ROLE OF BUYER-SUPPLIER RELATIONSHIP AND TRUST IN ORGANIZATIONAL PERFORMANCE

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PURPOSE

The purpose of the present study is to examine the role of buyer-supplier relationship and trust in the organizational performance. The essence of strong relationship between buyer and supplier is trust, which in turn affects the supplier performance and consequently the organizational performance.

Design/methodology/approach: This study uses correlation and regression to analyze a set of data collected from the survey of 54 Indian manufacturing organizations.

Findings: Results demonstrate that (1) face to face communication and fair treatment of supplier by buyer is positively related to development of trust, (2) development of trust has a positive influence on readiness of supplier to invest in the specific requirements of buyer, (3) strong relationship between buyer and supplier positively affects supplier performance, (4) and supplier performance is positively related to the organizational performance.

Originality/value: This study adds to the extant literature by examining the importance of face-to-face communication, fair treatment of suppliers by the buyers in order to developing trust and buyer-supplier relationship.

Key Words: Supply chain management, Buyer-Supplier relationship, Trust, Supplier performance, organizational performance.

Introduction

Rapidly changing competitive environments are forcing organizations to find and follow more creative and flexible means to meet the competition (Kannan and Tan, 2005). To remain competitive, organizations have adopted many new paradigms. One such paradigm is Supply chain management (SCM), which is considered as a source of competitive advantage to an organization. SCM provides opportunities to improve competitiveness by improving organizational effectiveness, and developing better collaborative and cooperative relationships amongst all the entities in a supply chain. SCM is used to manage upstream and downstream relationships with suppliers and customers and to deliver high value products/services at lower cost (Christopher, 1998). SCM is also used to coordinate the manufacturing, logistics, materials, distribution and transportation activities within the organization (Lee and Billington, 1992).

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Research in the SCM has identified a number of key success factors to improve overall performance of the supply chain, supply chain alliances are one of them. In the past decades, alliance activities have shown a tremendous growth (Khanna et al., 1998). Alliances seem to have established themselves as cornerstones for the competitive strategy of many organizations (http://www.ageconsearch.umn.edu., 2012). Alliances can be considered as an intercrossed governance structure, arranged together to get the benefits of independent ownership and advantages of vertical integration (Dyer, 1996). An alliance or partnership is a business relationship between two different companies based on mutual trust, mutual information sharing, shared risks and rewards that results in a business performance greater than what would be achieved by the firms individually (Lambert et al., 1996). Supply chain alliances consist of a number of relationships, but here we deal with only supplier alliance. Supplier alliances provide the buying firm many benefits, such as higher coordination, better resource utilization and faster reaction to market changes. Alliances with selective suppliers result in mutual advantages such as reducing overall cost, enhance customer satisfaction, flexibility to cope with changes, productivity improvement and long-term competitive advantages in the marketplace (Zsidisin and Ellram, 2001). “Relationships are the foundation on which an effective supply chain can be built” (Gentry, 1996). A closer and stronger relationship allows the channel members to achieve quality improvements, cost reductions and revenue growth as well as provide capability to deal with demand and supply uncertainties (Lee et al., 1997). In a supply chain, relationships are not only used for connecting the firm with a partner, but also used to connect the firm throughout the supply chain (Hsu et al., 2008). Supplier relationships are a part of supply chain relationships (Lemke et al., 2002). Minimum two parties are involved in a relationship, in order to produce mutual benefits (Walter et al., 2001). Therefore maintaining a strong relationship between buyer and supplier becomes most important. In order to win and retain the business both buyer and supplier must work together as a team. Care should be taken while choosing the suppliers to make sure that they have required capabilities and resources to fulfill the needs. A successful relationship is one in which there is mutual sharing of risk and rewards, clear understanding of each other’s roles and responsibilities, high level of commitment and trust, long-term orientation, mutual information sharing, a sincere desire to win and responsiveness towards each other’s and end customer’s needs (Lemke et al., 2002). From the buyer’s perspective, the benefits of close relationship with suppliers at the operational level are given as improved quality of products or services, reduced cost and reduced lead-time or service completion time. At the strategic level, the benefits are obtained in the form of enhanced competitiveness, increased market share and innovation (Kannan and Tan, 2005). The importance of supplier management has been recognized by academics and many studies have showed the advantages that can be gained by the supplier alliances (Spina and Zotteri, 2000). According to Terpend et al. (2008), “The effects of many buyer, supplier and market characteristics, as well as product characteristics have yet to be explored” (Terpend et al., 2008). Goffin et al. (2006) and Sheu et al. (2006) state that the understanding of nature of relationships in a supply chain is limited and need to be improved.

Conceptual Framework and Hypotheses Development
Previously, companies handled the buyer-supplier relationship on a give and take basis. There was no sense of team work to make something happen. The buyer made suppliers’ bidding to see who would come out to be the lowest. At the same time the suppliers were trying to get enough prices to cover their expenses as well as make some profit. Therefore, in this relationship if one wins, the other would have to lose. It was like a zero sum game and therefore an adversarial climate developed.

Today, buyers and suppliers are coming together to produce mutual benefits and the relationship between them has become strategic in nature. therefore both buyer and supplier can be considered as “business partner”. At this stage, trust becomes the leading actor to govern the buyer-supplier relationship. A sincere desire is required for companies to proceed in trust building activities.

Trust is a condition in which each partner is convinced that the other is fully committed to the common goals. Trust provides an ease to business transactions (Noteboom, 1996), enhance customer satisfaction (Doney and Cannon, 1997), and enhance employee satisfaction (Pirson and Malhotra, 2007). Trust boosts creativity, innovation, knowledge sharing (Politis, 2003), and enhances cooperative behavior
within the organizations (Osterloh and Frey, 2000). Building a high level of trust encourages one partner to reciprocate trust towards the other partners. Existence of trust between buyer and supplier reduces the degree of complexity of negotiations (Buttler, 1999), and allows them to discuss important matters for mutual gain. Therefore, due to existence of trust, consumption of time and resources in the negotiations gets reduced.

The climate of trust allows open sharing of information. Sometimes, buyer and supplier hesitate in delivering the required information, because they think, it will increase their vulnerability. These unsatisfactory relationships must be changed to improve the performance of both buyer and supplier and this can be done only by development of trust. Paulraj et al. (2008) states that long-term relationships can be built only when there is mutual wish to work together and the partners should agree for sharing the information.

The essence of any successful relationship is communication. Firms need to gather the information about the capabilities and trustworthiness of their suppliers, and communication proceeds this process (Das and Teng, 1998). In order to coordinate the flow of product buyer and supplier need to communicate. Information regarding product prices, contractual arrangements, delivery schedule, technical details and other strategic issues need to be discussed. Therefore communication can be considered as an essential component in the relationship and trust development (Prahinski and Benton (2004).

Previous studies suggest that there should be face-to-face communication between the buyers and suppliers, because it increases the morale of suppliers who think themselves as a part of competitive strategy. It also provides immediate feedback opportunities (Singh, et al., 2006). Face-to-face communication creates a positive, encouraging environment for the various participants to share the challenges, as they are far from a traditional buyer-supplier scenario (Rangarajan et al., 2008). In addition, face-to-face communication assures the suppliers that they are all being treated equally and thus encourages them to become more transparent, competitive and dynamic. Face-to-face communication helps in sustaining even simple transactions, where contracts cannot be enforced (Humphrey and Schmitz, 1998), and it also reduces the conflicts of decisions and responsibilities between trading partners. Face-to-face communication means the exchange of information, thought, and suggestions when the partners are in same physical space. Dyer and chu (2000) found that face-to-face communication increases the trust between buyers and suppliers by assisting in the development of personal ties, thereby increasing the conflict resolution, and by providing information about supplier for detecting untrustworthy type trading partners.

Another related issue, which has a positive attitude towards development of trust, is fair treatment of suppliers by the buyer. According to Bensaou and Anderson (1997), relationship-specific assistance and investments reassures the partners about the intentions and honesty of the investor. Based on the review of available literature on fair treatment of suppliers by the buyers, this work has identified the following factors that constitute the fair treatment of suppliers. These include:

1. Tangible and intangible assistance provided by buyers (Wagner, et al., 2011). Tangible assistance provided to the suppliers include technical assistance (e.g. transfer of sophisticated tools and machines), financial assistance, managerial assistance (transfer of employees, e.g. executives, engineers and technical staff). Intangible assistance includes information, advice or suggestion for quality improvement, cost reduction, lead time/service completion time reduction, delivery and inventory management.

2. Avoiding unreasonable restriction and coercion regarding product/service quality, cost and completion time.

3. Providing business to suppliers regularly rather than sporadically i.e. willingness of buyer for relationship continuity (Jena and Guin, 2010).

4. On-time payment to the suppliers.
5. Providing some level of assurance that buyer will not terminate their business immediately, because of non-compliance due to some social or environmental challenges (Rangarajan, et al., 2008). Social and environmental challenges include local and international laws, health, safety, human rights, labor policies, legal and environmental issues (e.g. waste disposal, pollution) etc.

6. Honesty in sharing risks and benefits.

7. Reliability and consistency in behavior, because these are identified as antecedents of trust (Pirson and Malhotra, 2007).

8. Repeated cycle of exchange periodically for purchases made by buyers from suppliers in case of dual sourcing (Harland, 1996).

9. Immediate reward to the supplier on showing performance improvement (Rangarajan, et al., 2008).

10. Allow the suppliers to participate in strategic buyer/supplier planning meetings

Thus, if the suppliers are getting treated fairly, they will reciprocate the expected behavior towards the buyers. In the view of the above the following hypothesis is proposed:

H\textsubscript{1}: Face-to Face Communication and fair treatment of suppliers by the buyers have a positive effect on the development of trust.

Buyers do have a critical role to play in enabling supplier’s business; however it is only suppliers who can develop solutions that best meet their business priorities and are thus best positioned for real success (Rangarajan, et al., 2008). In order to establish a long-term relationship, both buyers and suppliers are required to perform trust building activities. As discussed above, if the suppliers are well treated by the buyers, then the suppliers comply in the form of readiness to invest in buyer's specific requirements, even without a written contract. Thus, the following hypothesis is proposed:

H\textsubscript{2}: Trust between buyer and supplier has a positive influence on the readiness of supplier to invest in the specific requirements of the buyer.

Suppliers are a critical element of a supply chain. Now days, there is an increasing trend of involving the supplier in early product design stage, to implement formal quality assurance programme, whose aim is prevention rather than detection, which in turn improves the quality of products supplied and thus improves the performance of both buyer and supplier. This can be possible only if high level of trust exists between them. A successful relationship is one, in which, there are mutual benefits, because success of both buyer and supplier are interdependent. So, in order to achieve a higher performance, the buyer should provide the necessary assistance to supplier. This assistance can be tactical (e.g. manufacturing, operations scheduling, logistics) or strategic (e.g. long-term corporate objectives, marketing and customer satisfaction) (Hsu, et al., 2008). Prior research has shown that effective information sharing between trading partners enhances visibility and reduces uncertainty (Brennon and Turnbull, 1999; Handfield and Bechtel, 2002). This information includes changes in demand/preferences of customers, and helps coordinate transaction based activities. In order to improve the supplier as well as firm’s performance, five dimensions of information sharing have been identified by Mohr and Sohi (1995), which are: timeliness, accuracy, adequacy, completeness, and information credibility. Several studies have found that long-term relationships between trading partners increase the financial, operational, and strategic efficiency of the involved organizations (Jenda and Sheshadri, 2001), and that trust act as a cornerstone of these relations (Krause, 1999). Ryu, et al. (2007) carried out a study and concluded that existence of trust between buyer and supplier relationship has a positive effect on the long-term orientation and the supplier performance is one of the facilitators of trust. In this paper, it is proposed that, supplier performance can be given by following factors: product quality, on-time delivery, technical capabilities, expertise, total cost, accuracy of quotes/promises, responsiveness to order, lead time, contract compliance, price variance. Thus, the following hypothesis is proposed:

H\textsubscript{3}: Performance of supplier is positively related to the trust development.
Previous research suggests that buyer-supplier relationship management can lead to a better supplier performance, improved product performance and process advancement which in turn enhance customer satisfaction and firm performance (Vonderembse and Tracey, 1999; Shin, et al., 2000). Tracey and Vonderembse (2000) found that involvement of supplier in product development and continuous improvement team enhances the firm performance; however, sometimes involvement of outsider can be a little bit risky. Therefore, effective selection and evaluation of suppliers and managing their involvement and performance can enable organizations to achieve four dimensions of customer satisfaction: competitive pricing, product quality, product variety, and delivery service (Mihaly, 1999). Empirical research has shown that organizations which are able to satisfy their customers in respect to any of these four dimensions improve their overall business performance (Tracey, et al., 1999). In this paper, it is proposed that overall organizational performance can be divided in to three parts: financial performance, product performance, and operational performance.

Financial performance of organization includes: market share, return on investment, profit margin, inventory turnover rate, and productivity.

Product performance includes: functionality, service, operating expenses, comfort, and ease of use. Higher product performance enhances the customer and employee satisfaction.

Operational performance includes: product/service quality, lead time/service completion time, product development time, utilization of resources, responsiveness to customer demand, and operational cost.

Thus, the following hypotheses are proposed:

$H_4$: Supplier performance positively affects the financial performance of the organization.

$H_5$: Supplier performance positively affects the product performance of the organization.

$H_6$: Supplier performance positively affects the operational performance of the organization.

Research Methodology
Data to test the hypotheses has been collected from a survey conducted in Indian manufacturing organizations. For this survey a questionnaire was prepared which contained questions framed on a five-point Likert-scale. A total 425 questionnaires were mailed to different engineering industries throughout the country. These industries were carefully selected from the directory of public sector, private sector, and government organizations. These industries include automobile industries, manufacturing industries, electronics & telecommunication industries, chemical industries, fertilizer industries, healthcare and pharmaceuticals industries, fast moving consumer goods (FMCG) industries, and others. Out of the 425 questionnaires, 31 questionnaires returned undelivered, 1 unit was reported to be closed and 9 refused to participate in this survey as they considered that the information asked for as classified. A total 54 responses were collected having a effective response rate of 14.06%. 31.48% of the respondents are from the senior management level, 50.00% from the middle management level, and 18.52% from the junior management level.

Analysis and Results
Measures Validation
Principal component analysis is performed to extract all the organizational performance measures in to three groups, followed by varimax (orthogonal) rotation (see Table 1). The three groups are named as: operational performance, financial performance, and product performance. Factor loadings for the support factors can be found in the Table 1. KMO and Bartlett's test ($0.783, 431.42$) is also performed to check the sample adequacy, and found satisfactory as it is greater than 0.7 which indicates that there are sufficient items for each factor.
Table 1: Principal Component Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilization of resources</td>
<td>0.759</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation rate</td>
<td>0.747</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product quality</td>
<td>0.735</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product development time</td>
<td>0.670</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational cost</td>
<td>0.665</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead time/Service completion time</td>
<td>0.642</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness to customer demand</td>
<td>0.395</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit margin</td>
<td></td>
<td>0.871</td>
<td></td>
</tr>
<tr>
<td>Return on investment</td>
<td></td>
<td>0.804</td>
<td></td>
</tr>
<tr>
<td>Productivity</td>
<td></td>
<td>0.762</td>
<td></td>
</tr>
<tr>
<td>Market share</td>
<td></td>
<td>0.744</td>
<td></td>
</tr>
<tr>
<td>Inventory turnover rate</td>
<td></td>
<td></td>
<td>0.539</td>
</tr>
<tr>
<td>After sales service</td>
<td></td>
<td></td>
<td>0.667</td>
</tr>
<tr>
<td>Employee satisfaction</td>
<td></td>
<td></td>
<td>0.599</td>
</tr>
<tr>
<td>Product performance</td>
<td></td>
<td></td>
<td>0.568</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td></td>
<td></td>
<td>0.472</td>
</tr>
</tbody>
</table>

Reliability test using cronbach's alpha is performed for the constructs i.e. trust, supplier performance, operational performance, financial performance, and product performance. Reliability estimates for all constructs are found as greater than 0.6. The minimum generally acceptable value for cronbach's alpha is 0.7, though for exploratory research, values greater than 0.6 are considered acceptable. Results provide the evidence that internal consistency exists with the items. Descriptive statistics of mean responses, standard deviations and reliability coefficients are given in the Table 2.

Table 2: Reliability Analysis

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>S.D.</th>
<th>No. of Items</th>
<th>(Cronbach's α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>3.91</td>
<td>0.514</td>
<td>9</td>
<td>0.791</td>
</tr>
<tr>
<td>SP</td>
<td>4.10</td>
<td>0.685</td>
<td>12</td>
<td>0.925</td>
</tr>
<tr>
<td>FP</td>
<td>3.68</td>
<td>0.659</td>
<td>5</td>
<td>0.786</td>
</tr>
<tr>
<td>PP</td>
<td>4.05</td>
<td>0.716</td>
<td>4</td>
<td>0.678</td>
</tr>
<tr>
<td>OP</td>
<td>3.97</td>
<td>0.543</td>
<td>7</td>
<td>0.775</td>
</tr>
</tbody>
</table>
Research Findings
The correlations of three constructs ($A_1$, $A_2$, and $A_3$) tested in relationship to trust development was significant at $p < 0.01$. In addition, the three constructs ($A_1$, $A_2$, and $A_3$) are mutually independent i.e. they are not correlated (Table 3). The supplier performance was also correlated with trust development, which was also found to be significant at $p < 0.01$. The values of $R^2$ and $F$ (ANOVA) are given in the Table 3. The value of $R^2$ represents the proportion of variance in the independent variable that is explained by dependent variable. The $F$ value was also found significant at $p < 0.01$. Thus, the first, second, and third hypotheses are accepted.

### Table 3: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Tr</th>
<th>SP</th>
<th>$A_1$</th>
<th>$A_2$</th>
<th>$A_3$</th>
<th>$R^2$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr</td>
<td>1</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
</tr>
<tr>
<td>SP</td>
<td>0.432**</td>
<td>1</td>
<td>0.187</td>
<td></td>
<td></td>
<td>0.187</td>
<td>32.360**</td>
</tr>
<tr>
<td>$A_1$</td>
<td>0.524**</td>
<td>0.051</td>
<td>1</td>
<td></td>
<td></td>
<td>0.261</td>
<td>19.732**</td>
</tr>
<tr>
<td>$A_2$</td>
<td>0.468**</td>
<td>0.052</td>
<td>0.203</td>
<td>1</td>
<td></td>
<td>0.204</td>
<td>14.590**</td>
</tr>
<tr>
<td>$A_3$</td>
<td>0.637**</td>
<td>0.209</td>
<td>0.126</td>
<td>0.060</td>
<td>1</td>
<td>0.394</td>
<td>34.854**</td>
</tr>
</tbody>
</table>

Where $A_1 =$ Face-to-face communication between buyer and supplier

$A_2 =$ Fair treat of supplier by the buyer

$A_3 =$ Readiness of the supplier to invest in the specific requirement of buyer

SP = Supplier performance

Further, the supplier performance was tested for correlation with operational performance (OP), product performance (PP), and financial performance (FP). The values of correlation coefficients, $R^2$ and $F$ (ANOVA) are given in the table 4. The correlations were found significant at $p < 0.01$ and provide support for hypotheses 4, 5, and 6. The correlation matrix also shows that product performance (PP), financial performance (FP), and operational performance (OP) are significantly correlated to each other. The values of $R^2$ were also found sufficiently large to explain the relationships between the variables.

### Table 4: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>SP</th>
<th>OP</th>
<th>PP</th>
<th>FP</th>
<th>$R^2$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>1</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
</tr>
<tr>
<td>OP</td>
<td>0.535**</td>
<td>1</td>
<td>SC</td>
<td>SC</td>
<td>0.272</td>
<td>20.836**</td>
</tr>
<tr>
<td>PP</td>
<td>0.448**</td>
<td>0.551**</td>
<td>1</td>
<td>SC</td>
<td>0.185</td>
<td>13.021**</td>
</tr>
<tr>
<td>FP</td>
<td>0.449**</td>
<td>0.715**</td>
<td>0.336*</td>
<td>1</td>
<td>0.186</td>
<td>13.105**</td>
</tr>
</tbody>
</table>

* Correlations are significant at 0.05 level

**Correlations are significant at 0.01 level
Conclusions
The findings from this study indicate that the relationship between buyer and supplier gets stronger with the development of trust, and the development of trust is facilitated by face-to-face communication between buyer and supplier, fair treatment of suppliers by the buyers, and readiness of supplier to invest in the specific requirement of buyer. The findings also indicate that organizational performance depends upon supplier’s performance, and supplier’s performance depends upon the buyer-supplier relationship. These findings are in line with the earlier findings of researchers. The results show that product performance, financial performance, and operational performance are inter-correlated, which is very obvious, as these are constituents of overall organizational performance.

This research has also established that by development of trust through face-to-face communication and fair treatment of suppliers, the supplier’s performance as well as organizational performance can be improved. The main focus of the study was to examine the effect of trust-building activities (e.g. face-to-face communication between buyer and supplier, fair treatment of supplier by the buyer) on the buyer-supplier relationship and further, on the supplier and organizational performance. Specifically this research contributes to existing literature by explaining few of the factors, which are important for fair treatment of supplier by the buyer.

References


