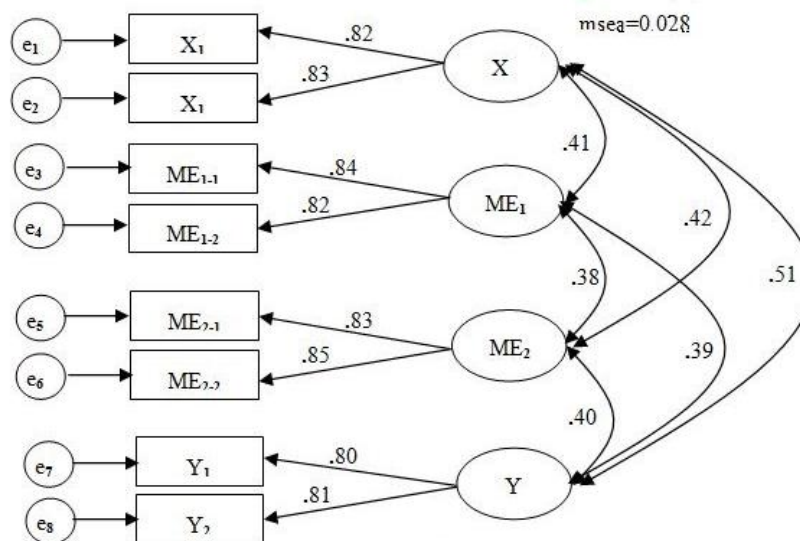


Figure 4.2 Multi-factor CFA



(2) The drawing is re-arranged into the original factor model (Figure 4.2) for analysis, in order to derive the chi-square, degree of

(3) Model Comparisons

$$\Delta df = 209 - 63 = 146 ;$$

$$\Delta \chi^2 = 468.54 - 138.55 = 329.99$$

(4) Calculation of Statistical Significance

Start the software program, STATABLW

Select "Distribution" → "Continuous"

→ "Chi-Square"

Press "Enter" on Δdf and $\Delta \chi^2$ for P value

The calculation by this study yields a P value of zero, indicating statistical significance and hence the null hypothesis is rejected. In other words, the two models (Figure 4.1 and Figure 4.2) are different and there is no common method variance among the constructs in this study. Therefore, CMV is not an issue and will not cause any bias in coefficient estimates or confusing interpretations.

4.1.3 Measurement System within Model

The factor loading of latent (implicit) variables (i.e. main constructs) and manifest (explicit) variables (i.e. sub-constructs) measures the strength of linear correlation between individual latent variables and manifest variables. The closer the factor loading is to 1, the better the measurement variable (or sub-dimension variable) can evaluate the main dimension. All the factor loading values of individual constructs in this study are greater than 0.7, indicating strong reliability. Therefore, all the

freedom and model fit of another model (Open CMV multifactor.amw file).

sub-constructs (manifest variables) in the measurement system can appropriately evaluate the main constructs (latent variables). Meanwhile, Average Variance Extracted (AVE) expresses the explanatory power of latent variables on measured items. The higher the AVE, the better reliability and convergent validity the latent variables are. Usually, the AVE value must be greater than 0.5, indicating the explained variance of the dimension concerned is greater than measurement error (Fornell and Larcker, 1981). All the factor loading values in this study are higher than 0.7, Composite Reliability (C.R.) and Cronbach's α also greater than 0.7. All the AVE values exceed 0.5, suggesting the latent/implicit variables carry high reliability and convergent validity (Table 4.1, Table 4.2 and Figure 4.3).

In addition, this study refers to AVE to determine discriminant validity of individual constructs. Fornell and Larcker (1981) believed that the AVE of each dimension should be greater than the squared value of the coefficient of the dimension in question in order to validate the discriminant validity between the constructs. Table 4.3 indicates the presence of discriminant validity between the constructs such as employees' satisfaction, leadership styles, organizational commitment and organizational performance.



Table 4.2 Criteria for Measurement System in Model

Main dimension	Sub-dimension (or measurement)	Factor loading	Composite Reliability, C. R.	Cronbach's α	Average Variance Extracted
Employees' Service Quality (S)	Tangibles	.834	.834	.823	.674
	Reliability	.841			
	Responsiveness	.851			
	Assurance	.823			
	Empathy	.831			
Organizational Commitment (O)	Affective Commitment	.853	.851	.833	.673
	Continued Commitment	.831			
	Normative Commitment	.862			
Customer Satisfaction (Me)	Service of personnel	.864	.863	.851	.683
	Service environment	.862			
Financial Performance (F)	EPS	.863	.863	.854	.663
	ROE	.862			

Table 4.3 Estimates of confidence interval for discriminant validity

Parameter	Estimate	$\Psi \pm 2\sigma$		Bias-corrected		Percentile method	
		Lower	Upper	Lower	Upper	Lower	Upper
S ↔ Me	.562	.421	.703	.412	.712	.401	.710
Me ↔ F	.483	.372	.594	.382	.584	.372	.593
S ↔ F	.421	.381	.461	.372	.470	.361	.472
O ↔ Me	.483	.421	.545	.432	.534	.413	.542
O ↔ F	.472	.433	.511	.423	.521	.401	.523



4.1.4 Coefficient of Determination

Coefficient of determination, also known as Squared Multiple Correlation (SMC), represents the explanatory power of independent variables to dependent variables of individual latent variables. Table 4.4 shows that the independent variables in this study exhibit medium levels of explanatory power on dependent variables of individual latent variables.

4.1.5 Path Coefficients of Latent variables in the Model

After the validation of the model with internal fit tests, this study summarizes the standardized coefficients and C.R. values of individual latent (implicit) variables in Table 4.5.1 and Table 4.5.2 according to the path analysis results. Figure 4.1 illustrates the path analysis (Lee, 2011).

4.2 Path Effect Analysis & Tests on Structural Model

This study performs Sobel tests, Bootstrapping and Mackinnon PRODCLIN2 on the path coefficients of latent variables (or non-observable variables) as the path effect analysis on the path effects in the structural model. The accumulation of organizational commitment (Me) serves as a dual mediator. Test results are shown in Tables 4.5.3 and 4.5.4 (Sobel, 1982; MacKinnon, Fritz, Williams and Lockwood, 2007).

Based on Table 4.5, this study derives the following conclusions:

- (1) Employees' service quality has positively significant influence on customer satisfaction in Taiwan-listed international

tourist hotels. Standardized coefficient is estimated to be 0.56. Therefore, H1 is substantiated.

- (2) Employees' service quality has direct, positive and significant influence on financial performance in Taiwan-listed international tourist hotels. Standardized coefficient is estimated to be 0.42. Therefore, H2 is substantiated.

- (3) Customer satisfaction has positive significant influence on financial performance in Taiwan-listed international tourist hotels. Standardized coefficient is estimated to be 0.48. Therefore, H3 is substantiated.

- (4) Organizational commitment has positive significant influence on customer satisfaction in Taiwan-listed international tourist hotels. Standardized coefficient is estimated to be 0.48. Therefore, H4 is substantiated.

- (5) Organizational commitment has direct, positive and significant influence on financial performance in Taiwan-listed international tourist hotels. Standardized coefficient is estimated to be 0.47. Therefore, H5 is substantiated.

These above results suggest that organizational commitment serves partly as a dual mediator. This also implies that organizational commitment plays a pivotal role in the promotion of organizational performance. However, the improvement of organizational performance takes more than just organizational commitment. It is necessary to push for



performance improvements via other means.

Table 4.4 Coefficient of determination

Coefficients of Determination	R ²
Employees' Service Quality (S) →Customer Satisfaction (Me)	.343
Customer Satisfaction (Me) →Financial Performance (F)	.231
Employees' Service Quality (S) →Financial Performance (F)	.242
Organizational Commitment (O) →Customer Satisfaction (Me)	.263
Organizational Commitment (O) →Financial Performance (F)	.281

Table 4.5.1 Results of path analysis on structural model (un-standardized)

	Estimate	S.E.	C.R.	P
Employees' Service Quality (S) →Organizational Commitment (Me)	.562	.132	4.258	***
Customer Satisfaction (Me) →Financial Performance (F)	.483	.113	4.274	***
Employees' Service Quality (S) →Financial Performance (F)	.421	.133	3.165	***
Organizational Commitment (O) → Customer Satisfaction (Me)	.483	.143	3.378	***
Organizational Commitment (O) →Financial Performance (F)	.472	.134	3.522	***

Table 4.5.2 Intervening variable (un-standardized)

	Estimate
Employees' Service Quality (S) → Customer Satisfaction (Me)	.562
Customer Satisfaction (Me) → Financial Performance (F)	.483
Employees' Service Quality (S) → Financial Performance (F)	.421
Organizational Commitment (O) → Customer Satisfaction (Me)	.483
Organizational Commitment (O) → Financial Performance (F)	.472

Note: *denotes P<0.05; ** denotes P<0.01; ***denotes P<0.001.

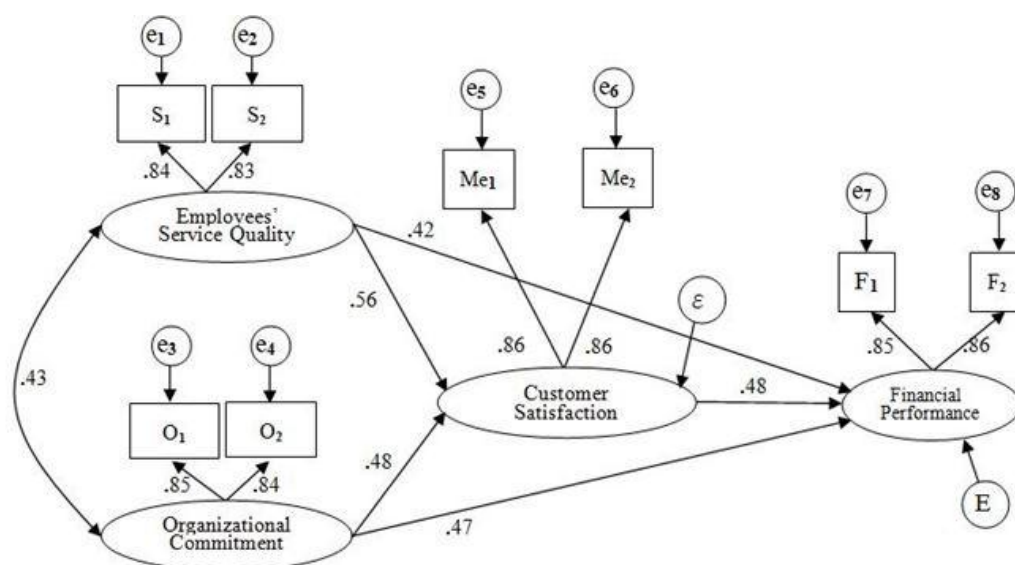


Figure 4.3 Standardized SEM analysis results



Table 4.5.3 Intervening variables (un-standardized)

Variable	Point of Estimates	Product of Coefficients	Bootstrapping				MacKinnon PRODCLIN2 95%CI			
			Bias-Corrected 95% CI		Percentile 95% C		Lower	Upper		
			Lower	Upper	Lower	Upper				
	(Est.)	SE	Z							
Total Effects										
S→Me	.562	.132	4.258	.75	.93	.54	.84			
Indirect Effects										
Me→F	.483	.113	4.274	.42	.52	.31	.42	.37	.49	
Direct Effects										
S→F	.421	.133	3.165	.33	.41	.23	.42			

Table 4.5.4 Intervening variable (un-standardized)

Variable	Point of Estimates	Product of Coefficients	Bootstrapping				MacKinnon PRODCLIN2 95%CI			
			Bias-Corrected 95% CI		Percentile 95% C		Lower	Upper		
			Lower	Upper	Lower	Upper				
	(Est.)	SE	Z							
Total Effects										
O→Me	.483	.143	3.378	.75	.97	.62	.82			
Indirect Effects										
Me→F	.483	.113	4.274	.42	.52	.31	.42	.37	.49	
Direct Effects										
O→F	.472	.134	3.522	.33	.53	.31	.40			

5. Conclusions and Suggestions

This section reaches conclusions on the basis of the above analysis and findings, and elaborates on the contribution of this study. Finally, the research limitations are summarized and the suggestions to follow-up studies are made.

5.1 Conclusions

In sum, this study interviews managers and directors working in Taiwan-listed international tourist hotels in order to develop an SEM model to validate the research hypotheses. The following are the research conclusions:

5.1.1 Effects of employees’ service quality on customer satisfaction in Taiwan-listed international tourist hotels

The research findings support H1 that employees’ service quality has positive and significant effects on customer satisfaction in Taiwan-listed international tourist hotels. This is in line with Yang et al (2007), Chuang et al (2012) and Kuo (2013).

5.1.2 Effects of employees’ service quality on financial performance in Taiwan-listed international tourist hotels

The research findings support H2 that employees’ service quality has positive and significant effects on financial performance in Taiwan-listed international tourist hotels. This is consistent with Chen et al (2007), Lin et al (2010).

5.1.3 Effects of customer satisfaction on



financial performance in Taiwan-listed international tourist hotels

The research findings support H3 that customer satisfaction has positive and significant effects on financial performance in Taiwan-listed international tourist hotels. This is in agreement with Chen et al (2007), Huang (2009), Lin et al (2009), Lin et al (2010) and Chou et al (2011).

5.1.4 Effects of organizational commitment on customer satisfaction in Taiwan-listed international tourist hotels

The research findings support H4 that organizational commitment has positive and significant effects on customer satisfaction in Taiwan-listed international tourist hotels. This is in line with Cheng (2004) and Chang et al (2009).

5.1.5 Effects of organizational commitment on financial performance in Taiwan-listed international tourist hotels

The research findings support H5 that organizational commitment has positive and significant effects on financial performance in Taiwan-listed international tourist hotels. This is consistent with Lin (2005), Chen (2006) and Su et al (2009).

5.2 Research Contributions

- (1) This study constructs a model with two causes, one effect and one mediator. The model is based on relevant studies and validated for the goodness-of-fit effects. Hence, it adopts a CFA (Confirmatory Factor Analysis) approach on an important real-life issue with an innovative approach. It is suggested that follow-up studies continue to explore relevant topics and

further examinations.

- (2) This study completes a series of tests on the reliability and the validity on the model constructs for the questionnaire and conducts CMV analysis and tests. The statistical approach and the research methodology are pragmatic and creative.
- (3) The research findings can serve as a reference to the management in Taiwan-listed international tourist hotels in choice of using employees' service quality, organizational commitment or customer satisfaction as the strategy for financial performance improvement.

5.3 Research Limitations

This study suffers from limited resources, although it seeks to complete all the stages of research tasks in a manner as robust as possible. Below is a list of research limitations:

- (1) There are limited studies in Taiwan and overseas on the research constructs developed in this study and very few papers address the pairwise constructs as in this study. This is why the supporting data seems inadequate for hypothesis development.
- (2) This study uses simple random sampling and issues the questionnaires via post. As a result, the effective recovery rate is low and the sample may not be representative of the population.
- (3) Due to research resource limitations, this study only samples the Taiwan-listed international tourist hotels. The research scope does not cover all the



small-and-medium sized tourist hotels in Taiwan.

5.4 Suggestions to Follow-up Studies

This study only interviews the managers and directors working in the Taiwan-listed international tourist hotels. To broaden the scope of data or seek innovative approaches, follow-up studies may examine the players of smaller sizes in the same tourist hotels or investigate other industries for comparisons and analyses.

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