

# THE RISK PERSPECTIVES OF SUPPLY CHAIN PARTNERS RELATIONSHIP

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## Abstract:

With increasing global competition many companies have started focusing on their core businesses and outsourcing the sub-processes. This has led to a realization of importance for establishing and maintaining long-term partnership with their suppliers, service providers, distributors, and customers (supply chain partners) of the market, which they are serving. The partnership allows lower costs and risks, and synergies, so that the net value delivered through this partnership is much higher than others in the industry, the competition is said to be not among single firms, but on the contrary, among supply chains. Conversely there is also abundant skepticism among supply chain managers about the success of close relationship between partners under the current business environment. Doubt arises from the observation that the relationship between buyer and seller is naturally in a state of conflict from the personal and non personal factors and from the supply chain disruptions such as terror attacks and natural calamities. It seems it is important to realize that there are risks with these new supply chain strategies and risk is present to some extent in every supply chain. However, a research gap still exists in the supply chain management literature on providing guidelines for supply chain partner's relationship risk coping mechanism. Therefore the purpose of this conceptual paper is to briefly review the risk perspectives of supply chain members and develop an integrated model of risk evaluation process to build a sustainable relationship and risk coping mechanism.

## 1. Introduction:

Companies that add value for the customers and stakeholders by integrating their key business processes within and across other companies are called supply chain partners. Typically the goals of Supply Chain Management are to develop value-added processes that deliver innovative, high-quality, low-cost products on time with shorter development

cycles and greater responsiveness (Fawcett and Magnan, 2004). During the last decade, many companies reduced the number of their customers and suppliers focusing on core competency and developing "key customer and core supplier" programmes in order to create stronger relationships with selected few. The principal benefit of good customer supplier relations is the synergy resulting from two organizations working together and resolving common problems in order to achieve mutual goals. Managing positive and profitable relationships with customers and suppliers can determine a company's success and survival in the market (Mehra, 2005). Conversely, the supply chain management practices such as information sharing, dependence on outsourcing, integration of business processes, vendor managed inventory system, pursuit to become more agile or lean etc. adds to overall risk susceptibility. According to Larry, (2004) the distinguishing characteristics of each purchasing situation are expected to have a differential impact on the need for risk management. Probably for this reason, despite the upsurge in the number of supply chain collaborations and alliances in the last decade, the failure rate of these inter firm cooperative ventures have generally been very high, hovering around 50% according to number of studies (e.g. Bleek and Ernst, 1997; Das and Teng, 2000). After September 11, 2001 manufacturers began to experience disruptions to the flow of material. Disruptions can arise from a number of sources such as a natural disaster, terrorist attacks, financial meltdowns, industrial or direct actions, accidents, or operational difficulties. Since September 11, many European and US companies are reconsidering the wisdom of using overseas suppliers. Offshore suppliers may be less expensive but susceptible to disruptions and local suppliers may be more expensive, but are closer and able to respond faster (Sheffi, 2001).

It seems it is important to realize that there are risks with these new supply chain strategies



and risk is present to some extent in every supply chain. For example, relationship risk concerns the degree of interdependence among partners and the tendency of a partner to act in its own self-interest to the detriment of other supply chain members. Williamson, (1975) and John, (1984) refers it can be referred as opportunism or lack of honesty in transactions and is manifested in acts such as withholding or distorting information with the intent to mislead, and failing to fulfill promises or obligations. Fewer suppliers and lower inventories mean that a problem at one supplier can be magnified throughout the supply chain. The supply chain's flow of money is exposed to risks associated with stable pricing, hedging, and letters of credit, timely payment of bills, the costs associated with Vendor Managed Inventories, obsolete or unwanted inventory. Cisco, for instance, wrote off \$2.5 billion in inventory in 2001 due mainly to a lack of communication among its supply chain partners. High-technology markets are characterized by rapid pace of technology change, involving a high degree of uncertainty for buyers. In markets where technology changes at a rapid pace there are, usually, multiple discrepant product standards (Heide and Weiss, 1995) and risks caused by the rapid pace of technology changes. There is also evidence that economic, political and social developments over the past decade are increasing the risk of supply chain disruptions. Metal traders worldwide have lost millions of dollars with devalued inventories and non moving stocks due to recent financial meltdown. The information that an organization communicates with its supply chain partners is among the most critical of its assets. The partner's interest will be to reduce the enterprise's risk of losses caused by intrusion, system misuse; privilege abuse, tampering, fraud, etc added together, a significantly growing potential risk from supply chain partner's relationship can be seen as serious concern.

There is also abundant skepticism in some quarters that supply chain partners will work closely and successfully. Doubt arises from the observation that the relationship between buyer and seller is naturally in a state of conflict. Buyers and sellers have traditionally not shared the same objectives, nor have they experienced a balance in power (Spekman and Davis, 2004). If a customer chooses to develop and invest in a long-term relationship with a supplier, it can bring significant. However, if either partner defaults or attempts to take advantage of the other, the risks can also be

significant (Cousins et al., 2004).

Christopher et al., (2002) suggests to evaluating the potential causes or sources of the risks at every significant link along the supply chain to develop appropriate risk coping mechanisms. However, a research gap still exists in the supply chain management literature on providing guidelines for supply chain partner's relationship risk coping mechanism. The purpose of this article is to briefly review the sources of partnership risk and the risk reducing approaches to provide an integrated model of supply chain members risk evaluation process to build a sustainable relationship.

## **2 Supply Chain member's perspectives of risk:**

Several authors have paid attention on the sources of uncertainty and the relative connected risk inside a supply chain (e.g, Koh and Saad, 2004). Some of the sources of risk, studied are; dependability, reliability, credibility, price fluctuations, capacity, manufacturing yield, supplier quality, internal organization, competitor's action, and information delay, political environment, customs regulations etc, and present various arguments such as; there are two main types of supply chain risk to which partners can be exposed, technological risk and over-reliance on single partner, according to the Transitional Cost Economics (TCE) theory a part of the business cost is associated with managing the buyer and supplier relationship. For example, some of the costs of a relationship to a supplier could be the investment in machinery or technology in order to supply the buyer. These costs could be very high and could expose the supplier to considerable risk should the customer choose to go elsewhere. However, they are a cost the supplier has to incur if they wish to do business with the customer. From the customer's point of view, this type of situation might make it difficult to find, and costly to switch to, another supplier. In such a case, the risk arises that the customer or supplier might indulge in opportunistic behavior, i.e. a customer might take the opportunity provided by the supplier's dependency to negotiate a price reduction or the supplier might take the opportunity caused by the customer's dependency to increase prices. In the former situation, the transaction costs for the customer might be lower whilst in the latter they might be higher. Here, the partners are exposed to economic risk. Similarly, a long term trust worthy relationship between partners may turn risky



under changing institutional system of one of the partner's country with change of political, economical or legislation system. Under high uncertainty or risk conditions, firms may need to either develop some additional assurances from various risk perspectives or use formal governance mechanisms such as contracts or legal agreements to reduce the risk. With increasing size of the partner's organizations the other partner need to build their dynamic capabilities to respond to the partner's requirement or risk the relationship.

Some of the risk reducing techniques presented in the risk management literature are: choosing a leading company in the field, using an approved list of suppliers, multiple sourcing, visiting supplier operations and establishing good communications with suppliers, product differentiation, increasing the variety of products, particularly in fast-moving markets such as fashion, offers customers a wider choice and reduces the risk of building high inventories of obsolescent products, inventory management, preparedness is best viewed as insurance, to be prepared for uncertainties and disruptions, analyze investments in three main categories: supplier relationship and awards, inventory management criteria and knowledge and process backup. As it can be seen, supply chain partners can manage or reduce the risk in partnership with a number of approaches. However, there is one overriding drawback to the many approaches on supply chain risk management that is: what one person sees as a means of reducing risk, another sees as a means of increasing risk. Therefore the supply chain member's risk evaluation and risk reduction model should be based on the common mutual risk worthiness and the risk bearing capacity. Sustainable relationships can be built only when the supply chain member's perspectives of risk are within their bearable limits or risk worthy from various perspectives.

### 3. Risk Evaluation Process of Supply Chain Partners – A Conceptual Model:

Every conception of risk implies that there must be uncertainty about the prospective outcomes, and that if the probability of those outcomes are known, there is no risk (Yates and Stone, 1992). As supply chains are exposed to both uncertainties and risk, we take the view that, uncertainties are related to characteristics of partners such as honesty, benevolence, dependability, credibility, and institutional

systems such as legislation, trade organizations etc. and risks are related to economics, dynamic capabilities, and technology, which are both measurable and manageable subject to the availability of right verbal and non-verbal (cues) information. Contemporary models for SCM mention that the information sharing is vital for supply chains as lack of information leads to uncertainty, chaotic behavior and unnecessary costs.

Since objectives of the supply chain members are supposed to be the same, each partner can evaluate the other partner as dependable, reliable, economical, efficient, responsive, and technically compatible by releasing or receiving the information continuously from the common perspectives during the course of transactions as shown in Fig.1. Through the evaluation process (filtering of information) a partner can judge the relationship as risky or risk worthy. Even if the partner evaluates the other partner as risky and he wishes to take that risk with a probable out come of benefit he would consider him as risk worthy. Relationships should be forged when the risk levels are risk worthy or within the bearable limits of partners.

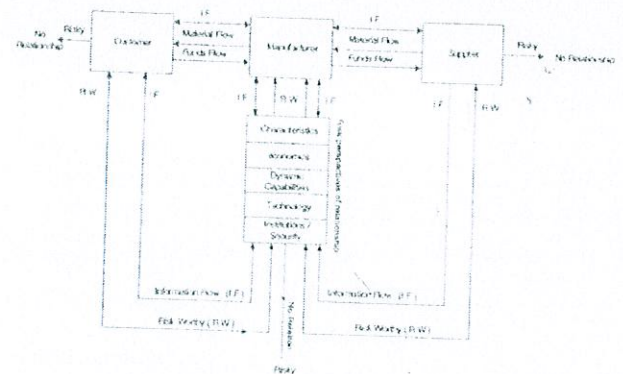


Fig. 1 Risk Evaluation Process of Supply Chain Partnership

From supply chain member's characteristics perspective the necessary conditions for the adoption of effective risk-reducing strategies include loyalty to existing suppliers, the characteristics of the buying situation and the buyer's perception of the procurement problem of reliability and dependability (Mitchell, 1995). The other risk-reducers include: choosing a leading company (credibility) in the field, using an approved list of suppliers (familiarity), multiple sourcing, visiting supplier operations (perceptions) and establishing good communications (honesty) with suppliers.

Rational risk perspective contents include economics, dynamic capabilities and technology.



Williamson, (1993), articulates a few situational antecedents to evaluate risk as, the affected parties: (1) are aware of the range of possible outcomes and their associated probabilities; (2) take cost-effective actions to mitigate hazards and enhance benefits; (3) proceed with the transaction only if expected net gains can be projected; and, (4) if X can compete the transaction with any of several Ys, the transaction should be assigned to that Y for which the largest net gain can be projected. Referring to the dynamic capabilities, supply chain partners should select the dynamically capable partners to respond to change; fluctuations in demand may tax a supplier beyond its abilities through insufficient utilization of equipments and employees. Other capacity risks include volume/product mix requirement fluctuations that result from the increased customers' sophistication and the unpredictability of demand and process technological changes. According to transactional Cost Economics (TCE), the less regulated the relationship is, the greater the probability of opportunistic behavior. An important source of uncertainty stems from partner's lack of experience with product technology. In markets where technology changes at a rapid pace there are, usually, multiple discrepant product standards and risks caused by the rapid pace of technology changes.

Security aspects are new dimensions in supply chain management relationship. The emergent international terrorism against developed economies highlight the vulnerability of current global chains and places security issue at the top of the agenda of several governments and international organizations around the world. Manufacturers, distributors, retailers and other firms involved in the handling of physical goods face four new challenges in this era: preparing for another attack Sheffi (2001), managing supply chains under increased uncertainty, managing relationship with the government and organizing to meet the challenges. A large number of business applications and databases in supply chain are deployed by the intranets or extranets; the same distributed nature as that of an internet-based system and intranets or extranets driven supply chain network is always a conspicuous target of security attacks. Finally an effective long-term strategy for dealing with supply risk requires consistent monitoring and auditing of a supplier's characteristics, economics, processes and security to check that they confirm to the

required standards and the risk levels are bearable.

## 5. Conclusions:

Application of the supply chain management tools without an understanding supply chain member's risk perspectives does not lead us very far in implementing them. From the conceptual model it is apparent that, higher the level of mutually evaluated information and transparency between partners lower the level of risk. Our model suggests that to build sustainable relationship, supply chain members should evaluate the relationship risk from the five key perspectives (that of self and the other member's risk ) when the threshold levels of member's risk bearing capacities from various perspectives are within their bearable limits the members evaluate the relationships as risk worthy and engage in relationship. Therefore to build sustainable relationship the supply chain members should strive to reduce the partnership risks from various perspectives to be within the bearable limits of the partners. A continuous evaluation of the bearable limits from the five key perspectives and limiting the membership risks act as risk coping mechanism. In contrast to past approaches of trust building models to build successful supply chain relationship, this model suggests to reduce partnership risks to partner's bearable limits to build sustainable relationships.

## References:

- Bleek J and Ernst.D, (1997), "The way to win in cross boarder alliance" Harvard Business Review, Vol 69, No.6, PP. 127 -135.
- Cousins, P., Lamming, R.C. and Bowen, F. (2004), The role of risk in environment-related initiatives, International Journal of Operations & Production Management, Vol. 24 No. 6, pp. 554-65
- Christopher, M. (2005), Logistics and Supply Chain Management: Creating Value-Adding Networks, 3rd ed., Prentice-Hall, Harlow.
- Cousins, P., Lamming, R.C. and Bowen, F. (2004), The role of risk in environment-related initiatives, International Journal of Operations & Production Management, Vol. 24 No. 6, pp. 554-65.
- Das T.K and Teng. B( 2000), " Instabilities of Strategic Alliances, An internal tension perspective" Organizational Science Vol, 12. PP 77 -101.



- Fawcett, S.E. and Magnan, G.M. (2004), "Ten guiding principles for high-impact SCM", *Business Horizons*, Vol. 47 No. 5, pp. 67-74.
- Heide, J.B. and Weiss, A.M. (1995), "Vendor consideration and switching behavior for buyers in high-technology markets", *Journal of Marketing*, Vol. 59, July, pp. 30-41.
- John, G. (1984), "An empirical investigation of some antecedents of opportunism in a marketing channel", *Journal of Marketing Research*, Vol. 21 No. 3, pp. 278-89.
- Koh, S.C.L. and Saad, S.M. (2004), "Modelling uncertainty under a multi-echelon ERP-controlled manufacturing system", *International Journal of Integrated Manufacturing Systems*, Vol. 15 No. 3, pp. 239-53.
- Lary C.Giunipero and Reham Aly Eltantawy. (2004), "Securing the upstream supply chain: a risk management approach", *International Journal of Physical Distribution and Logistics Management* Vol 34, No.9 PP698 - 712.
- Mehra, S. (2005), "Current issues and emerging trends in supply chain management: an editorial perspective", *International Journal of Production Research*, Vol. 43 No. 16, pp. 3299-302.
- Mitchell, V-W. (1995), "Organisational risk perception and reduction: a literature review", *British Journal of Management*, Vol. 6, pp. 115-33.
- Sheffi Y. (2001) "Supply Chain Management under the threat of International Terrorism" *The International Journal of Logistics Management*, Vol 12, No 2 PP 1-11
- Spekman, R.E and Davis E.W. (2004) "Risky business: expanding the discussion on risk and the extended enterprise" *International Journal of Physical distribution and Logistics Management* Vol. 34. No. 5 PP 414-433
- Williamson, O.E. (1975), *Markets and Hierarchies: Analysis and Anti-trust Implications*, The Free Press, New York, NY.
- Williamson, O.E (1993) "Calculativeness, trust, and economic organization" *The Journal of Law & Economics*, Vol.36 No 1, part 2 April, PP 453-86.
- Yates, J.F. and Stone, E. (1992), *The risk construct*, in Yates, J.F. (Ed.), *Risk-taking Behavior*, Wiley, Chichester.

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