

# Effect of Buying Firm's Satisfaction with Supplying Firm on Buyer-Seller Relationship Sustainability in a B2B Dyad

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## Abstract

Several researches in the business arena indicate that long term sustainable relationships among trading partners yield improved business performance. The buyer always looks for the cooperation from the supplier especially during the time of crisis. The buyer feels satisfied, when supplier keeps its promises and when buyer observes that the supplier is committed to serve him better. Consequently higher satisfaction level results in long-term relationship sustainability. This research paper examines the effect of buyer's satisfaction with supplier, on the long term relationship sustainability between the buyer and the seller. The relationship sustainability is analyzed in the context of Small and Medium Enterprises (SME) in emerging economy (India). The study is both correlational and causal. This study is conducted in non-contrived settings, where the respondents, primarily the senior managers of purchase division participated in the study in their natural work environment. For this study, the unit of analysis is an organization. The study was undertaken in India with focus on small and medium manufacturing enterprises. The researcher had tried to cover all four zones in India, and response was taken from varied industries to add robustness to the study. Multiple items for each constructs were prepared to allow comprehensive evaluation of the construct. The data for the research was collected by questionnaire method. A uniform, five point response pattern was followed for measuring the variables. To test the conceptual model and the hypotheses, data were collected from 306 purchase managers in SMEs in India. Structural Equation Modeling (SEM) was chosen to analyze the data. The relationships between the constructs are represented by the unstandardized regression coefficients ( $\beta$ ) or path coefficient. As hypothesized both cooperation ( $\beta=0.317$  at  $p<0.001$ ) and commitment ( $\beta=0.310$  at  $p<0.001$ ) from the supplying firm significantly influence the level of satisfaction of the buyer. The results also indicate that the effect of satisfaction is in the hypothesized direction and is significant ( $\beta=0.227$  at  $p<0.001$ ). So it was concluded that cooperation and commitment are antecedents of satisfaction which positively influence the long term relationship sustainability.

**Key words:** B2B Dyad, satisfaction, cooperation, commitment, relationship sustainability

## Introduction

While the basic functions of marketing management apply to both consumer markets and industrial markets, certain unique characteristics pose special challenges in case of business to business (B2B) transactions. In B2B scenario, the markets are relatively concentrated, channels of distribution are relatively shorter, buyer's awareness levels are high, purchasing techniques are sophisticated and multiple influencers contribute to different viewpoints to transaction decisions.

The exchange transactions in the B2B marketing scenario consist of:

- a) Product or service exchange
- b) Information exchange
- c) Financial exchange
- d) Social exchange (IMP Project Group, 1982)

Various studies in 1970s led to the conclusion that buyer seller relationships in a B2B dyad were complex phenomena and should be analyzed as a pattern rather than an individual event. There has been a new paradigm known as interaction approach, where the interaction takes place within the context of a relationship between the buying and selling companies (Turnbull, Ford, Cunningham, 1996). The attitude and behavior exhibited in both purchasing and selling are based on the experiences on the individuals and their companies in earlier relationship. In business markets large volumes of

transactions are carried over by few suppliers/ buyers, hence in such circumstances the relationships between these suppliers and customers tend to be close complex and long term. The relationships consist of learned rules and norms of behavior and provide the platform for individual episodes like negotiations, payments, deliveries and social contacts to take place. The relationships evolve over time and undergo a series of stages characterized by increasing mutual adaptation, reduced 'distance', and increasing commitment (Ford, 1982). In business markets it is observed that customers are often reluctant to change the suppliers and there is a high degree of stability in the business dealings with the suppliers. Customers frequently sought cooperation with suppliers rather than unilaterally exercising their purchasing power. High switching costs and strong source loyalty were observed in studies of organization buying behavior (Cunningham, 1986; Hakansson and Wootz, 1979).

This research paper is based on the research work that empirically tests a model of buyer-seller relationship to substantiate the effect of buying firm's satisfaction with supplying firm on the long-term relationship sustainability in B2B environment. This paper explores and examines the buying firm's satisfaction with supplying firm as a major antecedent factor of buyer-seller relationship sustainability in the context of Small and Medium Enterprises (SME) in India.

The fundamental research questions in this research paper can be described as, "How significant is the impact of buying firm's satisfaction with supplying firm in developing and sustaining the buyer-seller relationship in a B2B dyad?"

The importance of relationships in the context of SMEs has been highlighted by several authors given SME's need to gain access to other organization resources (Cova, Mazet, Salle 1994; Partanen, Moller, Westerlund, Rajala and Rajala, 2008, Tikkanen, 1998). In today's economy the importance of SMEs and entrepreneurial activities has become more protuberant (Carree and Thurik, 1998). The SMEs are expected to play a vital role in nation rebuilding especially after the recessionary phase (Soininen, Martikainen, Puumalainen and Kylaheiko, 2012). SMEs have attracted widespread research interest across the globe including IMP group (Westerlund and Svahn, 2008; Easton, Zolkiewski and Bettany, 2003). A number of authors have examined the factors influencing the profitability of SMEs (eg. Hughes and Morgan, 2007; Quin and Li, 2003) and satisfaction of buying firm has emerged as one of the significant factor influencing the future purchase decisions. Networks and business relationships can considerably impact firm's ability to sustain and enhance their competitive advantages (Ford, Gadde, Haikansson and Snehota, 2006). The IMP literature and resource based view of the firm highlight the importance of accessing the resources that are not directly available to the firm, but are available through the network in which the firm is entrenched (Ford et al, 2006, Hakansson and Snehota, 1989; Zaefarian, Henneberg and Naude, 2011). The role of sustainable relationship is even more critical in the context of SMEs.

In order to comprehend the characteristics of SME in India, we need to start from the official definition of SME in India. In India, there is a separate ministry, looking after policy formulation and regulation for micro, small, medium enterprises ([www.msme.gov.in](http://www.msme.gov.in)). The definition of SME in India considers investment in plant and machinery as the deciding factor for categorizing firms as small and medium sized. For small enterprises the investment in plant and machinery should be above \$ 62,500(INR 25 Lakhs, INR refers to Indian Rupees, 1million=10 lakhs) and up to \$ 1.25 million (INR 5 Crores, 1crore=10 million). For medium enterprises the investment in plant and machinery should be above \$ 1.25 million (INR 5 Crores) and up to \$ 2.5 million (INR 10 Crores). The present study has not considered service enterprises and only focused on the SMEs in the manufacturing sector.

The findings of this research paper will be quite significant for SMEs in India in terms of reassessing their long term relationship sustainability with their suppliers. The supplying firms may, accordingly review the level cooperation and commitment to strengthen the buyer-supplier bond.

The focus of the research presented in this paper is on SMEs in India. The study has focused on buying firm's satisfaction with supplier firm in SMEs in India as an aggregator model of analysis. Though the study covers the dyadic business relationship aspects between buyers and sellers and

covers the factors that influence the sustainability of such long-term relationships, the study captures the perception of buyer only. The study has concentrated on single buyer-supplier relationship as unit of analysis and ignores the impact of portfolio of relationships.

### **Research background and hypotheses development**

Relationships have long been a subject of study in sociology and social psychology where the main concern of research is typically the role of relationships in the exchange behaviour of actors (individuals and groups) within a community.

Social exchange theory (SET) explains the exchange of resources between individual entities. The resources exchanged may be tangible like goods or money or it could be intangible like social amenities or friendship. The basic assumption of SET is that parties enter into and sustain relationships with the expectation that doing so will be rewarding (Blau, 1968, Homans, 1958). Research that has contributed to the development of SET includes research by Blau (1968), Emerson (1962), Homans (1958) and Thibaut and Kelley (1959). In interdependence theory terms, the organization/ individual assess their relationships in terms of their comparison levels (*CL*), based on their relationship with their experience in existing relationships and comparison of partner's outcomes (Hinde, 1997). If outcomes are greater than or equal to *CL* the organization feels satisfied. However, dependence on the relationship depends on the *CL-alt*, the lowest level of outcomes acceptable in the light of other available opportunities. Thibaut and Kelley (1959) are often cited as significant contributor of SET because of their conceptualization of *CL* and *CL-alt*, which explain how parties in exchange-relationship weigh the benefits of exchange relationship to determine their relationship commitment. The 'Interaction Approach' takes the relationship as unit of analysis rather than individual transactions. It involves simultaneous analysis of attitude and actions of both parties and emphasizes the essential similarity between the purchasing and marketing tasks in the relationships (Turnbull, Ford and Cunningham, 1996). It sees relationships both as important in themselves and predictors of individual transaction behavior. Hakansson(1982) reviewed in detail the individual research tasks used to explore and analyze variables which can best be used to describe relationships, namely, temporal development of relationships, circumstantial variation in nature of relationships, transaction atmosphere within which interaction takes place, contact pattern between parties and intensity of bonding which ensue between the companies. The interaction approach highlighted the importance of isolating short term management of individual relationship from longer term development of a strategy for the company's portfolio of supplier and customer relationships (Turnbull and Valla, 1986). The review of research works by Ford (1990) highlights the inter-relationship between resources possessed by the companies and how these are used in and affected by their relationship activities.

### **Relationship sustainability and satisfaction**

Most marketing researches accept the dual nature of satisfaction, i.e. cognitive and affective (Oliver, 1997) and consider that it results from a comparison between a subjective experience and a previous reference standard. Therefore, satisfaction represents a positive affective state that results from the appraisal of all aspects of the firm's working relationship with a partner (Anderson and Narus 1984; Oliver, 1997), whether economic or emotional (Geyskens, Steenkamp and Kumar, 1996). Satisfaction can be broadly characterized as a post purchase product quality given pre-purchase expectations (Kotler, 1991). Study by Yi (1991) in consumer context has identified expectations, perceived quality as antecedent of satisfaction. In the long run, unsatisfied customers are likely to switch to another supplier (Churchill and Suprenant 1983). Most of the research has been carried out in a channel context (Biong and Selnes, 1995, Dwyer, Schurr and Oh, 1987, Ruekert and Churchill, 1984), thus exploring the buyer's satisfaction with the distributor. Although a large number of studies and a wide variety of research settings can be found in satisfaction based research related to end consumers, satisfaction of business customers has been investigated to a rather moderate degree.

In the field of channel relationships, several studies on customer satisfaction exist (Gassenheimer, Sterling and Robicheaux 1989, Ruekert and Churchill 1984; Schul, Little and Pride 1985). Satisfaction

of channel members is mostly analyzed in the light of power/ cooperation related antecedents. In this vein, conflict and its negative impact on satisfaction are discussed (Anderson and Narus 1984, Brown, Lusch and Smith 1991, Frazier, Gill and Kale 1989). The study by Dwyer, Schurr and Oh (1987) and Mohr and Spekman, (1994) strongly emphasized cooperation as important determinant of buyer's satisfaction in a business to business environment. Comparing satisfied and less satisfied dealers Mohr and Spekman(1994) found commitment, participation, joint problem solving, coordination to be positively related to satisfaction of the buyer. Satisfaction of the buyer is thus related to *cooperation* and *commitment* from the supplier side.

Hence, the initial hypotheses can be formally stated as:

**H1:** *Relationship sustainability* between buying firm and supplying firm will be positively related to the buying firm's *satisfaction with* supplying firm.

### **Supplier's cooperation and buyer's satisfaction with the supplier**

Based on the prior empirical research, cooperation was shown to contain market flexibility (Boyle et.al.1992; Heide and Miner, 1992) and problem solving (Cannon and Perreault, 1999; Heide and Miner, 1992). Apart from product performance, non-product dimensions of exchange are important for the formation of customer satisfaction (Ruekert and Churchill, 1984). For the buying firm both the supplier's flexibility and information sharing appears to be critical for overall satisfaction (Mohr and Spekman, 1994). Cooperation can be understood as buyer's perceptions of the degree to which two trading partners work together to solve problems, establish strategic directions and achieve their mutual goals (Cannon and Perreault, 1999; Maloni and Benton, 2000). The perceived flexibility is the extent to which supplier is willing to make changes to accommodate the customer's changing or unforeseen needs (Noordewier, John and Nevin, 1990). This is particularly valued in case of unforeseen problems or short term changes in the needs of the customer. Supplying firm displaying such flexibility, make quick responses to the buying firm's own customers' needs (Noordewier, John and Nevin 1990). Such behaviours suggest a willingness to modify policies or procedures when it helps a customer. More rigid or less cooperative suppliers might force buying firms to build higher levels of slack resources. For example, customers may need to hold higher inventory level when suppliers are not flexible with delivery policies or likely to take advantage of short supply situations. This raises cost and creates inconvenience to the buying firm. Hence, higher cooperation should enhance the customer's satisfaction with the supplier. Such cooperative behavior developed through relationship often necessitated modification of systems and revisions of products and services by both buyer and seller (Turnbull, Ford and Cunningham, 1996).

Hence, hypotheses involving the factors influencing the satisfaction can be stated as below:

**H2:** Supplier firm's cooperation with the buying firm positively influences the satisfaction level of the buying firm.

**H2a:** Satisfaction level of the buying firm mediates the positive effect of supplier firm's cooperation on relationship sustainability

### **Supplier's commitment and buyer's satisfaction with the supplier**

Based on analysis of business to business marketing literature, commitment is shown to contain three major components namely, investment in trading partner, affective commitment, and expectation of relationship extending into future (Kumar et. al. 1994). Selling firm's commitment can be understood as buying firm's perception of the degree to which the selling firm feels obligated to continue business with a specific buyer. Ford (1980) analyzes the process of establishment and development of supplier customer relationships over time according to the variables of experience, uncertainty, distance (including aspects of social, geographical, cultural, technical and time distance), commitment and adaptation. By considering the extent to which each of these variables is present in a buyer-seller

relationship, it is suggested that such relationship follow a five stage evolution process, namely, pre-relationship, early, development, long term and final stage. Thus the development of buyer-seller relationship in a B2B dyad can be summarized as an evolutionary process in terms of:

- the increasing experience of both parties;
- reduction in their uncertainty;
- growth of both actual and perceived commitment;
- formal and informal adaptations, and investments and savings involved in both organizations(Ford 1980)

The commitment can be reflected by loyalty, willingness to make investments, and confidence in stability of a long-term relationship (Anderson and Weitz, 1992). More committed the supplier is more the comfort level of the buyer. Hence, higher commitment can lead to greater satisfaction, in business to business scenario, as both the firms feel more secure at operational level. When suppliers perceive that executives at buying firm emphasize improved buyer supplier relationships, the supplier commitment to buying firm will increase (Prahinski and Benton, 2004). Since businesses are increasingly reducing their supplier base and becoming increasingly dependent on their suppliers, buying firm's managers are more vulnerable to supplier's whims. To counter this risk, buying firm's managers need their suppliers to also become more committed to the relationship. Hence, the commitment is related to the emotional satisfaction of the buyer, which will positively influence the long-term relationship sustainability.

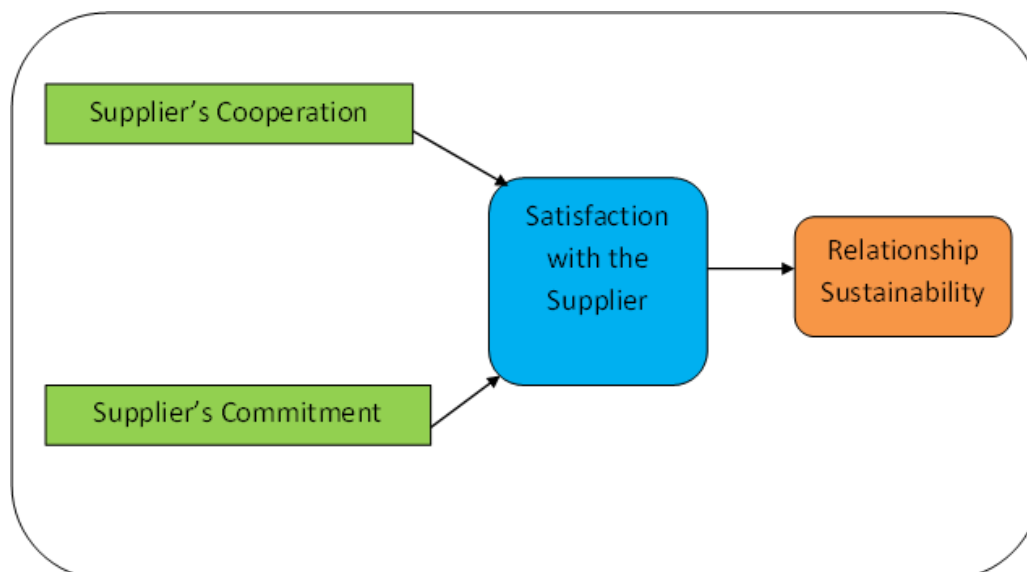
Hence, subsequent hypothesis involving the factors influencing the satisfaction can be stated as below:

**H3:** Supplier firm's commitment to the buying firm positively influences the satisfaction level of the buying firm.

**H3a:** Satisfaction level of the buying firm mediates the positive effect of supplier firm's commitment on relationship sustainability

The final conceptual framework is depicted in the following figure.

**Figure 1: Conceptual framework**



## **Methodology**

### **Research design**

In this research we have used a cross-sectional design. This kind of design is appropriate for studies that seek to analyze a problem, phenomenon, attitude, situation, or issue by considering a cross section of the population at one point of time. Cross-sectional design involves the collection of information with any given sample of population elements only once (Malhotra, 2004).

### **Type of study**

This study analyzes the effect of buying firm's satisfaction with supplying firm on the relationship sustainability between the supplying firm and the buying firm. The study also highlights the cause effect relationship between the factors in the model. Hence, the study is both correlational and causal.

### **The study setting**

This study is conducted in non-contrived settings, where the respondents, primarily the senior managers of purchase division participated in the study in their natural work environment.

### **Unit of analysis**

For this study, the unit of analysis is an organization. The researcher treated each response collected from the specialized managers (purchase managers) as individual data source.

### **Extent of researcher interference with the study**

This research work was conducted in the natural environment of the organization of the respondent with minimal or no interference by the researcher in terms of manipulation of the variables and influence over respondents.

### **Locale of the study**

The study was undertaken in India with focus on small and medium manufacturing enterprises. The researcher had tried to cover all four zones in India, and response was taken from varied industries to add robustness to the study.

### **Research instrument**

Multiple items for each constructs were prepared to allow comprehensive evaluation of the construct. The items were adopted from different landmark studies in the business to business relationship domain. The selected items were critically reviewed for their relevance and clarity. The informal criteria suggested by Edwards (1969) and Giles (2002) were used for editing the items. During editing, the complex and/or ambiguous items, factual, double-barreled, and technical jargons were either avoided or simplified to make statements more comprehensible. Since the samples of this study constitute a heterogeneous population which differs in age, gender, education, job level etc., the questionnaire items were simplified to foster better understanding. The items in the questionnaire were also reviewed by other researchers working in similar area and industry experts.

The data for the research was collected by questionnaire method. The development of questionnaire involved multiple steps, including translation of research model into questions, finding a suitable structure, formulating the questions in a suitable language and testing the questions.

## **Operationalization of variables**

The variables are operationalised to make them amenable for quantitative measurement. The response pattern for each construct was decided based on operational definitions, and was primarily of Likert type agreement continuum where the respondents were asked to choose the answer of their choice. A uniform, five point response pattern (strongly agree 5 to strongly disagree 1) was followed for measuring the variables. The property measured for each construct was intensity and scaling method was ordinal.

The questionnaire was divided into two sections. The section-A has the items measured on the five point scale where the respondent only needs to tick. For the online/email responses the respondent only needs to check one box for each item, more than one check option for one item was blocked. Section-B contains the descriptive aspects of respondent, his/her organization and the duration of relationship with the supplier firm and the salesperson.

## **Sample selection and survey procedure**

To test the conceptual model and the hypotheses, data were collected from 306 purchase managers in SMEs in India.

Since the survey was done on Indian manufacturing industries in SME category, it was essential to decide what kind of industry needs to be covered and who could be the respondents. Previous literature suggests that supplier sourcing is usually decided at the specific product level (Kotabe, 1992). This ruled out the option of using corporate measures, since corporate measures are aggregate of multiple products and multiple locations for most firms. Hence, the sample had to be limited to business unit level, where a key product will be easily identifiable. Next was to identify the target respondent. While the top management may be knowledgeable to address wide range of questions, they might not be in a position to know the extent of relationship with a specific supplier. Further, the people from top management are less likely to answer given both time pressure and the large number of similar requests from researchers and media. Thus specialized managers appeared more suitable since, there appeared no questions which will go beyond their knowledge. In very few cases, multiple responses (maximum two) were taken from a single organization for data adequacy. This technique of using multiple respondents has been found in the work of Rasheed and Gilley (2000).

The researcher followed various trade journals and SME directories of Indian industries to generate a list of potential responding firms. A list of firms where a contact was available was directly contacted and further references were made from the known contacts. Care was taken to collect samples of equitable proportions from varied industry and different geographies. The membership directory of SME chamber of India was also referred.

## **Tools for analysis**

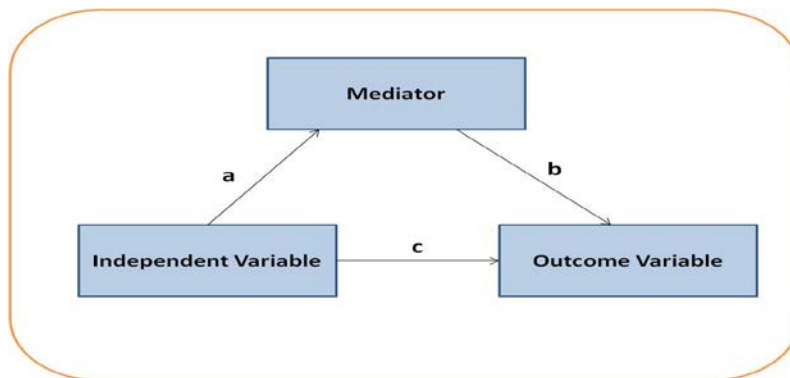
Structural Equation Modeling (SEM) was chosen to analyze the data. SEM is a multivariate technique, which combines aspects of multiple regression (examining dependence relationships) and factor analysis (representing unmeasured concepts-factors with multiple variables) to estimate a series of interrelated dependence relationships simultaneously (Hair et al., 1998). The SEM examines a set of relationships between one or more observed independent variables, either continuous or discrete, and one or more dependent variables, either continuous or discrete; both of which can either be factors or measured variables (Jodie, 2000) by combining factor analysis and path analysis (Kaplan, 1997).

Using SPSS 17.0 and AMOS 16.0 the validity and reliability of measurement items were methodically assessed. The structural equation model was estimated and research hypotheses were tested using AMOS 16.0. The structural equation model was estimated in two stages (Anderson and Gerbing, 1988). Initially, measurement models were estimated for reliability and validity followed by structural models for hypothesis testing. This two-stage model assessment is useful in avoiding confounding

interpretations due to interactions between measurement and structural models (Segars and Grover, 1993). The CFA model was evaluated based on goodness-of-fit indices to determine if the model was a good representation of the relationships.

Testing of mediation effect was made as per the guideline given by Baron and Kenny (1986).

**Figure 2: Path diagram showing mediator variable**



Source: Baron and Kenny (1986), The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations, *Journal of Personality and Social Psychology*, Vol.51, No.6, page: 1176

A variable functions as a mediator when it meets the following conditions:

- a) Variation in independent variable significantly accounts for variations in presumed mediator (i.e. paths a, b).
- b) Variations in mediator significantly accounts for variation in dependent variable (i.e. path b).
- c) When mediated paths (path-a or path-b) are controlled, a previously significant relationship between independent and dependent variables is no longer significant.

## Analysis and results

### Qualitative analysis

In the study we have not come across any company with turnover more than INR(Indian Rupees) 500 crores (1 crore=10 million). Out of 306 responses, 42.16% of companies in our study fall in the turnover category range of 51-100 crores. The total number full time employees fall in the range of 101-1000 in most of the cases (53.92%). The response spread across India is mostly uniform with highest (31.7%) response coming from eastern zone. The responses are mostly obtained from senior managers (68.95%), with average age group 41-50 years (40.2%), and having experience in similar line for more than 10 years (87.91%, cumulative of 10-20 and > 20 years). Hence, we captured the responses from a profile of respondents who are quite senior in purchase functionality, have decision making power, and quite experienced in similar function. The respondents are asked to choose a supplier who has been associated with them for more than five years and supplies material essential for production/operation. The distribution indicates the respondents have given feedback on suppliers with whom they are very familiar. More than five years interaction with the supplier indicates that the long-term relationship sustainability characteristics are captured in the study. Hence, the overall profile of the respondents indicates correct sample characteristics required for the study. An aggregator model was adopted to analyze the responses from various industries under SME and care was taken to uniformly cover major categories of industries under SME in India.

## Quantitative analysis

### *Measurement model*

Kaiser-Meyer-Olkin (KMO) value of 0.950 was above the minimum level of 0.5, a significant Bartlett's Chi-square ( $\chi^2 = 13082.551$ ,  $p < 0.001$ ) indicated that the data are appropriate for the factor analyzability (Field, 2000). The purified overall confirmatory measurement model comprising all the constructs indicated a good fit: Tucker-Lewis Index(TLI)=0.890, Normed Fit Index(NFI)=0.804, Incremental Fit Index(IFI)=0.900, Comparative Fit Index(CFI)=0.899, Root Mean Squared Error(RMSEA)=0.052. Factor loading figures of items were significant, ranging from 0.68 to 0.82, supporting convergent validity.

Reliability of measurement model was calculated by Cronbach  $\alpha$  (item reliability more than 0.7), average variance extracted (AVE, for each construct is above 0.5), composite reliability (CR, the extent to which a set of latent construct indicators share in their measurement of the construct, for each construct is above 0.6).

### *Structural model*

As the model contained both direct and indirect effects and fit indices indicate an adequate fit, the model fit is acceptable for hypothesis testing.

The relationships between the constructs are represented by the unstandardized regression coefficients ( $\beta$ ) or path coefficient. The positive sign of the path coefficient indicates the direct relationship and negative sign of path coefficient indicates the inverse relationship. Higher the value of  $\beta$  indicates higher the intensity of relationship.

The result of the path analysis is provided in the Table 1.

**Table 1: Structural Model Results**

Hypothesis	$\beta$ value	p value	Direction	Inference
H1	0.227	<0.001	+	Supported
H2	0.317	<0.001	+	Supported
H3	0.310	<0.001	+	Supported

Hypothesis 1: **H1** proposes that satisfaction of buying firm positively influences relationship sustainability. The results indicate that the effect of satisfaction is in the hypothesized direction and is significant ( $\beta=0.227$  at  $p < 0.001$ ). Thus, the proposition is strongly supported.

Hypothesis 2: **H2** foresees that supplier firm's cooperation with the buying firm positively influences the satisfaction level of the buying firm. The results indicate that effect of cooperation on buyer's satisfaction is positive and significant ( $\beta=0.317$  at  $p < 0.001$ ). Hence, the positive effect of cooperation on satisfaction is strongly supported. Consequently, the hypothesis is supported.

Hypothesis 3: **H3** envisages that supplier firm's commitment to the buying firm positively influences the satisfaction level of the buying firm. The AMOS results indicate that effect of commitment of the supplier firm on satisfaction of buying firm is in the hypothesized direction and significant ( $\beta=0.310$  at  $p < 0.001$ ). Therefore, the stated hypothesis is supported.

### *Mediating test results*

For mediating effect to be established, the regression coefficient of the direct path when the model is unconstrained should not be significant and it should become significant when the mediated path is constrained. The mediation effect is further tested by observing the  $\chi^2$  difference between the mediated

base line model and direct effect model. If direct effect exists between two constructs, the fit of the new model would improve compared to our baseline mediated model. On the other hand, if no direct effect is present and only indirect effect is at work, the new model would not improve significantly beyond our current baseline model despite adding the additional path. The result of mediating effect is provided in the Table 2.

**Table 2: Effect of mediation of satisfaction**

Path			Status of path via satisfaction	Path Coefficient	p value	$\delta\chi^2$	Remarks
COP	→	RS	Not Constrained	0.088	0.084 ns	44.780	Full Mediation
			Constrained	0.129	0.001*		
COMM	→	RS	Not Constrained	0.033	0.521 ns	52.393	No Mediation
			Constrained	0.068	0.182 ns		

Note: \*  $p < 0.05$ , ns: not significant

Hypothesis 2a: **H2a** states that satisfaction level of the buying firm mediates the positive effect of supplier firm's cooperation on relationship sustainability. From Table 2 we can observe that when mediated path from supplier firm's cooperation to relationship sustainability is not constrained, the direct path, from supplier firm's cooperation to relationship sustainability is not significant ( $\beta=0.088$  at  $p=0.084$ ) and when mediated path is constrained, the direct path from supplier firm's cooperation to relationship sustainability is significant ( $\beta=0.129$  at  $p<0.05$ ).

Further, by adding an additional direct path the model fit has worsened ( $\delta\chi^2= 44.78$ ) significantly. Therefore, we can conclude that satisfaction level of the buying firm fully mediates the positive effect of supplier firm's cooperation on relationship sustainability. Hence, the hypothesis is supported.

Hypothesis 3a: **H3a** states that satisfaction level of the buying firm mediates the positive effect of supplier firm's commitment on relationship sustainability. From Table 2 we can observe that when mediated path from supplier firm's commitment to relationship sustainability is not constrained, the direct path, from supplier firm's commitment to relationship sustainability is not significant ( $\beta=0.033$  at  $p=0.521$ ) and when mediated path is constrained, the direct path from supplier firm's commitment to relationship sustainability is also not significant ( $\beta=0.068$  at  $p=0.182$ ). Therefore, we can conclude that satisfaction level of the buying firm has no mediation effect between supplier firm's commitment and relationship sustainability. Hence, the stated hypothesis is refuted.

## Discussion and conclusions

Corley and Gioia (2011) argued that a theoretical contribution can be analyzed both in terms of originality and utility, with former being either revelatory or incremental, and utility being regarded as either scientifically or practically useful. They agree that "incremental improvement is arguably a necessary aspect of organizational research" (p.16).

In B2B context, the commitment is understood as buying firm's perception of the degree to which selling firm feels obligated to continue business with a specific buyer. Hence, higher commitment can lead to greater satisfaction as both firms feel more secure at an operational level, which can be reflected by loyalty and confidence in stability of a long-term relationship (Anderson and Weitz, 1992). Our study results about positive effect ( $\beta=0.310$  at  $p<0.001$ ) of supplier commitment on buyer's satisfaction in SMEs in India, is in line with earlier study results. Cooperation can be interpreted as buyer's perceptions of the degree to which two trading partners work together to solve problems to establish strategic directions and achieve their mutual goals (Cannon and Perreault, 1999; Maloni and Benton, 2000). Our study results indicate that supplying firm's cooperation ( $\beta=0.317$  at  $p<0.001$ ) with the buying firm is a significant predictor of satisfaction level of the buying firm.

However, surprisingly the study result shows, satisfaction does not mediate the positive effect of commitment on relationship sustainability. We can interpret the result as, in SME sector in India, even though the supplier is committed, the buyer evaluates other parameters while looking for long-term relationship, rather than purely based on satisfaction resulting out of commitment from supplier.

The study results of Garbarino and Johnson (1999) indicates that for low relational customers overall satisfaction is the primary mediating variable of long-term relationship sustainability, whereas for high relational customers, trust and commitment, rather than satisfaction were the mediating variables. In our study the purchase managers gave their responses on supplier withwhom they have interacted for more than five years, hence, we can assume the relationship is more or less mature. Therefore, we can conclude from our study on small and medium enterprises in India, that satisfaction is also a predictor variable for relationship sustainability for high relational customer.

The supplier firm should cooperate with the buying firm to solve a problem jointly, to enhance the satisfaction level of the buyer for a long-term sustainable relationship. The supplier firm should exhibit enough commitment for the buying firm in order to harness the competitive advantage resulting from the sustained relationship.

### **Limitations and future research**

This study has focused on the perception of buyers only, hence, the views may be one sided. Tyler and Stanley (1999) have noted that, in a dyadic relationship, both buyer's and seller's perceptions are important for drawing any conclusions. However, in Indian context, which is predominately buyer driven, it is the buyer who ultimately decides the sustainability of the buyer-seller long-term relationship, and in case of difference of perception, buyer's view point does prevail. Nevertheless, future research work on dyadic perspective should provide more useful insights.

Though we have not included cultural factors in our study, the cultural difference aspects may affect the applicability of our findings in other business markets (in other countries). As antecedents of personal behaviour, different cultural orientations exhibit different buying behaviour (Aaker and Lee, 2001; Furrer et al., 2000, Hewett et al., 2006). A study by Rodriguez and Wilson (2002) on Mexican (collectivist culture) and USA (individualist culture) strengthens the view that buyers in individualist nations base their relationship more on economic and strategic cooperation, whereas buyers from collectivist countries perceive trust as the driving force in a relationship. India is considered to have collectivist culture.

The relationship sustainability at different stages of relationship is not captured. Future studies in India may explore the buyer-seller relationship dimensions at different stages of relationship (Dwyer, Schurr and Oh, 1987, Wilson, 1995), and compare the relationship dimensions for low relational and high relational customers.

The sustainability of long-term relationship can also be tested in different power settings. The characteristics of relationship between a strong buyer and weak supplier may be different from a strong supplier and weak buyer. Even the relationship structure of relationship between a single buyer and a coalition of supplier in a cluster setting need to be explored in Indian context in future studies.

### **References**

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