What Influences the Relationship Between Customer Satisfaction and Repurchase Intention? Investigating the Effects of Adjusted Expectations and Customer Loyalty

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ABSTRACT

This study examines how loyalty influences the relationship between customer satisfaction (CS) and repurchase intention (RPI). Considering the effect of time, the study introduces adjusted expectations, which are expectations updated after consumption experience. The present study investigates the role of adjusted expectations in the CS-RPI link. With structural-equation analysis, the proposed model was tested in the family-restaurant setting. The results show that adjusted expectations can mediate the effect of CS on RPI. The results also indicate that processes underlying the CS-RPI link are different between low-loyalty and high-loyalty customers. Specifically, the transient route, which reflects the indirect path from CS to RPI via adjusted expectations, has a greater impact for nonloyals than for loyals. On the other hand, the chronic route, which represents the direct path from CS to RPI, has a greater impact for loyals than for nonloyals. CS is found to have no direct influence on RPI for low-loyalty customers. © 2004 Wiley Periodicals, Inc.

Psychology & Marketing, Vol. 21(5): 351–373 (May 2004) Published online in Wiley InterScience (www.interscience.wiley.com) © 2004 Wiley Periodicals, Inc. DOI: 10.1002/mar.20009 Because the importance of customer loyalty has been emphasized recently, many companies have been trying to enhance their customers' loyalty through retention programs and relationship marketing strategies (Hallowell, 1996). Customer loyalty is so important because loyal customers bring many benefits to a firm. According to Reichheld and Teal (1996), the various advantages of customer loyalty include a continuous stream of profit, reduction of marketing costs, growth of per-customer revenue, decrease in operating costs, increase in referral, increase in price premium, and switching barriers among loyal customers who will not easily surrender to competitors' promotion efforts. Considering these benefits, customer loyalty cannot be overemphasized in the severely competitive business world of today (Reichheld & Teal, 1996; Reinartz & Kumar, 2000; Yi & Jeon, 2003).

Most research tacitly assumed loyal customers' characteristics by measuring loyalty as a high proportion of the same brand choice, a high intention of positive word-of-mouth, and high repurchase intention. Similarly, in the practical perspective, the difference between the cost of getting new customers and the cost of keeping existing customers is often demonstrated as the evidence for justifying how important it is to enhance existing customers' loyalty (Reichheld & Teal, 1996).

Prior research on loyalty has mainly focused on the relationship between customer satisfaction and repurchase (Reichheld & Teal, 1996). Customer satisfaction has been regarded as an antecedent of repurchase, but today such a traditional belief has begun to be challenged as counterarguments arise that higher CS does not necessarily result in higher repurchase (Jones & Sasser, 1995; Stewart, 1997). The link between customer satisfaction (CS) and repurchase intention (RPI) seems to be more complex than expected (R. E. Anderson & Srinivasan, 2003; Hennig-Thurau & Klee, 1997; Söderlund, 2002). Some studies examined trust and commitment as determinants of loyalty from the perspective of relationship marketing (Garbarino & Johnson, 1999; Singh & Sirdeshmukh, 2000). Such studies contributed to the understanding of the CS–RPI link to a certain extent.

These research streams, however, do not explain why loyal customers give a firm such advantages as mentioned earlier. Little is known about fundamental reasons for the difference between loyals and nonloyals. Some studies suggest that highly loyal customers follow different mechanisms in evaluating consumption experiences compared with less loyal customers (Garbarino & Johnson, 1999; Mittal & Katrichis, 2000). However, there is still little research unveiling the reasons for the differences between loyal and nonloyal customers.

The objective of this study is to compare customers' processing of consumption experiences between high-loyalty and low-loyalty groups. This study will thus examine how loyalty moderates the relationships among the variables in the CS–RPI link. A dimension of time is considered to examine how adjusted expectations mediate the impact of CS on RPI. The findings of this study will give useful implications for the CS–RPI link.

LITERATURE REVIEW

CS-RPI Link

In the 1980s, achieving a higher CS rating was a goal in itself (Mittal & Kamakura, 2001). During the 1990s, there was a widespread realization that CS ratings are a means to strategic ends, such as repurchase, that directly affect profits (Jones & Sasser, 1995; Mittal & Kamakura, 2001; Reichheld & Teal, 1996). Recently, however, researchers and practitioners began to question the link between CS and repurchase (Jones & Sasser, 1995; Reichheld, 1993; Reichheld & Teal, 1996; Stewart, 1997). Enormous investment in CS programs has revealed that higher CS does not guarantee higher repurchase. Even after achieving a desirable level of CS, firms have often found that having satisfied customers is not sufficient (Jones & Sasser, 1995; Neal, 1999; Stewart, 1997). According to a study of auto owners, although 85–90% of customers were satisfied with the chosen brand, only 40% of customers repurchased the brand (Reichheld, 1993).

To gain a better understanding of the CS–RPI link, researchers began to examine moderators of the CS–RPI relationship. For example, Rust and Zahorik (1993) adopted *length of patronage*, whereas Homburg and Giering (2001) considered personal characteristics such as variety seeking, age, and income. Some recent studies suggest that evaluation processes might differ between loyal and nonloyal customers. In a study of banking service, Mittal and Katrichis (2000) found that the importance of attributes was different between new customers and loyal customers. Garbarino and Johnson (1999) showed that trust and commitment affect future intentions for loyal customers but not for nonloyal customers.

These circumstances motivated the present study to examine loyalty as a moderator of the CS–RPI link. It is primarily based on the idea that loyal customers may have a different tendency in evaluating CS and determining whether or not to repatronize in comparison with nonloyals.

Loyalty

Although loyalty has been defined in various ways, there are two main approaches: behavioral and attitudinal approaches (Dekimpe, Steenkamp, Mellens, & Vanden, 1997; Dick & Basu, 1994). In earlier days, most researchers had focused on the behavioral concept. For example, Newman and Werbel (1973) defined loyal customers as "those who rebought a brand, considered only that brand, and did no brand-related information seeking." Similarly, Tellis (1988) measured loyalty as "repeat purchase frequency" or "relative volume of same brand purchasing."

Recently, loyalty has been defined from the attitudinal perspective as well. Attitudinal loyalty includes cognitive, affective, and conative aspects (Oliver, 1997), and Oliver (1999) posited four phases for a customer to become loyal. First, loyalty in the cognitive phase is based on either prior knowledge or experience-based information about a brand. Second, loyalty in the affective phase is a liking or attitude toward a brand. Based on cumulatively satisfying usage occasions, it implies feelings toward a brand. Nevertheless, this form of loyalty remains subject to switching. Third, conative loyalty is defined as a customer's behavioral intention to keep on purchasing a product in the future, and therefore it is harder to dislodge than affective loyalty (Oliver, 1999; Pedersen & Nysveen, 2001). Action loyalty is the final stage among loyalty phases, in which motivated intention is transformed into readiness to act. Action loyalty is related to the behavioral approach. Oliver's view sheds light on the development of loyalty from attitude to behavior.

Based on the review of loyalty concepts, Oliver's definition, which includes attitudinal and behavioral aspects of loyalty, was adopted. Customer loyalty is "a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 1997, p. 392).

To measure loyalty in the behavioral sense, researchers use a repurchase probability, a long-term choice probability for a brand (Carpenter & Lehmann, 1985; Colombo, Morrison, & Green, 1989; Dekimpe et al., 1997), or switching (Raju, Srinivasan, & Lal, 1990). On the other hand, attitudinal loyalty is operationalized as brand preference or emotional commitment, and thus it is measured with "repeat purchase intention" (E. W. Anderson & Sullivan, 1993; Cronin & Taylor, 1992), "resistance against better alternatives" (Narayandas, 1996), "intention of word-ofmouth (WOM)" (Boulding, Kalra, Staelin, & Zeithaml, 1993), or "willingness to pay premium price" (Narayandas, 1996; Zeithaml, Berry, & Parasuraman, 1996). Such measures of loyalty provide insights into the nature of loyal customers. Namely, loyal customers tend to show a special preference, attachment, commitment, positive WOM, low switching to competitive brands, and willingness to pay premium price.

It should be noted that repurchase is affected by cumulative satisfaction rather than individual episodic satisfaction. According to Oliver (1999), "[f]or satisfaction to affect loyalty, frequent or cumulative satisfaction is required so that individual satisfaction episodes become aggregated or blended." Johnson, Anderson, and Fornell (1995) also argued that cumulative CS is a fundamental indicator of a firm's current and long-run performance.

Adjusted Expectations

Many CS studies are based on Oliver's (1980) expectation-disconfirmation paradigm. Oliver conceptualized expectations as belief probabilities of what the consequences of an event *will* be. In contrast, the gap-based service-quality model developed by Parasuraman, Zeithaml, and Berry (1988) has defined expectations in terms of what customers feel they *should* be offered (Devlin, Gwynne, & Ennew, 2002). The former has been restated as "predictive expectations" and the latter as "desired expectations" (Yi, 1990). Although the definitions of two types of expectations are different, there has been little consensus on whether the nature of the expectation standards used is appropriate (Devlin et al., 2002).

Zeithaml, Berry, and Parasuraman (1993) presented adequate service and desired service by employing the tolerance zone. Predictive expectations are closely related to the concept of adequate service, and desired expectations are almost the same as desired service. Desired service means the expectations that customers think they deserve taking the price-benefit fairness or other reasons into account.

Learning is continually taking place in the market, and initial beliefs and expectations are updated as information is accumulated over time (Johnson et al., 1995). Consumers learn from experiences of product/service usage (Hoch & Deighton, 1989). Such experiences give some information to consumers and contribute to the update of existing beliefs. Therefore, expectations imply a dynamic nature of change as consumption experiences are accumulated.

As mentioned earlier, the concept of expectations broadly used in the CS literature is "prior expectations" or "predictive expectations" that play a role of standards in evaluating satisfaction about consumption experience (Yi, 1990, 1993). Prior expectations can be viewed as a dynamic construct continually affected by cumulative consumption experiences, alternatives, and marketing communication (Johnson et al., 1995), whereas CS is a static concept defined as a cognitive and affective response that is obtained through a current transaction or current consumption experience (Oliver, 1997). Boulding et al. (1993) mention that predictive expectations are likely to alter with experience and can change in either direction, whereas desired expectations can remain unchanged or increase. Episodic or transactional CS as well as cumulative CS can influence future expectations and thus repurchase intentions. In this context, expectations updated through cumulated or current consumption experiences will be called *adjusted expectations* in the present study.

As *post hoc* expectations after the consumption experience, adjusted expectations will guide purchase behavior in the next period and serve as an anchor in evaluating future CS. Rust and Oliver (2000) argue that programs that exceed a customer's expectations to a surprising degree can heighten repurchase expectations and make it more difficult to satisfy the customer in the future. This argument also indicates a dynamic nature of expectations. It means that the degree of satisfaction at each transaction will affect postpurchase expectations. Adjusted expectations are updated from prior expectations on the basis of newly acquired information, and they are affected by CS, an overall evaluation of the consumption experience.

According to the adaptive expectation model, expectations may change in the process of anchoring and adjusting (Johnson & Plott, 1989; Johnson et al., 1995; Oliver & Winer, 1987; Tversky & Kahneman, 1974). Hence, the adaptive expectation model is useful for explaining the change of individual-level expectations, whereas the rational expectation model is useful for explaining the change of aggregate market-level expectations (Johnson et al., 1995). Johnson et al. (1995) mentioned that individuals' expectations rather than market-level expectations change quickly and are adaptive to current information. A revision of individual expectations can occur even during consumption (Oliver, 1997, p. 88; Szajna & Scamell, 1993).

Oliver (1997, p. 68) argued that "the expectation, not the need, is what consumers bring to the purchase." Kalwani, Yim, Rinne, and Sugita (1990) argued that adding expectations could increase predictability of brand choice behavior. Especially in service industries, expectation management is important because services have their own characteristics, such as intangibility, inseparability, heterogeneity, and perishability (Zeithaml et al., 1996). Therefore, marketers in service industries need to enhance consumers' expectations in order to lead them to repurchase even when they already have needs for the brand (Zeithaml, Berry, & Parasuraman, 1993).

On the basis of the preceding discussion, this study focuses on individuals' *post hoc* expectations and conceptualizes adjusted expectations as a mediator in the CS–RPI link. Adjusted expectations are posited to be affected by CS and to be a predictor of repurchase behavior.

HYPOTHESES

A widely accepted model of the CS–RPI link posits a path from disconfirmation to RPI via CS. Although the CS–RPI link is intuitively and theoretically evident, studies have often produced inconsistent results. Some studies found that CS influenced RPI, whereas others did not (Szymanski & Henard, 2001; Yi, 1990). Given such inconsistent results, there is a need to investigate the CS–RPI link in more depth.

The present study proposes that the CS–RPI link can be decomposed into two routes. One is a direct route in which CS influences RPI directly, and the other is an indirect route in which CS influences RPI indirectly through adjusted expectations. The two routes will be compared between low-loyalty and high-loyalty customers.

The indirect route is affected by adjusted expectations reflecting the current experience, and thus it must have a changeable nature according to each transactional anecdote. Hence, the indirect route is called the transient route. On the other hand, the direct route is not affected by changes of existing beliefs, so that it must be relatively stable. The direct route is thus called the chronic route. The following sections will examine the relevant literature on the key constructs and present the hypotheses pertaining to their relationships.

Transient Route

Disconfirmation Sensitivity. Disconfirmation-sensitive consumers are defined as those who are more satisfied (dissatisfied) when products perform better (worse) than expected (Kopalle & Lehmann, 2001). Consequently, the impact of disconfirmation on CS should be higher for disconfirmation-sensitive consumers. Then, who are more disconfirmation sensitive: loyals or nonloyals?

As loyal consumers buy a particular brand more frequently and have more reliable knowledge about the brand, they must have relatively more accurate and realistic expectations about the brand. Therefore, loyal consumers may tend to ignore disconfirmation to some extent and regard it as an episodic product/service failure (or success) rather than as a lasting problem (or enhancement).

In contrast, nonloyals may have less knowledge of the brand and hold more inaccurate or unrealistic expectations, which will probably result in high disconfirmation between prior expectations and perceived performance. Even when the same amount of disconfirmation occurs, nonloyals may regard it as an important indicator in evaluating the brand. Hence, nonloyal consumers will tend to use disconfirmation more sensitively in judging satisfaction than loyal consumers will.

Cognitive Consistency. Cognitive dissonance theory (Festinger, 1957) explains the tendency of consumers to justify decisions post hoc (Harmon-Jones & Mills, 1999; Kopalle & Lehmann, 2001). When the consumption experience is not as good as expected, customers probably feel cognitive dissonance. Then, who would feel more dissonance: loyals or nonloyals?

Loyal customers tend to make more repurchase of the same brand. Such a consistent repurchase behavior will form an experiential knowledge related to a specific brand so that loyal consumers are likely to rely increasingly on the brand's or the service provider's trust expectations (Singh & Sirdeshmukh, 2000). Subjective knowledge acquired through accumulated consumption experiences will be accompanied by higher confidence (Herr, Kardes, & Kim, 1991; Park, Mothersbaugh, & Feick, 1994). So consumers with higher confidence in expectations will suffer from cognitive dissonance when they face experiences or information disconfirming their strong beliefs. In this situation, trust will act as an information source, and on that ground consumers will attribute the causes of cognitive dissonance and thus resolve their mental conflict (Folkes, 1984; Oliver & DeSarbo, 1988).

Therefore, loyal consumers who would have high confidence in expectations are likely to attribute cognitively inconsistent experience to external sources, and they are likely to think of disconfirmation as a temporary or uncontrollable episode (Fournier, 1998). Consequently, loyal consumers will consider episodic factors relatively less compared with nonloyal consumers. Even with the same level of adjusted expectations, nonloyal consumers may think of episodic experience as a more important guide to determine whether to repurchase the same brand or not. On the other hand, loyal consumers are likely to stick to their accumulated experiential knowledge and not to change their prior attitudes easily after an episodic consumption experience.

When disconfirmation occurs, it will affect CS. CS will, in turn, influence adjusted expectations, and then adjusted expectations will influence RPI. In sum, these paths in the transient route must be weaker for loyals than for nonloyals.

- **H1:** The impact of disconfirmation on CS will be higher for low-loyalty consumers than for high-loyalty consumers.
- **H2:** The impact of CS on adjusted expectations will be higher for low-loyalty consumers than for high-loyalty consumers.
- **H3:** The impact of adjusted expectations on RPI will be higher for low-loyalty consumers than for high-loyalty consumers.

Chronic Route

Trust and Commitment. As mentioned earlier, new information can influence consumers' information processing in two ways: transient and chronic routes. The transient route of information processing occurs when new information is persuasive enough to change existing beliefs or when existing beliefs are not robust enough to endure information disconfirming existing beliefs. On the other hand, the chronic route of information processing will maintain existing beliefs when new information is not convincing enough to change existing attitudes or when existing attitudes are strong due to robust buttress of trust or commitment to a particular brand/service provider (Bendapudi & Berry, 1997).

Considering this from the perspective of relationship marketing, loyal consumers seem to be more relational to a particular brand than nonloyal consumers. In contrast, nonloyal consumers seem to be relatively less relational, transaction oriented, and short-term oriented. Garbarino and Johnson (1999) found that consistent subscribers of performance arts determined future intentions (attend/subscribe/donate in the future) based on trust and commitment.

Trust is defined as confidence in reliability and integrity of the product/service provider (Morgan & Hunt, 1994). According to the definition, trust comes from the product/service provider's behavior such as fulfilling expectations and maintaining quality offerings for customers. Rousseau, Sitkin, Burt, and Camerer (1998) argue that trust is a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviors of another. This definition has two important implications. One implication is that trust is based on positive expectations, and the other is that trust is a psychological state that willingly accepts situational vulnerability (Singh & Sirdeshmukh, 2000). According to such a perspective, loyal consumers will build positive prior expectations of the specific brand and be relatively unaffected by temporary transactional experiences. That is, loyal customers tend to maintain their positive expectations relatively longer than low-loyalty consumers, so they are not likely to adjust expectations based on episodic factors. In this sense, trust acts as the glue that holds the relationship together across different encounters (Singh & Sirdeshmukh, 2000). Such aspects of trust may result in higher stability of the chronic route.

Commitment is also recognized as an essential ingredient for longterm relationships (Garbarino & Johnson, 1999; Morgan & Hunt, 1994). Commitment is defined as an enduring desire to maintain a valued relationship (Moorman, Zaltman, & Deshpandé, 1992). Commitment is regarded as a construct with three components: an instrument component that is some form of investment, an attitudinal component that may be described as affective commitment or psychological attachment, and a temporal dimension indicating that the relationship exists over time (Gundlach, Achrol, & Mentzer, 1995). Customers' commitment may provide various benefits to a firm (Pedersen & Nysveen, 2001). For example, it may protect a firm under service failure, make customers less price-sensitive (Krishnamurti & Raj, 1991), give some time to react against the competitor's attack, and build entry barriers (Sharp & Sharp, 1997). Commitment should reflect deep ongoing relational interdependency (Bendapudi & Berry, 1997; Morgan & Hunt, 1994). Therefore, similar to trust, commitment may bring about higher stability on the chronic route from CS to RPI.

Customer satisfaction can have two aspects. One aspect stems from encounter-specific disconfirmation, and the other stems from the experience of cumulative encounters that cannot be easily destroyed by episodic factors. There are two general conceptualizations of satisfaction in the literature: transaction-specific satisfaction and cumulative satisfaction (Boulding et al., 1993). The transient route may reflect transaction-specific CS, whereas the chronic route may reflect cumulative CS that seems to be fortified by trust and commitment.

In sum, as loyal customers are likely to ignore encounter-specific disconfirmation, their satisfaction is less likely to be influenced by disconfirmation. Their CS should be relatively stable and be a more reliable predictor of RPI. Furthermore, loyal customers' tendency to keep their ongoing relationship will make the chronic route from CS to RPI relatively stronger.

Satisfaction Threshold. Consumers may have different thresholds or tolerance levels toward repurchase that are not fully captured in satisfaction ratings (Mittal & Kamakura, 2001). Even with the same CS ratings, consumers with lower thresholds are more likely to repurchase the

brand than those with higher thresholds. Brand knowledge may be one consumer characteristic that affects the difference in CS threshold (Mittal & Kamakura, 2001; Ratchford, 1999). Accumulated investments in knowledge of a particular brand may lead consumers to repurchase the same brand because repurchase means a more economic behavior than starting to search for a new brand and then making a new investment in new-brand-specific knowledge. Hence, loyal consumers may not want to give up the accumulated investment in their brand-specific knowledge, and thus they tend to repurchase the same brand. As loyal consumers may have lower CS thresholds, their repurchase intention will be higher.

As determinants of customer-brand relationship stability (durability), Fournier (1998) proposed tendencies such as "accommodation," "tolerance/forgiveness," "biased partner perceptions," "devaluation of alternatives," and "attribution biases." These tendencies can be found in loyal customers' attitudes and behaviors. That is, these are typical characteristics that distinguish loyals from nonloyals. According to Fournier's conceptual model, loyal customers tend to perceive a particular brand more favorably and tolerantly so that they repurchase the same brand continuously. This tendency can be explained by the difference in CS threshold because a lower CS threshold implies a higher level of tolerance and consequently higher retention (Mittal & Kamakura, 2001). Thus, loyals will have a relatively stable CS-RPI link compared with nonloyals.

H4: The impact of CS on RPI will be higher for high-loyalty consumers than for low-loyalty consumers.

METHOD

Sample

An empirical study was conducted to compare the processes underlying the CS–RPI link between low-loyalty and high-loyalty groups. A natural service setting (rather than a laboratory setting) was used in order to enhance the external validity of the study. The proposed model was tested in the family-restaurant market in Korea. A survey was conducted with customers of family restaurants in a metropolitan area. They were asked to respond to a customer-satisfaction survey regarding family restaurants. They were first asked to state the name of the family restaurant that they had most recently visited. They were then asked to answer the survey questions with regard to that restaurant.

The sample consisted of 256 respondents including 93 undergraduate students, 55 graduate students, and 108 business workers. The male/female ratio of the sample was 54% and 46%, respectively, and the age range was from 19 to 51. The sample consisted of 93 undergraduate students, 55 graduate students, and 108 business workers. The responses to the frequency of visit were as follows: less than once a year (14%), once or twice a year

(14%), 3–5 times a year (26%), 6–8 times a year (12%), 9–11 times a year (12%), once or twice a month (16%), more than 3 times a month (5%).

Measures

Disconfirmation was defined as perceived discrepancy between prior expectations and performance. The construct was measured by asking four questions: "Did you feel the family restaurant overprovided/underprovided the quality food and service compared with your prior expectations?" "Did you feel the family restaurant over-provided/under-provided benefits corresponding to its price compared with your prior expectations?" "Did you feel the family restaurant overfulfilled/underfulfilled your needs and objectives compared with your prior expectations?" and "Did you feel the family restaurant was better/worse overall compared with your prior expectations?" Seven-point scales were used for the responses. They were anchored by *much worse than expected*, and *much better than expected*, with *exactly as expected* for the midpoint.

Customer satisfaction was defined here as a cognitive and affective response to the consumption experience (Oliver, 1997; Yi, 1990). CS was measured with two indicators: "the degree of satisfaction" and "the degree of happiness" (Oliver, 1997, p. 299, p. 343). The first question was "Did you feel satisfied after visiting the family restaurant?" and the second question was "Did you feel happy after visiting the family restaurant?" The seven-point scale for CS was anchored as *not at all/quite a lot*.

According to the information-integration theory (N. H. Anderson, 1981) and information-processing model (Tversky & Kahneman, 1974), adjusted expectations were defined as *post hoc* predictive expectations updated on the basis of information acquired through current consumption experience as well as past cumulative consumption experience (Johnson et al., 1995; Rust & Oliver, 2000). For measurement, five questions were used. The first four questions were intended to measure the absolute level of adjusted expectations after a restaurant visit, and the last question was used to measure the relative level of adjusted expectations compared with prior expectations. It was emphasized that these questions were asked with regard to postconsumption expectations.

To measure the absolute level of adjusted expectations, the following questions were used:

- After visiting the family restaurant, now I expect the family restaurant will provide quality food and service that I want to be offered.
- After visiting the family restaurant, now I expect the family restaurant will provide benefits corresponding to its price.
- After visiting the family restaurant, now I expect that my needs and objectives will be fulfilled by visiting the family restaurant.
- After visiting the family restaurant, how good do you expect now the family restaurant to be overall?

The seven-point scales for these questions were anchored by *not at all/quite a lot*. For the relative level of adjusted expectations, the following question was used: "Are your current expectations higher/lower than your prior expectations?" The seven-point scale was anchored by *much worse than prior expectations*, and *much better than prior expectations*, with *exactly the same as prior expectation* for the midpoint.

Repurchase intention (RPI) was measured with two indicators: repeat purchase intention and repurchase probability. To be strict, the latter might be seen as a measure of behavioral expectation (BE) (Warshaw & Davis, 1985). However, researchers have used intention and subjective probability measures interchangeably in order to predict future behavior (Ajzen & Fishbein, 1980; C. A. Anderson, 1983; Brinberg, 1979; Fishbein & Aizen, 1975; Jaccard & Davidson, 1975; Jaccard & King, 1977). Warshaw and Davis (1985) argued that behavioral expectation (BE) outperformed behavioral intention (BI) in predicting future behavior. In forming BE judgments, individuals seem to use their present intention (BI) as an anchoring point, making adjustments to reflect the possible impact of nonvolitional factors and/or foreseeable changes in intention (BI). Thus, a probability measure was used along with an intention measure for predictive accuracy of repurchase behavior. The following questions were asked: "How often do you intend to revisit the restaurant?" and "How high is the probability that you will revisit the restaurant?" The seven-point scale for RPI was anchored by *not at all/quite a lot*.

ANALYSIS AND RESULTS

Grouping Check

The respondents were divided into low-loyalty and high-loyalty groups, based on the repeat-purchase behavior. In the present study, a behavioral loyalty measure was used in dividing groups. Loyalty was construed as the proportion of times a customer chooses the same product in a specific category compared to the total number of purchases made in that category, under the condition that other acceptable products are conveniently available in that category (Neal, 1999; Tellis, 1988). In this sense, respondents were divided based on the relative proportion of visiting the same restaurant.

To measure loyalty, the following questions were asked: "How often do you usually visit family restaurants a year?" and "How often do you usually visit the family restaurant that you most recently visited a year?" The first question measured the purchase proportion of a category in a given period, and the second question measured the purchase proportion of the same brand in a given period. The responses were collected with self-report measures. The loyalty score was then calculated with a function "(the purchase proportion of the same brand ÷ the purchase pro-

Variables	Low-Loyalty Group	High-Loyalty Group
Prior Expectation	4.85^{*}	5.13^{*}
Knowledge	3.38^{**}	4.26^{**}
Confidence in Expectation	4.95^{**}	5.13^{**}

Table	1.	Comp	arison	of	Group	Means.
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* p < .05

** p < .005

portion of a category) \times 100." Grouping was done by a median-split on their loyalty scores. The high-loyalty group consisted of 115 subjects, and the low-loyalty group consisted of 123 subjects. The subjects on the median were excluded for more accurate analyses.

For validation of grouping, group means were compared on several dimensions: prior expectations, subjective knowledge, and confidence in expectation. The mean difference of prior expectations was checked to confirm whether the high-loyalty group had relatively more positive attitudes toward the family restaurant that he/she had recently visited than the low-loyalty group (Rousseau et al., 1998; Singh & Sirdeshmukh, 2000). Customers who are loyal to one brand expect more from their current brand than alternatives (Fornell, 1992). If the high-loyalty group has relatively higher prior expectations than the low-loyalty group, one can infer that high-loyalty consumers have relatively more positive attitudes than low-loyalty consumers before visiting the family restaurant.

The objective of comparing subjective knowledge and confidence in expectation is to test whether the high-loyalty group indeed has more knowledge and higher confidence in prior expectations about the recently visited family restaurant than the low-loyalty group (Herr et al., 1991; Park et al., 1994), because the theoretical background for proposed hypotheses implicitly makes such assumptions.

Table 1 shows that there is a significant difference in prior expectations across groups. That is, the high-loyalty group has higher prior expectations than the low-loyalty group. It means that high-loyalty consumers have more positive attitudes than low-loyalty consumers. Also, subjective knowledge and confidence in expectations are significantly different across groups, and the tacit assumptions of theoretical background for hypotheses are supported. These results indicated that the grouping had satisfactory face validity.

Reliability Check

Cronbach's α was assessed to check the reliability of measures (Cronbach, 1951). Cronbach's α for the high-loyalty group was as follows: disconfirmation (0.84), CS (0.86), adjusted expectations (0.91), and RPI (0.89). Cronbach's α for the low-loyalty group was as follows: disconfirmation

(0.89), CS (0.90), adjusted expectations (0.92), and RPI (0.92). In sum, all the measures showed a satisfactory level of reliability.

Test for Metric Invariance

Before comparing key paths across groups, the equality of factor loadings between the two groups was assessed. With covariance matrix as input, confirmatory factor analysis (CFA) was conducted in the form of multiple sample analysis. The full metric invariance was not supported, as the chi-square difference between the nonrestricted model and the full metric invariance model was significant ($\chi^2_{d}(9) = 24.39, p < .01$). Following the recommended procedures of Steenkamp and Baumgartner (1998) and Yoo (2002), the invariance constraints were relaxed step by step on the basis of modification indices and expected parameter changes. Finally, a partial metric invariance model with three of nine invariance constraints relaxed was supported. The chi-square difference between the nonrestricted model and the partial metric invariance model was insignificant ($\chi^2_{d}(6) = 9.52, p > .10$). The invariant items were measures of X1, X2, X3, X4 for disconfirmation, Y1 for CS, Y3, Y4, Y6, Y7, for adjusted expectations, and Y8 for RPI. Table 2 shows the procedure and results. This partial invariance model was used in subsequent analyses.

Hypothesis Testing

The entire structural model was run in the form of multiple sample analysis. The results for the high-loyalty group are presented in Figure 1, and those for the low-loyalty group are presented in Figure 2. The overall model showed satisfactory fit: $\chi^2(128) = 229.30 \ (p = .00)$, the non-normed-fit index (NNFI) = 0.95, the comparative-fit index (CFI) = 0.96, and the standardized root-mean-squared residual (SRMR) = 0.050. Taken together, the findings indicated that there was a satisfactory fit between the proposed model and the data (Bagozzi & Yi, 1988).

The explained variance in dependent variables for the low-loyalty group was as follows: CS (67%), adjusted expectations (69%), and RPI (87%). The explained variance in dependent variables for the high-loyalty group was as follows: CS (82%), adjusted expectations (74%), and RPI (93%). In general, all the explained variances in the dependent variables seemed to be satisfactory.

The estimates for individual path coefficients on the transient route were then compared between the two groups. For the path from disconfirmation to CS, the estimate was higher in the low-loyalty group than in the high-loyalty group (low = 1.37, t = 12.58, versus high = 1.01, t = 8.27). This result was consistent with H1. The path coefficient from CS to adjusted expectations was 0.77 (t = 16.55) in the low-loyalty group and 0.89 (t = 9.57) in the high-loyalty group. This result was not consistent with H2. The path coefficient from adjusted expectations to RPI

Table 2. Test for Metric Invariance.

	Chi-Square	df	RMESEA	CAIC	CFI
Nonrestricted model	206.404	118	0.0563	620.629	0.967
Full metric invariance ^a	230.790	127	0.0588	586.765	0.962
Partial metric invariance ^b	215.921	124	0.0560	591.313	0.966

 $^{\rm a}\,$ Full metric invariance is not supported [$\Delta\chi^2(9)=24.39,\,p<.01$].

 $^{\rm b}\,$ Partial metric invariance is supported $[\Delta\chi^2(6)=9.517,\,p>.10]$

(with three items of nine invariance constraints relaxed).



Figure 1. Results for Hi-Loyalty Group (n = 115).



Figure 2. Results for Low-Loyalty Group (n = 123).

was higher in the low-loyalty group (low = 1.28, t = 2.74, versus high = 0.31, t = 2.12). This result was consistent with H3.

Next, the estimates for path coefficients on the chronic route were compared across groups. For the path from CS to RPI, the estimate was higher in the high-loyalty group than in the low-loyalty group (high = 0.91, t = 5.37, versus low = 0.05, t = 0.13). This result was consistent with H4.

Chi-square difference tests were then conducted in order to test formally whether the differences in parameter estimates were statistically significant. The initial baseline model was estimated by allowing all model parameters to be free estimates. In the nested model, a particular path (e.g., from disconfirmation to CS) was fixed to be equal across groups. The difference in the chi-square value between the baseline model and the restricted model computed for 1 degree of freedom permits the test of a significant difference in path coefficient across the two groups. The nested procedures were implemented for the paths pertaining to the hypotheses.

Regarding the path from disconfirmation to CS, there was a significant difference between the two groups (low = 1.37 versus high = 1.01; $\chi^2_d(1) = 6.36$, p < .05). H1 was thus supported. The path from CS to adjusted expectations was not statistically different across groups (low = 0.77 versus high = 0.89; $\chi^2_d(1) = 1.48$, p > .10). Accordingly, H2 was not supported. The path from adjusted expectations to RPI was found to be significantly different across groups (low = 1.28 versus high = .31; $\chi^2_d(1) = 3.99$, p < .05). The effect of adjusted expectations on RPI was greater in the low-loyalty group, and H3 was supported. Regarding the chronic route, the path from CS to RPI was found to be significantly different across groups (low = 0.91; $\chi^2_d(1) = 4.40$, p < .05). Thus, H4 was supported.

According to these results, one can conclude that the transient route from disconfirmation to CS and CS to RPI via adjusted expectations is stronger for the low-loyalty group than for the high-loyalty group. Although one of the three paths (i.e., from CS to adjusted expectations) is not different across groups, one can say that the transient route is stronger for nonloyals, because the other two paths (i.e., from disconfirmation to CS and from adjusted expectations to RPI) are stronger for the low-loyalty group. On the other hand, the chronic route from CS to RPI is stronger for the high-loyalty group.

In additional analyses, the structural model including both the path from disconfirmation to adjusted expectations and the path from disconfirmation to RPI was run to validate the implicit assumptions of the proposed model. For the path from disconfirmation to adjusted expectations, the estimate was not significant for both groups [low = -0.81 (t = -1.60) versus high = 0.29 (t = 1.32)]. The path coefficient from disconfirmation to RPI was also insignificant for the two groups [low = 0.16 (t = 0.04) versus high = -.46 (t = -1.89)]. These results showed that the proposed model seemed to be appropriate and parsimonious.

DISCUSSION

The present study extends previous research on the CS–RPI link by proposing a theoretical model that includes adjusted expectations. Adjusted expectations are post hoc expectations that are updated on the basis of consumption experiences. It is proposed that adjusted expectations may mediate the relationship between CS and RPI. The results show that adjusted expectations do indeed mediate the effect of CS on RPI. In addition to this indirect impact mediated by adjusted expectations, CS has a direct impact on RPI by itself for the high-loyalty group. As a consequence, the present study has decomposed the CS–RPI link into two paths. One is the transient route containing adjusted expectations as a mediator between CS and RPI. The other is the chronic route from CS directly to RPI. This study thus deepens our understanding of how satisfaction is transformed into repurchase intentions by delineating the process.

This study also extends previous research on CS by examining the moderating role of loyalty. The study has proposed that the mechanisms underlying the CS-RPI link can differ according to the level of lovalty. The results indicate that processes pertaining to the CS-RPI link are indeed different between low-loyalty and high-loyalty customers. Specifically, an episodic factor such as disconfirmation had a greater influence on CS for the low-loyalty group than for the high-loyalty group. The influence of CS on adjusted expectations was found to be equal across groups. However, the impact of adjusted expectations on RPI was greater for nonloyals than for loyals. These results imply that the transient route of information processing as to the current consumption experience has a greater impact for nonlovals than for lovals. Regarding the direct impact of CS on RPI, loyal customers used CS in deciding to repatronize, whereas nonloyals did not. Loyal customers seem to maintain coherent attitudinal and behavioral tendency toward a preferred brand over time. This tendency is supported by the finding that CS at time t influences RPI at time t + 1 (Mittal, Kumar, & Tsiros, 1999).

The results imply that nonloyals are more influenced by episodic factors and that nonloyals consider the current transactional experience as an important factor in forming future intention. On the other hand, loyals are less affected by transactional experience. In updating expectations based on current satisfaction, loyals and nonloyals do not seem to differ. However, loyals are less sensitive to adjusted expectations in determining RPI; rather, they use satisfaction directly in building repurchase intention.

One implication of such results is that the nature of satisfaction is somewhat different between the two groups. For nonloyals, satisfaction is formed mostly based on the current transaction so that it has intrinsic instability and fragility. For loyals, however, satisfaction seems to have two aspects; one aspect is related to the current transaction, and the other is related to accumulated experiences. The latter aspect of CS can be thought to provide stability and robustness in the CS–RPI link for loyal customers, because loyals tend to consider disconfirmation less than nonloyals. Why should a company increase its loyal customer base? It is because loyal customers are advocates for the company; that is, they have more favorable attitude and higher intention to repatronize. Even when episodic disconfirmation occurs, loyal customers seem to be relatively less affected in judging their satisfaction. Furthermore, loyal customers tend to insist on repatronizing, whereas nonloyals may change their beliefs even after a single transaction. In other words, loyal customers use the chronic route as well as the transient route in forming future intention. Nonloyals, however, use only the transient route. These distinct characteristics between high-loyalty customers and low-loyalty customers may account for the difference in a firm's revenue in the long run.

Given that adjusted expectations play a dominant role in forming repurchase intentions for nonloyals, it would be important for managers to pay their attention to adjusted expectations. They should design marketing programs that can improve adjusted expectations among nonloyals. In this regard, it would be beneficial for managers to understand what affects adjusted expectations.

There are several limitations of the present study and areas for future research. As there is little prior research on adjusted expectations, its conceptualization needs more clarification. Five items were used to measure adjusted expectations. As adjusted expectations imply a process of change over time, an attempt was made to capture the amount of change in expectations after consumption. The fifth measure was adopted for this purpose, but one might argue that it was qualitatively different from the other measures.

It was expected that CS especially for the high-loyalty group could reflect cumulative satisfying consumption experiences. Then, the CS–RPI relationship could be stronger for loyals than for nonloyals. However, cumulative CS was not measured in the analysis. In fact, the construct of cumulative CS needs more refinement in terms of conceptualization and measurement.

One may consider the role of perceived service quality in future research. Service quality is a more specific judgment and a component of CS, whereas CS is a broader evaluation (Iacobucci, Ostrum, & Grayson, 1995; Oliver, 1993). In the service context, service quality has often been examined as an antecedent of repurchase intention (Bitner, 1990; Bolton & Drew, 1991; Cronin & Taylor, 1992). Cronin and Taylor (1992) investigated the relationships among customer satisfaction, service quality, and repurchase intention. They showed that service quality was an antecedent of satisfaction, and satisfaction had a significant effect on repurchase intention, whereas service quality had less effect on repurchase intention. It might be useful to investigate the roles of customer satisfaction and service quality simultaneously.

Loyalty was not used as a mediator or a predictor of future behavior in the proposed model of CS and RPI relationship. However, because past behavior can be considered as a predictor of future behavior, one might view loyalty as a mediator of RPI in future research.

In addition, it will be interesting to investigate nonlovals' processing of consumption experience in depth (Coulter & Ligas, 2000; Rowley & Dawes, 2000). Rowley and Dawes (2000) provide an interesting categorization of nonlovals based on behavioral and attitudinal dimensions. In their study, each dimension was either inertial or negative. When attitude and behavior are both inertial, customers are categorized into "disengaged lovals." They have never been the firm's customers, and they are relatively uninterested in the firm. Customers with negative attitude but inertial behavior are called "disturbed loyals" who are currently the firm's customers but temporarily have negative attitudes because of product/service failure. So they are vulnerable to competitors' promotion. Customers showing inertial attitude but negative behavior are "disenchanted loyals," who were the firm's customers before but currently are less loyal due to repeated service failure, positive experience with competitors, or changed needs that can no longer be fulfilled by the firm's offerings. The worst category, having negative attitude and behavior, are "disruptive loyals." They were once the firm's customers but became terrorists or betravers. Such customers might have had very negative experiences, or they have been left unrecovered from cumulated service failures for a long time. It may be interesting to adopt such categorization and investigate the characteristics across types of nonloyals. Such research will provide a deeper understanding of how various types of nonlovals respond to consumption experiences. It can also provide useful insights for designing service recovery programs or customer revitalization programs.

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