CHAPTER – 3

CONCEPTUAL FRAMEWORK
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The basic of the supply chain management is developing buyer-supplier relationship which is predictive in effective supply chain management. Once the efforts have resulted in analyzing cases and data from a set of retailers has been collected – the obvious next step is to evaluate buyer-supplier relationship and supply chain management in organized retailing.

Exhibit 3.1 presents the conceptual framework, which contains the two key determinants of supply chain performance – retailer-supplier cooperation and retailer’s (supplier’s) decision-making uncertainty (DMU), outcomes of supply chain performance (i.e., financial performance and non-financial performance), and antecedents of cooperation (i.e., trust, relationship, power and dependence). To make the hypotheses easier to context, their development in the following sections is worded from the retailer’s perspective. The term retailer’s (supplier’s), henceforth, will be replaced by retailer throughout the dissertation. Thus, the a priori assumption is that retailers and suppliers will behave in a similar manner.

Exhibit 3.1 Conceptual Framework

Several key factors such as economic profit, resource scarcity, and uncertainty reduction motivate organizations to get involved in inter-firm cooperative relationships. Buyers and suppliers come together to create a favorable environment for cooperation, with an expectation to achieve mutual and individual goals jointly. A number of researchers have linked the major outcomes of cooperative relationships to financial performance (Langerak 2001; Johnston et al. 2004), satisfaction with financial performance (Siguaw et al. 1998), and relationship satisfaction (Anderson and Narus 1990; Anderson and Weitz 1992; Skinner et al. 1992). In order to provide guidelines and a clear picture of how the supply chain performs for buyers and
suppliers to effectively manage their cooperative relationships, specific performance
dimensions critical to the retail supply chain have been examined.

3.1 Cooperation and financial performance

Johnston et al. (2004) considered that in business practice, suppliers who can
communicate or exchange opinions with retailers about product design and
development before introducing new products are in a better position to match
customer tastes and needs. As retailers are closer to consumers, they have better
knowledge about local market conditions, consumer preferences, and desired features
or services to complement the supplier's knowledge. The complementary or
coordinated actions in this case generate greater value to retailers as well as to
consumers in new product or service introduction.

Importantly, buyer-supplier cooperation also enhances the commitment of an
exchange partner (Siguaw et al. 1998). A committed retailer is more likely to put in
effort to promote the product through, for example, better presentation at the store
and closely monitoring product movements. The effort that a retailer puts in can
significantly influence the success of the supplier’s products at the retail outlet. The
benefits of working together are likely to be reflected in better performance outcomes
such as profit margins and satisfaction. Váquez et al. (2005) reported that higher
levels of cooperation between manufacturer and distribution not only lead to greater
satisfaction with economic outcomes and non-economic, psychological or social
satisfaction, but also gain competitive advantage that help firms to compete in the
market more efficiently.

A considerable number of studies have addressed the importance of
information sharing between cooperating parties and its positive impact on supply
chain performance (Lee, So and Tang 1996; Zhao, Xie and Zhang 2002; Kulp, Lee
and Ofek 2004). With shared sales information, the supplier is able to analyze the
local demand patterns and product performance, and take action to adjust their
production for hot-selling styles, colors and sizes in response to retail demand.
Demand forecasts are then improved, enabling the supplier to manage the inventory
of their products and reduce returns at the retailer’s site. With respect to supply chain
efficiency, not only the suppliers can reduce order cycle time and shorten the cash-to-
cash cycles, but also the retailer can reduce the risks of markdowns and obsolescent
stocks (Brewer and Speh 2000). In addition, risks and buffer inventories can be
minimized, and the inventory turnover rate can be increased to benefit both parties.
As a consequence, cash flow and financial performance can be improved throughout
the supply chain.
3.2 Cooperation and supply flexibility

In the supply chain literature, supply chain flexibility is a key dimension of competitive strategy, and acts as a response to uncertainty. Under the current economic scenario, where the market habits change very fast, many different styles and trends simultaneously influence consumer tastes. Companies operating in dynamic and unpredictable markets press an increasing need for agile suppliers who are able to respond quickly to changes in demand, including volume and variety (Christopher 2000). The demands of more flexibility from consumers in product variety, volume, delivery, etc. require the retail supply chains to be more responsive. The demands, in turn, push back from retailers to suppliers. The supplier has to accommodate the retailer's requirements to keep its product lines at the retail shelf attractive. A supplier's inflexibility in product or service offering also affects the retailer's flexibility to respond to its customer's request.

Offering more flexibility to downstream customers may incur additional costs to the supply firm or retail firm. Lambert and Pohlen (2001) emphasize that the trade-offs between costs and revenues generated for the firm and the entire supply chain reflect increased value for customers, profitability, and competitiveness of the supply chain. There are numerous cost-effective ways to create value and improve performance at each linkage in the supply chain. To maintain long-term cooperative relationships, coordinated activities and proactive actions to support the downstream customers will facilitate supply flexibility throughout the whole supply chain.

3.3 Cooperation and customer service

For improved customer service, Ellram et al. (1999, p. 492) emphasized that retailing logistics must establish and maintain cooperative supply chain relationships. Through cooperative relationships, both parties are able to better understand each other's expectations and identify opportunities for improvement in logistics operations. End-users usually expect to get products off-the-shelf and instant gratification when shopping at a retail store. To ensure product availability is very important for demanding products, particularly during the promotion periods. Stockouts of the desired brand or product not only lose sales but also turn the customer to competing brands or stores. Similarly, supplier's inability to fulfill the retailer's orders on time completely damages its company image.

Tracey (1998) stresses that it is important for manufacturing firms to provide efficient logistics processes (including inbound logistics and outbound logistics) to increase customer service and achieve superior performance. The prevailing use of information technology demonstrates an efficient way to support customer service and improve retail supply chain performance (Ellram et al. 1999; Kincade, Vass and
Cassill 2001). Supplier's providing the bar code labels or source marking on the product is efficient for POS system at the retail level and can expedite the order cycle time and facilitate the quality of customer service. Ellram et al. (1999) suggest that more communication should be initiated between suppliers and retailers in order to provide better customer service while maintaining adequate levels of inventory. The cooperative efforts of a supplier should facilitate delivery efficiency and ensure product quality to meet its retailer's order requirements, and thus lead to higher levels of satisfaction (Anderson and Narus 1990; Skinner et al. 1992). The responsive actions from the cooperating partners will contribute to better customer service in the supply chain.

On the basis of the preceding discussion, the following hypotheses are suggested:

**H1a:** Retailer-supplier cooperation is positively related to the financial performance of the supply chain.

**H1b:** Retailer-supplier cooperation is positively related to the supply flexibility of the supply chain.

**H1c:** Retailer-supplier cooperation is positively related to the customer service of the supply chain.

### 3.4 Decision-Making Uncertainty and Supply Chain Performance

From the perspective of supply chain performance, Beamon (1999) emphasises it is important to consider the effect of uncertainty on the supply chain as adequate performance measurement enables the decision maker to identify potential areas which need improvement and to understand how to be responsive to changes. Kaikwani and Narayandas (1995) recommend that the minimization of demand uncertainty in long-term relationships is the key to improving the effectiveness and efficiency of purchasing practices of supplier firms in terms of better inventory control and lower costs.

In dynamic retail buying contexts, one particular source of uncertainty is demand unpredictability. This form of uncertainty gives rise to higher transaction costs (Williamson 1985). Decision-making uncertainty (DMU) arises due to information deficiency, unpredictability of decision consequences, and a lack of confidence in decision-making (Achrol and Stern 1988). DMU, a prevalent reality occurring in many business purchase decisions, adversely affects buyer/supplier decision-making in different aspects of channel performance – financial and non-financial or operational performance.
3.5 DMU and financial performance

Without adequate knowledge and information at the time of making purchase decisions, it is difficult for the retailer to predict required purchase volumes to the supplier if orders are placed several months ahead of the season. If there is no flexible mechanism designed to deal with uncertainty, the subsequent costs associated with such a decision may reduce the profit returns of a buyer firm.

Stock and Lambert (2001, p. 193) stated that inventory is the largest cost component in a supply chain, accounting for up to 45 percent of the costs in a logistics system. Inaccurate forecasts cause a retail store to either stock out of hot-selling products or overstock slow-moving products. Excess inventory results in low inventory turnover and heavy markdowns, and stockouts result in lost sales and lost goodwill of the store. Similarly, the bullwhip effect occurs at the supplier side. Heide and Stump (1995) claimed that volume unpredictability will decrease relationship performance. These uncertainties have the greatest influence on supply chain inventories (Waller et al. 1999), which also have tremendous impact on the financial and operational performance of the supply chain (Stapleton et al. 2002).

3.6 DMU and flexibility

When making purchase decisions, retailers look for dependable suppliers who are able to provide consistent product quality, reliable delivery, flexible response, and so forth. Supplier’s consistent performance strengthens the retailer’s confidence in predicting the outcomes of his purchase decisions. The retailer is sure to get what he expects and is able to provide higher levels of customer service and flexibility to the end-customers. On the contrary, low dependability of the supplier increases the buyer’s uncertainty. It often happens with advance buying that products do not arrive at the expected time because of long lead time with outsource manufacturing (Ashford 1997; Christopher and Peck 1997). For example, winter or summer sports apparel arrives at the end of season. Timing is a very sensitive factor in marketing fashion-driven products (Christopher and Peck 1997). In this case, the apparel loses the time to market. Should the retailer mark down prices on these newly arrived products or continue to sell them next year? Unreliable delivery schedules compound the level of uncertainty in buyer’s decision-making. Uncertainty leaves the retailer less flexible to respond to market demand. Similarly, the supplier’s uncertainty will increase and influence the supply chain flexibility if its retailers do not share sales data and customer preference. Ivens (2005) reported that higher levels of supplier’s perceived uncertainty will affect its flexibility towards customers.
3.7 DMU and customer service

Fast-changing fashion trends, customer preference, weather, seasonal sports activities, etc. further increase uncertainty in retailers and suppliers' purchase decisions. A large number of sizes, colors, and styles are involved in sports apparel and footwear lines. The forecast of how much of each style or color should be ordered or kept in stock can enlarge the demand variability (Sen 2004). Wathne and Heide (2004) reported that the uncertainty experienced by a retailer in the fashion market has a negative effect on the apparel manufacturer's flexibility. Demand variability is the key problem facing the sporting goods supply chain as is true for most supply chains, eroding both customer service and product revenues (Stapleton et al. 2002; Lohman, Fortuin and Wouters 2004).

To ensure high levels of customer service, retailers must carry the right products at the right time and place. To stock the brand names that consumers expect to look for and to have the products available are important for retailers not only to achieve sales goals but also add value to retain customers (Buchanan 1992). However, if the supplier does not communicate well with its retailers regarding the impact of its marketing strategy on market competition, it can intensify the retailer's uncertainty in his purchasing and marketing planning (Johnson and Pharr 1997). The retailer may not be confident in his decision-making, which can result in poor customer service and slow response to customer needs (Christopher and Lee 2004).

According to the preceding discussion, the effects of retailer's DMU are assumed to have negative effects on the supply chain performance in the areas of financial performance, supply flexibility, and customer service. Therefore, the hypotheses are formulated as follows:

**H2a:** Retailer's DMU is negatively related to the financial performance of the supply chain.

**H2b:** Retailer's DMU is negatively related to the supply flexibility of the supply chain.

**H2c:** Retailer's DMU is negatively related to the customer service of the supply chain.

3.8 Financial Performance and Non-financial Performance

Uncertainty in a competitive environment highlights the importance of flexibility (Vickery et al. 1999; Dreyer and Grønhaug 2004). Vickery et al. (1999) indicated higher levels of perceived uncertainty place greater emphasis on supply chain flexibility. Flexibility reflects a firm's responsiveness to changes. Dreyer and Grønhaug (2004) reported that flexibility has great impact on performance such as return on total assets of firms. Jack and Raturi (2002) found that volume flexibility has a positive effect on financial performance of firms. They suggest, for example,
manufacturing firms can use short-term and long-term sourcing to provide volume flexibility while maintaining a low inventory buffer and this will ultimately improve their financial performance.

Consumers today demand prompt delivery with flexible pricing choices from the retailer end, and retailers expect frequent deliveries with small order volume from their suppliers. The need to sustain high levels of customer service underlines the importance of flexibility in a market of time-based competition. Time is a critical dimension for many consumers. They want and demand quicker response time and more flexible offerings according to their requests. Innis and Londe (1994) proposed that a satisfied consumer is more likely to repurchase, leading to increased sales and market share for the firm. Homburg (2002) reported that flexibility has a positive impact on customer satisfaction. From the perspective of the retailer, flexible responsiveness enhances the levels of customer service.

Tracey (1998) contended that manufacturing flexibility is critical to customer service, including high product quality, reliable delivery, and accurate order information, and it has an impact on customer service and firm performance. The manufacturing company has the flexible capacity and technology equipment to produce customized or urgent orders for customers without incurring additional expensive costs. Swamidass and Newell (1984) reported that higher manufacturing flexibility results in better economic performance as flexibility contributes competitive advantage to a manufacturer.

Volume flexibility allows a firm to respond efficiently to demand fluctuations while maintaining high service levels (Jack and Raturi 2002). As Tracey (1998) indicated, to be a leader in customer service a manufacturing firm should have certain types of capabilities regardless of what industry it competes. To the supplier, flexibility and efficient logistics processes are the keys to high levels of customer service. Kallio et al. (2000) concluded that efficient delivery leads to improved performance in terms of cost saving, higher customer service, and reduced order cycle time. To summarize the above discussion, a supplier or retail firm's supply flexibility can affect its financial performance and the customer service to its customers. In a broader sense, flexibility can add value to the level of customer service and economic performance in volatile supply chains.

According to the preceding discussion, the following hypotheses are suggested:

**H3a:** Supply flexibility is positively related to financial performance.
**H3b:** Supply flexibility is positively related to customer service.
3.9 Relationship Dimensions, Cooperation, and DMU
The associations between the five relationship dimensions (i.e., trust, relationship, dependence, coercive power, and non-coercive power) and cooperation and DMU are to be investigated in the following five sub-sections.

3.10 Trust, Cooperation, and DMU

3.10.1 Trust and cooperation
Trust has been identified in the literature as the key determinant of relationship development. Trust is regarded as a basic social and business norm in Indian culture and is the key to long-term relationships (Mavondo and Rodrigo 2001). Lui (1998) views trust as possessing the function of 'social lubricant' that leads to cooperative behaviour. According to Sullivan and Peterson (1982, p. 30), the essence of trust is described as "...where the parties have trust in one another, then there will be ways by which the two parties can work out difficulties such as power conflict, low profitability, and so forth." On the basis of mutual trust in exchange partners, cooperative relationships bring confidence to both parties to solve problems jointly and to work toward joint goals.

A retailer who believes his supplier has good credibility will engender confidence in his integrity, reliability, and competence (Kiong and Kee 1998). The retailer's trust in the supplier is the basic foundation of a business relationship and is a motivation for the supplier to cooperate with the retailer. If there is no trust between the exchange partners, no common goals or actions will be initiated. By contrast, a supplying firm willing to make an asset-specific investment for its buying firm provides evidence that it can be trusted and wants to maintain the relationship (Ganesan 1994; Cannon and Perreault 1999). For example, a supplier willing to make an asset-specific investment such as providing product or service customization, display fixtures, and salesperson training programs for a retailer demonstrates its benevolent motives and intention to cooperate.

Trust between exchange partners in business relationships usually makes better communication. Suppliers are often more willing to facilitate order cycle time and delivery efficiency for a buyer in order to retain customer loyalty. Handfield and Bechtel (2002) suggested increasing levels of buyer trust is useful in improving supply chain responsiveness. To induce reciprocal behaviour, higher levels of buyer's trust in the supplier are needed to motivate the supplier's cooperative behaviors that facilitate improved performance (Johnston et al. 2004).

Several empirical findings support the idea that trust leads to cooperation (Dwyer et al. 1987; Morgan and Hunt 1994; Siguaw et al. 1998; Johnston et al. 2004). Although some researchers claim that cooperation leads to trust (Anderson
and Narus 1990; Mavondo and Rodrigo 2001), trust is nurtured through cooperation and, in turn, trust motivates the exchange parties to have a greater willingness for future cooperation. Relationships develop in the process over time. Trust, therefore, enables exchange parties to identify operational efficiencies by reducing non-value-adding activities and facilitates performance (Dahlstrom and Nygaard 1995).

Both theory and empirical studies indicate that trust has an impact on cooperation. Thus, based on the foregoing discussion, the following hypothesis is suggested:

**H4a**: Retailer's trust in the supplier is positively related to retailer-supplier cooperation.

### 3.10.2 Trust and DMU

Interorganisation trust operates as a governance mechanism that mitigates opportunism in an uncertain environment (Ganesan 1994; Morgan and Hunt 1994; Doney and Cannon 1997). DMU arises because the decision maker does not have sufficient information to confidently make a decision and predict the outcomes (Achrol and Stern 1988). Researchers believe that uncertainty can be reduced because trust brings confidence in the reliability and competence of the exchange partner (Morgan and Hunt 1994; Abramson and Al 1997). Information offered by a trustworthy party is deemed more reliable and thus provides greater value to the recipient (Moorman et al. 1993). Young and Wilkinson (1989) also reported that good knowledge or information pertaining to the trustworthiness of an exchange partner can reduce the uncertainty.

In terms of transaction costs, Riddalls et al. (2002) emphasized that mistrust can result in the distortion of demand forecast and consequently create substantial costs such as inventory costs to the supply chain. Moreover, lower levels of buyer trust may make the supplier less responsive in logistics services such as order cycle time and delivery reliability (Handfield and Bechtel 2002). As a consequence, the buyer will be uncertain when making purchase decisions. Moberg and Speh (2003) argued that exchange partners with high levels of trust are less likely to engage in 'questionable' business practices (i.e., opportunistic behaviors) such as sending back products that will not sell and claiming they are damaged than those with low levels of trust. They concluded that trust is a crucial element in strong buyer-supplier relationships and improved logistics performance.

When facing some level of uncertainty in a purchase decision, a buyer turns to a supplier or salesperson that the buyer believes is reliable and competent to perform effectively (creditable) and work out his queries to his best interest (benevolent) (Ganesan 1994). The buyer's uncertainty is thus reduced due to the buyer's trust in
the supplier. The findings of Morgan and Hunt (1994), and Gao et al. (2005) supported the finding that trust-based relationships may mitigate DMU experienced by exchange partners, whereas a lack of trust in the channel relationship may intensify uncertainty experienced by exchange partners. Therefore, the following hypothesis is suggested: H5a: Retailer's trust in the supplier is negatively related to retailer's DMU.

3.11 Relationship, Cooperation, and DMU

When a supplier has some similarities or common interests with its retailer, relationship is easily established and the supplier is more likely to cooperate with the retailer in future business. Huang and Landa (1999) identified that relationship plays a crucial role in establishing mutual trust and cooperation between business partners by reducing risks of opportunistic behaviour. According to the norm of reciprocity characterized in Social Exchange Theory and Confucianism, the norm governs relationship between the cooperating partners (Lambe et al. 2001). Thus, continuous reciprocal favour exchanges and obligation foster cooperative behaviour from the supplier.

Relationship relationships are nurtured and developed over time through personal contacts, visits, gift exchanges, and support in difficult times (Goldman 1992). Lee et al. (2001) mentioned that developing interpersonal relationships at the personal level can enhance business performance like the potential business opportunities in the future, market efficiency and effectiveness. Park and Luo (2001) also emphasized that relationship is a valuable resource and a key way to induce cooperation for individuals and organizations.

Because of socio-cultural influences, Indian businessmen prefer to work with someone who has reliable credibility and whom they know (Kiong and Kee 1998). Relationship is developed on the basis of personal trust and reciprocal obligations. In Indian society, relationship brings people and resources together. Two exchange parties sharing common interests or coming from the same township form a close tie between them (Chen 1996; Numazaki 1997). One party who perceives the other party putting effort into fostering relationship will also make a commitment and reciprocate the same behaviour to get more involved in a cooperative relationship. Therefore, from the retailer's perspective, the hypothesis is stated as follows:

H4b: Supplier's relationship with the retailer is positively related to retailer-supplier cooperation.
3.12 Relationship and DMU

The use of relationship may vary from industry to industry depending on the intensity of market competition and uncertainty, and the nature of the business. Park and Luo (2001) stated that the need for relationship development to strengthen a firm's market position and minimize market uncertainties is more evident in a competitive market than a less competitive market. Exchange partners tend to seek a closer relationship when they face high levels of DMU (Lee et al. 2001), or engage in networking activities to respond to environment uncertainty (Sawyerr et al. 2003).

In a collectivist culture, Indian people are inclined to adopt face-to-face contracts when dealing with uncertainty (Wong 1998). In general, small and medium-sized firms placing greater emphasis on the establishment of relationship relationships do so not only to overcome their competitive disadvantages in finance and resources (Yeung and Tung 1996; Fock and Woo 1998; Park and Luo 2001), but also to minimize the risk of uncertainty and the inflexibility of asset specificity (Wong 1998; Park and Luo 2001; Sawyerr et al. 2003).

According to Transaction Cost Theory, increased levels of uncertainty increase the transaction costs of information searching (Williamson 1985). Given bounded rationality, decision-makers cannot react rationally to certain things owing to lack of sufficient information. In a highly uncertain environment, small firms usually search for information or seek advice through their personal networks for important decision-making (Sawyerr et al. 2003). The associated costs of information searching are thus reduced as the firms feel confident with the information obtained through reliable sources and through people they trust in their relationship networks. Additionally, opportunistic behaviour is considered as a violation of social norms, and it will jeopardize one's reputation and one will lose face because of practicing unfair dealing within one's relationship network (Standifird and Marshall 2000). With good relationship it is much easier for exchange partners to communicate and understand each other's needs and make an effort to resolve contingent difficulties. Thus, the need for writing and enforcing a formal contract is reduced, and the transaction costs are minimized accordingly.

Previous empirical research reported that using relationship effectively can reduce the level of perceived environmental uncertainty (Davies et al. 1995; Abramson and Ai 1997). For foreign companies doing business in India, Abramson and Ai (1997) reported that sellers with relationship-style relationships experienced less uncertainty about the general Indian business environment as they required better information about customers' needs and local market trends from local buyers which helped to reduce the uncertainty. Sawyerr et al. (2003) indicated that engaging in external and internal networking activities in response to perceived
uncertainty is expected to improve the financial performance of their companies. The study of Lee et al. (2001) found that Indian businessmen tend to use relationship to aid their decision-making in a situation of high levels of uncertainty.

The above discussion leads us to believe that the retailer's perception of its supplier's having good relationship with him is assumed to lessen the levels of uncertainty experienced in his decision-making. Therefore, it is hypothesized as follows:

**H5b:** Supplier's relationship with the retailer is negatively related to retailer's DMU.

### 3.13 Dependence, Cooperation, and DMU

Heide and John (1988) indicated that dependence is increased when outcomes obtained from a relationship are important or highly valued and the magnitude of the exchange is high. The dependent partner is also more willing to invest in exchange relationships (Anderson and Narus 1990; Kasulis et al. 1999) and is more likely to invest effort to maintain the relationship in channel relationships (Skinner et al. 1992; Brown et al. 1995).

If a supplier's products contribute a large fraction to a retailer's business, the retailer will be more dependent on him. Similarly, if a retailer's sales can contribute a significant fraction to a supplier's business, the supplier will be more dependent on the retailer. On the other hand, lack of availability of alternatives is the primary cause of dependence (Ganesan 1994). When alternative sources of supply are limited, high switching costs encourage the exchange party's interest in maintaining a quality relationship (Dwyer et al. 1987) and committing to the relationships (Morgan and Hunt 1994; Brown et al. 1995).

The dependence relationship can be the driver of cooperative behaviors between exchange partners. When a supplier is attractive to the retailer in terms of economic profitability, it is because of the advantages of the supplier's product or service and this induces the retailer's continuous cooperation. In contrast, a less attractive or powerful supplier needs to invest more effort to induce the retailer's cooperation. A retailer's repeat buying increases the frequencies of the transactions and interactions with its focal suppliers. Through this continuous exchange process, the dependence relationship will, in turn, promote the supplier's cooperation with the retailer.

Transaction-specific investments for specific relationships create strong motivation (lock-in) for channel members to cooperate and remain in the relationship (Heide and John 1988). For instance, to become an authorized dealer of a leading international sporting goods brand, a retailer may be very willing to tailor its store layout and interior design in accordance with that supplier's requirements. In such a
situation, the supplier is much more likely to offer support and to cooperate with this retailer. On the contrary, small, risk-averse firms lacking financial resources may be less keen to make a specific investment in the relationship as this increases the dependence on their suppliers as well as increases the financial burden. Furthermore, these small firms may be less willing to risk the loss of autonomy control over their business operations (Schermerhorn 1975). To lessen the dependency on a single supplier or limited suppliers, they usually seek multiple sources of supply (Ganesan 1994). This means that they can obtain product supply or better outcomes from alternative suppliers. Because of the low level of dependence, the supplier lacks incentives to put in effort for this retailer. Skinner, Gassenheimer and Kelley (1992) and Turner et al. (2000) agree that supply chain relationships characterized by higher levels of dependence will lead to higher levels of cooperation. Based on the foregoing discussion, the following hypothesis is suggested:

H4c: Retailer's dependence on the supplier is positively related to Retailer-supplier cooperation.

3.14 Dependence and DMU

Though the dependent partner benefits from gaining access to the supplier's resources, the dominant supplier is in an advantageous position regarding many of the business terms and can derive profits from the dependent partner (Buchanan 1992; Ganesan 1994). On the other hand, the retailer may not be able to execute some business operations efficiently because of a lack of dominant supplier's support or the supplier's inflexibility to cope with the retailer's urgent needs (Buchanan 1992). Uncertainty will increase in the retailer's decision making in a situation of unpredictable demand.

Buyer-supplier purchasing relationships are characterized by mutual dependence. A supplier who is willing to make some idiosyncratic services or coordinate marketing activities, or a retailer who is willing to invest to promote the supplier's product lines reveals his ability to react to the uncertainty of the market (Buchanan 1992; Gao et al. 2005). In addition, an effort made to improve business support for a retailer or improve sales performance of a supplier's product lines can help gain the confidence of the other partner in relation to the outcome of the purchase. When levels of mutual dependence increase over time they are expected to produce better rewards or values from the relationships (Lambe et al. 2001). Better communication helps the buyer and the supplier better understand each other's expectations and minimizes logistics inefficiency. Thus, the buyer perceives that a mutually dependent relationship is likely to experience less uncertainty about the outcome of a purchase. Gao et al. (2005) found that a supplier's dependence on
an organizational buyer can mitigate the buyer's uncertainty in purchase decision-making. Higher levels of retailer's dependence on the supplier will result in lower levels of uncertainty in the retailer's decision-making. Therefore, the hypothesis is described as follows: \( H_5c: \) Retailer's dependence on the supplier is negatively related to the retailer's DMU.

### 3.15 Power, Cooperation, and DMU

Power can be used as a mechanism to facilitate cooperation in a supply chain (Brown et al. 1983; Skinner et al. 1992). Under an attractive market situation, the supplier has the power advantage to control the decision variables in its marketing strategies over the retailers (Brown et al. 1983; Frazier 1983). In pursuit of economic benefits, an exchange partner may be coerced to cooperate with another party because that party is more powerful (Young and Wilkinson 1989). If other sources of supply are not available to a buyer, the powerful supplier may coerce the buyer to accept purchasing a prescribed order size (Ballou, Gilbert and Mukherjee 2000).

When product demand is less predictable, greater uncertainty is created in supply markets. In a supplier dominant market, the small retailer is dependent on one or a few large suppliers, who are the market leaders. In such situations, powerful suppliers may not respond quickly to retailer's orders and may cause longer order lead times and unreliable delivery (Handfield and Bechtel 2002). Supplier's use of coercive power means that the supplier is less willing to accommodate retailer's requirements (Frazier and Summers 1986). Gaski and Nevin (1985) and Brown, Lusch and Nicholson (1995) stressed that the use of power affects marketing channel member performance. The use of coercive power has a negative effect on the cooperative relationships of exchange partners.

On the other hand, the use of non-coercive power fosters mutual understanding and conveys benefits by conforming to the source firm's suggestions. Through frequent use of non-coercive power, compatible goals and shared beliefs are more likely to arise between exchange partners (Frazier and Summers 1986). Furthermore, if the retailer perceives that its supplier is able to demonstrate its expertise in dealing with marketing difficulty or complicated products, greater cooperative support from the retailer will enhance the supplier's marketing programs (Kasulis et al. 1999). For example, the techniques or specialized knowledge possessed by the suppliers or the supplier's sales representatives in interpreting the performance of newly innovative products to end customers importantly showcase the supplier's expert power. Supplier's introducing unique product features in function, design, or material to retailers make retailers have confidence in promoting
the supplier's product and will lead to changing the retailer's attitude and behaviour to align with supplier firm's goals and toward long-term cooperative relationships.

Mavondo and Rodrigo (2001), and Skinner, Gassenheimer and Kelley (1992) found that higher levels of coercive power have a negative impact on cooperation, and higher levels of non-coercive power have a positive impact on cooperation. From the retailer's perspective, the following hypotheses are proposed: H4d: Supplier's use of coercive power is negatively related to retailer-supplier cooperation.

H4e: Supplier's use of non-coercive power is positively related to retailer-supplier cooperation.

3.16 Power and DMU

DMU primarily results from information gaps and deficiencies (Pfeffer and Salancik 1978). It is difficult to gather accurate information as to which styles or colors of apparel or footwear will be popular for this winter, and how much to order that will not cause stockouts or overstocks. The decision maker may not be able to predict the effects of making such a purchase decision on its inventory management in terms of economic costs.

The importance of a resource in a supply chain and the uncertainty in supplying that resource can allow the powerful party to control the availability of that resource (Pfeffer and Salancik 1978). The powerful party's use of coercive power to pressure the weak party to comply with its desired goals, to threaten the withdrawal of the reward granted previously, or to punish for noncompliance increases the conflict (Lusch 1976; Brown et al. 1983; Gaski and Nevin 1985; Anderson and Narus 1990; Skinner et al. 1992; Lee 2001) and results in negative satisfaction (Hunt and Nevin 1974; Wilkinson 1979; Gaski and Nevin 1985; Frazier and Summers 1986; Gaski 1986; Lee 2001).

The powerful party can deploy its power advantage to shift the burden of inventory to the weaker party (Kalwani and Narayandas 1995). For example, to reach the company sales goals, the supplier may pressure its retailer to purchase a certain quantity. If the products sourced from that supplier are important in that product category or contribute significant sales volume to the retailer, the weak retailer has to either comply with the powerful supplier or withdraw its purchase order. In contrast, a powerful retailer may demand its suppliers buffer the inventory to ensure product availability and maintain high levels of customer service. Carrying excess inventory or obsolete products at the end of season remains the risk of the weaker party.

When the supplier has greater control over the retailer's decision, it is likely that the supplier exerts greater opportunism (Handfield and Bechtel 2002) and the retailer may feel a loss of autonomy in its purchase decision (Brown et al. 1983;
Buchanan 1992). Johnson and Pharr (1997) argued that in supplier dominated asymmetric channel relationships, the more power the supplier uses the more uncertainty the dealer experiences. Therefore, it is inferred that the more coercive power is used by the supplier to control the retailer’s decision making or alter his behaviour, the higher uncertainty will result in the retailer’s decision-making. On the contrary, the greater the use of non-coercive power by the supplier, the less uncertainty will result in the retailer’s decision-making. The hypotheses are thus proposed as follows:

**H5d:** Supplier’s use of coercive power is positively related to retailer’s DMU.

**H5e:** Supplier’s use of non-coercive power is negatively related to retailer’s DMU.

### 3.17 Cooperation and DMU

When the source of supply is considered as a valuable resource and can affect the survival of the firm, firms will seek cooperative relationships to ensure the availability of the desired resource and thus mitigate uncertainty (Turner et al. 2000). Close cooperation helps exchange partners to effectively match demand and supply to increase overall supply chain profitability. Fisher et al. (1994) stressed the importance of manufacturers and retailers cooperating in the supply chain in order to match supply with demand effectively. Mismatch between supply and demand can result in considerable logistics costs such as excess inventory costs, obsolescence, stock out costs, and markdowns, which can be dramatic in a supply chain, particularly with short life-cycle products like apparel fashion products (Fisher et al. 1994; Christopher and Peck 1997; Christopher and Towill 2002).

There is very little empirical evidence in the extant literature to clearly explain the relationship between retailer-supplier cooperation and DMU. This research contends that building closer cooperative relationships can mitigate the exchange partner’s DMU.

Cachon (2004) discussed how the allocation of inventory risk affects supply chain performance in sporting goods industry. The retailer assumes the risk if the inventory is purchased before the selling season (i.e., advance purchase) while the supplier assumes the risk of the supply chain inventory if the retailer replenishes frequently in small volume during the season or if the supplier produces additional inventory other than advance orders (i.e., non-advance/in-season purchase). With either type of contract, the retailer and supplier have to assume some degree of inventory risk. However, several researchers suggest that effective coordination on supply contracts and risk sharing between the retailer and the supplier can achieve better profit or performance in the supply chains (Tsay 1999; Barnes-Schuster, Bassok and Anupindi 2000; Donohue 2000; Wang 2002; Cachon 2004).
The purchase practice illustrated here indicates that the buyer or supplier’s DMU will be minimized if the inventory risk is shared rather than if one party derives the most benefits at the expense of the other party.

Due to the bounded rationality of exchange parties, inter firm cooperation is exposed to uncertainty regarding the future behaviour of the exchange party, and future performance (Eriksson and Sharma 2003). Eriksson and Sharma (2003) reported that DMU had a strong impact on buyer-seller cooperation. They argued that a decision maker will enter into a cooperative relationship with a particular counterpart when he is certain or has adequate knowledge or information about its firm’s internal resources, structure, and routines. Though uncertainty decreases a buyer’s or a supplier’s ability to effectively allocate his resources, a more proactive approach should be taken in volatile, unpredictable markets. Extending the argument of Eriksson and Sharma (2003), building closer cooperative relationships can mitigate uncertainty through the use of; for example, vendor-managed inventory (VMI) and efficient quick response (ECR) (Cachon and Fisher 1997; Waller et al. 1999) in the retail industry.

Buchanan (1992) stated that a supplier’s action to provide differential products or services to match the needs of the retail store, or to react promptly to the market changes will help to reduce the effect of uncertainty experienced by the retailer. Thus, cooperative actions such as these taken by the supplier will enable the retailer to minimize the uncertainty in his decision-making. Therefore, the hypothesis can be formulated as follows:

H5f: Retailer-supplier cooperation is negatively related to retailer’s DMU.

3.18 Hypothesized Models and Summary of Hypotheses

Exhibit 3.3 based on Exhibit 3.2 add the path relationships, depicts the theoretical model from the retailer perspective along with nineteen hypothesized relationships developed. One main objective of this research is to assess the retailer and supplier perspectives separately regarding their buyer-supplier relationships and supply chain performance and to compare the similarities and differences across the two perspectives. The hypothesized model (like the retailer model) from the supplier perspective is presented in Exhibit 3.5. The model shows the likely effects of retailer-supplier cooperation and the retailer’s DMU on supply chain performance. Also, the associations between the retailer’s/supplier’s perception of five relationship dimensions, namely trust, relationship, dependence, coercive power, and non-coercive power, and cooperation and DMU will be tested. It is expected that the relationship dimensions will have direct positive or negative effects on cooperation and DMU and indirect effects on supply chain performance.
### Exhibit 3.2 Summary of Hypotheses from the Retailer Perspective

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Research Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effects of cooperation and DMU on SC performance</strong></td>
<td></td>
</tr>
<tr>
<td>H1a: Retailer-supplier cooperation is positively related to the financial performance of the supply chain</td>
<td>(1) What are the critical factors having greatest impact on the retail SC performance?</td>
</tr>
<tr>
<td>H1b: Retailer-supplier cooperation is positively related to the supply flexibility of the supply chain</td>
<td></td>
</tr>
<tr>
<td>H1c: Retailer-supplier cooperation is positively related to the customer service of the supply chain</td>
<td></td>
</tr>
<tr>
<td>H2a: Retailer’s DMU is negatively related to the financial performance of the supply chain</td>
<td></td>
</tr>
<tr>
<td>H2b: Retailer’s DMU is negatively related to the supply flexibility of the supply chain</td>
<td></td>
</tr>
<tr>
<td>H2c: Retailer’s DMU is negatively related to the customer service of the supply chain</td>
<td></td>
</tr>
<tr>
<td><strong>Relationships between performance dimensions</strong></td>
<td></td>
</tr>
<tr>
<td>H3a: Supply flexibility is positively related to financial performance</td>
<td>(2) How are the performance dimensions related?</td>
</tr>
<tr>
<td>H3b: Supply flexibility is positively related to customer service</td>
<td></td>
</tr>
<tr>
<td><strong>Effects of relationship dimensions on cooperation and DMU</strong></td>
<td></td>
</tr>
<tr>
<td>H4a: Retailer’s trust in the supplier is positively related to retailer-supplier cooperation</td>
<td>(3a) How do different dimensions of buyer-supplier relationship influence cooperation between retailers and suppliers?</td>
</tr>
<tr>
<td>H4b: Supplier’s relationship with the retailer is positively related to retailer-supplier cooperation</td>
<td></td>
</tr>
<tr>
<td>H4c: Retailer’s dependence on the supplier is positively related to retailer-supplier cooperation</td>
<td></td>
</tr>
<tr>
<td>H4d: Supplier’s use of coercive power is negatively related to retailer-supplier cooperation</td>
<td></td>
</tr>
<tr>
<td>H4e: Supplier’s use of non-coercive power is positively related to retailer-supplier cooperation</td>
<td></td>
</tr>
<tr>
<td>H5a: Retailer’s trust in supplier is negatively related to retailer’s DMU</td>
<td>(3b) How do these relationship dimensions and cooperation influence the retailer-supplier’s DMU?</td>
</tr>
<tr>
<td>H5b: Supplier’s relationship with the retailer is negatively related to retailer’s DMU</td>
<td></td>
</tr>
<tr>
<td>H5c: Retailer’s dependence on the supplier is negatively related to retailer’s DMU</td>
<td></td>
</tr>
<tr>
<td>H5d: Supplier’s use of coercive power is positively related to retailer’s DMU</td>
<td></td>
</tr>
<tr>
<td>H5e: Supplier’s use of non-coercive power is negatively related to retailer’s DMU</td>
<td></td>
</tr>
<tr>
<td>H5f: Retailer-supplier cooperation is negatively related to retailer’s DMU</td>
<td></td>
</tr>
</tbody>
</table>
Exhibit 3.3 Hypothesized Model from the retailer perspective

Exhibit 3.4 Summary of Hypotheses from the supplier perspective

<table>
<thead>
<tr>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effects of cooperation and DMU on supply chain performance</strong></td>
</tr>
<tr>
<td>H1a: Retailer-supplier cooperation is positively related to the financial performance of the supply chain</td>
</tr>
<tr>
<td>H1b: Retailer-supplier cooperation is positively related to the supply flexibility of the supply chain</td>
</tr>
<tr>
<td>H1c: Retailer-supplier cooperation is positively related to the customer service of the supply chain</td>
</tr>
<tr>
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</tr>
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<td>H2b: Supplier’s DMU is negatively related to the supply flexibility of the supply chain</td>
</tr>
<tr>
<td>H2c: Supplier’s DMU is negatively related to the customer service of the supply chain</td>
</tr>
<tr>
<td><strong>Relationships between performance dimensions</strong></td>
</tr>
<tr>
<td>H3a: Supply flexibility is positively related to financial performance</td>
</tr>
<tr>
<td>H3b: Supply flexibility is positively related to customer service</td>
</tr>
<tr>
<td><strong>Effects of relationship dimensions in cooperation and DMU</strong></td>
</tr>
<tr>
<td>H4a: Supplier’s trust in the retailer is positively related to retailer-supplier cooperation</td>
</tr>
<tr>
<td>H4b: Retailer’s relationship with the supplier is positively related to retailer-supplier cooperation</td>
</tr>
<tr>
<td>H4c: Supplier’s dependence on the retailer is positively related to retailer-supplier cooperation</td>
</tr>
<tr>
<td>H4d: Retailer’s use of coercive power is negatively related to retailer-supplier cooperation</td>
</tr>
<tr>
<td>H4e: Retailer’s use of non-coercive power is positively related to retailer-supplier cooperation</td>
</tr>
<tr>
<td>H5a: Supplier’s trust in the retailer is negatively related to supplier’s DMU</td>
</tr>
<tr>
<td>H5b: Retailer’s relationship with the supplier is negatively related to supplier’s DMU</td>
</tr>
<tr>
<td>H5c: Supplier’s dependence on the retailer is negatively related to supplier’s DMU</td>
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<td>H5d: Retailer’s use of coercive power is positively related to retailer-supplier cooperation</td>
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<tr>
<td>H5e: Retailer’s use of non-coercive power is negatively related to retailer-supplier cooperation</td>
</tr>
<tr>
<td>H5f: Retailer-supplier cooperation is negatively related to supplier’s DMU</td>
</tr>
</tbody>
</table>
This chapter has presented the conceptual frameworks of buyer-supplier relationships and retail supply chain performance from the perspectives of the retailer and supplier. This framework is based on social exchange theory and transaction cost analysis. According to the framework, nineteen hypotheses were developed to guide the empirical investigation for this research. Perceptions captured from both retailers and suppliers will provide a much more precise picture of their relationships than can be obtained from only one side of the relationship. These will provide crucial insights for retailer-supplier relationships and supply chain performance issues in the context of retail supply chains. Research design and data collection will be presented in the next chapter.