

ANALYZING STRUCTURAL RELATIONSHIPS BETWEEN SERVICE QUALITY, DISCONFIRMATION, SATISFACTION AND LOYALTY

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Abstract

This research aims to analyze the relationships between service quality, disconfirmation, satisfaction, and loyalty. A structured methodology combined with both models in overall evaluation (e.g. Fornall et al.) and disconfirmation (e.g. Oliver et al.) were used in order to capture the perceptions of satisfaction. Customer satisfaction is widely used due to its importance to organizations, the measurement of customer satisfaction has its problems. Many scholars then started to research on this idea, today there is much ambiguous evidence in the worldwide journals. Early researchers considered satisfaction as antecedent factors that affect service quality, different opinions of causal relationship discussed in the past, that consider satisfaction generate service quality via word-of-mouth, service loyalty, later researchers, however, considered service quality as the important factor that affect satisfaction. Thus, how service quality is evaluated, what kind of value is perceived, whether the customer is satisfied with the product/service, and what is the intended behavior towards the purchase experience. In this study, basically we adopt the views of Oliver in service quality by expectation level and perceptions of disconfirmation and Czepiel and Fornell by considering customer satisfaction as a type of overall evaluations as a model of measurement.

Keywords: Service quality, disconfirmation, customer satisfaction, loyalty, expectation, word-of-mouth.

Introduction

Globalization and deregulations have increased competition in the market place, in the highly competitive marketplace nowadays, the most important strategy for business to obtain customer loyalty and maintain market profitability is attributed to “customer-orientation” or “customer focus”. High customer satisfaction has many benefits for the firm, such as increased customer loyalty, enhanced firm

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reputation, reduced price elasticity, lower costs of future transactions, and higher employee efficiency (Anderson et al., 1994). Customer satisfaction is one of the primary-goals of marketing activities and may lead to increased purchases and repurchases by customers and hence increased profits to a firm (Pride and Ferrell, 1989). According to Patterson (1993) customer satisfaction is a key issue for all those organizations that wish to create and keep a competitive advantage in today's highly competitive world.

Although customer satisfaction is widely used due to its importance to organizations, the measurement of customer satisfaction has its problems. From the early 1960s, Cardozo (1965) firstly introduced the concept of customer satisfaction into the field of marketing. Afterwards, many scholars then started to research on this idea. Czepl et al. (1977) also indicated that there is probably no concept in marketing that is at once more fundamental and pervasive than consumer satisfaction. Despite importance, the lack of consensus in defining this construct is not uncommon.

Early researchers considered satisfaction as antecedent factors that affect service quality, different opinions of causal relationship discussed in the past, that considered satisfaction, generate service quality via word-of-mouth and service loyalty (Bitner, 1990; Parasuraman et al., 1988), subsequent researchers, however, considered service quality as the important factor that causes satisfaction (Cronin and Taylor, 1992).

How service quality is evaluated, what kind of value is perceived, whether customer is satisfied with the product/service, and what is the intended behavior toward the purchase experience were considered. Furthermore, customer satisfaction is fundamental to marketing concept, which holds that satisfying customer need is the key to generating customer loyalty, all of these questions are critical to identify their relationships and interactions not only in the physical marketplace but also in the context of academy.

The last few decades have seen growing interest and importance placed on research in the definition, modeling, and measurement of customer satisfaction. According to Anderson and Fornell (1999), and Kaplan and Norton (1996), customer satisfaction measurements are believed to give a better indication of future performance of a company. Therefore, in this study, basically we adopt the views of Oliver (1980) in service quality by expectation level and perceptions of disconfirmation, and Czepl (1974) and Fornell (1992) by considering customer satisfaction as a type of overall evaluation as a model of measurement.

Determinates of Service Quality

The notion of Parasuraman, Zeithaml and Berry (1985), is that service quality is an overall evaluation similar to attitude. Namely, service quality is the

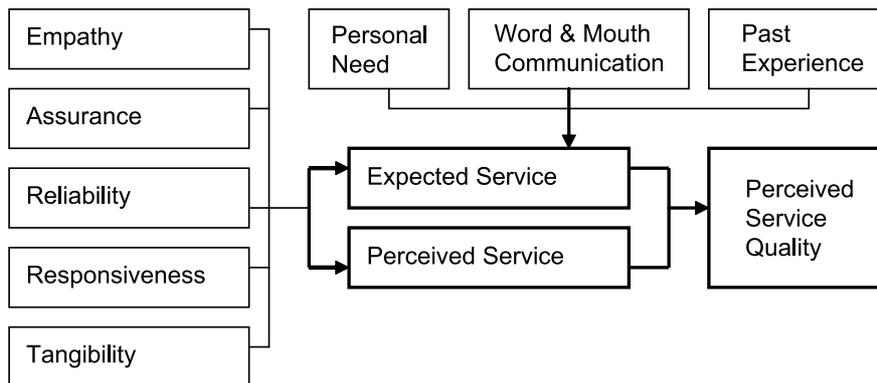
comparison customers make between their expectations and their perception of the service received. In addition Siu and Cheung (2001) broadly defined service quality as a global judgment or attitude relating to overall excellence or superiority of the service. And in order to measure the content of service quality, Parasuraman, Zeithaml and Berry (1988) developed the five dimensions of service quality that included tangibles, reliability, responsiveness, assurance and empathy (Table 1).

Table 1: Dimensions and Definition of SERVQUAL

Dimension	Definition
Tangibles	Physical facilities, equipment, and appearance of personnel
Reliability	Ability to perform the promised service dependably and accurately
Responsiveness	Willingness to help customers and provide prompt service
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence
Empathy	Caring, individualized attention the firm provides its customers.

Source: Parasuraman et al. (1988)

Parasuraman, Zeithaml, and Berry (1985) proposed that service quality is a function of the differences between consumer expectations and actual service performance. They developed a service quality model based on exploratory investigation of gap between consumers and marketeers. This model is widely called “PZB model” or the “GAP model”. According to the exploratory research, ten categories, labeled service quality determinants were introduced in 1985, and then refined into five dimensions named SERVQUAL in 1988 for measuring customers’ subjective perception of service quality (see Figure 1).



Source: A Parasuraman, V.A. Zeithaml and L.L. Berry “A Conceptual Model of Service Quality and It’s implications for Future Research” Journal of Marketing. Vol 49, (1985): 48

Figure 1: Determinates of Perceived Service Quality

Many authors (e.g. Spreng and Mackoy 1996) indicate that service quality links directly to customer satisfaction. Past researches have suggested several reasons to study satisfaction at an attribute level. Parasuraman et al. describes customer satisfaction as a concept that encompasses several dimensions including service quality, product quality and price.

Relation of Customer Satisfaction and Service Quality

Customer satisfaction has long been recognized in marketing thought and practice as a central concept as well as an important goal of all business activities (Yi, 1990; Anderson, Fornell and Lehmann, 1994).

Swan and Combs (1976) undertook an empirical study to examine the influence of physical and psychological dimensions of product performance on consumer satisfaction. Their findings strongly support that satisfaction results from performance that fulfills expectation, while dissatisfaction is associated with unfulfilled performance expectations. Furthermore, Westbrook (1980) concluded that not only cognitive perception of product outcomes but also intrapersonal affective variables (e.g. mood, generalized attitudes) will impact on consumer satisfaction. Several authors, on the other hand, have defined satisfaction in a different way. Therefore, the following table will present some typical and important definition of customer satisfaction that will give us a clear idea about customer satisfaction concept.

According to the Table 2, satisfaction involves of the following five psychological elements: disconfirmation, cognitive (thinking/evaluation), affective (emotion/feeling), cumulative and behavioral. Thus, in this study, customer satisfaction is defined according to Oliver (1980) as the consumer's expectations of products or service performance prior to purchase or use, with perceived performance which leads post-purchase satisfaction and Anderson, Fornell & Lehmann (1994) considers overall evaluation of comprehensive measurement of all the purchase and consumption, encompassing enterprises past, now and future cumulative measurement of performance that would offer some important operational performance indicators to enterprises in the future.

Croin and Taylor (1992) examined the interaction of service quality and customer satisfaction. The result showed that the effect of service quality is significant to customer satisfaction, but it is not contrarily, that the effect only imposes one-way influence between service quality and customer satisfaction.

Table 2: Definitions of Customer Satisfaction

Oliver (1980)	Satisfaction, in turn, can be seen as a function of the expectation (adaptation) level and perceptions of disconfirmation. In a similar manner, the revised postpurchase attitude at satisfaction can be viewed as a function of the initial attitude at expectations and the influence of one's sense of satisfaction/dissatisfaction. The postpurchase model can be expanded further by including purchase intentions.
Westbrook (1980)	It is concluded that not only cognitive perception of product outcomes but also intrapersonal affective variables (e.g. mood, generalized attitudes) will impact on consumer satisfaction.
Yi (1990)	Customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service.
Anderson, Fornell, and Lehmann (1994)	Overall customer satisfaction (or cumulative customer satisfaction) is an overall evaluation based on the total purchase and consumption experience with goods or services over time.
Kotler (2000)	Satisfaction is defined as a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance or outcome in relation to his or her expectations.
Jamal and Naser (2002)	Customer satisfaction is defined as the feeling or attitude of a customer towards a product or service after it has been used.

Source: This study

Table 3: Relation between Service Quality and Consumer Satisfaction

Scholar	Relation between service Quality and consumer satisfaction
Parasuraman, Zeithamal, and Berry (1985)	Consumer satisfaction and service quality are both the difference between expectation and perception. Consumer satisfaction is what people predicted and service quality is what people desired.
Parasuraman, Zeithamal, and Berry (1988)	In the literature of consumer satisfaction, prediction of consumer is based on experience in the past. On the contrary, in service quality literature, prediction is based on the future result.
Anderson, Fornell and Sullivan (1992, 1993)	In the research, service quality is one factor affecting consumer satisfaction.
Parasuraman, Zeithamal, and Berry (1993)	The difference between service quality and satisfaction relies on the assessing standard. Consumer satisfaction comes from prediction. Service quality comes from expectation.
Anderson, Fornell and Lehmann (1994)	The concept of consumer satisfaction is different from service quality due to Satisfaction results from purchasing experience. Service quality does not occur from former experience.

Source: This study

Customer satisfaction is a psychological subjective feeling of the consumer toward service quality. Studies made by Parasuraman, Zeithaml and Berry (1994) and Zeithaml and Bitner(1996) pointed out that service quality, and price will also affect customer satisfaction.

Spreng and Mackoy (1996) provide support for service quality being an antecedent to satisfaction. Regarding the view taken, the relationship between satisfaction and service quality is strong. Several authors agree that two terms, quality and satisfaction, are quite often used interchangeably.

Oliver (1997) argued that the quality-satisfaction-behavioral intentions link is conceptually the strongest, and that it is consistent with the generally accepted cognitive evaluations-emotional responses-behavioral outcomes causal chain.

Measurement of Customer Satisfaction

Some researchers (Cronin and Taylor, 1992; Parasuraman et al., 1988) consider overall satisfaction to be primarily a function of perceived service quality. Compared to transactional-specific satisfaction, overall satisfaction reflects customers' cumulative impression of a firm's service performance. In turn, it may serve as a better predictor of customer loyalty.

In terms of the measurement item of satisfaction, Fornell (1992) develop in the literature on customer satisfaction/dissatisfaction suggests that satisfaction is an overall postpurchase evaluation. Among them, three different facets of satisfaction can be identified (1) general satisfaction, (2) confirmation of expectations, (3) the distance from the customer's hypothetical ideal product(similar to the work of Tse and Wilton (1988). In other words, customer satisfaction is defined as a function of three indicators that are allowed to be measured with error.

In the traditional paradigm it is difficult to manipulate disconfirmation independently of expectation and performance precisely because it is defined as the difference between the two variables. That is, disconfirmation is determined jointly by the combination of the expectation and performance manipulations. Most of the early research focused on the link between expectations and perceived product performance. More recently, the focus of research has shifted to the relationship among perceived expectations, disconfirmation and satisfaction.

Oliver developed Expectation – Confirmation Theory (ECT): “customer has two expectation prior to conducting purchase: high expectation and low expectation”. Expectations have an important impact on decision making in a wide variety of consumption settings. Expectations are thought to involve a

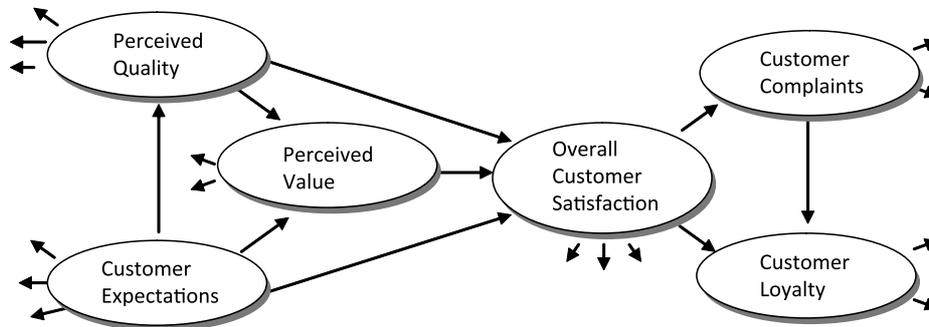
subjectively interpreted future mean level of attributes and an uncertainty distribution defined most often in a static sense.

Fornell C. (1996) introduced the American Customer Satisfaction Index (ACSI), which represents a new type of customer-based measurement system for evaluating – and enhancing – the performance of firms, industries, economic sectors, and national economies. The concept behind ACSI, namely, a measure of overall customer satisfaction that is uniform and comparable, requires a methodology with two fundamental properties

(1) First, the methodology must recognize that ACSI and the other constructs in the model represent different types of customer evaluations that cannot be measured directly. Accordingly, ACSI uses a multiple indicator approach to measure overall customer satisfaction as a latent variable. The result is a latent variable score or index that is general enough to be comparable across firms, industries, sectors, and nations. (2) Second, as an overall measure of customer satisfaction, ACSI must be measured in a way that not only accounts for consumption experience, but is also forward-looking. To this end, ACSI is embedded in the system of cause and effect relationships shown in Figure 1, which makes it the centerpiece in a chain of relationships running from the antecedents of overall customer satisfaction expectations, perceived quality, and value – to the consequences of overall customer satisfaction – voice and loyalty.

As is shown in Figure 2 (ACSI), overall customer satisfaction has three antecedents: perceived quality, perceived value, and customer expectations. The first determinant of overall customer satisfaction is perceived quality or performance, which is the service market's evaluation of recent consumption experience, and is expected to have a direct and positive effect on overall customer satisfaction. The second determinant of overall customer satisfaction is perceived value, or the perceived level of product quality relative to the price paid. The third determinant of overall customer satisfaction is the service market's expectations. Customer expectations should be positively related to perceived quality and, consequently, to perceived value. Customer knowledge should be such that expectations accurately mirror current quality.

The final relationship in the model is between customer complaints and customer loyalty. An increase in overall customer satisfaction should decrease the incidence of complaints. Increased overall customer satisfaction should also increase customer loyalty. Loyalty is the ultimate dependent variable in the model because of its value as a proxy for profitability.



Sources: Fornell C., Johnson M., Anderson E., Cha J. and Bryant B. (1996), "The American Customer Satisfaction Index Nature, Purpose, and Findings " Journal of Marketing Vol.60 (October 1996) P.8

Figure 2: The American Customer Satisfaction Index (ACSI) Model

Table 4: Measurement Variables Used in the ACSI Model

No	Measurement Variable	Latent Variable
1	Overall expectation of quality (prepurchase)	Customer Expectations
2	Expectation regarding customization, or how well the product fits the customer's personal requirements (prepurchase)	Customer Expectations
3	Expectation regarding reliability, or how often things would go wrong (prepurchase)	Customer Expectations
4	Overall evaluation of quality experience (postpurchase)	Perceived Quality
5	Evaluation of customization experience, or how well the product fit the customer's expectations	Perceived Quality
6	Evaluation of reliability experience, or how often things have gone wrong (postpurchase)	Perceived Quality
7	Rating of quality given price	Perceived Value
8	Rating of price give quality	Perceived Value
9	Overall satisfaction	ACSI
10	Expectancy disconfirmation (Performance that falls short of or exceeds expectations)	ACSI
11	Performance versus the customer's ideal product or service in the Category	ACSI
12	Has the customer complained either formally or informally about the product or service?	Customer complaints
13	Repurchase likelihood rating	Customer Loyalty
14	Price tolerance (increase) given repurchase	Customer Loyalty
15	Price tolerance (decrease) to induce repurchase	Customer Loyalty

Source: This study

Professor Fornell worked out the index of each composition (latent variable) and then the index of customer satisfaction with Structural Equation Modeling (SEM)

Conclusion

Although Fornell (1992) started to connect the relationship between the antecedents and consequences that affect customer satisfaction. Before him, there have been scholars doing experimental studies after Fornell introduced ACSI model in 1996. The result shows that ACSI is the model which can evaluate customer satisfaction effectively. However, Dabholkar et al. and Patterson suggested customer satisfaction is an important theoretical and practical issue for most marketers and consumer researchers. Most marketing researchers are also keen to accept a theoretical framework in which quality leads to satisfaction (Dabholkar, Shepherd, and Thorpe, 2000), which in turn influences purchasing behavior (Oliver, 1999).

Due to hypermark – Homebox (this empirical case study) is a regular purchasing behavior in Taiwan which is different from Fornell (1996) who made a study in 40 industries including manufacturing, retailers, finance insurance, service trade, and public administration. Additionally, Oliver (1980) proposed a cognitive model which expresses consumer satisfaction as a function of expectation and expectancy disconfirmation, and satisfaction, in turn, is the antecedent of attitude and intention.

Table 5 ACSI – ECT Customer Satisfaction Modified Model

Dimension	Latent Variable	Measurement Variable	Literature	
Service Quality	Customer Expectations	1. Tangibility	Parasuraman, Zeithaml and Berry (1988)	
	Perceived Quality			2. Responsiveness
				3. Reliability
				4. Assurance
				5. Empathy
Confirmation	Disconfirmation	Expectation – Confirmation	Oliver 1980	
Customer Satisfaction	Overall Satisfaction	1. Overall satisfaction	Fornell C., Johnson M., Anderson E., Cha J. and Bryant B. (1996)	
		2. Expectancy disconfirmation		
		3. Performance versus the customer’s ideal product or service		
Customer Loyalty	Intention to Repurchase	The strength of the relationship of personal satisfaction on post-service behavior.	Gronholdt, Martensen, and Kristensen (2000)	
	Intention to recommend	Word-of-Mouth	Bitner, 1990; Parasuraman et al., 1988	

Source: This study

The modeling and measurement of study are basically both in the Fornell's ACSI(American Customer Satisfaction Index) overall satisfaction's model (1996) and ECT (Expectation-Confirmation Theory) (Oliver, 1980) disconfirmation model instead of perceived value & Customer complaints to create a new conceptual framework in order to meet local hypermarket context here. The modified determinants and modeling of ACSI are described as follows:

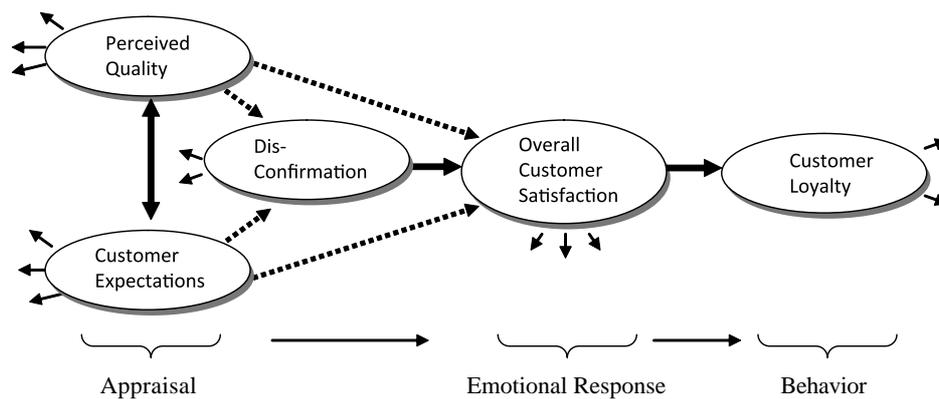


Figure 3: Research Framework

(1) Customer expectations

That were measured by asking respondents to think back and remember the level of quality they expected on the basis of their knowledge and experience with the goods or services. Three expectation measures were collected: (1) Empathy (2) Assurance (3) Reliability (4) Responsiveness (5) Tangibility.

(2) Perceived quality

Customers then rated their recent experience with the goods or services by using five measures: (1) Empathy (2) Assurance (3) Reliability (4) Responsiveness (5) Tangibility.

(3) Disconfirmation

Disconfirmation is the concept of service quality as a comparison between customers' expectations and perceived quality. Whenever perceived quality exceeds the expectations, the expectation is positively disconfirmed. In contrast, whenever perceived quality is below the expectations, it is considered negative disconfirm action. Positive disconfirmation leading to satisfaction and negative disconfirmation leading to dissatisfaction.

(4) Overall customer satisfaction

Overall customer satisfaction was operationalized through three survey measures: (i).an overall rating of satisfaction, (ii).the degree to which performance falls short of or exceeds expectations, and (iii).a rating of performance relative to the customer's ideal goods or services in the category.

(5) Customer loyalty

In addition, there were two measures of customer loyalty. The first was repurchase likelihood. The second measure was constructed from one survey variable: word of mouth from the purchaser to recommend it.

The subject of determinants of customer satisfaction has been greatly investigated and examined in marketing and consumer literature. Owing to different theories and perspectives, a variety of conceptual models have been developed to explore the antecedents of customer satisfaction. ACSI (American Customer Satisfaction Index) plus ECT (Expectation – Confirmation Theory) measurement are related to the antecedents and formation of customer satisfaction. It is generally accepted to regard customer satisfaction as a uni-dimensional construct to and measure customer's overall satisfaction.

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