

The Impact of Service Satisfaction, Relational Satisfaction and Commitment on Customer Loyalty in Logistics Outsourcing Relationship

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ABSTRACT

This research explores the impact of service satisfaction, relational satisfaction, price satisfaction, and commitment on customer loyalty in logistics outsourcing relationships in Indian scenario. 254 users of logistics services from India were selected for investigating the potential linkages among the aforementioned satisfaction aspects and loyalty. Structural equation modeling (SEM) was employed to test the reliability and validity of the measurement and structural model developed to study the relationship among the linkages. Findings from the study supports that logistics service satisfaction, price satisfaction, relational satisfaction and commitment do influence loyalty positively. The analysis suggests that service satisfaction is the most important antecedent having primary influence in the formation of customer loyalty. Service satisfaction also has secondary influence on loyalty by acting as a strong driver in both relational satisfaction and commitment aspects of the service dimensions. Price satisfaction though positively been driven by service satisfaction, was found to have less significant effect as a predictor of loyalty in this context. The present study suggests that relational satisfaction is the second major predictor of loyalty which also drives commitment. This research is not an end-point but an attempt to establish the linkages and the effect among the antecedents driving the building and retention of good buyer-seller relationship in logistics outsourcing.

Keywords: Service Satisfaction, Price Satisfaction, Relational Satisfaction, Customer Loyalty, Logistics Outsourcing

INTRODUCTION

Over the past few decades, third party logistics (3PL) industry has evolved into highly advanced service delivery system with the integration of latest technologies allowing real-time visibility of cargo on the move. This has enabled in creating a greater value for their shippers (customers), resulting into a higher degree of satisfaction and loyalty, thus developing more intimate and long lasting relationship between the LSPs and their customers. A survey report of 2014, "18th Annual Third Party Logistics Study," reveals that both shippers and 3PL service providers continue to view their relationships with one another as being successful (Langley *et al.*, 2014). It had been reported that the future of logistics industry depends upon the ongoing relationships (Delaney, 2000). Indeed providers of logistics services are increasingly and continuously attempting to build more partnering and collaborative working relationships with their key customers (Lieb & Butner, 2007).

Innumerable literature on Logistics outsourcing has acknowledged this phenomenon and has focused primarily on the benefits and outcomes of the relationship-building efforts between 3PLs and the customers using their services. Customers maintaining longer relationships

with 3PLs have been found to experience higher levels of trust and commitment (Knemeyer, Corsi, & Murphy, 2003). By utilising a firm's logistics service capabilities effectively, a closer relationships with customers can be built (Bowersox, Mentzer, & Speh, 1995; Bowersox *et al.*, 1992). Improving logistics customer service improves the relationship, suppliers are trying to anticipate customer expectations to offer more desired solution (Stank, Goldsby, & Vickery 1999). However, at the time of delivering service, it's often seen that suppliers were not always being able to accurately predict customers' expectations, and customer perceptions do not always match the service actually provided (Parasuraman, Zeithaml, & Berry, 1985).

An increasing number of researchers had been trying to study the developmental aspects of these relationships and the connections among its antecedents like customer satisfaction, loyalty, commitment, trust, etc. These relationships over a period of time develop into partnering and collaborative behaviour through a mutually beneficial business relationship (Lambert, Knemeyer, & Gardner, 2004) in which the coordinative forces include not only financial considerations, but also relational factors (Rese, 2006). Today's marketplace is very dynamic, vibrant and competitive, retention of relationships is becoming a big

challenge. The customers are smarter, more informed, and have an access to many channels and choices which take a little time to exercise. Customer can easily switch to competitors who promise better services at lower prices (Bhardwaj, 2007).

Performance of a firm is greatly affected by customer loyalty which is a source of competitive advantage (Heskett, Sasser, & Schlesinger, 1997; Rust, Zeithaml, & Lemon, 2000; Woodruff, 1997). Enhanced customer loyalty in service firms leads to increased revenue, reduced customer acquisition costs, and lower costs of serving repeat purchasers, leading to greater profitability (Reichheld, 1993; Reichheld & Sasser, 1990). The degree of satisfaction for customers from a service is a combined impact of its attributes versus its cost. One of the important determinants of customer satisfaction is service quality. But achieving a competitive advantage by providing a service with outstanding quality in today's competitive markets is difficult since all of them are striving to gain greater market share, service quality is becoming almost indifferent. Similarly, price parity can be achieved with amazing speed. Businesses can, however, have a positive impact on customer satisfaction by providing outstanding and high level of logistics services. Since high levels of logistics services are not easily copied, it can successfully be used as a core competency and to develop a sustainable competitive advantage. Therefore, this research intends to study the relation of these concepts and their inter linkages in the formation of loyalty.

Logistics Service Providers

A logistics service provider is a firm that provides and performs some or all the all the logistics activities of a company (Bhatnagar, Sohal, & Millen, 1999, p. 569). The LSPs generally offer a very narrow range of logistical services, mainly consisting of warehousing or transportation services. In order to react to the competition and changing customer demands, LSPs have started to offer a multitude of different integrated services portfolios with the help of IT integration. Wallenburg (2004, pp. 50-51) has described five types of LSPs: carriers, couriers & express & parcel/postal (CEP), freight forwarders, third-party LSPs (3PLs), and fourth-party LSPs (4PLs).

LITERATURE REVIEW

Customer loyalty

Researchers have been studying the multiple dimensions, antecedents and linkages of customer loyalty with that

of customer satisfaction in the past few decades. Meyer & Oevermann (1995) reported that customer loyalty is formed via repurchasing (repeat and additional purchases of same or different goods or services) and referrals. Customer loyalty had been defined by Oliver (1999) as 'an overall attachment or deep commitment of a buyer to re-buy or re-patronize a preferred product/service consistency in the future. Researchers have used both attitudinal and behavioural measures to define loyalty (Oliver, 1999; Zeithaml, 2000).

Bowen & Chen (2001) and Zins (2001) have defined customer loyalty in three conceptual perspectives: the behavioural perspective, the attitudinal perspective, and the composite perspective. The behavioural perspective focusses on repeat purchase behaviour and is based on the customer's purchase history, it's also called 'purchase loyalty'. The attitudinal perspective, is based on supplemental understanding of loyal behaviour (Zins, 2001) and is reflected by activities such as the customers recommending the service providers to other consumers or their commitment to re-patronize a preferred service provider (Gremier & Brown, 1996). Here, customers may develop 'preference loyalty' (De Ruyter *et al.*, 1998). Lastly, the composite perspective is the combination of both attitudinal and behavioural definitions of loyalty. Our present study is focused upon composite perspective of customer loyalty. We therefore define customer loyalty as the intention of a logistics services buyer to purchase the same services (retention) and additional services (expansion) from the current provider in the future, as well as the buyer's activities in recommending this provider to others (referral).

Customer Satisfaction

Customer satisfaction is a widely studied construct and researchers have defined it in different ways (Besterfield, 1994; Barsky, 1995; Kanji & Moura, 2002; Fecikova, 2004). Researchers have noticed that there exist a distinction in customer satisfaction with references to tangible products and service experiences. Homburg *et al.* (2006) have recognised that satisfaction judgments are significantly predicted by cognition (Oliver, 1980; Bearden & Teel, 1983; LaBarbera & Mazursky, 1983; Oliver & DeSarbo, 1988) and affect (Westbrook, 1987; Westbrook & Oliver, 1991; Mano & Oliver, 1993). Studies on cognition have mainly been conducted related to expectations/disconfirmation paradigm (confirmation/disconfirmation paradigm)—which state that expectations originate from the customer's beliefs about the level of performance that a product/service would provide (Oliver,

1980). Researchers generally agree that satisfaction is a “post-choice evaluative judgment” (Westbrook & Oliver, 1991, p. 84). “If perceived performance exceeds a consumer’s expectations (a positive disconfirmation), then the consumer is satisfied. But if perceived performance falls short of expectations (a negative disconfirmation), then the consumer is dissatisfied” (Spreng, MacKenzie, & Olshavsky 1996, p. 15).

On the other hand, there are other studies that have recognised the effect experienced during the acquisition and consumption of the product or service (Homburg *et al.*, 2006). Others researchers, recognised customer satisfaction that is conceptualised as facet (attribute specific) or as overall (aggregate); and whether it is viewed as transaction-specific (encounter satisfaction) or as cumulative (satisfaction over time) (Hoest & Knie-Andersen, 2004). In the present paper, we are conceptualizing satisfaction as an overall, customer attitude towards a service provider (Levesque & McDougall, 1996).

In marketing literature, price is indicated as the most important factor in customers’ satisfaction, because consumers usually evaluate the value of a product or service by the price they pay for acquiring it (Zeithaml, 1988; Fornell, 1992; Anderson & Sullivan, 1993; Anderson *et al.*, 1994; Cronin *et al.*, 2000; & Virvilaite, 2008). In terms of the relationship of price to satisfaction, Zeithaml & Bitner (1996) indicated that the extent of satisfaction was subject to the factors of service quality, product quality, price, situation, and personal factors. However, price has not been fully investigated in earlier empirical studies (Bei & Chiao, 2001; Consuegra, Molina & Esteban, 2007).

Zeithaml (1988) indicated that, price is something that has to be sacrificed to obtain some kinds of products or services from consumers’ cognitive conception. Usually, the lower the perceived price, the lower the perceived sacrifice. Over and above, a sense of price fairness should be derived in the transaction. If customers perceived a firm’s practices as unfair or higher, negative consumer responses are likely to result (Wirtz & Kimes, 2007). Immediate attitudinal and affective responses include, heightened price consciousness, lower purchase intentions (Campbell, 1999a, b), dissatisfaction (Oliver & Swan, 1989) and focus on the monetary sacrifice of a purchase (Xia *et al.*, 2004). Based on this, Consuegra, Molina & Esteban (2007) had formed an integrated model of price, satisfaction and loyalty.

According to Stank, Goldsby, & Vickery (1999), logistics service quality consists of two broad dimensions: operational performance and relational performance. Operational performance is related to delivery characteristics that take into accounts the service aspects of form, place, and time utilities. On the other hand, relational performance accounts those activities that enhance service firms’ closeness to customers, understand customers’ needs and expectations and develop processes to fulfill those needs. Both these factors were observed to influence customer satisfaction which, in turn, influences customer loyalty in the fast-food distribution business (Stank, Goldsby, & Vickery 1999). In the context of 3PL services, research conducted by Stank *et al.*, (2003) distinguished cost performance from operational performance and shown this construct as a distinct determinant of customer satisfaction.

A number of research studies have provided significant evidences on how relationship marketing affects behavioural loyalty which in turn affects customer retention (Bolton *et al.*, 2000; De Wulf *et al.*, 2001; Verhoef, 2003). Loyal relationships have reported increasing profitability for a firm over time (Reichheld, 2001; Mishra & Li, 2008). Sin & colleagues (2005) found that effective relationship marketing drives a significant impact on the firms’ performance. Successful relationship marketing efforts improve customer loyalty and firm performance through stronger relational bonds (e.g., De Wulf, Odekerken-Schröder, & Iacobucci, 2001; Sirdeshmukh, Singh, & Sabol, 2002).

Relationship marketing today represents an important strategy adopted by firms to gain competitive advantage (Takala & Uusitalo, 1996). Research studies revealed relationship marketing an important success factor in building trust and commitment with external stakeholders resulting to loyal customer relationships (Morgan & Hunt, 1994).

Relationship commitment is another important element of relational exchanges. It has been defined as an enduring desire to maintain a valued relationship (Moorman, Zaltman, & Deshpandé, 1992). Relationship commitment is at the core of all successful working relationships and that it is an essential ingredient in building successful long-term relationships, especially between supplier-buyer (Anderson & Narus, 1998). Commitment refers to an implicit or explicit pledge of the continuity of a relationship between the exchanging partners (Dwyer *et al.*, 1987). Customer loyalty, on the other hand, is a key to increasing repurchase rates and sales in a supplier-buyer relationship.

This article proposes four constructs, as compared to the three satisfaction dimensions described by Stank *et al.* (2003); Cahill, Goldsby, Knemeyer, & Wallenburg (2010). These are price satisfaction, service satisfaction, relational satisfaction, and the fourth being commitment. These four constructs illustrated and conceptualised as given above have been reviewed from various literatures and have been found to have a significant contribution in maintaining and enhancing customer loyalty. Thus, we can hypothesize from these theories that service satisfaction, relational satisfaction, and price satisfaction to have a positive effect on the total benefit received from the relationship, resulting in a higher likelihood of retention and expansion of this existing relationship. Hence,

- H₁: Price satisfaction has a positive effect on loyalty in logistics outsourcing relationships.
- H₂: Service satisfaction has a positive effect on loyalty in logistics outsourcing relationships.
- H₃: Commitment has a positive effect on loyalty to a logistics service provider.
- H₄: Relational satisfaction has a positive effect on loyalty in logistics outsourcing relationships.

Relational satisfaction enhances commitment between the LSP and customer. A positive relationship is a consequence of good service quality received by the customer and also satisfaction with the way both parties work together, i.e. relational satisfaction (Wallenburg 2004, pp. 220-221). Hence, the following hypothesis has been suggested:

- H₅: Relational satisfaction has a direct positive effect on commitment.

The three dimensions of satisfactions and commitment variable are not independent or standalone constructs of each other. There might exist dependent correlation among them. We can find out this dependencies from the relevant studies conducted earlier by various researchers. As per the disconfirmation paradigm, satisfaction is attained if initial expectations are positively disconfirmed (i.e., met or exceeded). Price satisfaction is obtained when either the price offered by the service provider is lower than initially expected or service satisfaction is higher. The positive effect of service satisfaction on price satisfaction is indicated in the work of Grewal, Monroe, & Krishnan (1998), they found that the buyers' internal reference price is influenced by the buyers' perception of quality. Grewal, Krishnan, Baker, & Borin (1998), also suggested that among various components, the br & 's perceived quality greatly influences internal reference price. Study by Baumgartner (2002), on hedonic price

functions also supported price as a function of service's quality attributes. Hence, it can be suggested service satisfaction have a positive effect on price satisfaction:

- H₆: Service satisfaction has a positive effect on price satisfaction in logistics outsourcing relationships.

Commitment is seen as an essential ingredient for a successful long-term relationship (Dwyer *et al.*, 1987; Morgan & Hunt, 1994). Commitment has been defined as "an enduring desire to maintain a valued relationship" (Moorman *et al.*, 1992) or "a tendency to resist change" (Pritchard *et al.*, 1999). According to service marketing literatures, service quality, perceived value, and satisfaction are considered as antecedents of commitment (Grönroos, 1990; Hocutt, 1998; Shemwell *et al.*, 1998). We deduce the following hypothesis.

- H₇: Service satisfaction has a positive effect on commitment in logistics service outsourcing.

Now looking at several previous researches on service and relationship satisfactions, it has been observed that various service quality dimensions have a significant positive effect on overall relationship satisfaction (Caceres & Papparoidamis, 2007). In any business relationships, there is bound to be misunderstandings and disagreements, which can lead to discomfort in relationship, but a high service quality provided by an LSP can reduce the degree of discomfort to a great extent. We therefore can suggest that service satisfaction has a positive effect on relationship:

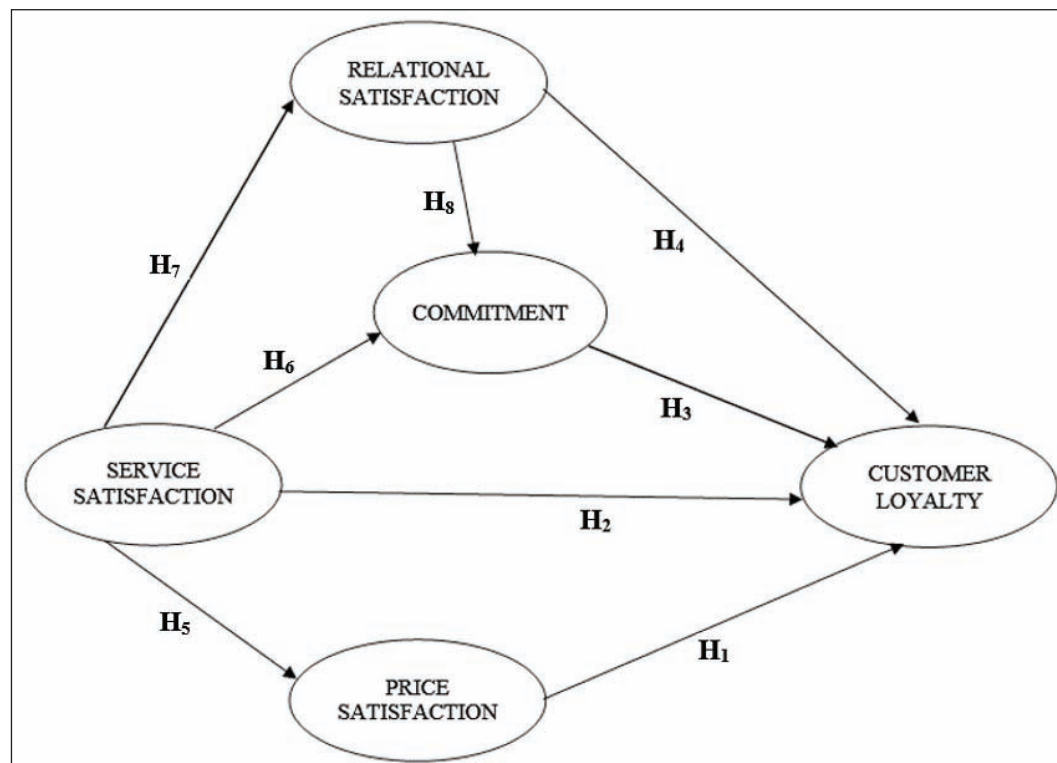
- H₈: Service satisfaction has a positive effect on relational satisfaction in logistics outsourcing relationships.

Figure 1 depicts the hypothesized relationships of the proposed satisfaction-loyalty model.

RESEARCH METHOD

Sample Design

The purpose of the research is to determine the relationship prevailing between the logistics service provider and its customers in the loyalty formation aspects. Therefore, the sample has to be the users of logistics services, specifically the logistics managers of a business unit of various industries which may include manufacturers, trading companies, and others. One important thing to be noted here is that respondents usually use the services of more than one LSP in a contract period. But for our study we are considering only one LSP asking the respondents to choose an LSP which is most important to their

Figure 1: Hypothesized Model of Satisfaction Loyalty Link

business and not necessarily the one with whom it has a good relationship.

Survey was carried out and data were collected from logistics and supply chain professionals who were working in different industries from manufacturing and distribution sectors who were the members of CII in India. A web-based online survey method was designed and used within the guidelines set forth by Griffis, Goldsby, & Cooper (2003). The members of the sample were contacted via e-mail and asked to complete the survey instrument over the Internet. Instruments of incentives and friendly reminder e-mails were used to increase response rate as per the recommendations of Larson & Poist (2004).

1480 emails were sent to the respondents, out of which 271 questionnaires were returned completed. This makes the response rate to 18.3%. 17 questionnaires were further rejected because of missing data taking the response rate to 17.2%.

Measurement Scales

After studying and scanning literatures on logistics, marketing, and operations to identify relevant scales for the constructs used, multi-item 7-point Likert scale is

being used for all the constructs involved in this research. Interviews were conducted with 10 logistics academicians 10 logistics practitioners for assessing the face validity of the measurement items.

The measures of loyalty in this study are based on the works by Homburg, Giering, & Menon (2003) and Wallenburg (2004). Five measures were used to capture customer loyalty. Measurement of satisfaction is the sum of three performance dimensions: price satisfaction; service satisfaction; and relational satisfaction. Price satisfaction and relational satisfaction are based on the scales used by Wallenburg (2004). Service satisfaction was measured using an adapted version of the scale developed by Dabholkar, Shepherd, & Thorpe (2000). The items measuring commitment was tapped from both Hennig – Thureau *et al.* (2002) and Zimmer (2000).

Model Assessment

Validity and reliability test were run to assess the model and the fitness. In order to assess the validity of the measurement models, confirmatory factor analysis (CFA) was administered. CFA comparatively offers a better model testing approach than Cronbach alpha or exploratory factor analysis (Anderson & Gerbing, 1988).

For testing structural models, Structural equation modeling (SEM) was adopted where AMOS 5.0 was used to test the measurement and structural models for determining dependencies between latent variables, constructs, on the basis of empirically measured variances and covariances of observed variables, indicators.

The resultant CFA for the five latent variables is represented in Table 2. The chi-square (χ^2) value for our model is 217.213 ($p < .001$). The normed chi-square (χ^2/df) is 1.993 which is good (Bollen 1989). Other fit criteria that are calculated are goodness-of-fit index (GFI), adjusted GFI (AGFI), comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean squared error of approximation (RMSEA), (Bagozzi & Yi, 1988; Bentler & Bonett, 1980; Browne & Cudeck, 1993; Garver & Mentzer, 1999; Hu & Bentler, 1995; Joreskog & Sorbom, 1982; Stank et al., 2003; Zhang, Vonderembse, & Lim, 2003). GFI, AGFI, CFI, and TLI are recommended to be at least 0.90, RMSEA at or below 0.08. Five out of six measures (Table 2) indicate very good model fit, with GFI calculated just below the 0.90 cutoff at 0.892. According to Byrne (1994) and Bentler (1990) the comparative fit index (CFI) is the most reliable index and the CFI value of 0.988 (table) in this regard demonstrates very good fit for the CFA model.

Table 1: Confirmatory Factor Analysis of Measurement Model

Standardised Solution		
Item	Service Satisfaction	t-value ^x
SS1	0.892	-.y
SS2	0.976	26.456
SS3	0.954	26.935
Price Satisfaction		
PS1	0.778	-.y
PS2	0.903	19.567
PS3	0.812	15.234
Relational Satisfaction		
RS1	0.866	-.y
RS2	0.934	17.548
RS3	0.821	18.899
Customer Loyalty		
CL 1	0.765	-.y
CL2	0.743	15.507
CL3	0.864	16.621
CL4	0.859	14.753
CL5	0.836	15.864
Commitment		
C1	0.785	-.y
C2	0.873	12.875
C3	0.643	11.532

^x t-values are from the unstandardized solution.

^y t-values for these parameters were not available because they were fixed for scaling purposes.

SS = Service Satisfaction; PS= Price Satisfaction; RS = Relational Satisfaction; CL = Customer Loyalty; C = Commitment

Table 2

Fit Statistics:		
Chi-square	217.213	df = 109, p< 0.001
Normed chi-square	1.993	
CFI	0.988	
GFI	0.892	
AGFI	0.952	
TLI	0.935	
RMSEA	0.067	

According to Anderson, Gerbing, & Hunter (1987), when indicators load significantly on their designated latent variables, convergent validity is said to be supported. Since the lowest factor loading in our case is 0.643 for C3 (see Table 1), the model demonstrates convergent validity. Discriminant validity was examined using the Fornell & Larcker (1981) criteria, squared correlations between constructs are found to be below the respective constructs' average variance extracted (AVE) -indicating discriminant validity - in all instances, except between the squared correlation of relational satisfaction and service satisfaction is slightly more than the AVE of customer loyalty which is not significant is not significant but instead establishes a close relationship between the two constructs.

Table 3: Test for Discriminant Validity of the Measurement Model

		SS	PS	RS	C L
	AVE	<i>0.85</i>	<i>0.62</i>	<i>0.67</i>	<i>0.76</i>
SS	<i>0.85</i>				
PS	<i>0.62</i>	0.58			
RS	<i>0.67</i>	0.69	0.51		
C L	<i>0.76</i>	0.65	0.49	0.52	
C	<i>0.59</i>	0.43	0.35	0.43	0.31

SS = Service Satisfaction; PS = Price Satisfaction;

RS= Relational Satisfaction; CL= Customer Loyalty; C= Commitment

Italicized figures are the respective constructs' AVEs.

Other figures are the squared correlations between constructs in columns and constructs in rows.

FINDINGS

The goodness of fit statistics of the full model are more or less the same as those of the measurement model, with a normed chi-square value of 2.215 ($\chi^2 = 281.365$, $df = 127$). Four of the other five fit indices are found to exceed the established cutoff values (CFI = 0.967, AGFI = 0.971, TLI = 0.928, and RMSEA = 0.071), and the fifth one is just below the cutoff (GFI = 0.887). This report shows the strong existence of an adequate model fit.

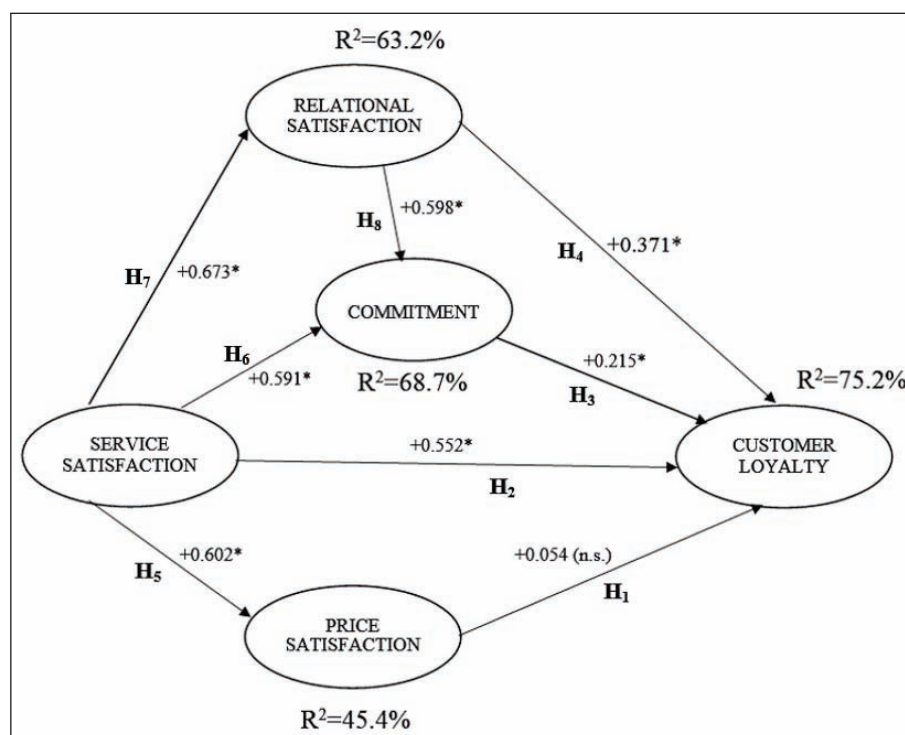
Hypothesis test results for the hypothesized model are exhibited in Figure 2. The first four hypotheses (H_1 , H_2 , H_3 and H_4) examine the direct effects that price satisfaction, service satisfaction, commitment and relational satisfaction respectively, exerted on customer loyalty. Test results indicate that three of the four hypotheses were strongly supported. Hypothesis H_1 indicates the effect of price satisfaction on customer loyalty is not significant. Whereas, service satisfaction (H_2), commitment (H_3), and relational satisfaction (H_4) directly affect customer loyalty exhibits positive paths significant at the 0.01 level.

The combined effect of the four satisfaction dimensions on loyalty gives an R-square value of 75.2 %, indicating that more than 2/3 of the variance in the measurement of

customer loyalty can be attributed to these four constructs. Three of the four satisfaction dimensions illustrate strong positive effects on customer loyalty, indicating that these latent variables are also strong predictors which also accounts for a very substantial amount of variance on customer loyalty.

Therefore, it's apparant here that service satisfaction affects customer loyalty not only directly but also indirectly through three other paths, mediated by price satisfaction, relational satisfaction, and commitment. The test model results provide strong evidence for three paths, thus supporting H_5 , H_6 and H_7 . Each path is significant at the 0.01 level and has a path coefficient above 0.6. Service satisfaction thereby affects customer loyalty directly and indirectly, with a total effect of 0.961. There isn't any significant difference seen between the effects of service satisfaction on price satisfaction and relational satisfaction, thus it appears to drive both factors equally. On the other hand, very high R-square values of price satisfaction (45.4%) relational satisfaction (63.2%) and commitment (68.7%) further strengthens the major role of service satisfaction in the formation of these three additional aspects of satisfaction. Relational satisfaction also affects customer loyalty directly and indirectly, with a total effect of 0.500 thus supporting H_8 .

Figure 2: Hypothesis Test Results



*Designates significance at the 0.01 Level, n.s. = not significant.

DISCUSSION OF FINDINGS

From the above findings, we can emphasize the importance of logistics service satisfaction as the primary driver in the formation of customer loyalty. At the same time, it also acts as a strong driver in both economic (i.e., price) and social (i.e., relationship and commitment) aspects of the service dimensions. These study also suggests that the provision of excellent service quality i.e., operational performance may drive in building good relations and commitments. Without excellent operations, it would have been a difficult task to fully satisfy the social aspects of the buyer-seller relationship.

The second driver of customer loyalty is relational satisfaction, while the effect of price satisfaction on loyalty is not found to be significant in our context. Both of these findings correspond to the Stank *et al.* (2003) findings on LSP performance.

Though price and associated costs are key selection criteria at the initial stage of choosing a LSP (Langley *et al.*, 2007), but when once a relationship is attained after certain repurchases and in due course of time, price loses its importance as the future relationship would depend upon the satisfaction derived out of that relationship. This may be attributed to four factors: (1) within the relationship the customer may focus more on effectiveness and avoiding problems than on efficiency and lowest costs when assessing the value provided by the LSP; (2) within an ongoing relationship prices are less readily comparable for complex services as the true price may only become transparent after an extensive tendering and negotiation process; (3) as long as prices remain within a band of reason, which is likely to be the case in the highly competitive logistics service market in the U.S., the high variance of observed price satisfaction may, in fact, be a result of only small differences in the actual prices (in which case, the up-and downside potential of prices is much smaller than for service satisfaction and relational satisfaction, where deficiencies may cause major follow-up costs and excellence may create a strategic advantage); and (4) the respondents referred all answers to the relationship with their most important LSP, and it can be assumed that price had already been considered in the selection of this primary LSP. Accordingly, primary LSPs will most likely fulfill the requirement of offering prices within an acceptable range.

In sum, the base model provides partial support for the application of SET to the examination of customer perceptions of logistics service provision and customers'

loyalty to primary service providers. All hypothesized relationships were significant in the base model with the exception of the price satisfaction-customer loyalty link.

MANAGERIAL IMPLICATIONS

In services industry relationship management are increasingly viewed upon as the most important tool for achieving a prominent differentiation in competitive marketplace, and it's becoming an area of major concern of senior management at third-party logistics companies (Lieb, 2008). The results of this research indicate that LSPs should consider service satisfaction and relational satisfaction in order to enhance customer loyalty as these were found to be primary determinants of customer loyalty. On the other hand, price satisfaction was observed to have no significant effect on customer loyalty. The managerial implications of these findings are that the service quality aspect of the logistics service provision like on-time pickup and deliveries throughput times, documentation accuracy etc., should be made more tangible along with social aspects like personal interaction, cooperation, coordination, etc. These are the key drivers of customers' retention, expansion, and referral within ongoing logistics outsourcing relationships.

Stank *et al.* (2003) established that price is a less significant predictor of loyalty, this research finding is also in agreement with it. From the results of the study, it would not completely wise to conclude that price is an insignificant aspect of service provision and that it should be neglected. In fact, competitive pricing with lower price and cost factors are the initial attention getter or an order qualifying criterion needed for attracting a new customer for the first time. On the other hand the fate of this initial contact will extend into a long lasting relationship only when the service satisfaction and relational satisfaction aspects of service provision is taken care of, which finally will lead to customers' retention, expansion, and referral within that ongoing logistics outsourcing relationships. Thus, service satisfaction and relational satisfaction represent order winning criteria in the long run. Managers at LSPs should factor these results into their CRM planning.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

In 3PL service provider relationship, service satisfaction stands out as the most important determinant of customer loyalty. Another determinant having the next effect is

relational satisfaction. From economic perspective, customers' evaluation of value is not reliant on price alone but is also significantly influenced by the quality of service provided at a given price. Similarly, from social perspective, a customer's satisfaction is greatly influenced by relational satisfaction which is again a derivative of high operational efficiency in terms of service quality.

In this study, we focused on important outsourcing relationships that companies have with their LSPs, characterised by a long-term orientation, encompassing various other service functions that are smooth running, smaller share of business and short term or transactional relationships. Future research should therefore view relationships that are transactional in nature, smaller in volume and of lower importance to both the provider and the customer. And according to transaction cost theory, these transactional services have lower specificity, uncertainty, and risk, and thus require a lower degree of cooperation. Therefore, future research should also examine these services, as under these settings, the relationship between satisfaction and loyalty may differ to that of the current one.

Another limitation is sampling frame of the study. The results are based exclusively on the perspectives of logistics executives based in Indian organisational and cultural setups. There may exist potential cultural differences that influence how satisfaction aspects affect loyalty linkage elsewhere. A logical extension of the study would be to examine how other cultures either support or challenge the findings. Further research has to be encouraged on analysis of the nature and structure of relationships at different hierarchical levels rather than the managerial level alone as in the case of this study. For this purpose, additional factors have to be considered if necessary, to adequately explain the interaction at different levels. The current analysis only examines the outsourcing relationships from the perspective of the customers. Examining the perspectives of LSPs in these relationships might even prove more enlightening.

Further factors can be assumed to moderate the relationship between satisfaction, commitment, and loyalty. Factors that can be considered in this regard are switching cost, duration of relationship, service recovery time etc. The examination of further potential moderators may be useful to establish generalizability of the model within a specific cultural setting. It may be worthwhile to mention here, the relevance of examining the possibility for replicating the present model in other business process outsourcing services to detect similarities and differences.

APPENDIX

Measurement Items			
Price Satisfaction		Mean	St.Dev.
PS1:	Compared to other LSPs, our LSPs prices are very good.	5.074	1.240
PS2:	The LSP offers a very good price-performance ratio.	5.213	1.294
PS3:	Compared to carrying out those tasks ourselves, our LSPs prices are very good.	5.461	1.502
Service Satisfaction			
SS1:	Overall, this LSP offers excellent services.	5.239	1.235
SS2:	This LSP offers great performance.	5.823	1.723
SS3:	This L SP offers very high quality.	5.186	1.652
Relational Satisfaction			
RS1:	We are very satisfied with the way we interact with our LSP.	5.108	1.743
RS2:	Differences when cooperating with this LSP are always settled smoothly.	5.287	1.213
RS3:	The relationship with this LSP is very good.	4.895	1.154
Commitment			
C1:	Our relationship with this supplier is something we really care about	5.102	1.763
C2:	Our relationship with this supplier deserves our maximum efforts to maintain	5.034	1.572
C3:	We would be very sorry personally if we had to terminate the relationship with this LSP.	5.482	1.631
Customer Loyalty			
CL1:	Right now, we intend to extend existing contracts with this LSP.	4.967	1.532
CL2:	If we knew then what we know now, we would again select this LSP.	4.534	1.712
CL3:	In the future, we will use this LSP more than we do now.	5.010	1.289
CL4:	When we bid out other services than the ones we outsource today, we will consider this LSP preferentially.	4.124	1.812
CL5:	Within our organization, we have recommended preferential consideration of this LSP for further projects.	4.783	1.281

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