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Antecedents of retailer loyalty: Simultaneously investigating channel push and consumer pull effects

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ABSTRACT

This study includes information technology (IT) related industries as the focus and aims to examine the antecedents of retailer loyalty toward brand owners by simultaneously investigating push and pull effects in the channel system. The study interviews 274 independent retailers who sell IT related products to end consumers. The results show that the retailer perceived value of selling the brand owner's products plays a pivotal role in promoting their loyalty toward the brand owners. Retailer loyalty toward brand owners comes directly from brand owners' push efforts, and indirectly from pull effects. Additionally, the specific asset invested by each party (brand owners, retailers, and customers) strengthens the relationship within each other in the channel system.

1. Introduction

As the world economy evolves, more and more companies are highlighting channel management as among their top priorities (Frazier, 1999) and marketing or distribution channels are important sources of competitive advantage (Neves et al., 2001). Therefore, developing an effective and efficient supply chain becomes an important core competency for a company (Tummala et al., 2006). Anderson and Narus (1998) note that manufacturers can create a competitive advantage based on the relationships they build with their retailers.

In early channel literature, the focus is on issues regarding channel power and channel conflict (e.g., El-Ansary and Stern, 1972; Hunt and Nevin, 1974; Lusch, 1976; Rosenberg and Stern, 1971). As to the 1990′s, efforts of the research focus on how to develop long-term relationships, and the impact of trust, commitment, and relational norms on channel interaction (e.g., Anderson and Narus, 1990; Anderson and Weitz, 1992; Heide and John, 1992; Geyskens et al., 1998) and channel member loyalty (e.g., Gilliland and Bello, 2002; Sahade, 2008). This is in reaction to a worldwide trend in building closer, and more integrated relationships in the channel system. To achieve effective integration of channel operations, a high level of commitment and loyalty of the channel member is a prerequisite.

Most extensive literature that addresses the issue of channel member loyalty focuses on the relationship between brand owners and their channel members and believes that manufacturers' brands are becoming less important as major retailers are becoming more powerful (Webster, 2000). However, firms rely on some combinations of a push and pull efforts in managing their channel system (Frazier, 1999). Pure pull or push strategies are things of the past. Effective marketing strategy implementation requires careful coordination of marketing communication programs with sales strategy to maximize the value of the brand to both the retailer and the end users (Webster, 2000).

In addition to the relationship between brand owners and channel members, building the relationship between brand owners and consumers is also an important strategic factor that requires special attention when developing and implementing supply chain management strategies (Tummala et al., 2006). A successful pull effort from the consumer side will contribute greatly to the push effect generated on the retailer side in a channel system. Frazier (1999) argues that what is lacking in the channels literature is the guidance as to the situation under which certain combinations of push and pull strategy are appropriate. Webster (2000) also notes that almost all marketing strategies are blends of push and pull elements. The test of marketing management capability is to get the balance right, given the unique requirements of specific markets.

Finally, Webster (200) concerns that traditional thinking about brands tends to focus on frequently purchased consumer products. Although historical and contemporary evidence suggests that product manager (as distinct from brand manager) systems have been more

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frequently found in industrial rather than consumer businesses. Therefore, analysis of the reasons for consumer durables brand can help one to understand more the value of brands as strategic assets for both resellers and manufacturers.

In sum, the primary purpose of this paper is to examine the issue of the antecedents of retailers' loyalty toward brand owners by simultaneously investigating push and pull effects in a consumer durable channel system. Examining only one of the dyad relationships among brand owners, retailers, and consumers in this kind of channel system is not enough for knowing the whole picture of the channel management (Parasuraman and Grewal, 2000). Both sales strategy toward channel members (push) and marketing communication programs (pull) can strengthen the loyalty of the retailer toward the brand owner. In addition to the relationship between the brand owner and the retailer, brands give brand owners the opportunity to develop a relationship with the consumer distinct from that of the retailer.

In the next sections, this article provides the definitions of major constructs and the development of research hypotheses. The article then describes the method, measurement, and data analysis of the study. Finally, the article presents the results of the hypothesis testing and discussion of the results.

2. Literature review and hypothesis

2.1. Definition of constructs

2.1.1. Channel push and pull strategy

Pure push strategy means that the brand owner only devotes resources to motivate desirable behavior at the next vertical level of the channel (i.e., retailers in this study). On the other hand, sole reliance on a pull strategy means that the brand owner only devotes resources to motivate brand preference with end customers (Frazier, 1999).

2.2. Perceived value

Zeithaml (1988) defines perceived value as a consumer's overall assessment of the utility of a product or service based on perceptions of what is received and what is given. As to the channel member (retailer), what is given is the cost of goods sold plus all the marketing expenditures, and what is received is the profit and consumers' feedback. In this study, the definition of perceived value is the trade-off between received benefit and cost.

2.3. Consumer and retailer trust

In general, trust is an essential ingredient for successful transaction relationships (Berry, 1995; Dwyer et al., 1987; Moorman et al., 1993; Morgan and Hunt, 1994). Morgan and Hunt (1994) conceptualize trust as existing when one party has confidence in an exchange partner's reliability and integrity. In this study, retailer trust refers to the retailer's expectation that the brand owner will act to benefit the retailer's interests, regardless of the retailer's ability to monitor such behavior (Anderson and Narus, 1990; Anderson and Weitz, 1989; Mayer et al., 1995). Similarly, consumer trust refers to a consumer's expectation that the brand owner will act to benefit the consumer's interests, regardless of his/her ability to monitor such behavior.

2.4. Consumer and retailer overall satisfaction

Oliver (1997) defines satisfaction as pleasurable fulfillment. That is, the consumer senses that consumption fulfills some need, desire, goal, or so forth, and that this fulfillment is pleasurable (Oliver, 1999). The definition of the retailer's overall satisfaction is a positive affective state resulting from the appraisal of all aspects of a retailer's working relationship with the brand owner (Gaski and Nevin, 1985; Frazier et al., 1989).

2.5. Retailer loyalty response

Oliver describes loyalty as “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand owner-brand purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (Oliver, 1997). In this study, the definition of retailer loyalty is a favorable behavioral intention. When retailers behave loyaly, they may praise the brand owner, express preference for the brand owner over others, increase the volume of their purchase and so on (Zeithaml et al., 1996).

2.6. Specific asset investment

Specific asset investment (SAI) refers to investments in assets dedicated to a particular transaction partner and whose redeployment entails considerable switching costs (Williamson, 1985). These idiosyncratic SAIs to support a particular exchange relationship may take different forms: they may be physical assets, monetary assets, knowledge, personal relationships, and skills (Chiou and Droge, 2006; Williamson, 1991). In this model, three constructs apply to SAI: brand owner's specific asset investment in the retailer, consumer's specific asset investment in the brand, and retailer's specific asset investment in the brand owner. Brand owner's specific asset investment in the retailer refers to investments in physical or human assets allocated to a particular retailer and whose redeployment entails considerable switching cost (Heide, 1994; Joshi and Stump, 1999). For example, brand owners may help retailers train their salespeople in merchandising, developing displays, providing dedicated electronic linkups for inventory control and ordering, and installing tools and equipment (Ganesan, 1994; Joshi and Stump, 1999). For the brand owner, they cannot transfer these asset investments to other retailers.

Similarly, a retailer's specific asset investment in the brand owner refers to investments in physical or human assets associated with a particular brand owner and whose redeployment entails considerable switching cost. For example, retailers may need to learn the brand owner's specific way of merchandising and display, provide dedicated electronic linkups for inventory control and ordering, for the brand owner. Similarly, these invested assets will be difficult to switch when the retailer stop selling the brand owner's products.

Finally, the consumer's specific asset investment on the brand owner's brand refers to consumers invest specific assets in the brand that they buy and whose redeployment entails considerable switching cost (Chiou and Droge, 2006). For example, consumers have to spend time getting acquainted with several different product types, functions, combinations, and suitability for occasion; this leads to knowledge asset specificity. In addition, consumers may invest in brand specific peripheral products for the brand (e.g., peripheral products for Sony VAIO laptops) and whose redeployment entails considerable switching cost.

Brand owner's specific asset investment on the consumers is not in the model because brand owners normally don't invest on a specific end consumer in a business to consumer scenario. Brand owners normally market their products through mass marketing which restrain themselves from investing specific asset on a single consumer.

2.7. Research hypotheses

Dodds et al. (1991) argue that the role of value is of increasing concern to consumers and marketers. In the consumer's opinion, acquiring value is a fundamental purchase goal and important to all successful exchange transactions (Holbrook, 1994). Past literature highlights the importance of value in customer decision-making (Parasuraman, 1997; Woodruff, 1997). For a retailer, in order to be competitive in the product offerings, it has to constantly assess the value provided by brand owners (Simpson et al., 2001).

Perceived value is a cognitive-based construct that captures any benefit-sacrifice discrepancy (Patterson and Spreng, 1997). For a retailer, the perceived value comes from the evaluation regarding brand owners' services, products, physical distribution, and relational benefits (Simpson et al., 2001). If a brand owner can provide good value for the retailer, the retailer can increase profitability and decrease marketing expenditures in the end consumer market.

In addition, past literatures find that the influence of perceived value on behavior intention mediates customer satisfaction (Spreng et al., 1993; Patterson and Spreng, 1997; Andreassen and Lindestad, 1998; Zins, 2001). The definition of overall satisfaction is an affective evaluative response (Hunt, 1993; Oliver, 1992). If a retailer in a channel relationship believes that a given brand owner creates higher value than alternatives, the retailer is likely to be more satisfied with the relationship with the brand owner (Simpson et al., 2001). Since retailers within competitive environments are routinely seeking competitive advantage by rearranging different products from different brand owners, the brand owner's ability to increase retailer satisfaction will likely strengthen and secure the channel relationship with the retailer (Simpson et al., 2001).

The sequence from perceived value to satisfaction and to loyalty (Fig. 1) is also in accordance with Oliver's cognitive-affective-conative loyalty framework (Oliver, 1999). The traditional attitude structure starts with cognitive beliefs (retailer's perceived value of brand), followed by affective response (retailer's overall satisfaction), followed by cognitive responses (retailer's loyalty response). The perceived value is a cognitive-based construct, and defines overall satisfaction as an affective evaluative response (Hunt, 1993; Oliver, 1992), and loyalty is a conative construct; thus, one can hypothesize that the retailer's perceived value of selling a brand will affect their overall satisfaction with the brand owner, and the retailer's overall satisfaction with the brand owner will affect their loyalty response toward the brand owner.

Hypothesis 1. Retailers' perceived value of selling the brand owner's products positively affects retailers' overall satisfaction with the brand owner.

Hypothesis 2. Retailers' overall satisfaction with the brand owner positively affects retailers' loyalty response toward the brand owner.

2.8. The role of trust

Morgan and Hunt (1994) indicate that trust is an important mediator between successful exchange relationships. On the basis of social exchange theory, Singh and Sirdershmukh (2000) propose that buyers' pre-trust will have direct influence on their post-purchase satisfaction. Therefore, cumulative trust perceptions will affect cumulative satisfaction over time is the further argument. A retailer's cumulative trust perceptions toward the brand owner will affect their overall satisfaction over time.

Furthermore, Gwinner et al. (1998) also find that buyers in long-term relationships with service firms experienced three primary benefits. Among the three, confidence (which is similar to trust for the brand owner in this study) was found to be the most important across several categories of services. Confidence benefits include a sense of reduced anxiety, faith in the provider, reduced perceptions of anxiety and risk, and knowing what to expect. When a retailer feels these benefits related to trust, their overall satisfaction enhances over the long term. Several past literatures (e.g., Andaleeb, 1996; Anderson and Narus, 1990; Dwyer et al., 1987) also support the positive relationship between trust and satisfaction. Thus, one can hypothesize that a retailer's trust in the brand owner will positively affect the retailer's overall satisfaction with the brand owner.

Hypothesis 3. Retailers' trust in the brand owner positively affects retailers' overall satisfaction with the brand owner.

On the basis of the model of Chiou et al. (2002), this study argues that the retailer's trust in the brand owner is the mediator between the perceived value of the brand owner's brand and loyalty intention. Before building up trust, the retailer must first gain some satisfied profits. Through satisfied profits and positive consumer feedback, the retailer will start to think that it is a good bargain to do business with the brand owner, and gradually generate trust-feelings toward the brand owner. As Tummala et al. (2006) state, building trust on a channel member requires time and consistent good sales results in the channel system. If retailers are aware that the perceived value of the brand owner's brand is high, the retailer will have more confidence in the brand owner, which in turn will increase the retailer's trust in the brand owner.

Hypothesis 4. Retailers' perceived value of selling the brand owner's products positively affects retailers' trust in the brand owner.

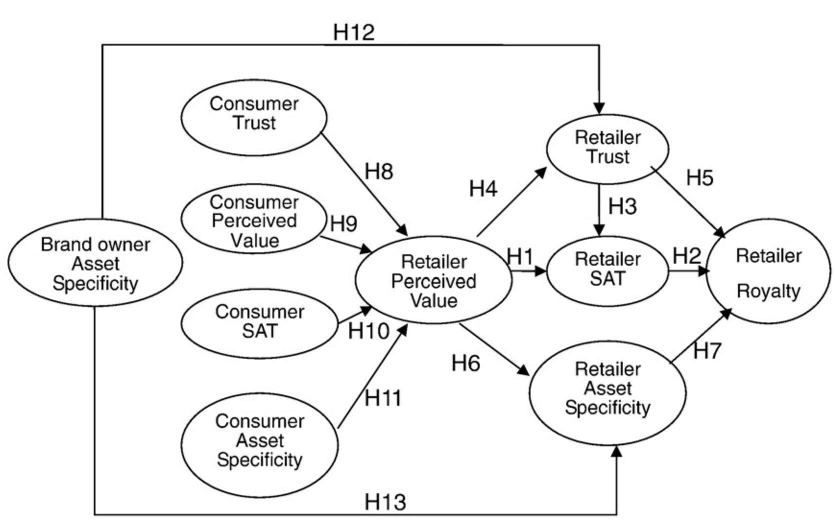

Fig. 1. Research model.

Following Morgan and Hunt (1994) and Chaudhuri and Holbrook (2001), one can propose that commitment in the form of customer loyalty response is a result of trust. Trust and commitment are two of the most important constructs in the relationship-marketing paradigm (Morgan and Hunt, 1994; Spelman, 1988), and trust seems implicit in true customer loyalty (Oliver, 1999). Schurr and Ozanne (1985) find that trust leads to a higher level of loyalty to the bargaining partner. Ganesan (1994) argues that a retailer's trust in a vender affects the long-term orientation of a retailer in three ways: (1) it reduces the perception of risk associated with opportunistic behaviors by the vender; (2) it increases the confidence of the retailer that short-term inequities will be resolved over a long period; and (3) it reduces the transaction costs in an exchange relationship.

Therefore, one can hypothesize that retailers' trust in the brand owner will positively affect retailers' loyalty toward the brand owner.

Hypothesis 5. Retailers' trust in the brand owner positively affects retailers' loyalty responses toward the brand owner.

2.9. Specific asset investment

Perceived value affects retailers' willingness to engage in closer relationships and to invest in specific assets with the brand owner. When the retailer feels that the perceived value of a cooperative relationship with the brand owner is high, the retailer is more willing to invest specific assets in order to retain and strengthen the relationship with the brand owner. Instituting specific investments could signal that the retailer commits to sustaining the long-term relationship with the brand owner (Ganesan, 1994).Thus, a retailer's perceived value of selling the brand owner's products will positively induce the retailer's specific asset investment in the brand owner.

Hypothesis 6. Retailers' perceived value of selling the brand owner's product positively affects retailers' specific asset investment in the brand owner.

In addition, switching specific assets to other usage will greatly diminish the asset's value or utility (Williamson, 1985). That is, if a retailer changes its purchase to other brand owners, the specific assets it devotes to the original brand owner limit use with the new brand owners. In this scenario, since the retailer has sunk the costs (Chris, 2001), it will be reluctant to stop the cooperative relationship with the particular brand owner when specific investment has already been made. Therefore, one can hypothesize that retailers' specific asset investment in a brand owner will positively affect retailers' loyalty toward the brand owner.

Hypothesis 7. Retailers' specific asset investment in the brand owner positively affects retailers' loyalty response toward the brand owner.

2.10. Pull effects form the end consumer side

The retailer itself is not the end user of the products that they sell. When consumers complain about the brand's products, this negative spillover effect will hurt the image of the retailer seriously. Consumers normally will complain to the person from whom they bought or to the store from which they bought the brand. That is, the end-consumer's evaluation of the brand owner's products affects the retailer's perceived value of selling the brand owner's products. Stern et al. (1996) argue that it is important to build consumer-driven distribution systems. A brand owner can enjoy a favorable position with the pull effects from the ultimate buyers (Corey et al., 1989). Webster (2000) also notes that the relationship between the brand and the consumer is an important part of the relationship between the manufacturer and the reseller.

Consumers' favorable attitude toward the particular brands that a retailer carries can generate positive externalities for the retailer in other product categories by creating demand pull effects (Fein and Anderson, 1997). This is called “consumer's pull force.” Consumer's pull force comes from the brand owner having devoting resources to motivate brands preference with end customers (Frazier, 1999). For retailers, brands offer many benefits including established consumer demand, favorable consumer attitudes toward the branded products, a commitment from the manufacturer to promote the product, and the credibility and image of the brand itself as enhancements of the retailer's credibility and image (Webster, 2000).

Finally, a consumer's investment of specific assets in a provider gives the provider some control over the consumer (Chiou and Droge, 2006). The most prominent B2B solution transaction cost analysis offers is safeguarding specific asset investments is vertical integration (Williamson, 1985). However, unlike firms, it is very difficult for a consumer to vertically integrate the functions given by the provider (DiMaggio and Louch, 1998). Therefore, rational consumers will try to avoid dependency in unsatisfactory relationships by reducing the buildup of asset specificity on the certain brand. On the other hand, a consumer will increase specific asset investment on the satisfactory brand which can reduce the effort for the retailer to promote the brand's brand to the consumers.

All the above benefits may reduce direct and indirect costs for the retailer to carry the brand's products, and further contribute to the retailer's profitability of selling the brand's products and thus strengthen its channel relationship between the brand owner and the retailers (Simpson et al., 2001). In theory, when the pull efforts on the consumer side are successfully implemented, the end consumers would contact intermediaries requesting the product-services in question (Frazier, 1999). Therefore, the relationship of the brand and the consumer can create value for the retailers. Thus, if a brand owner can implement an effective pull effort on the consumers that increases the end consumer's feelings of trustworthiness toward the brand, perceived value of purchasing the brand, overall satisfaction with the brand, and specific asset investment with the brand, the retailer's perceived value of selling the brand is highly improved. Thus, one can hypothesize that consumer trust, perceived value, overall satisfaction and specific asset's investment in the brand will positively affect retailers' perceived value of selling the brand owner's products.

Hypothesis 8. Consumer trust in the brand positively affects retailers' perceived value of selling the brand owner's products.

Hypothesis 9. Consumers' perceived value of the brand positively affects retailers' perceived value of selling the brand owner's products.

Hypothesis 10. Consumers' overall satisfaction with the brand positively affects retailers' perceived value of selling the brand owner's products.

Hypothesis 11. Consumers' specific asset investment in the brand positively affects retailers' perceived value of selling the brand owner's products.

2.11. Mutual hold-up

Asset specificity is an important concept in transaction cost analysis because the concept can cause dependence on the transaction partners and hence discourage switching (Ganesan, 1994; Joshi and Stump, 1999). Asset specificity creates dependency because considerable switching costs involve replacing the product/service provider (Heide and John, 1988; Joshi and Stump, 1999). If a brand owner can invest specific asset on its retailers, this investment can manifest its commitment toward the retailer and induce favorable response from its retailers. Therefore, although specific asset investment may cause sunk cost for the brand owner in the channel system, it is an important strategy that the brand owner could use to show its sincerity in the relationship. More specifically, brand owners' specific asset investment in the retailer can induce retailers' loyalty via two routes.

First, a firm that devotes specific asset investments will be less prone to perform opportunistic behaviors, because if the relationship cannot be maintained, the asset's value the brand owner invested will disappear (Anderson and Weitz, 1992). Therefore, a brand owner's specific investment in the relationship with the retailer provides a significant signal that the manufacturer is reliable because redeployment of the specific asset entails considerable switching costs for brand owners (Ganesan, 1994).

Second, observing the brand owner's specific asset investment causes a retailer to be more confident in the brand owner's long-term commitment to the relationship (Anderson and Weitz, 1992). Therefore, this favorable situation will induce the retailer to invest specific assets in its relationship with the brand owners reciprocally because this investment behavior can also signal the retailer's long-term commitment to the relationship with the brand owner. In sum, a brand owner's specific asset investments will not only create trust for the retailer, but also induce reciprocal investment from the retailer; a mutual reliance relation is thus created (Williamson, 1985).

Therefore, one can hypothesize that a brand owner's specific asset investment in the relationship with the retailer will positively affect the retailer's perceived trust in the brand owner and induce the retailer's specific asset investment in the relationship with the brand owner.

Hypothesis 12. A brand owner's specific asset investment in the relationship with the retailer positively affects the retailer's perceived trust of the brand owner.

Hypothesis 13. A brand owner's specific asset investment in the relationship with the retailer positively induces the retailer's specific asset investment in the relationship with the brand owner.

3. Method

3.1. Study objects

The study object is information technology (IT) related industry in Taiwan. There are two reasons why IT industry is selected as the study object: First, IT related products are one of major consumer durables which is the major context that this study intends to explore. Second, the IT industry is very competitive in which all brands face an increasingly challenging global marketing environment. In this industry, brand owners have to manage both their channel sales management (push efforts) and consumer marketing activities (pull efforts) adequately. That is, brand owners in this industry not only must struggle for consumer acceptance in terms of strong relationships between consumers and the brand, but also need to maintain strong relationship with the retailers.

The target samples of our questionnaires are independent retailers who sell IT-related products to end consumers. This study asks the owner or the chief manager of the retailer to complete the questionnaire. In addition to their perceptions regarding their relationship with the brand owners, their answers also include their perceptions regarding consumer satisfaction, trust, value, asset specificity toward the brand owner's products. The reason why they are qualified to answer these questions for the consumers is that consumers normally give feedbacks and opinions to the store from which they bought the brand. In addition, since the retailers normally carry more than one brand, they don't need to have biased opinions and feedbacks toward a specific brand. If they are not satisfied with the product performance of a specific brand, they can change brand through their distributors who also normally carry several brands for them to choose from. This study will also examine the common method variance issue in the results section.

In total, seven interviewers conduct data collection from main IT product shopping areas in three major metropolitan cities (Taipei, Shinju, and Taichung) in Taiwan. Before conducting any interview, the supervisors surveyed the shopping district to calculate the store numbers in the district and randomly select a proportional sample from the area. For example, there are more than 600 stores in Taipei's Kuan-Hwa electronic shopping district. Interviewers conduct their interview using city block random selection method to ensure that every store in the area is in the sampling frame.

There is a cluster effect of IT product-shopping outlets in Taiwan; the sales volume at these major shopping outlets constitutes more than half of the sales volume for the industry. Although there are two major IT product chain stores in Taiwan which also sell similar products, their price and product offerings are not as flexible as these independent retailers. These independent retailers sell up-to-date IT products with very competitive price. They are especially flexible in meeting the different product configuration needs from consumers. In recent years, Taiwan has grown to become one of the largest personal computing products manufacturing and consumption countries in the world. In this market, Taiwanese global brands, such as Acer, ASUS, MSI, and BenQ, compete fiercely with global brands such as IBM, HP and Dell. Although these companies normally sell their products through three major local distributors, the sales representatives of these companies normally contact independent retailers (or dealers) directly to promote their products and to reinforce their relationship with the retailers. In this industry, distributors focus more on physical distribution than selling activities.

The interviewers reach 924 independent retailers, and 274 interviewees successfully complete questionnaires. To increase the variance of their answers, the interviewers request half of the respondents to answer their questions on the basis of the major brand supplier. The other half of the respondents answer their questions on the basis of the second major brand supplier.

3.2. Measures

All measures are 5-point Likert-type scales and the questionnaire is written in Chinese. Table 1 presents the detailed measurements. The measures of consumer trust are on the basis of Ganesan (1994) and Morgan and Hunt (1994). The measures of consumer perceived value are on the basis of Dodds et al. (1991). The measures of consumer satisfaction are on the basis of Spreng et al. (1996). The consumer's specific asset investment refers to Chiou and Droge (2006)'s classification about specific assets. In this study, there are three different scales of asset specificity in this study. That is, the brand owner's specific investment in the retailer, the retailer's specific investment in the brand owner, and the consumer's specific investment in the brand owner's brand. The brand owner's specific asset investment and the retailer's specific investment develop in accordance with Joshi and Stump (1999). In addition, this study develops the consumer's specific investment in the brand owner's brand in accordance with Chiou and Droge (2006).

This study makes modification from Ruekert and Churchill's (1984) scale to establish the scale of the retailer's perceived value of selling the brand owner's products. This study focuses on the product and financial dimensions in the scale. Meanwhile, this study modifies the scales of Garbarino and Johnson (1999) and Morgan and Hunt (1994) to establish the scale of the retailer's trust. The measure of retailer's overall satisfaction is on the basis of Oliver (1980). The measure of retailer's loyalty is on the basis of Zeithaml et al. (1996).

4. Result

4.1. Overall model fit and explanatory power

This study applies the LISREL program (Joreskog and Sorbom, 1989) to analyze the data and use the conventional maximum likelihood estimation techniques to test the model. Anderson and Gerbing (1988)

Table 1
Measurement.

Construct	Scale	Measures
Consumer trust ($\alpha = 0.93$)	1–5	I think that the consumer who bought this company's product thought this company reliable => unreliable has high integrity => has low integrity responsible => irresponsible
Consumer perceived value ($\alpha = 0.74$)	1–5	I think that the consumer who bought from this company thought the product very poor value for the money => very good value for the money very uneconomical => very economical appears not to be a bargain => appears to be a bargain
Consumer satisfaction ($\alpha = 0.79$)	1–5	I think the consumer who bought this company's product felt very dissatisfied =>very satisfied terrible =>delighted
Consumer asset specificity ($\alpha = 0.57$)	1–5	Consumers who upgrade the products must use this company's related products because their products have specific specification.
		Consumers have already spend lots of time to get acquainted with this company's products. If they switch to other brands, they must spend lots of time to learn.
		It is convenient for the consumers to upgrade their products because this company has many related products.
Brand owner asset specificity ($\alpha = 0.83$)	1–5	This company has made significant investments in resources dedicated to their relationship with us.
		The company's operation process has been tailored to meet the requirements of our organization.
		Training our people has involved substantial commitments of time and money for this supplier.
		Our company has some unusual technological norms and standards that have required extensive adaptation by this company.
Retailer perceived value of the selling the brand owner's product ($\alpha = 0.73$)	1–5	I'm very happy with the margins I receive on this company's products.
		This company's products are asked for by our customers.
		This company's products are a good growth opportunity for my firm.
		This company's products perform much better than their competition.
		My customers are willing to pay more for this company's products.
Retailer trust ($\alpha = 0.85$)	1–5	This company can be counted on to follow the cooperation contract.
		The information this company provided is reliable.
		What I paid for the cooperation with this company is reasonable.
		This company will take us into consideration when making important decisions.
		This company will follow the commitment and responsibility written in the contract.
Retailer satisfaction ($\alpha = 0.86$)	1–5	I'm glad to sell this company's products in my store.
		I think that I did the right thing when I decided to sell this company's product.
		I am satisfied with my decision to cooperate with this company.
Retailer asset specificity ($\alpha = 0.73$)	1–5	We have made significant investments in resources dedicated to our relationship with this supplier.
		Our operating process has been tailored to meet the requirements of dealing with this supplier.
		Training and qualifying this supplier has involved substantial commitments of tome and money.
		This supplier has some unusual technological norms and standards that have required extensive adaptation on our part.
Retailer loyalty ($\alpha = 0.70$)	1–5	I'll consider this company my first choice when deciding which brand's product to sell.
		I'll do more business with this company in the next few years.

propose a two step procedure as the main analysis procedure in this research. This study runs the confirmatory factor analysis (CFA) first to evaluate the construct validity, then runs the full structure equation model to determine whether the proposed model fits well. The fit of the CFA measurement model is satisfactory, $\chi^2_{(482)} = 987.53$, normed fit index (NFI) = 0.92, non-normed fit index (NNFI) = 0.95, comparative fit index (CFI) = 0.96, root mean square error of approximation (RMSEA) = 0.067. Table 1 shows the Cronbach's alphas for the constructs. In this table, the alpha values are all satisfactory ($\alpha > 0.70$) except for the consumer asset specificity on the brand ($\alpha = .57$).

The common test of discriminant validity is determining whether the confidence interval between two constructs' correlation includes 1 (Smith and Barclay, 1997). All the 45 confidence intervals exclude the value 1; hence, the discriminant validity is adequate. Furthermore, because all the data are perceptual and collected from the same source at the same time, there is a possibility of common method variance (Lee et al., 2004). Hence, structural equation modeling can test the common method variance (Sanchez et al., 1995). The single construct's model is in comparison with the 10 constructs' model. The result of single construct's model is $\chi^2_{(527)} = 2675.03$, which is

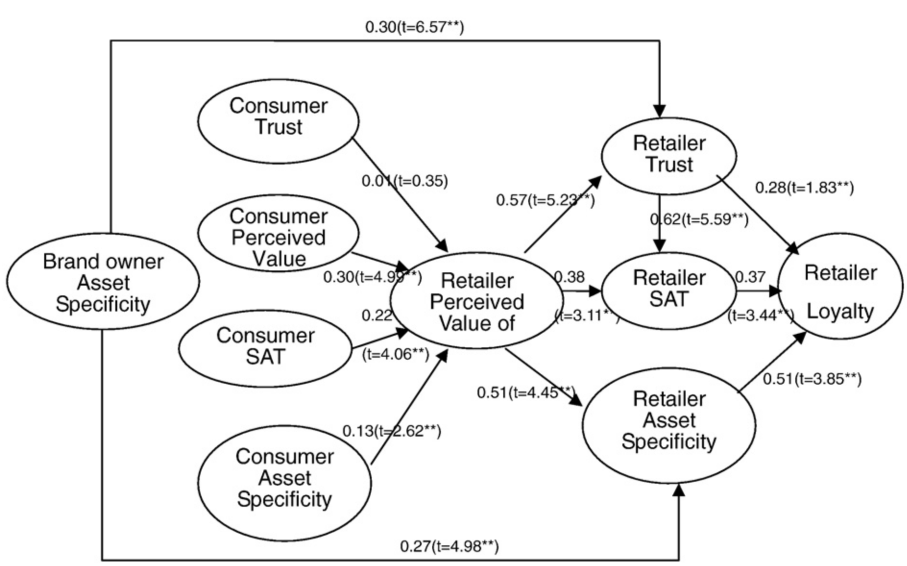

Fig. 2. Model estimation results.

1402.67 increases in $\chi^2_{(514)}$(significant at d.f. = 13). Therefore, the conclusion is that the 10 constructs' model fits better than the single construct's model, and this study finds evidence to conclude that common-method variance is not a serious problem in this study.

The results for the full model are also acceptable, $\chi^2_{(514)} = 1272.36$, NFI = 0.90, NNFI = 0.93, CFI = 0.94, RMSEA = 0.076. The model converges in 29 iterations, and the *t*-rule for identification holds (Bollen, 1989). The squared multiple correlations (SMCs) for the structural equations are as follows: perceived value, 0.45; channel trust, 0.50; channel satisfaction, 0.42; channel asset investment, 0.35; and channel loyalty, 0.47. Thus, these data explain a substantial proportion of variance in each of these constructs.

Fig. 2 and Table 2 present the results of the model estimation. The results in Table 2 show that retailers' perceived value of the brand owner's brand significantly influence retailer's satisfaction with the brand owner and retailers' satisfaction with the brand owner significantly influences retailers' loyalty response, supporting Hypotheses 1 and 2. This is in accordance with Oliver's cognitive–affective–conative loyalty framework. Retailers' trust in the brand owner, as expected, has positive influence on the retailer's satisfaction (Hypothesis 3). In addition, retailers' trust, as this study proposes, is the mediator of the retailer's perceived value and retailer's loyalty response (Hypotheses 4 and 5). Hypotheses 6 and 7 are also supported since retailers' perceived value has significant influence on retailers' specific asset investment in the brand owner and retailers' specific asset investments have significant influences on retailers' loyalty responses.

As for the consumer pull force, the results show that consumers' perceived value, satisfaction and specific asset investments all have significant influence on retailers' perceived value, supporting Hypotheses 9, 10, and 11, but not Hypothesis 8. Finally, brand owners' specific asset investments in the relationship with the retailer positively affect retailers' perceived trust in the brand owner (Hypothesis 12) as well as retailers' specific asset investments in the relationship with the brand owner (Hypothesis 13).

5. Discussion

This study develops a model to explore the issue of the antecedents of retailer's loyalty by simultaneously investigating push and pull efforts by the brand owners. Different from most past channel research focusing on frequently purchased consumer goods, this study tests the proposed relationships in a consumer durable industry. This study finds that retailers' perceived value of selling the brand owner's products plays a pivotal role, which ingeniously integrates the push and pull efforts for the brand owner in the channel system. Through empirical evidence, this study finds that retailers' loyalty toward brand owners directly comes from brand owners' sales (push) efforts on the retailer side, and indirectly comes from its marketing communication (pull) efforts on the end consumer side.

Adequate execution of pull efforts on the end consumer side by the brand owner can improve significantly the perceived value of selling the brand owner's product by the retailer. Therefore, it is very important that the brand management team make use of customers' pull force in order to raise retailers' perceived value of selling its products. Brand owners must communicate directly with the end consumers in order to increase consumers' perceived value and satisfaction with the brand. Eventually, if the brand owner can also induce end consumers to invest more specific assets on the brand, the retailer will have significantly higher perceived value of selling the brand owner's products.

The results also show that although the increase of specific asset investments on the brand owner by the retailer is very important in securing the retailer's loyalty toward the brand owner, the best way for the brand owner to induce the retailer's investment in specific assets on the brand owner is for them to invest specific assets on the retailer first. Brand owners' specific asset investment on the retailer can signal the brand owner's willingness to maintain long-term relationships with the retailer. It can increase not only retailers' trust toward the brand owner, but also reciprocal investments in the relationship, and thus secure the retailer's long-term loyalty.

Finally, in addition to pull effects from the consumer side, the brand owner also has to improve its product and service offerings to increase retailers' perceived value of selling the brand owner's products. Once the retailer perceives that its cooperative relationship with the brand is valuable, they will trust and satisfy with the brand owner and make further investment in specific assets on the brand, thus form a long-term and stable channel relationship.

In this study, the effects of push efforts (i.e., retailer trust, satisfaction, specific asset investment, and perceived value) on the retailer side are very strong. This may reflect industry characteristics that the retailers are not frequently purchased consumer goods retailers such as Walmart, Kroger, Tesco, or Carrefour, but equipment and hardware specialists, capable of both selling and servicing the complex equipment produced by the brand owners. These retailers have more power in influencing consumers in brand selection. Therefore, strong relationship with the retailer is very important for this industry.

This study does show that although strong push relationship with the retailer is the most direct way to retain long-term relationships with a retailer, pull efforts on the consumer side can improve the value of the selling the brand owner's product, thus improving the total effect on the retailer loyalty toward the brand owner. Therefore, this study confirms Webster's (2000) and Frazier's (1999) point that pure pull or push efforts are things of the past. Firms rely on some combination of push and pull strategy. That is, in addition to the relationship between brand owners and channel members, building

Table 2
Model estimates.

Linkages in the model	Hypothesis	Correlation coefficient	*t* value	Result
Retailer perceived value → retailer satisfaction	H1	0.38	3.11**	Support
Retailer satisfaction → retailer loyalty	H2	0.37	3.44**	Support
Retailer trust → retailer satisfaction	H3	0.62	5.59**	Support
Retailer perceived value → retailer trust	H4	0.57	5.23**	Support
Retailer trust → retailer loyalty	H5	0.28	1.83**	Support
Retailer perceived value → retailer asset specificity	H6	0.51	4.45**	Support
Retailer asset specificity → retailer loyalty	H7	0.51	3.85**	Support
Consumer trust → retailer perceived value	H8	0.01	0.35	Not significant
Consumer perceived value → retailer perceived value	H9	0.30	4.99**	Support
Consumer satisfaction → retailer perceived value	H10	0.22	4.06**	Support
Consumer asset specificity → retailer perceived value	H11	0.13	2.62**	Support
Brand owner asset specificity → retailer trust	H12	0.30	6.57**	Support
Brand owner asset specificity → retailer asset specificity	H13	0.27	4.98**	Support

NOTE: **significant at $\alpha = 0.05$.

the relationship between brand owners and consumers is also an important strategic factor in successful channel management.

This study has several limitations. The first limitation is in its cross-sectional design. To provide a stronger inference, the model develops and tests here could benefit from testing using a longitudinal design. Second, as stated, the selection of IT industry in the context of this study is purposeful. However, this may limit its potential for generalization to other industries. More studies in different industrial categories are necessary in order to broaden the scope of the study results. Finally, the major purpose of the study is to demonstrate the interrelationship between pull and push strategy for brand owners in devising channel strategy. The relative strength of the proposed relationships may differ by different market situations (Frazier, 1999). Additional empirical tests of possible moderating variables for the proposed model are necessary for future research.

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