

Vertical Integration and Internet Strategies in the Apparel Industry

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I. Introduction

On October 29, 1999, Levi Strauss & Co. announced a reversal of its e-commerce strategy.¹ Rather than continuing to invest in its own retail Internet site and preventing retailers from selling its products on-line, Levi's would stop on-line sales to consumers after Christmas 1999 and it would permit on-line sales by retailers beginning with Sears and Macy's, its two largest customers. Although the exact reasons for Levi's actions are unclear, industry observers point out that retailers were upset that Levi's was competing with them for sales. The potential costs of this "channel conflict" to Levi's may have been considerable. Surveys, market participants, and analysts have claimed that "channel conflict" with retailers and/or distributors has been an important deterrent against companies developing retail on-line stores.

We have been studying e-commerce strategies in the apparel industry. We find a striking regularity – branded apparel companies that sell either primarily through catalogs (Land's End) or through company-owned stores (Gap) have invested heavily in websites that offer direct sales to consumers, while branded apparel companies that sell primarily through department stores and other independently-owned retail outlets (Tommy Hilfiger) do not offer direct sales over the Internet. Rather than a tendency in the data, we find the relationship fits very strongly among the companies in our sample. In addition, the independent manufacturers' products have limited Internet presence on the websites of their major retailers.

This relation between vertical integration and retail web sales suggests that channel conflict may be a significant factor in the growth of e-commerce. Understanding this relation is not as simple as it may at first seem. The economic literature does not provide an obvious explanation why channel conflict should be any different between divisions of a vertically-integrated firm than it is between an apparel company and its independent retailers. Thus, if channel conflict is a constraint for non-integrated apparel companies, it should

¹ See, e.g., "501 Blues" *Business 2.0* 53-56 (Jan. 2000) and "Levi's to quit selling online," *San Francisco Examiner* (Oct. 29, 1999).

also be a constraint for vertically-integrated apparel companies that must also deal with incentive problems across divisions.

We enumerate a range of possible explanations for the empirical relationship. They fall into several categories. First, it may be efficient for vertically-integrated companies to have retail on-line stores and not those with independent distribution because the two sets of companies have different assets and capabilities. Second, there are strategic choices that are complementary to the choice of distribution channel. Most important is that the vertically-integrated apparel companies all have exclusive relationships with their internal retailers (Gap stores sell only Gap products). The converse is almost true as well. There are few major apparel companies with exclusive distribution relationships that are not vertically integrated. Thus, the relationship between ownership structure and Internet retail sales may actually be a relationship between exclusive distribution and Internet sales. The final category of explanation is that lack of vertical integration makes it difficult for companies to restructure their distribution relationships to implement an efficient outcome that incorporates direct Internet sales. In other words, there are impediments to the Coasian bargain whereby the manufacturer renegotiates its implicit and explicit contracts with retailers in a way that makes both parties off from the implementation of direct Internet sales.

The remainder of the paper is organized as follows: Section 2 describes the importance that market participants and commentators have placed on channel conflict. Section 3 describes the apparel industry sample and documents the relation between ownership structure and retail on-line stores. Section 4 is a detailed discussion of the possible explanations and describes the implications of the analysis for e-commerce strategies and our understanding of vertical relations. Section 5 contains our plans for future research.

II. Channel Conflict and E-Commerce Strategies

Companies that sell directly to consumers over the Internet compete for sales with their retailers. The term “channel conflict” has been used to describe the complications that arise in such a setting. The Internet has changed the retail environment in at least two ways. First, to the extent that some consumers find the Internet a more attractive way to shop than going to retail outlets or using catalogs, a manufacturer may want to serve these consumers. This could be accomplished through direct sales over the Internet or through the websites of its independent retailers. Second, the Internet may increase the return from reaching consumers directly by lowering costs or creating greater customization possibilities. Thus, some manufacturers that do not sell directly through mail order catalogs might find Internet sales attractive.

However, these benefits do not come without cost. In particular, a decision to make retail sales over the Internet puts a company in competition with its retailers that can exacerbate the misalignment of incentives between a company and its retailers that exists even in the absence of direct retail sales. There is a large literature on vertical relations that derives from the economic theory of incentives.² This literature focuses on how to structure implicit and explicit contracts between manufacturers and retailers when there are problems of imperfect observability, private information, or contractual incompleteness.

The increased competition from direct Internet sales can harm existing retailers and make it less attractive for the retailer to stock or promote a manufacturer's products. In addition, the competition could create conflicts of interest between a company and its retailers that make cooperation more difficult. A major strand of the literature assumes that retailer promotional and sales efforts are either unobservable or non-contractual. This opens up a role for a variety of vertical practices such as exclusive dealing, exclusive territories and resale price maintenance as ways to create second-best incentives for retailers to act in a way that maximizes joint profits. The manufacturer may also engage in a variety of investments such as promotion, advertising, quality assurance, and product development that affect the retailer. If these are unobservable to retailers or courts, second-best outcomes will result as well.

The efficiency of the relationship could deteriorate if incentives become more misaligned through manufacturer retail Internet sales. The change in technology should lead to different second-best contracts that may or may not put restrictions on the Internet sales of the manufacturer and/or the retailer. The results could be lower investment by the manufacturer in supporting its retailers and reduced investments by the retailers to promote the manufacturers' products or reductions in shelf space for the manufacturer's products.

The potential impact of the Internet on channel conflict is not just a matter of theory; it has been a major concern for many companies in formulating their e-commerce strategy. For example, a September 1998 survey of 74 U.S. manufacturers of consumer products conducted by Ernst & Young reports that 57% of the surveyed manufacturers were not selling on the web and had no plans to do so. The second leading reason cited was "not willing to risk channel relationships."³

² See e.g., M. Katz (1989), "Vertical Contractual Relations," chapter 11 in, Schmalensee, R. and R. Willig, eds. *Handbook of Industrial Organization*, vol. 1, North-Holland, 655-721, F. Mathewson, F. and R. Winter (1983), "Vertical Integration by Contractual Restraints in Spatial Markets," *Journal of Business*, 56, 497-517, and B. Bernheim and M. Whinston (1998), "Exclusive Dealing," *Journal of Political Economy*, 106, 64-103.

³ The first leading reason was "product not appropriate for online sales." Ernst & Young Internet Shopping Study 26 (1999).

More recent surveys show similar concerns about channel conflict (though perhaps with a clearer sense that the problems can be surmounted). “In a recent survey of 50 consumer-goods manufacturers by Forrester Research, 66% indicated that channel conflict was the biggest issue they faced in their online sales strategies. Despite that concern, however, half of those surveyed already sell online and two-thirds of those not selling online plan to within three years.”⁴

Home Depot has been especially blunt with respect to its views on channel conflict. In June 1999, Home Depot sent a letter to its vendors that said, “We recognize that a vendor has the right to sell through whatever channel it desires. However, we too have the right to be selective in regard to vendors we select, and we trust that you can understand that a company may be hesitant to do business with its competitors.”⁵

Liz Claiborne is one example of a manufacturer who explicitly cites channel conflict as a reason for not selling on-line. In late 1999, the company stated, “We are currently not selling Liz Claiborne products on-line because we don’t want to compete with our retail partners. Instead, we are looking to our retailers to help us tap the potential of this emerging channel of distribution.”⁶

The reality of channel conflict is also reflected in the manner in which certain manufacturers have begun on-line sales. For example, it appears to be common for manufacturers to assure their retailers that prices on the manufacturer’s site will be at or above suggested retail prices:

- When Nike went on-line, it sent a letter to retailers explaining that “Nike.com never sells at prices lower than retail.”⁷
- Prices on Estee Lauder sites are sold at suggested retail price. Clinique bonus gifts are only available in department stores.⁸
- The prices on Rubbermaid’s site are 5-10% above suggested retail price, plus shipping charges.⁹

⁴ “The Big Squeeze,” Informationweek (Mar. 27, 2000).

⁵ “Internet Channel Conflicts,” Stores (Dec. 1999).

⁶ Id.

⁷ “E-Commerce Report,” New York Times C-7 (Jan. 3, 2000).

⁸ Thunder House, “Strategies for Addressing Channel Conflicts on the Web,” Bifocals (Mar. 1999).

⁹ Id.

- Healthtex (children's apparel) is a brand owned by VF Corporation. Healthtex is the only one of VF's 21 brands that has on-line sales. Healthtex sells all merchandise at full retail price. In addition, the manufacturer's site does not feature new products until 30 days after they have been delivered to stores.¹⁰

Other manufacturers have responded to channel conflict by limiting the scope of their on-line product offerings:

- "Some manufacturers are appeasing retailers by limiting their own online offerings to items not sold in stores or not letting the Web sites offer the discounts available in stores."¹¹
- Proctor & Gamble created a new brand of personalized beauty products, Reflect.com, to sell on-line. An executive with the e-business explained, "We represent a trend of major manufacturers who want to go directly to consumers, but avoid conflicts with retail partners."¹²

Although it is clear that a company may impose costs on its retailers by selling directly over the Internet, this should not preclude it from occurring if collective benefits exceed the costs. The manufacturer should restructure its relationships in a way that makes all parties better off. Some manufacturers are doing exactly this by paying "commissions" to offline sales personnel and distributors when on-line sales are made through the company's web site:

- Cisco's sales representatives continue to receive commissions even when their customers place orders on line.¹³
- When customers order Compaq computers from Internet kiosks in Radio Shack stores, Compaq pays a fee to Radio Shack.¹⁴

¹⁰ "Internet Channel Conflicts," supra note 5.

¹¹ "New Covenants Ease Online Channel War," Computerworld (May 17, 1999).

¹² "Doom and gloom on the e-tail front," Upside Today (Apr. 28, 2000).

¹³ Thunder House, "Strategies for Addressing Channel Conflicts on the Web," supra.

¹⁴ "E-Commerce Report," New York Times C-7 (Jan. 3, 2000).

- Ethan Allen retailers receive 25% of the sales price on on-line orders fulfilled out of the stores. Ethan Allen retailers receive 10% of the sales price if the on-line order is sent directly from the factory to a customer in the retailer's territory.¹⁵

Some of these responses suggest to us that there are impediments to restructuring existing channel relations efficiently. It strikes us as unlikely that the second-best contracts with retailers include the development of new brands, restrictions in selection, and non-competitive pricing. In order to move beyond the anecdotal, we have decided to study the Internet strategies of branded apparel companies. Our reasons for selecting the apparel industry for our study are described below.

III. E-Commerce Strategies of Large Brand Name Apparel Companies

There are two basic ways by which branded apparel is distributed to consumers in the United States:

- The non-integrated model. Branded apparel (e.g. Tommy Hilfiger or Nautica) is distributed through third-party retailers on a non-exclusive basis. The retailers (e.g. Neiman Marcus or Nordstrom) sell to consumers through stores. The retailers may also sell the branded apparel through catalogs.
- The vertically integrated model. Branded apparel (e.g. Abercrombie & Fitch or Gap) is distributed through company-owned retailers. These vertically integrated firms sell to consumers through stores. They may also sell through catalogs. Companies in this category differ in the extent to which they stress catalog sales versus retail stores.

There are good reasons to believe that the Internet will become an increasingly important channel for the sale of branded apparel. There is no reason, however, to believe that the advantages to consumers of the Internet are related to whether a brand is distributed through the non-integrated or vertically integrated model. Put differently, there are no reasons to believe that Gap shoppers value the convenience of Internet shopping any more than Tommy Hilfiger shoppers.

The existence of these two distribution strategies is the primary reason why we chose to study apparel. We are especially interested in understanding the differences in e-commerce strategies across the two different distribution models in order to see if it can provide insights into why it may be difficult to overcome channel conflict with efficient restructuring.

¹⁵ "Another 'Clicks and Mortar' Initiative," E-Marketer (Aug. 16, 1999).

One of the insights of the modern literature on vertical integration is that incentive problems for managers in a vertical relationship are not magically solved through vertical integration. Michael Katz, in his survey article on vertical relations states that there is nothing in the theory that he discusses to distinguish between vertical relations among independent firms versus vertical divisions of the same firm.¹⁶

Thus, the introduction of the Internet as a new sales channel creates potential conflicts for both models of distribution. In the non-integrated model, there may be conflicts if a manufacturer begins selling on-line and, in so doing, diverts sales from its traditional “brick and mortar” distributors/retailers. Potential conflicts also exist within vertically integrated firms as the retail division and its managers face similar incentive problems as independent retailers since compensation of in-store personnel is likely tied to the level of in-store sales and profits.

In the non-integrated model, on-line selling could occur on sites controlled by either the manufacturer or the retailer. As we describe below, to date it has been through department store sites. If neither sector is perfectly competitive, the profits from selling on the department store site will be shared with the manufacturer. This will limit the incentive of retailers to invest in developing and promoting a website unless there is some form “co-op” funding or restructured pricing.

The magnitude of this effect is suggested by a recent study by McKinsey & Co. and Salomon Smith Barney of the profitability per order by on-line retail category in the fourth quarter of 1999.¹⁷ According to this study, the gross margin on on-line sales for “apparel manufacturers” (e.g. Gap) was 46% of sales. In contrast, the gross margin for “multilabel apparel retailers” (e.g. department stores) was 9%.

Another reason we selected apparel is that it is one of the most common types of product sold over the Internet. A monthly survey conducted by the National Retail Federation and Forrester Research of on-line spending by U.S. consumers shows that on-line sales of apparel are about the same magnitude as on-line sales of books. The results from this survey are contained in Table 1.

Nonetheless, the Internet still accounts for a very small share of total sales of apparel in the United States. Table 2 shows the different ways consumers buy apparel. On-line sales of apparel were approximately \$1 billion in 1999. Total sales were \$184 billion, so on-line sales accounted for approximately 0.6% of total sales.

¹⁶ Supra, note 2.

¹⁷ See “Pure Play: A Losing Model?” *The Industry Standard* 192-93 (June, 26, 2000).

The relative importance of on-line sales in the apparel industry is expected to grow. The study by McKinsey & Co. and Salomon Smith Barney cited above estimates that on-line sales of apparel will increase to \$7.8 billion by 2003 -- which implies a 67% average annual growth rate between 1999 and 2003. But no one expects on-line sales to come even close to the volume of in-store sales. Brick and mortar will remain the principal channel for apparel sales for the foreseeable future.

The Internet provides consumers with additional options. As explained by Dan Nordstrom:

“Consumers ... want options. They may want to peruse the hottest fashions at their local store, buy they may ultimately make a purchase through a catalog or on the Web. And if they don't like what they bought online, they may want to be able to return it to a store, not hassle over sending it back through the mail.”¹⁸

Selling apparel over the Internet is similar to (and, in some respects, more efficient than) selling apparel through catalogs. Internet shoppers, like catalog shoppers, avoid the costs of traveling to a store. An on-line store can be updated more frequently and personalized more precisely than a catalog delivered through the mail. In addition, firms that operate catalogs can use the same systems to “fulfill” on-line orders. The only significant difference from a “back end” perspective is how the orders are received -- i.e., over the Internet versus through a call center or by mail. See, e.g. “Retailing and the Internet,” *Int. J. of Retail & Dist. Management* (Sep. 1, 1997) (catalog operators “have worked out the unique challenges which non-store retailing presents (delivery, exchanges, payments) and may be taking advantage of such expertise as they develop their online purchasing systems”); “Websites and Stores: Integrate or Separate?” *Stores* (Mar. 1999) (according to a Lands' End executive, “All the services we offer in the catalog are provided on-line -- including real-time inventory checks -- thus making for a seamless transition between the two”).

We study the extent to which brands distributed by vertically integrated apparel firms have become available for on-line purchasing sooner than brands distributed through the non-integrated distribution model. Using analyst reports, we identified three groups of firms in the apparel industry -- non-integrated manufacturers, non-integrated retailers, and vertically integrated firms. Our initial sample has 12 non-integrated apparel manufacturers; 8 non-integrated department store retailers; and 8 vertically integrated “specialty retailers.” Note that a number of the non-integrated apparel manufacturers (e.g. Jones New York) produce multiple brands. Similarly, a number of the non-integrated department store companies operate several department store chains (e.g. Federated). It is also worth noting that there is a one-to-one relationship in our sample between exclusive distribution and vertical integration. None of the vertically integrated suppliers sell other branded products in their retail outlets and none of the non-integrated apparel companies sell through exclusive or franchised retailers.

Using publicly available information (web sites, analyst reports, annual reports, news articles, etc.), we researched the Internet activities of each of the 28 firms in our sample. Table 3 summarizes the current status of our research on the vertically integrated specialty retailers. 6 of the 8 vertically-integrated companies in our sample are selling on-line. The on-line selection is noticeably limited for only 1 of the 6 on-line sellers (Abercrombie & Fitch).

Table 4 summarizes the current status of our research on non-integrated apparel manufacturers. Only 2 of the 12 manufacturers make direct on-line sales of any of their brands (Sara Lee and VF Corporation). And even these manufacturers sell only a limited number of brands on-line. VF Corp., for example, makes on-line sales of only one of its 21 brands (Healthtex).

Table 5 summarizes the current status of our research on non-integrated department store retailers. 5 of the 8 retailers have on-line stores. The product selection available on-line is noticeably limited at 4 of these 5.

Table 6 focuses on 6 manufacturers of branded apparel whose goods are distributed through “better” department stores. (Donna Karan, Jones Apparel Group, Liz Claiborne, Nautica, Polo Ralph Lauren and Tommy Hilfiger). The table also focuses on the 5 on-line stores of “better” department stores (dillards.com, bloomingdales.com, macys.com, neimanmarcus.com and nordstrom.com). For each brand and for each store, the table:

- (a) Determines whether the brand is sold in the brick and mortar store; and
- (b) Determines the availability of the brand through the on-line store.

Table 7 summarizes the results in Table 6 and shows that, in general, the availability of brands in brick and mortar stores is greater than in on-line stores.

The results in Tables 6 and 7 may reflect policies imposed by branded apparel manufacturers. The manufacturers may be blocking retailers from putting the most popular brands on-line -- because the manufacturers are still considering the option of selling these brands on-line themselves. Tommy Hilfiger and Polo Ralph Lauren, for example, have stated explicitly that they plan to sell on-line in the future. This is one of the issues we plan to explore further.

¹⁸ “Doom and gloom on the e-tail front,” *Upside Today* (Apr. 28, 2000).

The results in Tables 3 through 7 indicate that, in general, brands of vertically integrated firms are being sold on-line sooner and more extensively than brands of non-integrated manufacturers. The non-integrated manufacturers mostly do not sell on-line directly; in the few cases where they do, the selection is extremely limited. In addition, their major retailers do not provide the selection of branded apparel on their websites that the integrated companies do.

There is other “confirmatory evidence” worth noting. Forrester Research regularly publishes “Power Rankings” of the top five sites in different consumer categories. These “power rankings” are based on ease of use and range of on-line services. As of June 8, 2000, all five of the leading apparel sites were for vertically integrated specialty retailers -- Land’s End, L.L. Bean, Gap, J. Crew and Eddie Bauer.¹⁹ Gomez.com reviews and ranks sites in a wide variety of categories, including apparel. The Gomez rankings are also based primarily on ease of use and range of on-line services. As of Spring 2000, seven of the top 10 apparel sites were for vertically integrated specialty retailers. The only department stores in the top 10 were Nordstrom (#3), Macy’s (#4) and J.C. Penney (#10).²⁰

These rankings do not directly address the specific issue that we are studying -- i.e., whether the distribution model (integrated vs. non-integrated) affects the speed with which an apparel brand becomes available for sale over the Internet. Nevertheless, these rankings do support the general hypothesis that the vertically integrated apparel firms are moving faster and more successfully with their Internet strategies.

IV. Ownership Structure and E-Commerce Strategies

In this section we analyze possible causes for the relation between e-commerce strategies and vertical integration. An insight of the theory of vertical integration developed by Grossman and Hart (1986) and Hart and Moore (19__) is that vertical integration by itself does not solve incentive problems. If two vertically related firms come under common ownership, the divisions of the firm will face similar incentive problems unless other features of the relationship change as well. Furthermore, in these models, there is ex post efficiency independent of ownership structure. Ownership affects ex post bargaining power which thereby creates differential ex ante investment incentives. Viewed against the backdrop of these models, the empirical relation between vertical ownership structure and e-commerce strategies is surprising. Studying it may illuminate some of the issues surrounding the impact of vertical integration more generally.

¹⁹ powerrankings.forrester.com

²⁰ gomez.com

We begin with efficiency explanations. It may be efficient for vertically-integrated companies to have retail on-line stores and not those with independent distribution because the two sets of companies have different assets and capabilities. The two most significant differences in this regard are fulfillment capabilities and “click and mortar” assets for returns.

Fulfilling orders in a timely and economical manner is an essential feature of a successful retail Internet business. This includes holding sufficient inventories, informing customers immediately if the product is not in stock, picking the correct items from the warehouse, shipping the articles quickly, and billing customers correctly. Any company that is already in the retailing business has some of these capabilities in place and may incur lower costs of developing an effective retail Internet business. This is especially likely if the retailer already operates a mail-order catalog business.

The second possible efficiency explanation is complementarities between web sales and in-store sales. The most prominent source of complementarity is that it is more costly to make consumer returns and exchanges efficient if one does not have retail outlets. Another possible complementarity is the ability to use the in-store kiosks to find products or sizes not in stock at the store. The problems with these explanations is that they fail to explain why the department stores are not selling their branded suppliers’ apparel on-line and it ignores the possibility that the manufacturer could structure a deal to use its existing vendors for returns and exchanges.

We do not believe that these economies of scope, efficiency explanations provide a complete explanation for the empirical regularities discussed above. First, the costs of developing basic fulfillment capabilities are not large for companies of the size in our sample. Initial scale need not be great and the software can largely be purchased off the shelf. Second, if this were the complete explanation for the dearth of retail on-line stores by manufacturers, one would expect retailers’ on-line stores to offer selections that were as extensive as available in the brick and mortar stores. Yet, as shown above, this is not the case. Therefore, some other factor or factors must be at work.

A second category of explanations for the empirical regularity is that ownership structure is not directly causal; rather ownership structure is complementary with other differences between the two categories of branded apparel companies and these differences cause the different Internet strategies. The first explanation in this category is that there are differences in the products or brand identity of the vertically-integrated companies that make these products more attractive for Internet sales. Although it is difficult to develop

objective measures, we do not find this explanation compelling. Both samples include highly-promoted brands; although Gap commercials are all over television, Tommy Hilfiger has also created enormous brand value through print ads and other promotional activities. Both samples seem to span demographic groups, so it is very difficult to point to significant differences in product mix and more difficult to then argue effectively that the products of the vertically-integrated companies fit better with the Internet.

There are other differences between the vertically-integrated and non-integrated apparel companies. The former all have exclusive relationships with their internal retailers. The non-integrated companies sell their products to many retailers, who also sell branded apparel from other companies. One exception (not in our sample) is Benneton whose retail outlets are independently owned. Benneton does not have retail sales on its website. The causal factor for the relationship between ownership structure and Internet retail sales may therefore be exclusivity rather than ownership structure.

Channel conflict problems can be more severe in non-exclusive relationships. One of the main concerns in vertical relations is the extent to which retailers have the appropriate incentives to promote a supplier's products through shelf space, store location, and salesperson activities. A retailer in a non-exclusive relation has more effective ways to respond to an action by a manufacturer that makes the manufacturer's products less profitable for the retailer. The retailer can simply shift purchases, promotion, and shelf space to a competitive supplier. Thus, the cost to a manufacturer from competing with its retailers may be greater in a non-exclusive relationship.

If all suppliers to a retailer were to implement retail on-line stores simultaneously, the incentives of the retailer to respond as described above are limited. But, if suppliers cannot coordinate and act simultaneously, the retailer is in an equivalent position to an exclusive retailer. The game among manufacturers to implement retail on-line stores would then be a Prisoner's Dilemma where it may be efficient for all to implement retail on-line stores but they may not be able to achieve the outcome through unilateral actions. Although it may be possible for retailers to facilitate efficient coordination of manufacturers, it may be difficult for the retailers to extract value.

Similar to the efficiency explanation, this explanation does not explain why the on-line stores of independent retailers typically have a very limited product selection -- especially when compared with the product selection at the on-line stores of vertically integrated apparel companies. If it is efficient to sell branded apparel online, the "Prisoner's Dilemma" explanation implies that retailers may be in the best position to implement it. Given existing prices and standard contractual arrangements, much of the return from the investment would go to the manufacturers. However, if efficient recontracting problem is possible, the retailer and

manufacturer should be able to structure things to make it work. The difficulty that independent retailers and manufacturers have evidently had in finding these solutions suggests that the Prisoner's Dilemma explanation is also incomplete at best.

The final set of explanations is that ownership structure and/or exclusivity affects the ability of parties to respond efficiently to change in the environment through renegotiation. The theory of vertical integration developed by Grossman and Hart (1986) and Hart and Moore (1990) is based on models where there is ex post efficiency independent of ownership structure.²¹ Ownership affects ex post bargaining power which thereby creates differential ex ante investment incentives, but it does not affect the ability to implement efficient ex post outcomes through renegotiation. Several recent papers have suggested that vertical integration can affect ex post efficiency through its impact on coordination. Gertner (1999) develops a model where the incentives to share information and thereby achieve ex post coordination is affected by control rights.²² Knez and Simester (1999) contrast internal and external procurement at a company developing and producing complex engineered products.²³ They argue that coordination of changes in part design works more effectively for parts that are procured internally.

Barriers to effective renegotiation between manufacturers and independent retailers could explain the empirical regularity. Although incentive problems exist between vertically linked divisions within a firm, control rights are commonly held. Thus, the parent company can impose a change on the managers of its retail divisions and the managers have fewer options in response. These options are limited both by the lack of control rights and the exclusive nature of the relationship. So, the retail manager of the vertically-integrated firm could not refuse to accept returns for Web purchases, while this would necessarily involve a negotiation and compensation for the non-integrated firm.

Another impediment to effective renegotiation with retailers is the uncertainty and ambiguity about the ultimate impact of the Internet retailing. Determining the appropriate compensation to retailers to keep them from reacting in ways that harm the manufacturer is very difficult. The magnitude of expected payments clearly should depend on the extent to which direct Internet sales harms the retailer. The only way to do this

²¹ S. Grossman and O. Hart (1986), "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy*, 94, 691-719 and O. Hart and J. Moore (1990), "Property Rights and the Nature of the Firm," *Journal of Political Economy*, 98, 1119-1158.

²² R. Gertner (1999), "Coordination, Dispute Resolution, and the Scope of the Firm," unpublished manuscript, Graduate School of Business, University of Chicago.

²³ M. Knez and D. Simester (1999), "Direct and Indirect Bargaining Cost and the Scope of the Firm," unpublished manuscript, Sloan School of Management, M.I.T.

seems to be payments as a function of direct Internet sales, but determining an equilibrium appropriate allocation to a retailer seems hard.

Our working conclusion is that this final set of explanations is the most plausible. The fact that vertically integrated firms in the apparel industry have adapted to the Internet more quickly and extensively is evidence that, contrary to the predictions of “ownership irrelevance” models, vertical integration can affect ex post efficiency.

It is an open question whether non-integrated firms in the apparel industry will be able to overcome the negotiation and coordination costs that, to date, evidently have retarded the rate at which they have adopted on-line selling. One possibility (perhaps the most likely) is that, in time, the non-integrated firms will “catch up” with the vertically integrated firms. The ambiguity over the impact of the Internet will decline making appropriate contractual terms clearer and the structure of relationships implemented by successful pioneers will be copied. Another possibility, however, is that the current situation (perhaps with some modification) is a second-best equilibrium -- i.e., non-integrated manufacturers do not have on-line stores and the on-line stores of non-integrated retailers have more limited product offerings than the on-line stores of vertically integrated apparel companies. While we need to develop this second-best explanation further, time will tell which view is more accurate.

V. Future Research

We wish to extend our analysis in a number of ways. We wish to expand the data set, both within apparel and into other categories. We plan to seek interviews with executives from the companies in our sample. In addition to studying the broad patterns of Internet adoption in the apparel industry, we would like to obtain (if possible) an “insider’s perspective” on the incentive issues and conflicts associated with adapting to the Internet. We would also like to learn how firms are attempting to respond to these issues. If a formal model would help us understand the implications of different explanations, we will develop such a model. We plan to watch how the Internet strategies of our sample companies evolve over time to see if this helps us distinguish among the possible explanations.

**NRF / Forrester Survey of On-Line
Purchases by U.S. Consumers**

**Cumulative, January - May 2000
(\$ 000)**

Small-ticket items:

Books	\$808,519
Apparel	\$802,530
Software	\$660,528
Health and beauty	\$632,964
Music	\$629,994
Toys/videogames	\$509,977
Office supplies	\$484,328
Videos	\$425,600
Jewelry	\$323,099
Flowers	\$275,433
Linens/home decor	\$264,818
Sporting goods	\$254,102
Footwear	\$211,709
Tools and hardware	\$174,364
Small appliances	\$171,694
Garden supplies	<u>\$31,850</u>
Total small-ticket items	\$6,661,510

Big-ticket items:

Air tickets	\$2,309,223
Computer hardware	\$1,315,452
hotel reservations	\$1,143,480
Consumer electronics	\$680,207
Car rental	\$593,057
Food/beverages	\$514,400
Furniture	\$179,566
Appliances	\$76,393
Other	<u>\$1,353,337</u>
Total big-ticket items	\$8,165,117

Total online sales \$14,826,627

Source: National Retail Federation
www.nrf.com

1999 U.S. Apparel Sales by Channel

<u>Category</u>	<u>Sales (\$ mm)</u>	<u>%</u>
Store	162,976	88.6%
Catalog	17,226	9.4%
On-Line / Internet	1,125	0.6%
Not Reported	<u>2,535</u>	<u>1.4%</u>
Total	183,859	100.0%

Note: Total may not sum due to rounding.

Source: NPD Group, Inc.
www.retailindustry.about.com/industry/library/weekly/aa022200a.htm

Internet Activities of Vertically Integrated Speciality Retailers

	Specialty Retailer		Sales on line?	When did sales begin?	More limited than in stores?	Catalog?
1	Abercrombie & Fitch		Yes	1998	Yes- quite limited. More focused on content such as A&F TV, free screen savers, online postcards.	Yes
2	Ann Taylor		No -- not even a product info site	Xmas 2000 or spring 2001, according to company exec	n/m	No
3	Gap		Yes	1997	No- even has a maternity line that is not available in store.	Yes -- launched roughly at same time as on-line sales
4	Intimate Brands (Victoria's Secret)		Yes	Dec. 1998	No, can search over same SKUs as in catalog	Yes
5	Land's End		Yes	1995	No, can search over same SKUs as in catalog	Yes
6	The Limited	The Limited, Lane Bryant	No -- product info only	n/m	n/m	No
	"	Henri Bendel, Lerner, Structure	No -- no site at all	n/m	n/m	No
	"	Express	Experimented in 1996; withdrew after 6 months -- low traffic	n/m	n/m	No
7	Talbots		yes	Nov. 1999	No, can search over same SKUs as in catalog	Yes
8	Too, Inc.		Yes	June 2000	No, can search over same SKUs as in catalog	Yes -- launched at same time as on-line sales

Internet Activities of Non-Integrated Branded Apparel Manufacturers

	Manufacturer	Sales On-Line?
1	Columbia Sportswear	No, but directs customers to selected retailers: REI, PlanetOutdoors, Campmor, gjojes.com
2	Donna Karan	No.
3	Fruit of the Loom	No, but directs customers to selected stores: Ames, Bradlees, Family Dollar, Kmart, Kohls, Meijers, Target, Walmart, Wards
4	Jones Apparel Grp.	No, but on-line sales of TO2 (Todd Oldham) expected to begin in Spring 2001
5	Levi Strauss	No.
6	Liz Claiborne	No. As of 3/15/00, the company said it had no e-commerce plans.
7	Nautica	No. Site directs customers to retail stores nationwide.
8	Polo Ralph Lauren	No. Polo.com is "coming soon"; will sell product on-line.
9	Sara Lee	Yes -- for selected brands
10	Tommy Hilfiger	No. Has stated that plans to offer on-line sales.
11	VF Corp.	Yes, but for only 1 of 21 brands (Healthtex children's wear)
12	Warnaco	No

Table 4

Internet Activities of Non-Integrated Broadline Retailers

	Department Store		Sales on line?	When did sales begin?	More limited than in stores?	Catalog?	Comments
1	Dillard's	dillards.com	Yes	Fall 1999	Yes.	No.	
2	Federated	bloomingdales.com	Yes		Yes.	Yes	Federated is a partner with weddingchannel.com
	"	macys.com	Yes	Nov. 1998	Yes. Also cannot place catalog orders on-line.	Yes (but not until Aug. 1998)	Catalog and e-commerce in separate unit (Fed Direct).
	"	fingerhut.com	Yes		n/m	Yes -- direct mail specialists	Acquired by Federated in 3/99
	"	Bon Marche, Burdines, Goldsmith's, Lazarus, Rich's, Stern's	No -- but "in the next two years" (5/20/00)	n/m	n/m	No	
3	Kohl's		No- Plans on starting in spring 2001	n/m	n/m	No	
4	May	Lord & Taylor, Hecht's, Strawbridge's, Foley's, Robinsons-May, Filene's, Kaurmann's, Famous-Barr, L.S. Ayres, The Jones Store, Meier & Frank, ZCMI	No -- and apparently no immediate plans per Mar. 2000 article	n/m	n/m	No	Partners with weddingnetwork.com (Apr. 2000)
5	Neiman Marcus	neimanmarcus.com	Yes	Oct. 1999	Yes.	Yes -- NM Direct	Catalog and e-commerce in same unit.
6	Nordstrom	nordstrom.com, nordstromshoes.com	Yes	Oct. 1998; nordstromshoes.com launched in Nov. 1999	Yes.	Yes	
7	JC Penney	jcpenny.com	Yes	Prior to Xmas 1994; re-launched in June 1997.	No.	Yes	Will provide fulfillment for anntaylor.com
8	Saks	saksfifthavenue.com	No -- but "coming soon" (per web site)	n/m	n/m	Yes (Folio and Bullock & Jones)	E-commerce and catalog will be under Saks Direct. Will remit 5% royalty to Saks Inc. for use of brand name.

Do the On-Line Stores of the Better Department Stores Offer the Same Apparel Styles As Are Available in Their Stores?

<u>Selected Brands</u>	<u>Dillard's</u> dillards.com		<u>Bloomingdales</u> bloomingdales.com		<u>Macy's</u> macys.com		<u>Neiman Marcus</u> neimanmarcus.com		<u>Nordstrom</u> nordstrom.com	
	<u>Brand Carried in Store?</u>	<u>Offered On Line?</u>	<u>Brand Carried in Store?</u>	<u>Offered On Line?</u>	<u>Brand Carried in Store?</u>	<u>Offered On Line?</u>	<u>Brand Carried in Store?</u>	<u>Offered On Line?</u>	<u>Brand Carried in Store?</u>	<u>Offered On Line?</u>
Donna Karan										
Donna Karan	no	no	yes	limited- 9 apparel	no	no	yes	limited- 3 apparel	yes	yes- 38 apparel/ lingerie
DKNY	yes	no	yes	yes- 37 apparel	yes	yes- 50 apparel	yes	limited- 15 apparel	yes	limited-13 apparel/ lingerie
Jones Apparel Group										
Jones New York	no	no	yes	limited- 1 apparel	yes	yes- 57 apparel	no	no	yes	no
Evan Picone	no	no	no	limited- 3 apparel	no	no	yes	no	yes	no
Rena Rowan	no	no	no	no	no	no	no	no	yes	no
Todd Oldham	no	no		no	no	no	no	no	no	no
Saville	limited	no		no	no	no	no	no	yes	no
Liz Claiborne	yes	limited- 8 apparel	no	limited- 5 apparel	yes	yes- 67 apparel	yes	no	yes	limited- 3 apparel
Nautica	yes	limited- 1 apparel	yes	limited- 12 apparel	no	limited- 16 apparel	no	no	limited	limited- 4 apparel
Polo Ralph Lauren	yes	limited- 6 apparel	yes	yes- 53 apparel	yes	limited- 25 apparel	yes	no	yes	no
Tommy Hilfiger	yes	limited- 14 apparel	yes	limited- 12 apparel	yes	limited- 5 apparel	no	no	limited	no
On-line SKUs		11,000		30,000		230,000		over 1,000		35,000

Summary of the On-Line Availability of Brands Offered in Better Department Stores

<u>Department Store</u>	<u>Not Available</u>	<u>Limited Selection</u>	<u>Wide Selection</u>	<u>Total</u>
Dillards	1	2	2	5
Bloomingdales	0	4	3	7
Macy's	0	2	3	5
Neiman Marcus	3	2	0	5
Nordstrom	<u>5</u>	<u>2</u>	<u>1</u>	<u>8</u>
Total	9	12	9	30
	30%	40%	30%	100%

Source: Table 6