SUPPLY CHAIN RELATIONSHIPS IN

APPAREL RETAIL PRODUCT DEVELOPMENT

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The purpose of this study was to investigate supply chain relationships within the apparel retail product development process under a single site case study setting. Relationship determinants (i.e. drivers, facilitators and barriers) that facilitated or impeded the degree of collaborative efforts between the retailer and the supply chain members were identified. As the retailer integrated its product development process with its suppliers, a triangular relationship was formed between the retailer, the overseas manufacturers, and the designated suppliers. The study found that the retailer sought operational efficiency in its business relationships with supply chain members, but continued to seek long-term commitment in these relationships to establish a virtual vertical company.

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CHAPTER I

INTRODUCTION

Constantly changing styles of fashion apparel and growing diversification of consumer preferences create a keen competitive environment in the apparel retailing industry. As a result of increasing competition, many businesses seek to differentiate and create competitive advantages over rival companies. One successful strategy is through product differentiation (Gaskill, 1992; Richardson, 1996; Wickett, Gaskill & Damhorst, 1999).

The unique nature of the apparel industry results in the continuous introduction of new products into the market. Nonetheless, developing new products is no longer an exclusive responsibility for apparel manufacturers. Retailers are proactively creating their own private apparel brands (Abend, 2000). According to Abend (2000), about 15% to 25% of apparel merchandise in major retail stores is sold under private labels. Specialty retailers such as The Limited, Spiegel, The Gap, Gap Kids, and Banana Republic are committing 100% of their production to in-house product development in order to differentiate themselves from their competitors (Gaskill, 1992). However, the trend of in-house product development does not stop with specialty stores. National retailers such as J. C. Penney, Macy’s, and Kmart use private label merchandise to acquire product differential advantages as well (Abend, 2000; Gaskill, 1992).

The apparel product development process combines designing, merchandising, and marketing with production to bring new merchandise into the market on time to meet consumers' demands. Throughout the product development process, a merchandising approach defines the product line while a supply chain management approach ensures a well-organized plan in developing, producing, and distributing products (Anonymous, 1998).

In order to respond to market and consumers' demands quickly, getting suppliers involved in the product development process becomes a common business practice (Campbell & Cooper, 1999; Comer & Ziger, 1997; Dowlatshahi, 1998; Ragatz, Handfield, & Scannell, 1997; Wasti & Liker, 1997). Integrating suppliers into the buyers' supply chain and operation often results in the formation of partnerships. Therefore, companies seek to form relationships with supply chain members that match their unique needs and business objectives based on varying conditions and environments (Lambert, Emmelhainz & Gardner, 1996).

Rationale of the Study

Today, apparel retailers are increasingly dedicating resources to product development in an attempt to differentiate themselves from rival competitors and to gain distinct business advantages (Abend, 2000). In fact, the product development process has drawn much attention from numerous trade publications (Anonymous, 1994, 1997; Hill, 1999; Rabon, 2000). These trade reports primarily focus on technological developments in the apparel retailing industry such as quick response (QR) and how these technologies facilitate the apparel product development process. However, there is limited empirical research conducted on apparel retail product development and private label merchandise (Wickett, Gaskill & Damhorst, 1999).

According to Wickett et al. (1999), an investigation of the sourcing process inside the scope of product development is necessary to better understand the complex process which has brought the focus of this study to supply chain management (SCM). SCM has recently drawn extensive interest from both business and academic areas (Ballou, Gilbert & Mukherjee, 2000). Ellram and Cooper (1990) stated that SCM is critical for the success of businesses in today's competitive environment. SCM is defined as the integration of business processes throughout the supply chain from end-user to supplier that provides products, services, and information that add value for customers (Cooper, Lambert & Pagh, 1997). According to Cooper et al., product development is the most important operational process to integrate SCM outside an organization because companies need effective streamlining efforts to reduce the time to introduce new products into the market.

Based on their SCM framework, Lambert and Cooper (2000) explained that the supply chain structure and supply chain processes are interrelated. When conducting research in SCM, they suggested that a business process-oriented approach is needed, and it is important to identify the factors that determine what business processes to link with suppliers and with whom to link. However, the linkages between companies in business processes can be manifested in many different forms. The relationships among companies can be varied from a transaction relationship to a strategic partnership, and it may depend on the specific situations and environmental factors of forming such relationships (Lambert et al., 1996). Mentzer, Min, and Zacharia (2000) suggested that researchers also need to investigate the characteristics of environments that create various partnerships and develop these relationships based on this understanding.

Purpose of the Study

The purpose of this research was to study the supply chain process within a framework for apparel retail product development. The primary research question was "what are the inter-organizational links that retailers use in apparel product development?" Specifically, the study identified factors that facilitated or impeded the development of interfirm relationships between apparel retailers and their supply chain members in the apparel retail product development process.

Limitations

A case study design investigated a single apparel retail product development process and its supply chain relationships. The selected case was constrained to the identified apparel retailer, and the scope of the data was limited to the participants' perspectives on managing supply chain relationships in the apparel retail product development process.

Assumptions

Three assumptions were made for this study. First, it was assumed that the subjects would answer truthfully. Second, it was assumed that the persons being interviewed possessed extensive industry knowledge and experience. Third, it was assumed that the findings from the study were applicable to other apparel retailers that conducted their own product development processes.

Operational Definitions

Apparel Retail Product Development. Apparel retail product development is "the process of creating research-based private label merchandise, manufactured, or sourced by a retailer, for the exclusive sale to an identified target market" (Wickett et al., 1999, p.27). Retail product development consists of research, line conceptualization, line visualization and evaluation, and technical development.

Barriers. Barriers are the forces that prevent businesses from forming successful collaborative relationships. External barriers include operational environments and technology. Internal barriers include employee willingness to change and support from top management.

Drivers. Drivers are the reasons for firms to form business relationships (Lambert et al., 1996). Examples of drivers include asset/cost efficiencies, customer service, marketing advantage, and profit stability/growth.

Facilitators. Facilitators are the characteristics of the environment that support the growth of business relationships (Lambert et al., 1996). Examples of facilitators are corporate compatibility, managerial philosophy, mutuality, and symmetry. Some other facilitators include exclusivity, shared competitors, physical proximity, partnering history, and a common end-user.

Operational Partnership. Operational partnerships are short-term relationships that involve limited coordination or effort between partners (Mentzer et al., 2000).

Partnerships. Partnerships are collaborative relationships between companies who share both risks and benefits to attain the business objectives of both parties (Ellram & Edis, 1996).

Private Label Merchandise. Private label merchandise is produced according to the specification and standard developed by a retail firm and is controlled exclusively by the retailer with the goal of achieving high profit margins at consistent quality (Stone, 1999).

Strategic Partnership. Strategic partnerships focus on long-term strategic advantages and the sustained growth of the relationship (Mentzer et al., 2000).

Supply Chain Management. Supply chain management (SCM) is the integration of business activities from original suppliers to end-users of products, services, and information that add consumer value (Cooper et al., 1997). The supply chain network structure and business processes are interrelated with the overall objective of SCM to streamline business processes through managing supply chain member relationships (Lambert & Cooper, 2000).

CHAPTER II

REVIEW OF LITERTURE

Introduction

Rapidly changing fashion cycles, knowledgeable consumers, and rigorous competition are driving retailers to operate more efficiently (Gaskill, 1992; Richardson, 1996; Wickett et al., 1999). As a result, apparel retailers must remain agile to compete and be successful in today's market environment. One way to enhance apparel retailers agility is to develop private label merchandise that allows retailers to differentiate themselves from competitors by providing exclusive merchandise to specific target markets.

In order to offer target customers new styles and fashionable merchandise in a timely manner, apparel retailers must streamline their supply chain processes in designing, sourcing, and producing new products. Streamlining the flow of merchandise from suppliers to sales floors requires retailers to understand the importance of supply chain management (SCM). In addition, forming cooperative strategies with suppliers enables retailers to improve their supply chain agility, which has shown to bring success in today's competitive market (Fliedner & Vokurka, 1997). This chapter contains pertinent information about: (a) the apparel retailing industry and private label merchandise, (b) the process of apparel retail product development, (c) definitions and concepts of supply chain management, (d) types of business partnerships, (e) determinants of supply chain relationships, (f) empirical research of inter-organizational relationships, and (g) the conceptual framework for this study.

Apparel Industry and Private Label Merchandise

The fashion apparel industry is dynamic in nature as clothing styles constantly change, consumers become more sophisticated in purchase decisions, and competition is increasingly more intense. Operating under these conditions, apparel firms continuously introduce new product lines through seasonal and fashion changes (Ko & Kincade, 1998; Richardson, 1996). While seasonal changes are dictated by environmental factors, such as weather changes, seasonal events and cultural traditions, fashion changes are the change of attributes and styling of apparel products that is accepted by a large number of people within a specific period of time (Glock & Kunz, 1990; Kunz, 1998). However, fashion is not defined until consumers can assess the product in the market (Buchanan & Su, 1988). In other words, apparel retailers and manufacturers have to commit their resources in advance before knowing what consumers adopt as fashion (Buchanan & Su, 1988; Richardson, 1996).

Within such a competitive environment, apparel firms are engaging in channel integration (Gaskill, 1992; Richardson, 1996). As manufacturers are moving forward within a channel and establishing retail outlets, retailers are establishing their own product development divisions and creating private label merchandise through partnerships (Burns & Bryant, 1997; Dickerson, 1999; Gaskill, 1992). As the channel power shifts from manufacturers to retailers (Dickerson & Dalecki, 1991; Segal-Horn &

McGee, 1989), retailers become the managers of the supply chain as they exercise their power backwards through the supply chain to provide products and services that meet the needs of final consumers (Davies, 1993).

Private label merchandise is defined as a product line that is owned, controlled, merchandised, and sold by a specific retailer (Lewison, 1997). Some established private brands include Arizona Jeans from J. C. Penney, Martha Stewart from Kmart, and INC from Macy's (Abend, 2000; Lewison, 1997). Developing private label lines can help retailers differentiate themselves from competitors, control apparel product quality, and realize a higher profit margin (Gaskill, 1992). In addition, retailers can initiate a consumer-driven marketing strategy by creating products that are targeted toward a specific market segment (Gaskill, 1992). Private label merchandise usually incurs lower costs than national brands and this improves the retailers overall profitability (Bohlinger, 1990; Frings, 1996; Wickett et al., 1999).

Apparel Retail Product Development Model

Retail product development is a major activity of many retailers because it allows retailers to adopt a customer-driven strategy (Gaskill, 1992). To further understand how retailers conduct the apparel product development process, Gaskill developed a retail product development model derived from an in-depth case study analysis with an international specialty apparel retailer. In this particular study, nine activities were identified that were critical to the apparel product development process: trend analysis, concept evolvement, fabric selection, palette selection, fabric design, silhouette and style directions, prototype construction and analysis, and line presentation.

Gaskill's (1992) model also encompasses both internal and external intervening factors. Internal factors consist of the product development team's ability to define the target market and the needs of the consumers. Moreover, a primary understanding of the merchandising process is essential when communicating continuously across different departments within the organization. External factors are the influences of domestic as well as foreign markets to the overall fashion trends. For example, apparel retailers pay close attention to both European and domestic markets for trending directions of their own product lines.

Adopting Gaskill's (1992) model of retail product development, Wickett et al. (1999) conducted a qualitative study with 21 companies that had a high level of commitment to in-house product development. The purpose of their study was to validate and extend the original Gaskill model. In order to explain the activities occurring beyond the original retail product development model, Wickett et al. integrated Kunzs' (1998) Taxonomy of Apparel Merchandising System (TAMS) terminologies such as *Pre-Adoption Product Development, Line Adoption,* and *Post-Adoption Product Development* to complete their study. In TAMS, different activities were mapped into phases such as establishing line direction in *Line Concept*, developing designs in *Pre-Adoption Product Development* and perfect styling and fit in *Post-Adoption Product Development*.

In Wickett et al.'s (1999) apparel retail product development model, they refined the Gaskill's original model into several segments similar to TAMS. The researchers identified four sequential phases: *research, line conceptualization, product visualization* *and evaluation*, and *technical development*. The revised apparel retail development model includes the *technical development* phase that was depicted as the *Post-Adoption Product Development* from TAMS.

The goal of the *research* phase for product development is to identify trends and search for inspiration and ideas such as major themes and directions. Retail buyers and product development teams travel to different national markets such as New York, Los Angeles, and Chicago or overseas markets like Europe, the Far East, and Tokyo to collect ideas or fashion trends for the coming seasons. The second phase, *line conceptualization*, begins with an in-depth trend analysis in which the product development team identifies the direction for fabric, colors, styles, and silhouettes. Then, establishing criteria and making decisions for palette selection, fabrication selection, fabric design, silhouette, and style design generate an overall theme for the product line. After a concept is created, sample garments are constructed and analyzed in terms of comfort and fit in the phase of *product visualization and evaluation*. Next, a well-conceived product line is presented for production approval (Wickett et al., 1999).

Wickett et al.'s (1999) model extends the apparel retail product development process into the stage of *technical development* that was not included in the original model. In this stage, the visual appearance, the functionality, and the style and fit of individual items are refined. Production patterns are created and garment specifications are written. Then, final production costs are estimated and final specifications are determined.

Consistent with Gaskill's (1992) model, Wickett et al.'s (1999) revised model also demonstrates the influences of internal and external intervening factors. Internal factors include sales trends, target customer base, employee input, and marketplace research. External factors are global market trends, competition, media, government regulations, and producer capabilities.

From their study, Wickett et al. (1999) found that the *technical development* stage did not necessarily take place inside the retail firm. Furthermore, their findings suggest that sourcing is a continuous activity in the apparel retail product development process, which supports the idea that communication between the product development team and suppliers are essential to the workability, salability, and profitability of new product lines (Gaskill, 1992).

Supply Chain Management

Supply chain management (SCM) has become a major business strategy as well as an academic focus in the last several years (Ballou, Gilbert & Mukherjee, 2000). Because the concept of SCM is still in development, there are few established theoretical frameworks and research methodologies in studying SCM (Tage, 1999). However, numerous articles have been published in different academic disciplines trying to define SCM and discuss future research directions and appropriate empirical methodologies (Cooper, Lambert & Pagh, 1997; Lambert & Cooper, 2000; Larson & Rogers, 1998; Tage, 1999).

SCM is often used interchangeably with the term logistics in related literature (Cooper et al., 1997), but a working definition of SCM is important in order to understand its business application to apparel product development. Many experts propose that SCM has a much broader scope in business practices, and suggest that SCM is not just about taking logistics across inter-organizational boundaries but rather an integration of business operations such as product development across the whole supply chain from customers to suppliers (Ballou et al., 2000; Cooper et al., 1997).

Stevens (1989) suggested that a supply chain is a series of connected activities that manage the flow of materials and finished goods from suppliers to customers. In 1994, to further expand the scope of SCM, the International Center for Competitive Excellence stated "SCM is the integration of business processes from original suppliers to end-users that provides products, services, and information that add value for customers" (Cooper et al., 1997, p. 2).

In discussing the challenges for researchers and managers in SCM, Tage (1999) explained that SCM is managing the upstream and downstream relationships with suppliers and customers to offer the greatest customer value at the lowest cost throughout the whole supply chain. Tage argued that this definition had a narrower focus on managing relationships and viewed the supply chain as a whole. Larson and Rogers (1998) defined SCM as the coordination of activities within and between companies to provide value to customers at a profit. Finally, Mentzer, Min, and Zacharia (2000) suggested that SCM is the management of relationships between different business entities. Although each author presents a new definition of SCM, they are consistent in defining that SCM is a business strategy focusing on streamlining business processes between companies and managing such relationships to provide greater value to final consumers.

Because of the various definitions of SCM, Cooper et al. (1997) compared and contrasted these definitions and identified the commonalities among them. They stated that SCM requires inter-organizational integration and coordination. Also, the involvement of many different organizations makes managing these business relationships especially important. Furthermore, SCM includes the flow of products, services and information, with the objective of providing the greatest customer value.

Due to the complexity of SCM, Cooper et al. (1997) proposed that there is a need for further understanding of the concept of SCM. They suggested a new vision of SCM that includes all business processes across every organization in the supply chain from the initial point of supply to the final point of consumption. Based on their literature review, they proposed a conceptual framework of SCM containing three major interrelated elements: network structures, business processes, and management components.

Lambert and Cooper (2000) further validated their proposed SCM framework through their study with 15 different companies who were the members of the Global Supply Chain Forum (GSCF). They conducted more than 90 interviews with managers from different functions such as logistics, manufacturing, and information systems to gather the data. Findings from these interviews revealed that the structure of the supply chain consists of the members of the supply chain and the structural dimensions of the network (Lambert & Cooper, 2000). Every company adopts a different supply chain structure depending on the types of products, the number of suppliers and customers, and the types of business activities between supply chain members. For instance, a production equipment supplier would be a primary supply chain member of an original equipment manufacturer (OEM) before the equipment was installed. However, once the equipment was running properly for production, the equipment manufacturer would become a supportive or secondary supply chain member of the OEM. To manage these supply chain networks with limited resources, firms need to determine the supply chain structure and where they could benefit from forming different types of relationships (Lambert, Emmelhainz & Gardner, 1996).

Supply chain business processes are series of activities with specific inputs taken over time and place to produce a specific output of value to customers (Lambert & Cooper, 2000). In order to manage the supply chain efficiently, Cooper and Ellram (1993) recommended that companies must focus on business processes rather than individual functions. These activities can be intra-organizational with either formal or informal structure (Ballou et al., 2000; Cooper et al., 1997). Furthermore, the effectiveness of business processes can be measured with the frequency and quality standard of the outputs based on the specification of the outputs (Hewitt, 1994).

According to Lambert and Cooper (2000), there are eight key supply chain processes: customer relationship management, customer service management, demand management, order fulfillment, manufacturing flow management, procurement, product development and commercialization, and returns. The customer relationship management process is identifying key customers of the company and deploying customer service groups to work with them to reduce demand variability. The customer service management process is responsible for providing customers with real-time information about their purchases. The demand management process is focused on maintaining a balance between customers' demands and the firm's supplies, and the order fulfillment process is designed to meet customers' needs on time. Controlling the flow of products through the production line is the goal of the manufacturing flow management process, whereas maintaining a strategic plan with suppliers to support the flow of production and new product development falls under the procurement process. Finally, product development and the commercialization process manages and coordinates the efforts between the company, its customers, and suppliers to reduce the time needed to put new products in the market, while the return process administers the reverse flow of the supply chain (Lambert & Cooper, 2000).

The components of the SCM framework include both physical/technical and managerial behavioral aspects (Lambert & Cooper, 2000). The physical and technical components include planning and control, work flow/activity structure, organizational structure, communication and information flow structure, and product flow facility structure. Planning and control is important in gearing the supply chain into the direction that meets organizational objectives. The various types of structures are the networks that link between organizational functions, business partners, and the flow of information and products. Behavioral management components refer to the power and leadership structures, risk and reward structures, and corporate culture and attitudes. For example, risk and reward affect company commitment to other supply chain members, whereas culture and attitude determine the compatibility between business partners (Lambert & Cooper, 2000).

Partnerships

Partnerships and inter-organizational relationships have been a major research topic across different disciplines such as marketing, logistics, product innovation management, and apparel retailing (Cooper & Gardner, 1993; Dickerson & Dalecki, 1991; Dwyer, Schurr & Oh, 1987; Ellram & Cooper, 1990; Lambert et al., 1996; Ragatz, Handfield & Scannell, 1997; Valsamakis & Groves, 1996; Webster, 1992; Wyatt, 1992). Ellram and Edis (1996) defined partnering as a collaborative effort between buyers and suppliers who work closely to obtain mutual benefits by sharing risks in a cooperative relationship.

Types of Partnerships

Companies today are more willing to devote resources to establish collaborative relationships with other firms in order to gain competitive advantages (Mentzer, Min, & Zacharia, 2000). Lambert et al. (1996) stated that partnering improves the unique skills and expertise of each partner, and ultimately lessens competition. They suggested that a partnership is a tailored business relationship in which companies share rewards and risks based on mutual trust and openness. Therefore, companies can collectively achieve a result that they could not attain individually. However, there is more than one type of relationship that exists between companies (Lambert et al., 1996; Mentzer et al., 2000; Webster 1992).

Webster (1992) proposed a continuum of businesses relationships. At one end of the continuum are transaction-based relationships in which companies conduct transactions on a one-time basis. Moving along the continuum from a transaction relationship, there are repeated transactions, long-term relationships, buyer-seller relationships, strategic alliances (e.g. joint venture), network organizations, and vertical integration. For instance, The Limited, Benetton, and Giordano, a Hong Kong-based company, are vertically-integrated apparel firms that conduct both manufacturing and retailing operations (Richardson, 1996). On the other hand, apparel companies such as Liz Claiborne have established collaborative relationships with their business partners to bring products to the market in a timely manner (Richardson, 1996).

Instead of a continuum, Lambert et al. (1996) introduced three types of partnerships. Type I partnerships have a short-term focus, and plan and coordinate activities with partners on a very limited basic. Type II partnerships include integration of business activities between partners, and Type III partnerships suggest that partners have a significant level of integration and the relationship is ongoing and stable.

Like Webster (1992), Mentzer et al. (2000) proposed another relationship continuum with operational partnering on one end of the continuum and strategic partnering on the other end. They defined operational partnering as companies that are seeking partners to improve operational efficiencies and effectiveness on a short-term basis. On the other hand, in strategic partnering, companies establish long-term relationships with other organizations to achieve overall strategic objectives and improve one's competitiveness through the development of new products, markets, and technologies. For example, apparel retailers such as Federated Department Stores and May Department Stores have established strategic relationships with their respective offshore suppliers to improve profitability. On the other hand, The Gap Inc. is more inclined to develop operational relationships with its offshore apparel manufacturers to obtain operational efficiencies (Mentzer et al.).

Drivers, Facilitators, and Barriers

Lambert et al. (1996) stated that while all interfirm relationships share some common characteristics, there is no prevailing relationship that is appropriate in all situations. Therefore, they developed a partnering process model after conducting an in-depth analysis of 18 different interfirm relationships with the members of the International Center for Competitive Excellence. Companies that were leaders in their respective fields such as McDonalds, Coco-Cola, Xerox, Whirlpool, and 3M participated in the study. In the model, Lambert et al. (1996) proposed that drivers and facilitators are the basic elements that affect a company's decision to establish, adjust, and continue the relationship.

Drivers are the compelling reasons for a company to form relationships, and the strategic benefits that will result from such relationships (Lambert et al., 1996; Lambert, Emmelhainz & Gardner, 1999). The four primary drivers include: asset/cost efficiencies, customer service, marketing advantage, and profit stability/growth. Asset/cost efficiencies include product and distribution cost savings. For instance, Oxford Shirtings, an apparel manufacturer, saved over $200,000 in inventory and other expenses after establishing an alliance with J.C. Penney Company, Inc. (Anonymous, 1994). Customer service is the ability a company has to improve ordering cycle times and provide more accurate information. Marketing advantages are the benefits related to product, price, place, and promotion and the access to new technology and innovation. For example, Brook Brothers and The Pietrafesa Corp., a New York based private label suit manufacturer, have formed a relationship and developed a new information system called *eMeasure* that allows customers to create and select 25 made-to-measure suits (Rabon, 2000). The final driver identified in the model, profit stability/growth, allows companies to enjoy a continuous growth of sales volume and a stable supply because of the long-term commitment between business partners.

As drivers are the motivators for establishing relationships, facilitators are the supportive environmental factors that enhance the development of a relationship (Lambert et al., 1996; 1999). These factors include corporate compatibility, managerial philosophy and techniques, mutuality, and symmetry. Corporate compatibility is the congruity of the culture and business objectives between partners, in which both parties have similar managerial philosophies and techniques. Moreover, it is very important for a company's management team to understand the position of its partners. Similarities between partners in terms of size, market share, and financial strength provide the needed symmetry for the relationship to be successful. Additional facilitators that strengthen relationships include exclusivity, shared competitors, physical proximity, partnering history, and a common end-user.

Forming relationships does not always bring success to the companies involved. There are barriers that cause the failure of business relationships (Lambert et al., 1999).

According to Lambert et al. (1999), different perceptions between partners and poor execution in establishing the relationships are the major reasons for unsuccessful business relationships. Different perceptions include unrealistic expectations and different corporate cultures between potential partners. In addition, lack of support from top management causes relationships to fail. Other major barriers to the formation of relationships are concern of losing control, lack of trust, and poor communication between businesses.

Inter-Organizational Relationships

Logistics researchers have been a major contributor to business relationship studies. However, other disciplines such as product development and apparel retailing have also conducted studies on interfirm relationships (Campbell & Cooper, 1999; Comer & Zirger, 1997; Dickerson & Dalecki, 1991; Ragatz et al., 1997; Valsamakis & Groves, 1996; Wasti & Liker, 1997; ZuHone & Morganosky, 1995).

Product Development Relationships

One of the most important strategic advantages that businesses are trying to gain is the ability to respond quickly to customers' changing demand by introducing new products into the market (Birou & Fawcett, 1994). As a result, getting suppliers and customers involved in new product development is a very popular practice across different industries, especially in industrial markets (Campbell & Cooper, 1999; Comer & Ziger, 1997; Dowlatshahi, 1998; Ragatz et al., 1997; Wasti & Liker, 1997).

After collecting data from 60 different companies from the Michigan State University Global Procurement and Supply Chain Electronic Benchmarking Network, Ragatz et al. (1997) identified the critical factors for successful supplier integration in new product development processes. The most important environmental factors that contributed to the success of supplier integration are the top management commitment from both parties and the buyers' confidence in the suppliers' capabilities. Other critical management issues include the allocation of intellectual assets such as technology information, cross-functional inter-company communication; human assets such as location and supplier participation; and physical assets such as technology-sharing and linked information systems. Ragatz et al. (1997) also identified barriers that prohibit the growth of relationships with suppliers in product development. These barriers are the resistance of sharing proprietary information with suppliers and the unwillingness to accept suppliers' ideas over product design decisions.

Birous and Fawcett (1994) conducted a study with new product development managers in both domestic and European companies. They found that involving suppliers in product development brings buyers several advantages. First, the buyers' companies can share the expertise and technologies possessed by the suppliers. In addition, the companies can utilize resources better, develop new technologies, and improve network relationships. Nevertheless, the impact that suppliers make in the product development process is dependent on the level of integration between buyers and suppliers and the effectiveness of managing such relationships.

Supplier-Retailer Relationships

There are relatively few studies concerning the supplier-retailer relationships in the apparel retailing industry (Dickerson & Dalecki, 1991). To study the relationships between apparel manufacturers and retailers, Dickerson and Dalecki (1991) conducted a research study through mailed questionnaires to investigate how apparel manufacturers perceived their working relationships with retailers. Based on the results from the study, they found that larger apparel manufacturers tended to have less difficulties working with retailers compared to smaller scale manufacturers. This can be attributed to the fact that larger apparel manufacturers are more active and aggressive, and thus, they have a better overall performance in production and marketing efforts.

Dickerson and Dalecki (1991) found that apparel manufacturers adopted Quick Response (QR) to improve channel relationships with retailers. QR allows business partners to obtain real time information and helps retailers to reduce markdowns and stock-outs. Finally, they suggested that manufacturers and retailers need to establish a cooperative relationship instead of the traditional adversarial relationship in order to operate efficiently.

The traditional relationship between apparel manufacturers and retailers is best described as an imbalanced relationship (ZuHone & Morganosky, 1995). After conducting a mail survey, ZuHone and Morganosky (1995) tested the power relationship between apparel manufacturers and retailers, and found that retailers are perceived as having greater power over their manufacturers, especially in determining critical decisions. Furthermore, as retailers are gaining power, apparel manufacturers are becoming more dependent, and such imbalanced relationships often create conflict between members in the supply chain. However, Buchanan and Su (1988) revealed that an imbalanced relationship does not necessarily lead to conflict. The value of a channel relationship is the ability of the partner to create solutions to the problems of the focal partner.

While the above research focused on the power relationship between apparel manufacturers and retailers, Valsamakis & Groves (1996) conducted a survey with 250 apparel companies in the United Kingdom to learn how partnerships between suppliers and customers improve the overall performance of the supply chain. The relationship model they developed emphasized the coordination of activities and joint efforts to reduce costs and improve operational efficiencies.

In the study, Valasmakis & Groves (1996) initially classified companies into three types of relationships: partnership, semi-adversarial, and adversarial. The classification was based on the retailers' selection criteria of suppliers, the nature of the relationship such as length and risk/benefit sharing, and the level of cooperation on business operations such as logistics, new product development, and information exchange. They asked respondents to rate different types of performance measures. Based on their findings, Valasmakis and Groves (1996) suggested that performance on reliable delivery and flexibility to meet customer needs were positively influenced by strong relationships as opposed to a non-partnership relationship. Although there was insufficient evidence to support the notion that collaborative relationships can perform better in other areas such as product development, there was a trend that indicated partnerships are more inclined to attain higher operational efficiencies in product development than non-partnerships.

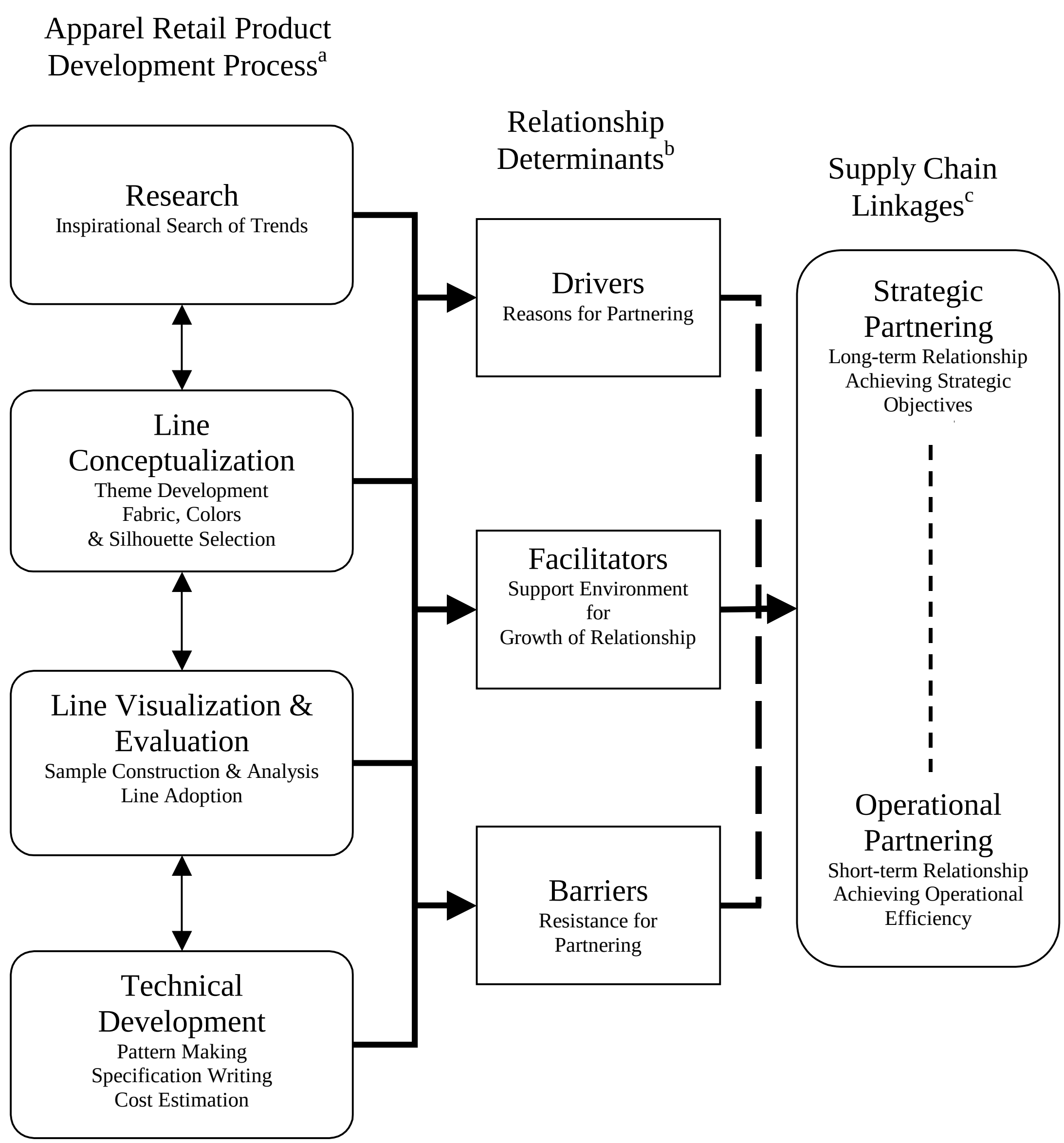
Conceptual Framework

Product development is a major competitive strategy for retailers to differentiate themselves from competitors. However, there are relatively few studies focusing on the apparel retail product development (Wickett et al., 1999). After identifying the needs in this area, Wickett et al. developed an apparel retail product development model based on the original model established by Gaskill (1992). For the purpose of this study, the Wickett et al's model was adapted and simplified. The simplified model has four interrelated phases: *research, line conceptualization, line visualization and evaluation,* and *technical development*. Although the apparel retail product development process is a series of sequential activities, product developers can change the concepts or prototypes developed in the previous phases. For example, after samples are constructed in the *line visualization* phase, the product development team can go back to the *line conceptualization* phase to recreate the silhouette of the garment and make the product fit the theme of the apparel line better.

Incorporating the concept of supply chain management (SCM) developed by Lambert and Cooper (2000), the proposed research model suggests that retailers link the product development process externally in order to obtain efficiencies (see Figure 1). A relationship continuum with operational partnering on one end and strategic partnering on the other end is identified in the model (Mentzer et al., 2000). Strategic partnering suggests a long-term relationship between retailers and their supply chain members,

Figure 1

Conceptual Framework of Supply Chain Management in the Apparel Retail Product Development Process



(Adapted and modified from Lambert, Emmelhainz, & Gardner, 1996[b]; Mentzer, Min, & Zacharia, 2000[c]; Wickett, Gaskill, & Damhorst, 1999[a].)

whereas operational relationships emphasize a short-term relationship in which companies are looking to achieve operational efficiencies.

There are three determinants that facilitate or impede the degree of collaborative effort between companies and their suppliers in the apparel retail product development process (Lambert et al., 1996; Ragatz et al., 1997). *Drivers* encourage retailers to form relationships to perform a particular phase of the product development process. *Facilitators* are the supportive environments for the development and growth of such relationships. *Barriers* provide resistance for the growth of collaborative activities between companies. The research model was developed to investigate the determinants that affect the management of supply chain relationships within the apparel retail product development process.

Summary

Apparel retailers operate in a fast-paced competitive environment that requires them to continuously offer new merchandise to consumers. As a result, retailers are dedicating increasing resources to private label product development to differentiate themselves from competitors. Apparel retail product development is a major business process in which retailers transform ideas and inspiration into actual apparel products, and bring them into the market. To improve the overall efficiency of the product development process, supply chain management (SCM) plays an important role in shortening the lead time from product development to distribution of the products on the sales floor.

The literature generated many definitions of SCM, suggesting its multi-functional nature. Most experts agree that SCM is a business strategy that integrates business processes between companies and managing such relationships to improve value to customers. As a result, involving suppliers in product development has become a common practice to improve the companies' abilities to respond to changing customer needs. Nevertheless, getting suppliers involved does not necessarily lead to strategic relationships, as there is no specific kind of relationship that suits all situations and environments. Therefore, apparel retailers need to evaluate specific drivers, facilitators, and barriers when forming cooperative relationships with suppliers in product development processes.

CHAPTER III

METHODOLOGY

The competitive environment in the apparel retailing industry has driven many retailers to develop unique private label merchandise to differentiate themselves from rival companies. As challenges to bring new fashion to consumers in a short lead time increases, it is likely that retailers will integrate their product development and sourcing processes. This study was designed to investigate apparel retailers' supply chain member relationships in the apparel retail product development process. This chapter describes the methods used to complete this study. Included are the research questions, case study methodology, site selection, instrumentation, data collection, and data analysis.

Research Questions

It is imperative for retailers to identify supply chain members and form various relationships in order to streamline apparel product development processes as they attempt to create differential advantage over rival companies. The following priori research questions were generated from an extensive review of literature:

- What are the drivers for apparel retailers to pursue supply chain relationships in product development processes?
- What are the facilitators of collaborative relationships between apparel retailers and their supply chain members in product development processes?

- How do facilitators foster the development of collaborative relationships between apparel retailers and their supply chain members in product development processes?
- What are the barriers that prohibit apparel retailers from establishing collaborative relationships with their supply chain members in product development processes?
- How do barriers impede the further development and growth of the partnerships between apparel retailers and supply chain members in product development processes?

Case Study

Qualitative study is a research process important in the study of relationships. According to Miles and Huberman (1984), qualitative data provide well-grounded descriptions and explanations of various social processes. Among the many different ways to conduct qualitative research, the strategy of a case study was selected to complete this research. A case study often is used to understand a complex social phenomenon because it allows researchers to obtain holistic and meaningful characteristics of organizational and managerial processes within a unique setting (Eisenhardt, 1989; Yin, 1989). Yin also suggests that a case study is used as a strategy to answer explanatory research questions, and to explain the causal relationships of specific situations.

An instrumental case study method was conducted to complete this study. According to Stake (1999), an instrumental study is a particular case under unique environments that is examined in detail to provide insights into research questions. Although the researcher is still interested in the context of the case, the instrumental case study is designed to assist the researcher in pursuing external interests beyond the context of the case itself (Stake, 1999). In addition, a single case design is particularly suited for confirming, extending or challenging a theory, which either results with the confirmation of a series of theoretical propositions or the development of alternative explanations (Yin, 1989). For the purpose of this study, an embedded case study design was adopted because it allowed the researcher to study a number of subunits and to analyze the outcomes of each individual unit within a single organization (Yin).

Site Selection

The case study site was chosen based on a review of literature, the researcher's existing knowledge, the physical proximity, the willingness of the participants, and the accessibility of the retailer. The selected retailer was one of the major national department stores in the United States with more than a thousand retail outlets around the world. In addition to traditional retailing, the retailer also engaged in both catalog and Internet retailing. The retailer had shown tremendous efforts in developing private label merchandise and offered different private labels across different merchandise categories such as apparel, home furnishings, and accessories. The annual sales volume of the retailer's private label merchandise was approximately $5 billion.

After selecting the site, the researcher secured the primary contact information from the selected retailer. A proposal was submitted to the selected company that detailed the purpose of the study, the voluntary nature of the study, and the time frame for the study. The researcher requested to collect data within the women's division across three private brands to follow through the entire apparel retail product development process (i.e., *research*, *line conceptualization*, *line visualization and evaluation*, and *technical development*). A written consent to participate in the study was obtained before the fieldwork began (see Appendix A).

Instrument

In completing the case study, the researcher acted as the instrument for the study. Semi-structured, open-ended interview questions were developed to assist the researcher in collecting data without being distracted by the case setting (see Appendix B). These pre-designed questions were generated from the established constructs and variables identified from the conceptual framework in this study. The questions guided the researcher in establishing the parameters of the study and maintained the research focus (Eisenhardt, 1989). In addition, using the same set of questions ensured a more reliable data collection method based on a list of decisive factors. This prior instrumentation also prevented data overload during the data collection process which could have compromised the efficiency and accuracy of the analysis (Miles & Huberman, 1984).

The pre-designed interview questions were divided into six different sections. The first section of the standardized open-ended interview questions generated personal information about the informants. The four subsequent sections were structured according to the apparel retail product development process identified in the conceptual framework (i.e., *research, line conceptualization, line visualization and evaluation,* and *technical development*). The final section of the open-ended interview questions attempted to establish insight regarding the suppliers' involvement throughout the apparel retail product development process.

Data Collection

The research was designed to inductively describe and analyze the phenomenon of supply chain relationships between the apparel retailer and their business partners in the apparel retail product development process. Prior to the actual data collection, the researcher met with the retailer's coordinator who provided assistance in establishing a schedule for data collection.

Pilot Interview

A pilot interview study was conducted with a product development manager from a specialty retailer who specialized in fashion accessories. The purpose of the pilot study was to refine the in-depth interview process regarding the types of responses generated from the pre-designed interview questions. In addition, the pilot interview allowed the researcher to become familiar with the context of the interview questions and assess the time required to complete an interview. The pilot interview lasted approximately an hour. Thus, it was determined that the pre-designed interview questions were able to generate meaningful discussion related to the research questions.

On-Site Data Collection

Data were collected through semi-structured, open-ended interviews and on-site observation at the retailer's headquarter for a two-week period. The personal interviews were the primary source of data. Throughout the two weeks at the retailer's home office, a total of 14 interviews were conducted, and each interview lasted between 45 to 90 minutes. The interviewees represented different positions and functions in the apparel retail product development process including trend research and analysis, buying, sourcing, product development, computer-aided design, technical design, information systems, and quality testing (see Table 1). Both upper and middle management personnel were interviewed. Their positions included: senior vice president of a division, sourcing director, divisional merchandise manager, merchandise development manager, divisional trend manager, divisional systems manager, managing designer, sourcing manager, senior buyer, technical designer, brand manager, and associate brand manager. Each interview was held with two interviewers and was audio-taped and transcribed. The researchers also recorded the comments and remarks made by the interviewees during the interviews.

In addition to the semi-structured, open-ended interviews, data were collected through on-site observation as this allowed the researcher to access a wide range of information and provided maximum freedom to obtain data (Patton, 1980). The researcher participated in weekly internal meetings, external meetings with suppliers, and company-wide presentations. Field notes were taken throughout the process. The field notes contained a full description of what was being observed, and the specific details such as time, place, and participants were recorded for verification and analysis.

Table 1

Interviewees by Departmental Functions and Management Levels

Functional areas	Middle management[a]	Upper management[b]	Totals
Computer-aided design	1		1
Information systems	1		1
Merchandising[c]	6		6
Sourcing	2	2	4
Trend research	1		1
Technical design	1		1
Totals	12	2	14

Note. [a]Middle management includes interviewees who are responsible for a particular private brand and divisional managers. [b]Upper management includes interviewees who are in Vice President positions. [c]Merchandising includes interviewees from both buying and product development functions within the women's apparel division.

Attending these meetings allowed the researcher to explore issues and generate additional questions that were not covered in the pre-designed interview questions.

Relevant documents were also obtained from the retailer with their permission. These documents included color trend reports, specifications sheets, and sample evaluation documents. Obtaining these documents provided evidence to support the data collected from both interviews and observation regarding the retailer's product development process.

Data Analysis

The objective of an inductive analysis is to establish patterns, themes and categories from the collected data, instead of imposing them before data collection (Patton, 1980). A number of data analysis techniques assisted the researcher in analyzing the results of this study. First, a contact summary sheet was used to help the researcher manage the data during the data collection process as the inductive analytic process was initiated at the onset of the study. On each sheet, the name of the interviewee, the position, and the length of the interview were recorded. Additionally, the general themes that were addressed in the interview were reviewed and transferred to the contact summary sheet. The use of contact summary sheets provided a point of reference, helped the researcher to plan for future contacts, and served as a form of the data analysis itself (Miles & Huberman, 1984).

For each interview transcript, the transcribed data were reviewed and analyzed to identify dominant themes related to the research questions. Interview transcripts were both color-coded and independently coded with key words and ideas. Coding aided the researcher in organizing and retrieving data in an efficient manner and preventing data overload (Miles & Huberman, 1984).

A conceptually clustered matrix was generated using a table format. The coded key words with similar themes were brought together and listed in the order of the functions of the interviewees (see Appendix C). According to Miles & Huberman (1984), a conceptually clustered matrix is useful in a study designed to answer a string of research questions. The clustered matrix provided a display format with different columns to tie similar responses together that had the same theme. Also, it assisted the researcher in identifying the conceptual coherence from various data sources (i.e., interviews, participant observation, and historical records).

Validity and Reliability

To construct the validity of the study, a variety of methods were implemented (Patton, 1980; Yin, 1989). Obtaining data from multiple sources promoted the development of converging lines of inquiry which was a data triangulation process (Yin, 1989). Internal validity was also developed through linking the findings of the case study to existing literature. This improved the overall generalizability of the study (Eisenhardt, 1989).

Finally, reliability was achieved by maintaining a chain of evidence through the documentation of all the details of each interview, such as time, place, and duration. Recording such operational procedures allowed external observers or readers of the case study to follow through the research from the generation of the research questions to the conclusion of the study (Yin, 1989).

CHAPTER IV

RESULTS AND DISCUSSION

Apparel retailers have been increasingly dedicating resources to develop private brand merchandise to compete in today's market and to differentiate themselves from their competitors. This study investigated how apparel retailers linked their apparel retail product development process to external parties and established business relationships. In addition, the drivers, facilitators, and barriers that promoted or impeded such relationships as well as the nature of those relationships were identified.

Apparel Product Development Organization

The apparel retail product development process adopted by the retailer to develop private label merchandise performed all four phases of development activities including *research, line conceptualization, line visualization and evaluation,* and *technical development*. In the *research* phase, the retailer collected trend information from various resources such as trend services, shopping both overseas and local markets, and fashion publications. Next, the *line concept* was developed which identified and established fabrics, silhouettes, colors, and details. Prototype samples were made. After reviewing and evaluating the samples, an apparel line was adopted and merchandise was selected. At the end of the *line visualization and evalu*ation phase, individual orders were ready to be placed. Patterns and specifications of individual merchandise were graded and documented. Apparel sizing was perfected through a continuous sampling review in the *technical development* stage until final approval for full production was obtained.

The retailer performed all four phases of the product development process at two different levels. First, the retailer had a merchandising team who was primarily responsible for product development. Thus, an internal product development organization was developed around the merchandising team. This internal organization initiated the product development process for each season. Second, the internal product development organization utilized services provided by external companies to facilitate the development of private label merchandise. In addition, the retailer primarily sourced its private label merchandise directly from overseas. As a result, a supply chain network with external organizations was formed (see Figure 2).

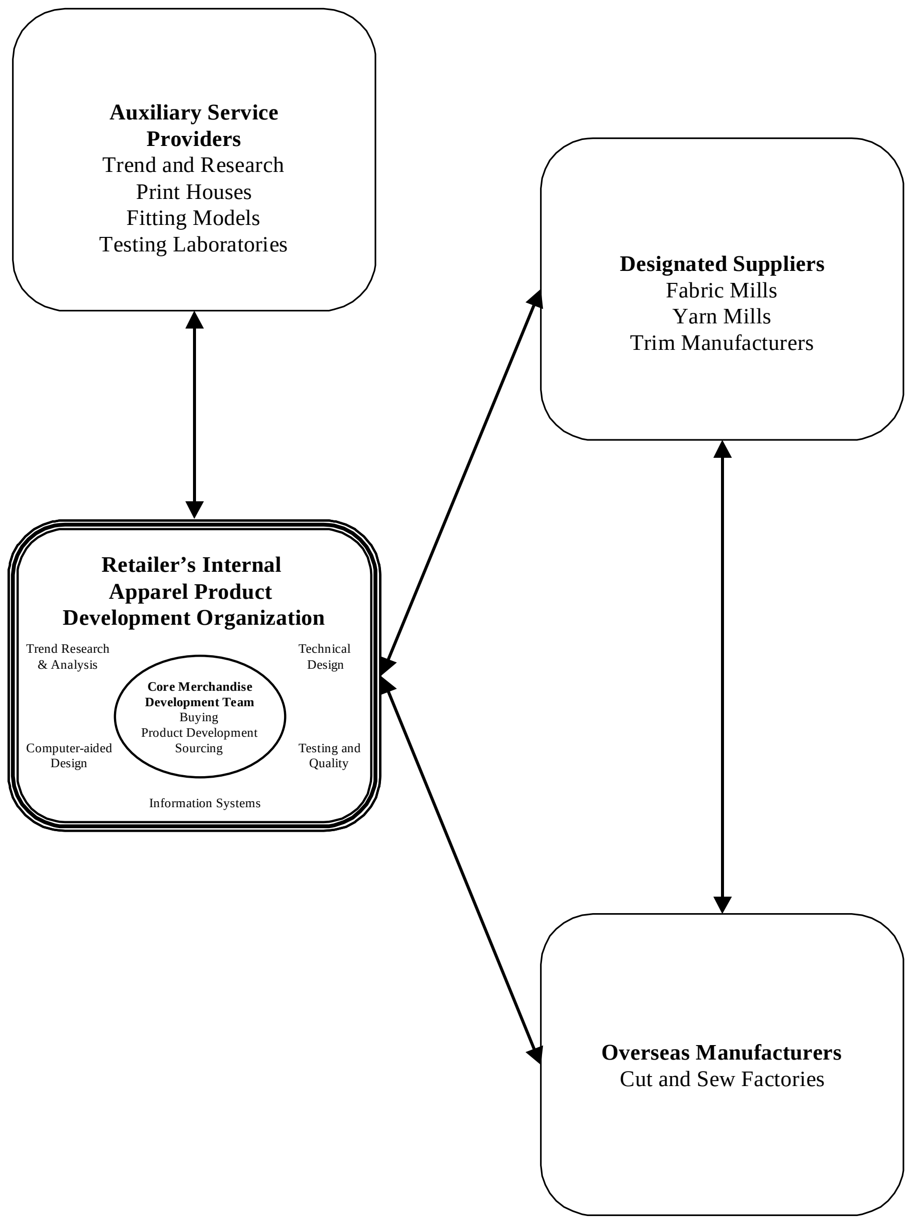
Internal Apparel Product Development Organization

The retailer's apparel product development organization involved two essential groups: a *core merchandise development team* that was primarily responsible for merchandise development and *support functions* that performed different activities to facilitate the product development process. Different core merchandise development teams concentrated on the development of a particular private brand or specific merchandise categories. Meanwhile, the support functions provided its services across different private brands and merchandise categories.

The core merchandise development team included members from three different functions: *buying*, *product development* and *sourcing*. The team members worked closely together as they met and discussed various product development issues from trend

Figure 2

Apparel Product Development Organization



information to production placement on a weekly basis. Buying was the area that initiated and ended the product development process as buyers reviewed historical sales information to determine the future business direction and decided which particular merchandise was adopted for production. Product development personnel worked with buyers in developing merchandise. After understanding what the buyers needed for the upcoming seasons, product development managers used trend information to develop a line concept. Next, they developed different merchandise lines based on the direction determined by the buyers. Sourcing facilitated the process in helping buyers and product development managers identify and locate sources of fabrics, trims, and apparel manufacturers. Sourcing also became the major communication linkage between the internal apparel product development organization and the supply chain members.

The support functions provided various services and interacted with the core merchandise development team in different stages throughout the product development process, while the core merchandise development teams worked through the whole apparel retail product development process together. These support functions included trend research and analysis, computer-aided design, information systems, technical design, and quality and testing. Trend research and analysis provided overall trend information and conducted presentations to different merchandise development teams. In addition, the trend manager worked with each individual team in terms of determining how upcoming trends related to a particular product category. The computer-aided design function worked with the merchandise development team in creating different prints and patterns based on the trend information and the characteristics of each individual brand. The information systems team provided training and technical support with hardware and software to product development, and facilitated the electronic linkage both internally and externally. The technical design function was responsible for evaluating and perfecting the construction and performance of the developed apparel merchandise. Finally, the quality and testing function performed different physical and chemical tests to ensure the quality of the merchandise being developed and manufactured at the retailer's own testing facilities.

External Product Development Network

The retailer's internal product development organization formed the nucleus of the retailer's private label merchandise development; nonetheless, this nucleus was linked to different external parties that created a supply chain which brought private label merchandise from a concept to an actual product. Major supply chain relationships were established through the sourcing function within the core merchandise development team. Relationships were developed between the retailer and three primary groups of external organizations: overseas manufacturers, designated suppliers, and auxiliary organizations. The overseas manufacturers were primarily responsible for cutting the fabrics and assembling the garments. The designated suppliers included both fabric and yarn mills and trim and detail suppliers. These designated suppliers were vendors appointed by the retailer for providing fabrics, trims, and details for their private label merchandise regardless which manufacturers were assembling the garments. In addition, a number of auxiliary organizations provided services to the retailer. These services included trend and research services, print houses, fitting models, and testing laboratories. An external apparel retail product development supply chain network was established by linking the overseas manufacturers, designated suppliers, and auxiliary services together with the retailer.

The apparel retail product development supply chain network demonstrates how the retailer linked the product development process with external businesses. Extensive preliminary research and factory evaluations were conducted before the retailer would begin a business relationship with an overseas manufacturer. The overseas manufacturers were responsible for developing the counter samples for the retailer's evaluation, and ultimately, they performed the manufacturing function for the retailer's private label merchandise once the orders were placed. Nonetheless, they were more likely to be on the receiving end of the product development process rather than offering their own merchandise collections for the retailer to choose.

Designated suppliers such as the fabric and yarn mills assumed an important role in the development of new products with the retailers. For instance, the retailer invited a certain number of mills in their respective areas to their home office to conduct an extensive fabric and trend analysis. These fabric and yarn mills worked closely with the retailer in identifying key fabrics and new trends. One of the interviewees emphasized that having the right fabric story developed and identified would help facilitate the rest of the product development process such as designing the best bodies and silhouettes for the fabrication.

Although there was a close working relationship between the retailer and the mills, the retailer did not place orders and buy yarns and fabrics directly with the designated fabric and yarn suppliers. The retailer only designated these suppliers as the source of fabrics and yarns for its overseas manufacturers. The fabric and yarn prices, however, were negotiated and determined between the retailer and the mills. Similar business relationships also existed among the retailer, the overseas manufacturers, and other designated trim and detail suppliers such as zipper, buttons, or packaging materials' manufacturers. These trim and detail suppliers played a lesser role in the product development process than the fabric and yarn mills. However, consistently providing quality trims and details by these suppliers allowed the retailer to maintain the overall quality level of their private label merchandise.

In addition, the retailer utilized different auxiliary service providers to facilitate the product development process. These included trend and research services, print houses, fitting models, software developers, and testing laboratories.

Trend and research services companies worked extensively with the retailer's trend division. The retailer subscribed information from these services and met with these companies' representatives to discuss fashion trends. These trend service organizations provided tailored information that matched the retailers' business profile in terms of target customers, fashion consciousness, and price point.

The retailer's computer-aided design group as well as the product development personnel worked with the print houses for every new season. The retailer sometimes purchased exclusive patterns from these print houses. In addition, the retailer collected pattern trend information as inspiration to create unique prints for private label merchandise.

Software developers provided a product development computer program for the retailer. The program facilitated the product development process and improved the communication of product data such as specifications between the retailer and overseas manufacturers as well as within the retailer's own internal product development organization.

As the apparel samples were developed, the technical designers worked with fitting models to perfect the fit and comfort of the apparel item. These fitting models were individuals hired by the retailer, and some of them had established long term working relationships with the technical designers.

External testing laboratories were used to perform testing that was mostly related to fabric safety issues and legal requirements. For instance, the retailer required all items of wearing apparel to be tested for flammability by an approved independent testing laboratory. The retailer stated that using external testing agencies to conduct these tests could reduce bias and obtain a fair testing result.

Supply Chain Relationship Determinants

Within the retailer's product development supply chain network, there did exist working relationships between the retailer and their external business counterparts. The research questions were answered based on the clustered contents drawn from the coded interview transcripts and on-site observation. The major drivers, facilitators, and barriers and how they promoted and impeded the development and growth of these business relationships were identified (see Table 2). For the purpose of the discussion, the term suppliers was used to indicate overseas manufacturers, designated fabric and yarn mills and trim suppliers, and auxiliary organizations unless specific distinction was made.

Drivers

According to Lambert et al. (1996), drivers are the reasons for a company to form a business relationship with a business partner, and the benefits that the business can gain from such relationships. In the retailer's external product development network, five major drivers were identified. These included the following: *value, trend right, market intelligence, flexibility,* and *specialization*.

Value. One of the major reasons the retailer formed relationships with suppliers in developing private label merchandise was to drive value into the products for consumers. The interviews indicated that value could be created in a number of ways. The sourcing director identified value as "*adding more into the product than may be expected*." Value was defined as the relationship between price and quality.

Pricing was a major component of value, which was mentioned by a total of six interviewees. Pricing had been a major reason for the retailer to establish business relationships with overseas manufacturers in different regions around the world, because of fluctuating duties and quotas. Establishing relationships with fabric mills permitted the retailer to obtain quality fabrics at the targeted cost. For example, getting advance fabric information from mills enabled the retailer to reengineer fabrics to achieve lower costs rather than obtaining European fabrics where prices exceeded the retailer's cost structure.

Table 2

Relationship Determinants: Drivers, Facilitators, and Barriers

Relationship Determinants	Descriptions
Drivers	
Value	The relationship between price and quality.
Trend right	The ability to develop merchandise that meets the overall fashion direction for a specific market.
Market intelligence	Key information on fabrics, silhouettes, colors, and trends.
Flexibility	The ability to rapidly adjust business processes to meet business partners' needs.
Specialization	Employing services provided by experts in a respective field.
Facilitators	
Loyalty/history	The long-term repeat business between parties.
Commitment/trust	The execution and guarantee of businesses between parties.
Management structure	Organizational infrastructure that gives suppliers the ability to solve problems and make quick decisions.
Sharing product knowledge	Use of expertise and product knowledge to help partners solve technical problems.

(Table continues)

Table 2 (continued)

Relationship Determinants	Description
Strategic alignment	Synchronized long-term planning between parties.
Barriers	
Communication	Language and cultural differences between parties.
Fashion	The cyclical nature and short product life cycle of apparel merchandise.
Business environment/trade regulations	Economic constraints and legislations imposed on the apparel industry.

To offer value to consumers, one of the informants suggested that attaining a lower production cost would allow the retailer to obtain a better quality fabric which in turn would allow the retailer to develop better quality merchandise for its customers. In addition, the time of delivery became a critical factor when determining where to place the production order of private label merchandise. For instance, if the retailer needed a quick turnaround time for the private label merchandise, the retailer was likely to pay a higher price based on the market circumstances. On the other hand, if the retailer only needed to achieve targeted costs, the retailer would go to countries such as Bangladesh, Pakistan, and China for private brand apparel production where lower labor costs could be obtained.

Trend right. Trend right was the term used to ensure the merchandise being developed met the overall fashion direction in the market at a particular point in time for a specific target market. Trend right was critical to the success of the retailer, as the divisional trend manager stated, "*we want to make sure we are in sync with what other retailers are doing, so we did not miss a trend or a color when the merchandise hits the stores*." The importance of trend right was mentioned by four interviewees who specialized in trend research, product development, and sourcing. Trend information was constantly changing and the retailer relied on trend services to provide the newest trend information for the retailer so the retailer would be able to develop unique merchandise. In addition, trend right was important because the retailer did not want to miss an upcoming trend in its private label assortment that competitors were offering.

Besides establishing business relationships with trend service companies, trend right was also a compelling reason for the retailer to develop relationships with suppliers. The sourcing director mentioned "*something we have not done before in the past was to have production reservation with our suppliers*." Reserving production capacity with fabric mills and manufacturers allowed the retailer to commit the styles, silhouettes, colors, and production quantity at a much later period. According to one of the sourcing managers, making decisions closer to production allowed the retailer to observe what direction the market was going and what merchandise the competition was developing. This ensured that the retailer developed the merchandise in the right direction and provided the ability to make changes of styles, colors, and quantity to meet constantly changing fashion trends.

<u>Market intelligence.</u> Market intelligence was another major driving force for the retailer to pursue a business relationship with suppliers. The interviewees mentioned the

benefits of obtaining market intelligence from their business counterparts in eight of the 14 interviews.

Market intelligence was defined as information related to what types of fabrics, silhouettes, colors, and trends the retailer's competitors and the overall market was developing for the upcoming seasons. For example, during the course of the on-site observation, the researcher observed a meeting between the core merchandise development team and a representative from an overseas manufacturer. The manufacturer representative shared extensive information about other retailers' merchandise development effort in a junior knit category (i.e., tank tops). According to one of the sourcing managers, obtaining market intelligence from business partners was particularly important to product development managers because this information allowed them to become aware of the market competition and develop merchandise that was newer and fresher rather than just "*knocking off*" samples.

Flexibility. Flexibility was a form of service the retailer was seeking when establishing business relationships. According to one of the sourcing managers, flexibility was an essential element for business relationships because of the dynamic environment in the apparel industry. Furthermore, flexibility was required from both retailer and their business partners for the relationships to be successful. For example, when there was a modification of colors or styles requested by the retailer, the suppliers would have to be able to adjust to the changes of the specification. On the other hand, if there were any delays in the process from the overseas manufacturers, the retailer would also accommodate the needs of the factories, as the senior buyer commented, "*there has to be flexibility because of the changes of the business climate*."

Specialization. Another driver for the retailer to develop business relationships with the members of its product development supply chain network was specialization. Specialization is defined as employing the services provided by the suppliers who are the best in their respective areas. Eight of the interviewees suggested that the retailer relied on the specialty of its business counterparts. According to the divisional merchandise manager, the retailer needed to stay in their core business because if the retailer tried to branch out into fabric development the retailer was unlikely to be as successful as the fabric mills.

The retailer always established relationships with businesses that were the major players in their respective areas. For example, the retailer had only five designated zipper suppliers who were known to produce excellent quality zippers. The retailer looked for the best geographical locations to produce its private label merchandise such as sweaters or jeans. In addition, the retailer depended on external businesses to provide supporting services in product development. For example, the retailer worked with the trend services that provided the most accurate trend forecast based on previous experience and reputation. Furthermore, a relationship was established between the retailer and a computer software developer who developed and technically supported the product development management software used by the retailer. The retailer also relied on the fitting models' experiences and expertise to inform them how the garment conformed to the body to determine appropriate fit.

Facilitators

Facilitators are the characteristics of the business environment that support the growth of a business relationship (Lambert et al., 1996). The facilitators included *loyalty/history, commitment/trust, management structure, sharing product knowledge,* and *strategic alignment*.

Loyalty/history. Six of the interviewees pointed out that continuity and repeat business was important in maintaining a business relationship. The interviewees agreed that prior business relationships were a good indicator for the capability of the retailer's business counterparts. If history had shown that the overseas manufacturer was able to produce good quality merchandise, deliver on time, and help the retailer react to changing fashion trends, the retailer had no reason to switch suppliers but to continue the business relationships with the existing suppliers. This was a consistent theme among five interviewees. Although pricing was an important factor, the interviewees stated that they would not simply switch suppliers based on price, even though the competing suppliers were able to provide similar merchandise in terms of quality at a cheaper price. As the merchandise development manager said, "*the relationship comes from long-term repeat businesses*."

Commitment/trust. Commitment and trust from both the retailer and suppliers contributed to the success of the business relationships. Comments such as "*there is a strong desire for both companies to maintain the business relationship*" and "*the expectations are suppliers will get continuous business*" supported this finding. This was particularly important in the relationships among the retailer, the designated fabric and yarn mills, and the overseas manufacturers. Two of the interviewees described that the relationships between the retailer and the fabric mills relied on the credibility of the retailer and their commitments in conducting business. This was especially true when the retailer did not write the order directly to the fabric mills, but worked with these mills closely in developing new fabrics and materials.

According to a sourcing manager, there was a time when fabric mills were reluctant to do business with the retailer because the retailer did not execute the order after receiving all the swatches and fabric samples from the mills. Therefore, to maintain and promote the growth of the relationship, the retailer needed to execute business with these mills. The retailer also gained the trust of the fabric mills by bringing business to them. In return, the retailer was guaranteed the performance standards of the fabrics used in production. This was supported as one interview suggested that "*on the relationship alone, the suppliers will execute the order*" even before a contract or a letter of credit was issued.

Management structure. Four interviewees agreed that the supplier's management structure, especially the overseas manufacturers, was important in maintaining and growing the businesses together. The interviewees often found that it was difficult to do business with companies that lacked quality middle management personnel. The interviewees indicated that the overseas manufacturers were difficult to work with because they did not have the right personnel in place to make quick decisions since most of the overseas manufacturers were located in developing countries. This problem was compounded as most manufacturers were sole proprietorships. For example, the retailer would probably not be able to get the pricing on the developed merchandise or samples for the evaluation when the principles of the suppliers' organization were not available. The retailer suggested that the most efficient business partners were the ones that were well-organized and possessed a competent middle management staff that was able to make quick decisions to solve any problems and issues that occurred.

Sharing product knowledge. Four interviewees identified that sharing product knowledge between the retailer and suppliers was important in the business relationship. The retailer often relied on the suppliers' technical knowledge in developing merchandise. According to two of the brand managers, the technical inputs from suppliers were particularly critical in developing sweaters because of their complicated construction (i.e., yarns, patterns, and weight). Therefore, the retailer resolved many construction and technical problems and maintained the flow of the product development process by obtaining technical expertise and product knowledge from various sweater manufacturers. The technical designer encouraged the suppliers to use their own judgment to correct any technical problems of the product because the manufacturers ultimately had the expertise that the retailer did not possess.

Strategic alignment. Four of the interviewees commented that the retailer and their suppliers made strategic sourcing decisions aligned toward the same goal. The retailer was constantly looking at new opportunities for its global sourcing of private label merchandise. It was often the case that the suppliers made similar strategic moves with the retailer to maintain and facilitate the relationship. According to the divisional merchandise manager, the retailer had developed several long-term relationships with different suppliers. As the business climate changed, for example, the retailer reduced its business volume in Korea and started sourcing private label merchandise in Central America for cost benefits. Subsequently, the retailer's Korean counterpart bought factories and developed facilities in Honduras and Guatemala, and continued to provide services for the retailer. As a result of this strategic movement, the retailer and the Korean supplier maintained the business volume and facilitated growth of the business relationship.

Barriers

Barriers are the factors that impede the development and growth of a business relationship. The barriers identified in this study included *communication, fashion,* and *business environment/trade regulations*.

Communication. Five of the interviewees agreed that communication was one of the largest obstacles facing the retailer regarding the establishment of relationships with its supply chain members in developing private label merchandise. First, these fabric mills, yarn mills, and manufacturers were located in foreign countries. The different cultures and languages posed a great challenge for the retailer to communicate with its supply chain members efficiently. Second, two of the interviewees suggested that the communication problems also emerged from the technical side of the retailer's product development process because most retailers had their own technical language they used to communicate with suppliers. There were great variations used in describing product specifications between different retailers. Moreover, the product being developed by the retailer usually did not have an actual sample or only provided limited information for reference purposes. Thus, the apparel details and patterns used for constructing the prototype sample became open for any kind of interpretation which resulted in the delay of the product development schedule. These were the issues that frustrated both parties and hindered the growth of the relationship, as one of the sourcing managers said, "*initially, communication is the biggest obstacle*."

Fashion. Four of the interviewees described that working with fashion-oriented merchandise limited the growth of the business relationship as well as any further development of strategic collaborative efforts such as automated replenishment programs. Two of the interviewees agreed that the merchandise categories they developed changed too rapidly. One stated, "*There's not an item continued for more than six months*." As a result, they indicated that the benefits of an automated replenishment system could not be realized with private brand apparel products.

The changing nature of fashion not only reduced the possibility of implementing any collaborative programs, it also limited the growth of business relationships. According to the divisional merchandise manager, the cyclical nature of certain merchandise categories fluctuated greatly as the market trend changed. One of the examples given was the sweater category. The interviewee mentioned that the demand fluctuation of sweaters had impeded the growth of the business relationship between the parties. The sweater factories would not be able to switch their product categories easily to meet the retailer's need with the equipment they owned and the technical expertise they possessed. In other words, fashion dictated what the retailer developed and bought, and therefore, there was the realization that the business had limited growth potential.

Business environment/trade regulations. In five interviews, the respondents commented that in today's competitive business environment, there was not any ongoing guarantee of business. As the retailer sourced its private label merchandise around the world, the selections of the supplier were restrained by the changing business environment and existing trade legislations.

According to the senior vice president, the competitive advantage of a supplier would become its own disadvantage as the business environment changed. For example, the price of quota imposed on merchandise exported to the United States would affect the competitive power of the supplier. If the price of the quota increased abruptly, the supplier would not be able to maintain its cost level. Consequently, the retailer changed to another manufacturer for its private label merchandise although the particular supplier had already established a loyal relationship with the retailer.

Trading legislations and agreements also impacted the retailer's sourcing strategy in developing its private label merchandise and business relationships. For example, with the Quality Industrial Zone (QIZ) agreement, the retailer was able to import quota-free and duty-free merchandise from Israel and Jordan as long as 8% of the value of the merchandise was from Israel and 35% of the combined values were from the Israel and Jordan regions. This will have future implications for the supply chain relationships as the World Trade Organization (WTO) plans to phase out quotas on all textile and apparel products by the year 2005. Hence, the retailer continued to rotate its resources to take advantage of these trade regulations even though these resources were not with the retailer's existing infrastructure.

Supply Chain Relationship Orientation

The orientation of the supply chain relationships between the retailer and its supply chain members were determined from the interview transcripts, physical evidences collected from the two week on-site data collection process, and personal observation. The retailer sought operational-efficiency driven relationships, as the retailer was focused on value, flexibility, and specialization from its business partners. In addition, barriers such as the rapidly changing nature of fashion and the business environment prompted the retailer to seek short-term efficiency rather than establish long-term strategic planning with its business counterparts. According to the senior vice president, he would not describe the relationships between the retailer and its supply chain members as partnerships. On the other hand, he suggested, "*It is a business relationship based on a set of expectations of performance that we set forward*."

While the emphasis of operational efficiency was dominant in the retailer's supply chain relationship continuum, it was evident that the retailer was also looking for long-term commitments in those relationships. The retailer classified its suppliers into three different tiers based on a set of performance expectations set by the retailer. For those suppliers who were categorized as Tier 1 suppliers, the retailer planned to develop an interactive supplier relationship with these suppliers. According to the sourcing director, the retailer wanted Tier 1 suppliers to be more involved in the retailer's operation so that the suppliers could access the sales trends of their products and coordinate planning for coming seasons. In addition, the retailer also wanted to maintain 25 to 40 percent of their suppliers' manufacturing capacities. Major supplier matrixes also were developed for each product category. These matrixes then became the core groups of suppliers used by the retailer in developing and sourcing their private label merchandise.

Collaborative efforts also were developed between the retailer and its suppliers. For example, one dress shirt supplier constantly monitored the sales activity of the items and reacted to the change of color trends on the retailer's behalf. However, these types of collaborative efforts were limited to more basic items, such as dress shirts and black slacks. On selected fashion items, the retailer planned to develop incorporated programs with selected suppliers to develop new products together. Incorporated programs would combine the retailer's own development with the suppliers' collections in bringing new fashion products to the sales floor for consumers. In conclusion, classifying suppliers, building supplier matrixes, and developing collaborative efforts were steps that "*the retailer had taken to establish a virtual vertical company*." The sourcing director envisioned that in this virtual vertical company, each party would control their own components but at the same time, all parties had the same focus with the consumers at the end of the supply chain.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Developing private label apparel merchandise allows apparel retailers to implement consumer-driven marketing strategies focusing on specific target markets as well as realize higher profit margins. Thus, apparel retailers are increasingly dedicating resources to the private label merchandise development process to differentiate themselves from rival competitors and gain distinct business advantages. To gain a better understanding of the whole complex product development process conducted by retailers, an investigation of supply chain relationships between retailers and their business counterparts was necessary. The purpose of this study was to investigate how apparel retailers linked their product development process across the supply chain. Specifically, this study identified the relationship determinants that promoted or impeded the development of collaborative relationships between apparel companies and their suppliers in the apparel retail development process.

There were five priori research questions identified for this study. What are the drivers for apparel retailers to pursue supply chain relationships in product development processes? What are the facilitators of collaborative relationships between apparel retailers and supply chain members in product development processes? How do facilitators foster the development of collaborative relationships between apparel retailers and their supply chain members? What are the barriers that prohibit apparel retailers from establishing collaborative relationships with their supply chain members in product development processes? How do barriers impede the further development and growth of the partnerships between apparel retailers and suppliers in product development processes? A single site case study was designed to answer these explanatory research questions and to further understand the characteristics of organizational and managerial processes within a single setting (Eisenhardt, 1989; Yin, 1989).

A set of semi-structured, open-ended interview questions with six different sections was used to assist the researcher in collecting data through personal interviews. A total of 14 interviews were conducted with personnel in upper and middle management at the selected retailer's home office over a two-week period. During the course of data collection, a data triangulation process was completed by obtaining information from on-site observations and historical records, in addition to the in-depth interviews. All interviews conducted were audio-taped, transcribed, and coded. Based on the data compilation, a conceptually clustered matrix was generated using coded transcripts to identify emerging themes.

The apparel retail product development process practiced by the retailer executed the four interrelated phases: *research, line conceptualization, line visualization and evaluation,* and *technical development*. In addition, the retailer's product development process was conducted at two different levels: an internal apparel product development organization and an external product development network.

A core merchandise development team formed the center of the retailer's internal apparel product development organization. The core merchandise development team included the three distinct functions of buying, product development, and sourcing. Buying functions determined the direction of a merchandise line, while product development functions developed merchandise that met the buyers' needs. Sourcing provided assistance to both buying and product development teams in researching and locating the best sources to produce the merchandise that was being developed. Surrounding the core merchandise development team were support functions that provided various services including trend research and analysis, computer-aided design, information systems, technical design, and quality and testing. These functions were performed throughout the various stages of the product development process.

The retailer's internal apparel product development organization was linked to external businesses that formed a supply chain network for the retailer's apparel product development process. There were two primary supply chain members within the retailer's supply chain network. They were the overseas manufacturers and the designated suppliers appointed by the retailer to provide fabrics, yarns, and trims. The overseas manufacturers were often at the receiving end of the product development process, while the designated suppliers, specifically fabric and yarn mills, were more active in helping the retailer in research and development. However, the retailer did not directly buy fabrics from these mills, but rather referred to them as designated sources for their overseas manufacturers. The retailer also hired auxiliary organizations to perform different services. These organizations included trend and research services, print houses, fitting models, and testing laboratories.

The drivers, facilitators and barriers that promoted and impeded the growth of business relationships impacted the nature of the working relationships between the retailer and their supply chain members as the retailer linked its internal product development network to outside businesses. Drivers were the underlying reasons the retailer sought external business relationships (Lambert et al., 1996). The drivers identified were *value, trend right, market intelligence*, *flexibility*, and *specialization*. Value was the relationship between price and quality. Trend right was the ability to develop merchandise that met the overall fashion direction for a specific market. Market intelligence referred to the critical insights regarding fabrics, silhouettes, colors, and trends that the overall market and competition were developing. Flexibility was the ability to adjust processes to meet the business partners' needs, and specialization was employing the services provided by experts in specific fields.

Facilitators were the characteristics of the business environment that supported the growth of the business relationship (Lambert et al., 1996). A total of five facilitators were identified: *loyalty/history, commitment/trust*, *management structure, sharing product knowledge*, and *strategic alignment*. Loyalty/history implied that prior business relationships were good indicators of the potential for further development of relationships. Commitment/trust indicated how the execution and guarantee of businesses impacted the growth of the relationship. Management structure referred to the suppliers' organizational infrastructure that gave the retailer confidence in the suppliers' ability to solve problems and make decisions quickly. Sharing product knowledge was defined as the initiative taken by suppliers to use their expertise and product knowledge to help the retailer solve problems. Finally, strategic alignment meant that the development of the long-term sourcing and production strategies between the retailer and suppliers were aligned with similar goals and objectives.

Barriers impeded the growth of business relationships. Identified barriers included *communication, fashion,* and *business environment/trade regulations*. Communication was one of the most important barriers in developing business relationships. Communication included language and cultural barriers, as well as technical terminology used between the retailer and suppliers. In addition, the cyclical and fast changing nature of apparel products limited the development of strategic collaborative planning as well as business growth. Business environment/trade regulations referred to the fluctuating policies that imposed economical constraints for the retailer to pursue long-term relationships.

With the identified relationship determinants, it was suggested that the existing business relationships between the retailer and its supply chain members were geared toward operational efficiency. However, the retailer classified its suppliers into three different tiers, with an emphasis on establishing collaboration and coordinating planning with the Tier 1 suppliers. The retailer also actively developed core supplier matrices for its private label merchandise in an attempt to create a vertical company in which every business had the same focus with the final consumers at the end of the supply chain.

Conclusions

Numerous studies have been conducted in the area of supply chain management (SCM) but relatively few studies have investigated SCM within the apparel retail product development process. This study contributes to the limited body of knowledge regarding how retailers can integrate the product development process throughout the supply chain by providing products, services, and information that add value for customers. Moreover, the results from this research support the proposition that SCM should focus on the integration of business processes between companies rather than just taking logistics across inter-organizational boundaries (Ballou et al., 2000; Cooper et al., 1997).

As evidenced by this study, the apparel retail product development process practiced by the retailer to bring private label merchandise to the sales floor was similar to the apparel retail product development model established by Wickett et al. (1999). The retailer's process included the four development phases (i.e. *research, line conceptualization, line visualization and evaluation,* and *technical development*) mentioned in Wickett et al's model. However, the lines to separate these four phases were difficult to differentiate as each phase was interrelated. For instance, it was not an unusual practice for the retailer to change the silhouette of a sweater at the point of production to meet changing fashion trends, although an order had been placed and the production yarns were ordered.

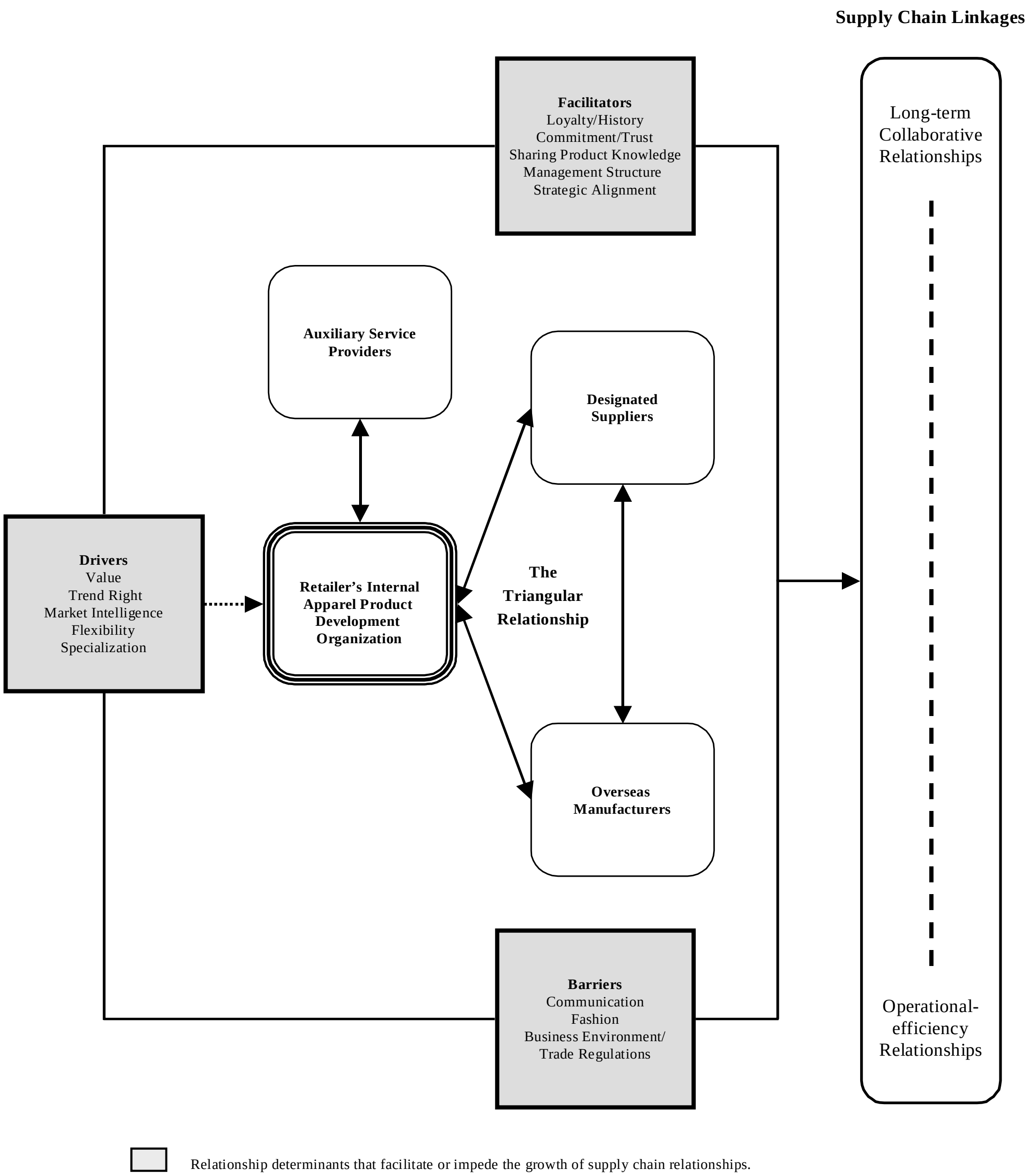
Findings from this study resulted in a modified framework identified as Supply Chain Relationships in Apparel Retail Product Development. This model demonstrates how retailers link with external companies in the apparel product development process as well as the factors that impact the degree of collaboration between the retailer and its suppliers (see Figure 3). Within the retailer's product development process, an internal organization network was developed with a core group of merchandise development team that includes the functions of buying, product development, and sourcing. Consistent with the Wickett et al.'s description of the product development process (1999), sourcing played a very important role and became a core function to facilitate the apparel product development process. The sourcing function acted as the major communication linkage between the retailer and its external business partners.

Triangular Relationship

As the retailer integrated its product development process with its suppliers, a triangular relationship was formed between the retailer, the overseas manufacturers, and the designated suppliers. The designated fabric and yarn suppliers actively assisted the retailer in developing new yarns and fabrics, although they did not directly receive orders from the retailer. They invested their time and effort in return for the retailer's guarantee of business from the manufacturers who produced the retailer's private label merchandise. Furthermore, the manufacturers relied on the retailer's ability to negotiate the prices of fabrics and yarns and guarantee the quality of the materials. In other words, the retailer obtained control of the materials used to produce its private label merchandise without issuing orders to the fabrics and yarn mills.

Figure 3

Supply Chain Relationships in Apparel Retail Product Development



Relationship Determinants

This study provides useful information for both retailers and suppliers about the critical relationship determinants that impact the success of business relationships. Many of these determinants confirmed existing literature (Lambert et al., 1996; 1999; Ragatz et al., 1997). For example, drivers such as value and flexibility were found comparable to asset/cost efficiencies, customer service, and marketing advantage as demonstrated by Lambert et al. (1996) in their research with companies such as McDonald's, Target, and 3M. In addition, Lambert et al. also found facilitators such as partnering history and managerial philosophy and techniques that promoted the growth of business relationships as critical to the success of business relationships. These factors were similar to loyalty/history and management structure as identified in this study. Communication was also mentioned as a barrier to the growth of business relationships in another Lambert et al.'s study which used Whirlpool and ERX as the case study examples (1999).

Several relationship determinants that were unique to the apparel retailing industry were identified from this study. Trend right played an important factor in the retailer's product development process as consumers' demand of apparel items was heavily influenced by fashion trends. This supports Lambert and Cooper's (2000) study which revealed that every company adopts a different supply chain structure depending on the types of products. As a result, the retailer sought business relationships that permitted the retailer to postpone the commitment of orders to improve its ability to meet both the right trend and consumers' needs. Market intelligence was also an imperative element for the retailer's product development process because the information obtained allowed the retailer to be aware of the market competition.

In today's rapidly changing business environment and fluctuating trade regulations, the retailer continues to look for new sources to produce its private label merchandise. Therefore, overseas manufacturers and designated suppliers who take initiative and align their goals with the retailer's sourcing strategy are very likely to maintain and establish strong business relationships. Retailers can also enhance business relationships by displaying commitment to execute business. This develops a mutual trust between partners that is necessary in developing relationships, especially within the triangular relationship. Furthermore, this study provides suppliers a better understanding of the critical elements that retailers require in establishing business relationships such as a management team that is able to make decisions and solve problems effectively.

Supply Chain Linkages

This study found that the retailer who committed to develop private label merchandise and sources directly from overseas apparel manufacturers is more inclined to have a relationship based on operational efficiency. This corroborated with the proposition that apparel retailers who sold private brands might switch suppliers based on the supplier's capability and the terms of trade (Mentzer et al., 2000). The modified model suggests that both facilitators and barriers have a moderating effect on the nature of the relationships between the retailer and suppliers. For example, the stronger the influence of facilitators between parties, the closer the relationships are geared toward long-term commitment in the continuum. Former successful business relationships in the past and strong similarities between partners will ultimately strengthen future business relationships (Lambert et al., 1996).

In contrast, the more prevalent barriers were in the existing relationships, the more likely the retailer was to seek operational efficiency. The cyclical nature of fashion, changing business environments, and new trade regulations dictated the retailer's sourcing strategies. For example, the phasing out of textile and apparel quotas by the World Trade Organization in 2005 will have a definite impact on the retailer's sourcing practices. To overcome these new challenges and achieve long-term success, it is suggested that retailers must shift their supply chain relationships toward a more strategic-oriented relationship.

Recommendations

Although this study was limited to a single site case study, the results were validated through the corroboration of existing literature as suggested by Eisenhardt (1989). The scope of this study could be expanded to investigate multiple sites to identify if there are different determinants between various types of retailers such as department, specialty, and discount stores. The results could be validated through quantitative analysis that investigate the direction and significance of the correlations between the relationship determinants and partnering orientations. Furthermore, conducting quantitative studies that investigate a larger number of retailers would validate the findings from this study and determine if they apply to the overall industry.

Besides expanding the scope of this study, the findings from this research also revealed additional areas for further investigation. First, a study of the retailer's internal apparel product development organization could be conducted to investigate the relationships between different functions within the retailer's internal organization. It is suggested the trust between different functions is as important as the trust between the retailer and its business partners. Second, a more in-depth study of the triangular relationship among the retailer, the overseas manufacturers, and the designated suppliers is needed. This could expand the study to include the viewpoints of both the suppliers and the retailers. Finally, as the business environment is changing rapidly in the textile and apparel industry, it is imperative to further investigate how new trade regulations will impact the supply chain relationships in the apparel retail product development process.

APPENDIX A

USE OF HUMAN SUBJECTS
INFORMED CONSENT FORM

USE OF HUMAN SUBJECTS
INFORMED CONSENT

I, ____ (please print), agree to participate in the study of *Supply Chain Management in the Apparel Retail Product Development Process*. I understand that my involvement in this study is for research purposes and in no way will my identity be revealed to (company name) management or used in any publications or research presentations resulting from this study. My contribution may ultimately help the researcher, apparel retailers and apparel suppliers better understand supply chain relationships in developing private label merchandise.

This interview session simply involves a discussion of the businesses relationships in the apparel product development process. I have been informed that the interview conversation will be audio-taped to allow the researcher to review and transcribe my comments. The total interview time is expected to last from 1 – 4 hours. I understand that there is no personal risk or discomfort directly involved with this study. In addition, I am free to withdraw my consent and discontinue the interview session in this study at any time. Furthermore, I understand that there are two copies of this consent form, one of which I will retain.

If I have any questions or problems that arise in connection with my participation in this study, I should contact Daton Lee, the primary investigator at (214) 552-8551, Dr. Crutsinger, the faculty advisor for this study at (940) 565-3263, or the UNT Institutional Review Board at (940) 565-3940.

This research study has been reviewed and approved by the University of North Texas Committee for the Protection of Human Subjects.

____________________	____
Date	Signature of *Supply Chain Management in the Apparel Retail Product Development Process* Informant
____________________	____
Date	Daton Lee, Graduate Student School of Merchandising and Hospitality Management

APPENDIX B

SEMI-STRUCTURED INTERVIEW QUESTIONS

SEMI-STRUCTURED INTERVIEW QUESTIONS

Personal Information:

1. What is your name?
2. What is your position?
3. How long have you been in your current position?
4. What is your role in the company/division?
5. What are your daily responsibilities?
6. What is your participation in product development?
7. Can you lead me through the product development process?

Research Phase:

8. What is the research process in terms of collecting trend information?
9. Who are the parties involved in this process? What are their roles in the process?
10. What determines which external businesses are used in collecting trend information?
11. What are the benefits of using an external research agency?
12. How would you describe the business relationship between your company and the external parties used in the process of collecting trend information?

Line Conceptualization:

13. What is the process in defining the direction of the line when new products are developed?
14. Who are the parties involved in this process? What are their roles in the process?
15. What kinds of inputs are used from external business in developing a line of apparel?
16. What are the benefits of getting suppliers involved?
17. What are the obstacles of getting suppliers involved?
18. What impact do suppliers bring in creating an overall theme to the new line?

Line Visualization and Evaluation:

19. Who is responsible in developing the samples?
20. After the sample is developed, who is involved in evaluating the sample?
21. What is the role of the supplier in sample evaluation?
22. What are the advantages and disadvantages of getting suppliers involved in sample evaluation?
23. How important is it in getting suppliers input in sample evaluation?

Technical Development:

24. How do you establish production, shipment, and material supply schedules?
25. Do you develop specifications for each individual item?
26. What are the roles of suppliers and manufacturers in this process?
27. What is the degree of collaborative efforts between your company and suppliers in establishing pre-production planning?

Overview of Supplier's Involvement in Product Development Process:

28. What are the goals of getting external businesses such as apparel manufacturers or fabric mills into the product development process?
29. What are the criteria for selecting these external parties?
30. How would you describe the relationship between your company and each outside business?
31. What does it take for a company to create a successful business relationship?
32. What breakthroughs have occurred after getting suppliers involved in product development? For example, have new fabrics been developed? Have new designs been created?
33. What types of information are shared with business partners?
34. What are the concerns of sharing information?
35. What are the mutual benefits for you and your suppliers?
36. What types of networks exist between you and the external companies in your supply chain?
37. What similarities between parties are you looking for when establishing relationships?
38. What are the obstacles in establishing relationships?
39. Today's companies are emphasizing the development of private label merchandise, how do collaborative relationships with suppliers in product development processes strengthen your competitive position?
40. What is the position of top management in regards to these collaborative relationships?

APPENDIX C

CONCEPTUALLY CLUSTERED MATRIX:
DRIVERS, FACILITATORS, AND BARRIERS

Conceptually Clustered Matrix: Drivers, Facilitators, and Barriers

Interviewees[a]	Drivers	Facilitators	Barriers
1	Specialization	Management structure	Communication
	Cost efficiency	Size of the company	Business environment
	Value	Moving together	Trade policy
2	Specialization	Supplier capacity	Trade policy
	Value	Moving together	Quota
	Trend and color		
3	Market intelligence	Commitment	Communication
	Pricing and delivery	Trust/credibility	Fashion
	Flexibility	Loyalty	
		Management structure	
4	Market intelligence	Commitment/credibility	Communication
	Trend and color	Flexibility	Fashion
	Pricing	Management structure	Technology
	Value	Moving together	
		Loyalty	

(Table continues)

(continued)

Interviewees	Drivers	Facilitators	Barriers
5	Market intelligence	Commitment	Communication
	Trend and color	Moving together	Business environment
	Specialization	Management structure	Trade policy
	Quality		Fashion
6	Market intelligence	Information sharing	
	Pricing	Loyalty/history	
	Specialization	Commitment	
7	Market intelligence	Product knowledge	Interest
	Specialization		
	Pricing		
8	Quality	Trust	Fashion
		History/loyalty	
		Flexibility	
9	Pricing	Product knowledge	Communication
	Value	History	Trade policy
	Market intelligence		
10	Market intelligence	Product knowledge	Business environment
	Pricing	History/loyalty	Compliance
	Value	Commitment	

(Table continues)

(continued)

Interviewees	Drivers	Facilitators	Barriers
11	Trend and color right Market intelligence	Understanding the business	
12	Specialization	Product knowledge	
13	Specialization		
14	Specialization		

Note. [a]Interviewees 1 to 4 were from the sourcing function. Interviewees 5 to 10 were from the merchandising function. Interviewees 11 to 14 were from support functions which included trend research and analysis, technical design, computer-aided design, and information systems.

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