

Examining the Antecedents of Brand Loyalty

From an Investment Model Perspective

Introduction

Brand loyalty has drawn renewed research attention in recent years. Although considerable loyalty research has been conducted, what factors determine customers' loyalty to a brand is not yet well understood (Agustin and Singh 2005; Morais, et al. 2004). Numerous variables have been suggested as plausible antecedents of loyalty. However, since many related studies have been exploratory in nature, the identification of loyalty antecedents has not always been based on well-grounded theories (Jones and Taylor 2007). Consequently, readers may find that the same variable suggested as a critical determinant of loyalty in one study, appeared to be only marginally related to loyalty in another. Although a couple of theoretical frameworks have been proposed (Dick and Basu 1994; Morais, et al. 2004), one may argue that a parsimonious and unifying explanation that can integrate existing findings still lacks.

Among theories that may assist our understanding of loyalty is the multidisciplinary research on interpersonal commitment (Johnson 1991; Levinger 1979; Rusbult 1980; 1983; 1980), a construct many researchers consider as the attitudinal subsection of loyalty (Jacoby and Chestnut 1978; Kyle, et al. 2004). Marketing theorists have argued that relational exchanges between customers and suppliers, characterized by "very close information, social, and process linkages, and mutual commitments made in expectation of long-run benefits" (Day 2000, p. 24), could be the future paradigm of marketing practices and research (Sheth and Parvatiyar 1995). As a result, a number of constructs traditionally used to describe interpersonal relationships, such as commitment, closeness, trust, and relationship quality, have been linked to loyalty-related outcomes (Jones and Taylor 2007). Fournier's (1998) work on brand relationships revealed the

utility of interpersonal relationship theories in examining brand-person types of relationships.

Further, Jones and Taylor (2007) articulated that

“...service loyalty, as compared to loyalty to tangibles, is dependent on the development of interpersonal relationships ...then examination of the loyalty-related outcomes that ensue from interpersonal relationships (i.e., romantic partnerships and friendships) could prove useful in the conceptualization of the service loyalty construct.” (p. 37)

Thus, it seems interpersonal relationship theory might be useful in the explanation and examination of the brand loyalty phenomenon with regard to services. This study proposes that social psychology’s Investment Model (IM) (Rusbult 1980; 1983; 1980), may help identify the key determinants of loyalty. IM suggests that one’s commitment to an interpersonal relationship is: strengthened by the amount of satisfaction that one derives from the relationship, fueled by the size of the investment in the relationship, and weakened by the quality of alternatives to the relationship. In the past two decades, IM has been empirically supported by numerous studies (Le and Agnew 2003). Further, the model appears to be consistent with current findings on loyalty determinants in marketing and tourism literature. This model, if supported, would (1) integrate extant research findings, (2) lend a solid theoretical foundation to the discussion on loyalty formation, and (3) provide guidance to service providers in developing and diagnosing loyalty programs.

Literature Review

The Investment Model

IM was initially developed as a means of describing satisfaction and commitment related to romantic involvement (Rusbult 1980). It is “a theory of the process by which individuals become committed to their relationships as well as the circumstances under which feelings of

commitment erode and relationships end” (Rusbult, et al. 1994, p. 116). Following and extending major principles of interdependence theory (Kelley and Thibaut 1978; Thibaut and Kelley 1959), IM proposes that one’s commitment to a dyadic relationship is a function of (a) satisfaction with the relationship, (b) a comparison of the best available alternatives to the relationship, and (c) one’s investments in the relationship. To facilitate the following discussion, the participant in discussion is hereafter referred to as John, and his partner is referred to as Mary.

Satisfaction. IM assumes that people are generally motivated to maximize rewards and minimize costs (Rusbult 1980). Following interdependence theory, the Model proposes that John’s satisfaction (SAT) with the relationship depends on the rewards John estimates to derive from the relationship, the amount of costs it takes, and his general expectations of relationships. John’s expectations result from two sources: John’s past experiences, and John’s social comparison with friends and family. John will feel satisfied with the relationship to the degree that the rewards relative to costs obtained in that relationship exceed his expectations.

Quality of Alternatives. Simultaneously, John may also contemplate what might be experienced outside the current relationship. That is, what his relationship experience would be if he were not with Mary, but in the best alternative situation (Rusbult, et al. 1994), such as in another relationship, or being alone. The quality of alternatives (ALT) is “individual-level forces” pulling one from sustaining the relationship. John’s commitment to Mary is reduced to the degree that the quality of alternatives is high. Conversely, John may feel more committed to the relationship if the “pulling forces” are weak.

Investment Size. Finally, investment size, i.e., any tangible or intangible resources attached to a relationship that may be lost or diminished once the relationship is dissolved, also contributes to the stability of a partnership. A variety of things may be tied to John’s current

relationship, for which John becomes bound to his relationship with Mary. Investments (INV) may include intrinsic/direct investments, such as time or self-disclosure, and extrinsic/indirect investments, such as mutual friends and social status that the relationship brings. In certain circumstances, “social norms and moral prescriptions may serve as compelling sources of investment” (Rusbult 1991, p. 159).

Thus, IM maintains that John’s commitment to Mary is strengthened by the level of satisfaction that John derives from the relationship, is fueled by his investments to the relationship, and is weakened by the quality of alternatives to the relationship. The three forces may sometimes work in concert. For instance, poor satisfaction, attractive alternative options, and low investment size, may work together and push John to leave Mary. Elsewhere, the three forces may strain against each other. For instance, substantial investment and poor alternatives may trap John in a less satisfactory relationship. Research has suggested that “not all of these factors must be present for commitment to be experienced”, and “there can be a lack of commitment when only one component is promoting commitment” (Le and Agnew 2003, p. 39). Represented mathematically, commitment (COM) is defined as:

$$\text{COM} = (\text{SAT} - \text{ALT}) + \text{INV}$$

Empirical Support of the Model

Since its introduction to the literature, the utility of IM has been extensively examined. Le and Agnew’s (2003) meta-analysis reported robust significant correlations between the three antecedents and commitment. Collectively, these three factors account for an average of 61 percent of the variance in commitment.

Although IM was originally proposed to examine interpersonal relationships, it has been tested across various non-personal settings, such as organizational and job commitments (Farrell

and Rusbult 1981; Oliver 1990) and business interactions (Ping 1993). Support for the model has also been obtained in non-relational domains, although the model has been shown to better predict interpersonal relations (Le and Agnew 2003). Le and Agnew (2003, p. 54) concluded that “the Investment Model is not strictly an interpersonal theory and can be extended to such areas as commitment to jobs, persistence with hobbies or activities, loyalty to institutions, decision-making, and purchase behaviors.”

Echoes in Brand Loyalty Studies

Although IM is only now being applied in examining customers’ brand loyalty, one can find substantial empirical evidence supporting different portions of the model. Notably, satisfaction and investment size have been repeatedly identified as major antecedents of customers’ brand loyalty.

Satisfaction. IM suggests that satisfaction is a major determinant of commitment. Not surprisingly, satisfaction has also been frequently identified as a major requisite of loyalty in the marketing (Anderson and Srinivasan 2003; Beerli, et al. 2004; Homburg and Giering 2001; Lam, et al. 2004; Olsen 2002) and leisure/tourism (Bowen and Chen 2001; Yoon and Uysal 2005) literatures.

For instance, Bloemer and Lemmink (1992) examined the hypothesized positive influence of customer satisfaction on loyalty in a car sales context. Results supported the hypothesis that customer satisfaction is a major determinant of brand loyalty. It was additionally found that the strength of the relationship between different types of satisfaction and loyalty indicators differs in various market segments. Two later studies (Bloemer and de Ruyter 1998; Bloemer and Kasper 1995) also revealed that satisfaction is a major antecedent of loyalty. In a

destination context, Yoon and Uysal (2005) reported a positive relationship between tourist satisfaction and destination loyalty.

Despite the intuitive appeal, the view that customer satisfaction positively determines loyalty is not without disagreement. Some researchers only found weak or non-direct connection between satisfaction and loyalty (Hellier, et al. 2003; Skogland and Siguaw 2004). Oliver (1999) warned that, even with the presence of satisfaction, true loyalty may only be achieved in special situations.

Investments. As indicated, IM theorists define investments as "...the resources that are attached to a relationship— resources that would decline in value or be lost if the relationship were to end"(Rusbult, et al. 1998, p. 359). This seems to be consistent with the marketing literature, where customers' investment on one brand is mainly reflected by switching and sunk costs, with the former refers to "the technical, financial or psychological factors which make it difficult or expensive for a customer to change brand" (Beerli, et al. 2004, p. 258), and the latter are investments that "have been irrevocably committed and cannot be recovered" (Wang and Yang 2001, p. 180). When customers have made an initial investment in certain services or goods, or when the costs of switching brands are expected to be high, it is reasoned that the customer tends to remain (behaviorally) loyal (Beerli, et al. 2004; Dick and Basu 1994). Although Dick and Basu (1994) suggested that both switching costs and sunk costs are conative antecedents of loyalty, most subsequent marketing studies have focused only on the effects of switching costs on customer loyalty (Hellier, et al. 2003; Lam, et al. 2004; Lee and Cunningham 2001).

Similar discussion is also echoed in the field of leisure/tourism, where the idea of investments has traditionally been associated with Becker's (1960) notion of "side

bets”(Backman and Crompton 1991; Iwasaki and Havitz 2004; Kyle, et al. 2004). Side bets represent “the investments (financial or otherwise) which have resulted from participation, but which are not necessarily related to the actual act of participation” (Buchanan, 1985, p. 416). These may be indicated by equipment owned, organizational membership, emotional attachment, experience, money spent, and efforts (Buchanan 1985). Backman and Crompton (1991) reported that side bets or investments were significantly associated with the composite measure of loyalty (i.e., as attitudinal and behavioral loyalty combined). In another study, Backman and Crompton (1991) found that side bets were useful in differentiating high, spurious, latent, and low loyalty participants. In these studies, the operationalization of side bets seems to be akin to a combination of switching and sunk costs (Iwasaki and Havitz 2004).

From a different theoretical perspective, Morais and his colleagues (Morais, et al. 2003; Morais, et al. 2004) proposed a resource investment view on loyalty formation. They suggested that if customers consider that a provider is making an investment in them, they will in turn make a similar investment in the provider, and those investments will lead to loyalty. Their empirical examination on white water rafting customers suggested investments of love, status, information, and money were significant predictors of loyalty.

Quality of Alternatives. Although the concept of “quality of alternatives” is not widely applied in the fields of marketing and leisure/tourism, some authors have tackled the idea. For instance, Ping (1993) incorporated theoretical elements of IM in his investigation of retailer-supplier relationships. He suggested that “the ‘structural constraints’ of alternative attractiveness,” among others, is one of the key antecedents of loyalty. Jones and colleagues (2000) found “attractiveness of alternatives” negatively associated with repurchase intention. Ganesh et al. (2000) suggested that the application of interdependence theory to customer loyalty

processes may exhibit “a certain degree of theoretical discrimination in regard to the different types of customer loyalty” (p. 69). Their findings suggest that, partly due to the different levels of shifts in their comparison level and comparison level of alternatives, dissatisfied switchers (i.e., customers who have switched service providers because of dissatisfaction) seem to differ significantly from other customer groups in their satisfaction and loyalty behaviors. Finally, Pritchard and Howard (1997) suggested that perceived differences in travel service performance could be an antecedent of tourists’ loyalty. Specifically, they suggested that “large interbrand differences in quality increase the tendency for consumers to be brand loyal” (p. 4).

Overall, it seems the marketing and leisure/tourism literature has already provided empirical support to individual relationships identified by IM (i.e., micro-theories), although a holistic examination still lacks (i.e., research has not been guided by macro-theory).

The Proposed Model

On the basis of IM and extant marketing and tourism literature, the authors propose satisfaction, investments, and quality of alternatives as key determinants of loyalty. Further, following mainstream conceptualization in the marketing and leisure/tourism literature (Backman 1991; Backman and Crompton 1991; Day 1969; Jacoby and Chestnut 1978; Kyle, et al. 2004), the authors conceptualize that brand loyalty comprises of both attitudinal and behavioral components, with attitudinal loyalty leading to behavioral loyalty. The attitude-behavior link, though not the focus of the present paper, has been well established in the literature (Ajzen 1991; Dick and Basu 1994). The model is presented in Figure 1.

INSERT FIGURE 1 ABOUT HERE

Purpose of the Study

The literature has not yet provided a well-accepted and parsimonious explanation of loyalty formation. Many previous studies have focused on the outcomes of loyalty (Morais 2000). What might be more intriguing to practitioners is to understand why customers are loyal or disloyal to a brand. One sector in need of retaining loyal customers is the cruise industry, which is traditionally characterized by a high level of behavioral loyalty (Petrick 2004). The cruise industry is highly consolidated, where the majority of cruise capacity development has come from four major companies (Wie 2005). To continue the current market balance and to block potential competitors from entry, the four lines have been investing heavily on cruise capacity expansion (Lois, et al. 2004; Petrick 2004). This growth in berths has thus made it imperative for the industry, among other things, to retain its current clientele in order to maintain present occupancy rates. Facing more sophisticated customers and challenged by more aggressive competitors, cruise line management who understand the underlying reasons related to customer loyalty might have an advantage in retaining their share of the market.

Therefore, the primary objective of this paper is to reveal the critical antecedents of cruise passengers' brand loyalty by introducing IM to the field of tourism. Specifically, the following three hypotheses were tested:

Hypothesis 1: A cruise passenger's attitudinal loyalty to a cruise brand will be significantly and positively influenced by his/her satisfaction level.

Hypothesis 2: A cruise passenger's attitudinal loyalty to a cruise brand will be significantly and negatively influenced by the quality of alternative options.

Hypothesis 3: A cruise passenger's attitudinal loyalty to a cruise brand will be significantly and positively influenced by his/her investment size.

Methodology

The present study is part of a larger project on cruise passengers' brand perceptions. This study utilized an online panel survey. Online survey panels "are made up of individuals who are pre-recruited to participate on a more or less predictable basis in surveys over a period of time" (Dennis 2001, p. 34). The method is fairly commonplace in marketing research (Deutskens, et al. 2006; Duffy, et al. 2005). Although several researchers have expressed concern regarding its potential for sampling bias (Duffy, et al. 2005; McWilliams and Nadkarni 2005), recent studies (Dennis 2001; Deutskens, et al. 2006; Duffy, et al. 2005) have found that, despite minor differences, online panel and traditional methodologies generate equivalent results. Considering the purpose of this study (i.e., the representativeness of public opinion was not the primary concern of this study), using online panel surveys was deemed to be appropriate.

Instrument Development. The survey questionnaire was developed based on a comprehensive literature review. After the initial version of the questionnaire was developed, 14 judges were invited to review and pretest the instrument. A shortened questionnaire was pilot tested among three undergraduate classes (n=114). The final instrument was developed based on the pilot test results and expert panel's recommendations.

Measures and Measurement Properties. As indicated, this study conceptualized loyalty as a two-dimensional construct, containing attitudinal and behavioral components. Attitudinal loyalty was measured with a five-item, seven-point Likert-type scale proposed by Li and Petrick (in press), based on Back and Parks (2003). Behavioral loyalty, following the most frequently-used approach, was measured by proportion of brand purchase (Iwasaki and Havitz 2004). Specifically, behavioral loyalty was operationalized as the total number of cruises one had taken

with the focal cruise line in the past three years, divided by the total number of cruises s/he had taken in the same time.

The satisfaction measure was taken verbatim from Spreng et al. (1996). Following marketing and tourism literature, this study operationalized investment size in terms of switching and sunk costs. Based on the pilot test results and expert panel's recommendation, the authors used a six-item Likert-type scale adapted from the literature (Iwasaki and Havitz 2004; Jones, et al. 2000).

Very few measures of quality of alternatives can be found in the field of marketing and tourism. A closer look at existing scales (Anderson and Narus 1984; Ping 1993) suggests that they may not be appropriate in the current context. The authors hence decided to modify Rusbult's (1998) five-item (global items) scale on quality of alternatives. To ensure that the reworded scale did not lose the original conceptual connotations, three senior faculty members in the fields of psychology, management, and tourism, all familiar with IM, were consulted in this process. Table 1 reports the wording of all scales used.

INSERT TABLE 1 ABOUT HERE

The Survey Process. Participants of this study were active cruisers, meaning they took a cruise vacation in the past 12 months. To allow cross validation with general cruise passengers' profile (CLIA 2005), participants of this study needed to (1) have cruised at least once in the past 12 months with a Cruise Line International Association (CLIA) member line (thus they had to have taken a minimum of a three day cruise), (2) be over 25 years old and (3) have a household income of \$25,000 or more. Moreover, a 50-50 gender distribution was desired.

The survey started from an Information Sheet and then a screening question, asking whether the respondent took a cruise vacation in the past 12 months. For respondents who said “Yes”, they were presented a list of CLIA’s member lines (CLIA 2006a), and asked which line they cruised with most recently. Together, these 19 lines make up 95 percent of the North America cruise market (CLIA 2006b). Clicking a cruise company name lead the respondent to the actual survey, which was customized to the cruise line they chose. The survey took approximately 12 minutes to complete. A technical mechanism was used to ensure that all questions had to be answered before submission.

Results

A total of 727 responses were collected, with a response rate of 31.8 percent (out of 2,283 eligible panelists). After deleting 61 problematic responses (i.e., responses from those whose demographic or behavioral characteristics did not meet the pre-set criteria), and 112 first-time cruisers, the effective sample size for the present study was 554.

This sample was slightly dominated by male respondents (55.8%). The average age of respondents was 53.9, with the vast majority being white (91.7%) and married (80.5%). About two thirds (63.9%) of respondents had a college degree or more. More than half of the participants (58.3%) have a household income between \$50,000 and \$125,000. On average, respondents had taken 8.3 cruises with 3.4 different lines in their lifetime, had taken an average of 3.1 cruises with the focal line, and a history of 6.2 years cruising with that line.

The authors checked nonresponse bias by comparing early responses to late responses, and comparing respondents’ demographic profile to that of the 2,283 people invited to participate in the survey. Overall, no significant nonresponse bias was detected. Further, sampling bias was checked by comparing respondents’ demographic and behavioral statistics to those of average

cruise passengers (CLIA 2005). On the whole, it seemed that the respondents of this study were demographically similar to typical cruisers, but behaviorally more active.

A structural equation modeling (SEM) procedure was employed to analyze the data. The analysis followed guidelines suggested by Byrne (2001) and Ullman (2001).

Step 1: Preliminary Data Analysis. Before testing the model, a variety of practical issues, including sample size, missing values, univariate and multivariate outliers, continuous scales, linearity, univariate and multivariate normality, were checked. The only potential issue detected was that Mardia's (1970) normalized estimate of multivariate kurtosis was fairly large, which suggested the data might have a multivariate nonnormal distribution. One approach to dealing with multivariate non-normal data is to use a normal theory method (in the present case, the maximum likelihood estimation) with nonparametric bootstrapping (Byrne 2001; Kline 2005). Thus, bootstrap results based on 500 bootstrap samples were obtained to assess the stability of parameter estimates. Power analysis was also conducted (MacCallum, et al. 1996) to examine the probability of rejecting the null hypothesis of close fit where ϵ (RMSEA) ≤ 0.05 . With $df=183$ and $n=554$, the power of this test was shown to be strong ($\pi > 0.99$) (Cohen, et al. 2003).

Step 2: Preparing the Measurement Model. The measurement model was assessed to evaluate whether the measuring instrument appropriately measured the underlying constructs they were designed to measure, prior to consideration of the full model (Byrne 2001). It was also used to assess the psychometric properties of scales used.

The measurement model demonstrated some misfit, as its goodness-of-fit statistics, χ^2 (164, $N=554$)=979.01, $p < 0.001$, CFI=0.923, GFI=0.842, RMSEA=0.095, fell out of the acceptable range. The Modification Indices (MI) information suggested that multiple significant MIs were associated with one single item: INV3. The item ("I am emotionally invested in

cruising with <name>”) was originally adapted from Iwasaki and Havitz’s (2004) side-bets scale. It was postulated that the wording of this item might confound with indicators of satisfaction, attitudinal loyalty, and quality of alternatives, all measuring respondents’ affective evaluation of the focal brand. It was determined that dropping this item would improve the model without compromising the theoretical meaningfulness of the measure (Bentler and Chou 1987; Byrne 2001).

Further, it was noted that the model fit could be significantly improved by permitting the errors to correlate between items INV4 and INV5 ($\Delta\chi^2=213.408$, $\Delta df=1$). This could be substantiated, as it makes intuitive sense that the two items are associated. In a similar vein, it was considered appropriate to re-estimate the model with the error covariance between QUALT2 and QUALT4 specified as a free parameter ($\Delta\chi^2=74.126$, $\Delta df=1$). The two items appear to elicit similar responses reflecting the same mindset. The deletion of one item and specification of two error correlations resulted in a better fit of the measurement model, $\chi^2(144, N=554)=467.021$, $p<0.001$, CFI=0.968, GFI=0.917, RMSEA=0.064.

Next, the authors checked the validity and reliability of scales. Convergent validity was evidenced with statistically significant ($p<0.001$) item loadings and the fact that each indicator’s standardized loading on its posited latent construct was greater than twice its standard error (Anderson and Gerbing 1988). Discriminant validity was established as the average variance extracted (AVE) for the pairs of factors of interest were greater than the square of the correlation between the two factors (Hatcher 1994).

Scale reliability was assessed with Cronbach’s coefficient alpha, composite reliability, indicator reliability, and AVE. All four factors demonstrated satisfactory Cronbach’s α values (i.e., $\alpha > 0.7$) (Nunnally and Bernstein 1994) and composite reliability (i.e., > 0.6) (Bagozzi and Yi

1988). Indicator reliability (R_{SMC}^2) is evidenced when latent factors capture more than 50 percent of the variation in the indicator, i.e., $R_{SMC}^2 > 0.5$ (Fornell and Larcker 1981). Three items fell below this threshold (QALT2, INV4, and INV5) indicating that the reliability of these items may be questionable.

Finally, AVE is considered as the most stringent test of internal structure/stability (Netemeyer, et al. 2003). In the present case, only the AVE of Investment Size (0.491) was below the cutoff. Considering that Cronbach α and composite reliability of the 5-item investment size scale were both satisfactory, its AVE value was only slightly below the suggested threshold, but two of its five items did not demonstrate reasonable indicator reliability, it was determined that this scale was only moderately reliable.

Combined, the foregoing tests provided empirical support that scales used to examine the hypothesized model were valid and reliable measures. Moreover, the modified measurement model demonstrated good fit. It was hence determined that the hypothesized model was ready to be examined.

Step 3: Hypothesized Model Analysis. The simultaneous estimation of the measurement and structural models (Figure 2) allows specific hypotheses to be tested and the determination of how well the hypothesized model fits the data (Sylvia 2004). The hypothesized model, χ^2 (162, N=554)=588.128, $p < 0.001$, CFI=0.958, GFI=0.905, RMSEA=0.069, also demonstrated acceptable fit. All paths were significant ($p < 0.001$). Although statisticians have continuously called for the use of alternative models (i.e., comparing the performances of rival *a priori* models) in model specification and evaluation (Bagozzi and Yi 1988; MacCallum and Austin 2000), no competing model was empirically examined, given the infancy of the present model.

Thus, it was believed that the hypotheses regarding relations between latent constructs could be tested based on this model.

INSERT FIGURE 2 ABOUT HERE

H1 suggested that satisfaction is a positive antecedent of one's attitudinal loyalty. Results revealed that satisfaction was indeed a positive predictor of attitudinal loyalty ($\beta = 0.554, p < 0.001$). Thus, H1 was supported.

H2 stated that quality of alternative options significantly and negatively influences one's attitudinal loyalty. Results suggest that, as predicted, respondents' attitudinal loyalty was negatively influenced by quality of alternative ($\beta = -0.222, p < 0.001$). In other words, respondents' level of attitudinal loyalty decreases when s/he perceives that the quality of alternative options improves. Thus, H2 was supported.

H3 suggested that customers' amount of investments in a brand positively influences attitudinal loyalty. Consistent with this prediction, investment size was found to positively influence attitudinal loyalty ($\beta = 0.343, p < 0.001$). Thus, H3 was supported.

Combined, the above findings suggest that cruise passengers' brand loyalty is positively influenced by his/her satisfaction level and investment size, and negatively influenced by the quality of alternative options. Additionally, the squared multiple correlation coefficients (R_{SMC}^2) for attitudinal loyalty ($R_{SMC}^2 = 0.741$) implied that satisfaction, investment size, and quality of alternatives accounted for 74.1 percent of the variation in attitudinal loyalty. With the vast majority of attitudinal loyalty being explained by its three antecedents, the proposed model was considered to be strong in social science (Cohen 1988).

Step 4: Extra Multiple Regression and Correlation Analysis. Although all hypotheses were supported, it is still necessary to determine if the replication was successful. That is, the present results needed to be compared with that of IM literature.

Le and Agnew (2003) conducted a meta-analysis of 52 studies on IM. They found that satisfaction ($\beta= 0.510$) was the strongest predictor of commitment, whereas quality of alternatives ($\beta=-0.217$) and investments ($\beta= 0.240$) were of similar absolute magnitude. Collectively, these three factors accounted for an average of 61 percent of the variance in commitment. Moreover, the correlations between the three antecedents and commitment were 0.68 (satisfaction-commitment), -0.48 (quality of alternatives-commitment), and 0.46 (investment size-commitment) respectively.

Since all IM studies reported in the meta-analysis utilized multiple regression rather than SEM, it was decided that same approach should be used with the present data to make results more comparable. Thus, following other IM studies (Rusbult 1980; Rusbult, et al. 1998), the authors averaged the items of each latent variable to create an index for each construct, and then regressed attitudinal loyalty on satisfaction, quality of alternatives, and investment size. The correlations of the three antecedents and attitudinal loyalty were also calculated. Table 2 compares the results of the present study to Le and Agnew's (2003) meta-analysis.

INSERT TABLE 2 ABOUT HERE

As can be seen, the multiple regression and correlation results of the present study were almost identical (yet slightly better) to those of the meta-analysis. Same as the meta-analysis results, satisfaction ($\beta= 0.529$; $r=0.72$) was found to be the strongest predictor of attitudinal loyalty, whereas quality of alternatives ($\beta= -0.22$; $r=-0.461$) and investments ($\beta= 0.343$;

$r=0.601$) were of similar absolute magnitude. Collectively, these three factors accounted for approximately 69 percent of the variance in attitudinal loyalty. This comparison suggests that the current replication of IM in a customer-brand context was successful.

Conclusion

The marketing and tourism literature has associated numerous factors with loyalty. Findings of the present study suggest that IM might provide useful guidance in unifying the seemingly segregated literature. The three determinants of interpersonal commitment suggested by IM worked well in a consumer-brand scenario, and all three variables uniquely predicted attitudinal loyalty, which lead to behavioral loyalty. Among the three factors, satisfaction was found to be the strongest predictor of attitudinal loyalty, whereas quality of alternatives and investments were of similar absolute magnitude.

Specifically, satisfaction was found to have a significant and positive effect on attitudinal loyalty. In addition to supporting the basic premise of IM, this finding is also consistent with most studies on satisfaction-loyalty relationship in the literature (Anderson and Srinivasan 2003; Bowen and Chen 2001; Yoon and Uysal 2005).

Investment size was also found to positively predict attitudinal loyalty. This finding validates arguments in both the marketing and leisure/tourism literature that switching or sunk costs have a positive and direct effect on loyalty (Backman and Crompton 1991; Beerli, et al. 2004; Lam, et al. 2004). This also dovetails Berry and Parasuraman's (1991) proposal that financial, social, and structural bonds may all be used to develop customer loyalty. This finding further provides partial support to Morais and associates' (2004) resource theory-based explanation of service loyalty development, which suggested that customer loyalty was

positively influenced by the resource investments that customers and service providers made in each other.

Finally, this study found that quality of alternative options significantly and negatively influences one's attitudinal loyalty. This is consistent with Ping's (1993) study on the retailer-supplier relationship and Ganesh et al.'s study on customer loyalty (2000). Moreover, the concept of quality of alternatives stresses that not only can other brands in the same product category make valid alternative options in customers' mind, there may exist a variety of other products providing similar benefits. This may be related to the line of marketing research on non-comparable alternatives (Johnson 1984) or "generic competition" (Kotler 1984), which argues that consumers occasionally face non-comparable choices (e.g., choosing between a television and a vacation). Furthermore, this might also be conceptually associated with the stream of research in leisure studies on substitutability of leisure behavior (Iso-Ahola 1986), which argues that recreationists may seek alternative options offering similar benefits or enjoyment to satisfy their recreation needs.

Managerial Implications

Although the study is primarily theoretical, it is believed that the revealed relationships may provide a useful framework for managerial decision-making and problem diagnosis. This framework suggests that cruise management should move beyond satisfaction, the obvious requisite of loyalty, and improve customer retention by increasing customers' investments and providing superior service quality and unique experiences.

This study found that investment size, operationalized as both switching and sunk costs, was an important predictor of cruise passengers' loyalty. Thus, it is recommended that cruise lines should tangibilize customers' investments. To this end, cruises may provide immediate

reward for patronage, build relationships with customers by organizing customer clubs and using database marketing, provide free service upgrades for repeat customers, and design customized services. These tactics should help bind customers with service providers. The challenge for managers is to make such benefits more appealing and obvious, and to deliver these benefits to customers efficiently and effectively.

The quality of alternatives concept stresses the importance of being innovative and offering unique experiences. As indicated, customer defection may occur when passengers perceive other cruise lines' quality superior or other leisure options more appealing. Equally, customers are more likely to stay loyal when they believe the benefits provided by a cruise line are not substitutable by others. Since technical aspects of cruise service are unlikely to be major differentiators between one cruise line and its competitors (Zeithaml, et al. 1990), cruise lines might want to focus on improving performances on specific service attributes (e.g., food, entertainment, ship condition). Meanwhile, a cruise line may also try to make the comparison of service quality difficult. That is, if a cruise line provides unique services (such as exotic destinations, different routes, special travel packages), which are not readily available from other cruise lines, then the comparability of alternatives would decrease. For cruise lines, creating a unique experience for cruisers might be the key to keeping a competitive advantage.

The concept of quality of alternatives also reminds managers to identify what the "alternatives" might be, beyond their own products and current competitors. A cruise line is not just competing with other lines for customers, and the landscape of competition could be much broader than one might think. This again stresses the importance of providing excellent service and unique benefits.

The theoretical framework outlined in this paper also provides clues for managers who plan to win over customers from their competitors. To decrease customers' loyalty to other cruise lines, according to findings of this paper, a cruise line should keep customers informed that they are providing superior service (better quality of alternatives), should facilitate customers switching to them, and provide immediate rewards to customer who switch (lower investment size).

Limitations of Present Study

This study was an initial attempt to apply IM in a customer-brand context. The results may be limited to respondents who participated in this study. Since sampling bias checks implied that participants are demographically similar to general cruise passengers, but behaviorally more active, the findings have the potential to be generalized to currently active repeat cruise passengers in North America.

This study is further limited by its data collection approach. The online panel survey approach utilized in this study precluded cruise passengers who do not have Internet access or technology skills from being researched. Future research should use multiple survey methods for cross-validation purposes.

Another limitation of this study is that it did not consider differences in cruise lines. Employing different marketing strategies and loyalty programs and targeting different market segments, the cruise lines used in this study might exhibit differences affecting customer loyalty building. Thus, it is uncertain whether and how these "noises" will influence the theoretical relationships suggested. It is possible that by combining cruise lines, the present results cannot be applied at the individual cruise line level.

Finally, the proposed model postulates temporal sequence and directional influences among variables. However, the cross-sectional design of this study made it unfeasible to accurately examine such relationships (MacCallum and Austin 2000). Thus, longitudinal studies with better experimental controls are needed to capture the dynamics of loyalty formation.

Future Research

The theoretical framework proposed in this study provides fertile ground for future loyalty research. A number of other factors have also been suggested as antecedents of loyalty. Of them the most frequently mentioned are perceived quality (Alegre and Juaneda 2006; Baker and Crompton 2000), and perceived value (Agustin and Singh 2005; Lam, et al. 2004). To develop a unifying model of loyalty formation, researchers need to identify the role of these factors.

Based on IM, this paper suggested that customers would be more loyal as their own investments in a brand increase. Morais and associates (2004) revealed that customer loyalty was positively influenced by the resource investments that customers and service providers made in each other. Thus, consistent with IM, Morais et al. suggested that customer loyalty is influenced by customers' investment in a brand/service. Different from IM, they found that service providers' relational investment (i.e., in customers' mind, the amount of investments the service provider made to customers) is also a useful predictor of loyalty. Future research should examine if adding the latter factor would improve the prediction of loyalty and enhance the explanatory power of the present model.

Intuitively, the model may be particularly relevant to services, where customers' relationships with the service providers are more akin to interpersonal relationships, and where the costs and risks involved in brand switching is higher (than goods) whereas the awareness of

substitutes is limited (Kotler, Bowen, and Makens, 2006). Future research may examine the model in a customer goods context. Further, to increase the generalizability of the results, future studies should examine the model in other tourism contexts, and examine differences in loyalty between varying cruise lines.

Finally, several variables (e.g., gender and ethnicity) have been found to moderate the relationship between commitment and its theorized determinants (Le and Agnew 2003). It is postulated that a group of moderators may exist in the present theoretical relationships as well. Such variables as socio-economic characteristics, customers' propensity to be loyal (Rundle-Thiele 2005), and perceived brand parity (Muncy 1996), may all potentially influence the loyalty formation processes. Further, IM explains the loyalty formation process from a customers' perspective. What might be added is the role of the commitment object's (i.e., the brand being loyal to, the partner being committed to) characteristics, such as brand personality and brand image. More research is needed in order to explore the role of these potential moderators.

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Figure 1. The Proposed Model of Brand Loyalty Formation

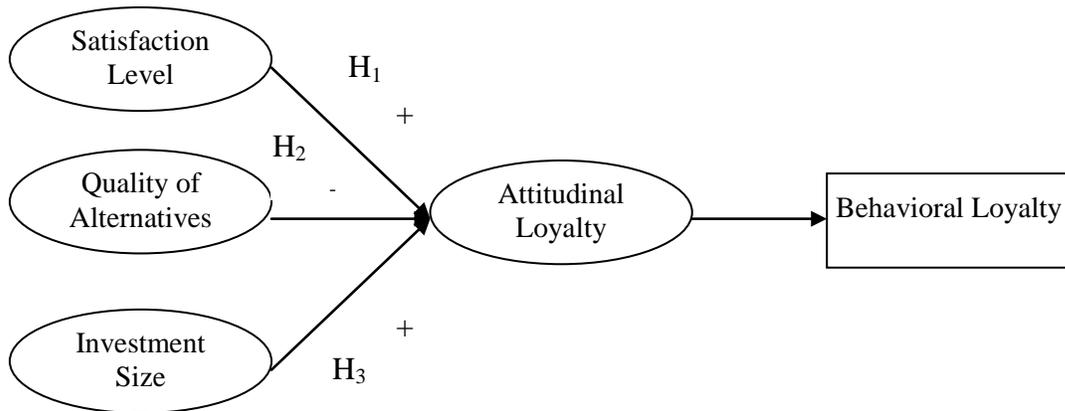


Table 1. Measurement Property

Scale Items ^a		Cronbach α	Composite Reliability	Factor Loading	<i>t</i> value ^b
Satisfaction (SAT)		0.953	0.955		
sat1	Your overall experience with <name> is: from "very dissatisfied" to "very satisfied"			0.886 (0.887)	-
sat2	Your overall experience with <name> is: from "very displeased" to "very pleased"			0.953 (0.955)	36.891
sat3	Your overall experience with <name> is: from "very frustrated" to "very contented"			0.911 (0.909)	32.919
sat4	Your overall experience with <name> is: from "terrible" to "delighted"			0.919 (0.919)	33.637
Quality of Alternatives (QALT)		0.904	0.897		
qalt1	The cruise lines other than <name> which I might be cruising with are very appealing			0.806 (0.805)	-
qalt2	My alternatives to <name> (e.g., cruising with another cruise line, spending my vacation on other leisure activities instead of cruising, etc.) are close to ideal			0.633 (0.630)	15.534
qalt3	If I weren't cruising with <name>, I would do fine-I would find another good cruise line			0.855 (0.855)	22.943
qalt4	My alternatives to <name> (e.g., cruising with another cruise line, spending my vacation on other leisure activities instead of cruising, etc.) are appealing to me			0.772 (0.774)	20.03
qalt5	My cruising needs could easily be fulfilled by an alternative cruise line.			0.899 (0.899)	24.369
Investment Size (INV)		0.806	0.815		
inv1	It takes me a great deal of time and effort to get used to a new cruise line.			0.814 (0.814)	-
inv2	It costs me too much to switch to another cruise line.			0.826 (0.827)	21.288
inv3	I am emotionally invested in cruising with <name> ^c			-	-
inv4	I have cruised multiple times with <name>			0.432 (0.432)	9.976
inv5	I have spent a lot of money in cruising with <name>			0.411 (0.410)	9.453
inv6	In general it would be a hassle switching to another cruise line.			0.867 (0.866)	22.329
Attitudinal Loyalty (ATTLOY)		0.965	0.966		
att1	I believe <name> provides more benefits than other cruise lines in its category			0.897 (0.897)	-
att2	No other cruise line performs better services than <name>			0.884 (0.884)	32.005
att3	I feel better when I cruise with <name>			0.944 (0.944)	38.109
att4	I like <name> more than other cruise lines			0.951 (0.951)	39.019
att5	I consider <name> my first cruising choice			0.931 (0.931)	36.652
Behavioral Loyalty (BEHLOY)					
	During the last 3 years, how many times did you cruise with <name>?				
beh1	During the last 3 years, how many times did you cruise with any cruise line(including <name>)?		M=0.686	St. Dev= 0.300	

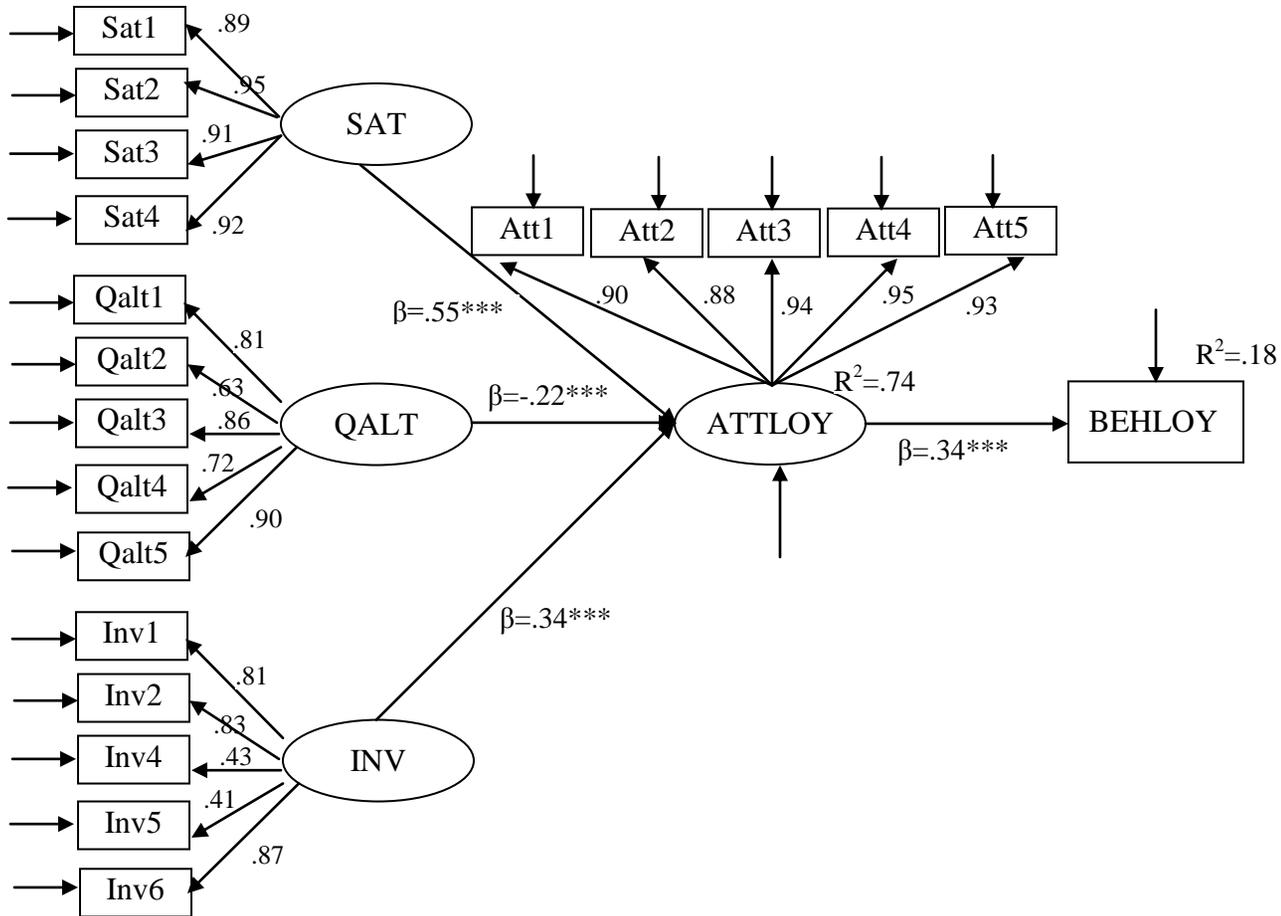
Note: Bootstrapped estimates are listed in parenthesis

^a: All items were measured on 7-point scales

^b: All *t*-tests were significant at $p < 0.001$

^c: Deleted in Step 2

Figure 2. The Structural Model



*** $p < 0.001$

Table 2. Comparison of Present Results with Le and Agnew's (2003) Meta-Analysis

Independent Variables	Meta-Analysis	Present Study
Satisfaction	$\beta= 0.510$; $r=0.680$	$\beta= 0.529$; $r=0.720$
Quality of Alternatives	$\beta= -0.217$; $r=-0.480$	$\beta= -0.22$; $r=-0.461$
Investment Size	$\beta= 0.240$; $r=0.460$	$\beta= 0.343$; $r=0.601$
R^2	0.610	0.688