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**Supply Chain Management and
Collaboration in the Apparel
Sector - Learning from the best?**

Author: Marion Brägger

1. Introduction: Supply chain management in the apparel sector

Few industries are as notorious as the apparel industry for having such difficulty predicting demand¹. Product proliferation and shorter product life cycles lead to demand uncertainty on the one hand, long lead times due to a highly complex and fractioned supply chain on the other compel retailers to make commitments far in advance and thus make accurate forecasts almost impossible. The consequences are high costs of stockouts, markdowns and inventory carrying costs, and are mainly borne by the retailers. Coping with this fashion risk has become a central issue, and supply chain integration is a valuable starting point to tackle it.

The advent of information technology and the retailers' increasing bargaining power have led to changes in retailing and to several industry initiatives, such as Vendor Managed Inventory or the apparel sector's Quick Response, that changed the retailer-supplier relationships. They greatly shortened replenishment times and thus lowered inventories of basic products, but were only of little help to cope with the very perishable fashion items.

This article is based on a diploma thesis (CPFR process in the fashion and apparel sector – an exploratory analysis) made in the University of St.Gallen. The objective of the study was to gain an insight into the current status quo of the Swiss apparel retail sector regarding supply chain structures and mechanisms in order to find out whether supply chain integration has already taken place and whether the industry has adopted new business models (especially CPFR) or is still operating in the traditional structures.

For this purpose, logistics and/or purchase managers as well as store managers of three Swiss apparel specialty retailers have been interviewed. By exploring their supply chain structures, material flows and sophistication of decision making processes as well as their information systems, their readiness and their willingness to adopt new collaborative business models, such as CPFR, can be evaluated. Finally, these cases can be put into contrast with the best practice examples.

2. Verticalization and vertical integration

The „verticals“ are changing the market's dynamics

While the traditional apparel industry is struggling and facing shrinking sales, a handful of large, vertically integrated, multi-national specialty retailers such as Hennes & Mauritz (H&M), Zara or Mango, continue to defy the global economic downturn and show strong growth rates. One

¹ Hammond and Kohler (2000), p. 20

explanation for their success is the fact that they have tackled the problem of the highly perishable fashion items: Through controlling and streamlining their supply chains they were able to cut their lead times to two or three weeks. Therefore, they can respond to the very common changes in fashion customer tastes almost in real-time, minimizing the fashion risk.

Their extraordinary responsiveness to new trends due to their highly vertically integrated supply chains is placing pressure on traditional retailers. In fact, they are changing the industry's dynamics and landscape: Instead of launching new collections once a season, they replace their whole collections every four weeks; several times a week, the customer finds something new in the store shelves. Today, most traditional apparel manufacturers have to follow the fast pace of the "verticals" and launch a new collection several times a year. Order deadlines are split, retailers place smaller orders more often and closer to or even during the season, short-range programs are launched. Only very big, internationally famous brands like Boss could defy this trend so far, but also feel the pressure to become more flexible and allow for more than two order cycles a year.

But only following the fast collection pace is not automatically the way to success, it is much more about having the latest styles, thus about cutting lead times. Zara, for example, is the industry's leader in its ability to respond rapidly to fashion trends. It puts fashion ranges together in seven to 30 days and can replenish bestsellers in the stores in five days. H&M can respond within three weeks. This compares to as much as 40-50 weeks from design to delivery for a typical clothing retailer.²

Trend towards verticalization

H&M, Zara and the like, however, are not the only ones integrating their channels, they represent only the "purest" form due to the fact that they only sell their own brands and have highly integrated supply chains, i.e. they own and control almost the whole value chain.

Many companies have decided to exert more influence on their value chains, either upstreams or downstreams. In order to be able to react faster on consumer needs and market trends, and also to be less dependent on their branded vendors, many retailers have begun to move into apparel or even textile manufacturing by creating distinctive product lines under their exclusive name and license, so-called private labels or store brands which are designed by the companies' own designer teams and then manufactured by subcontractors. Manufacturers, on the other hand, have started integrating downstreams by opening their own stores (The GAP, Esprit,

² compare just-style.com (2003)

S.Oliver, just to name a few) or operating in shop-in-shop systems. This has led to a blurring of the traditional boundaries between these industries and to a situation of co-opetition: Many retailers have chosen a mixed strategy of selling their private label lines as well as having brand labels in their assortment, just as the manufacturers have opened their own stores but still sell through retailers as well, thus being business partners and competitors at the same time.

Nevertheless, these companies do not reach the verticals' supply chain performance by far. In order to comprehend why the verticals outperform the rest of the industry, the two cases of Spain's Zara and Sweden's H&M have been analyzed regarding their supply chain structures.

The verticals' formula for success

The companies' key success factor is their very well managed and coordinated supply chain, designed to minimize reaction time. Fisher's accurate response approach³ gives a good framework to evaluate their actions taken to streamline the supply chain. Table 2-1 illustrates that many of Fisher's principles can be retrieved in their supply chain strategies.

Fisher's approach recommends the following steps: First, you have to accept that some uncertainty cannot be removed. Second, there are three coordinated strategies to manage the uncertainty:

1. Improve your forecasts and thus *reduce uncertainty* by finding sources of new data that can serve as leading indicators, e.g. early sales data or estimates from expert groups.

The verticals reduce uncertainty by operating with test shops, and use POS data and customer feedback to improve their forecasts.

2. The closer to the selling season the orders can be placed and the products can be manufactured, the smaller are forecasting errors due to the availability of more accurate information. Uncertainty can thus be *avoided* by cutting lead times and increasing the supply chain's flexibility.

Fast information flow and coordination of the whole supply chain (including the procurement of raw fabrics) cut lead times significantly by eliminating interim levels and redundancies in the channel. Highly automated DCs and air shipment reduce delivery lead times.

3. *Hedge* against the remaining uncertainty with buffers of inventory or excess capacity: make the better-predictable items early, the others as late as possible.

³ compare Fisher (1997) and Fisher et al. (1994)

Zara and H&M do this by booking spare production capacity, holding inventories of fabrics and components and through postponement strategies.

Objective:	Reduce uncertainty	Avoid uncertainty	Hedge against uncertainty
Idea:	Improve forecasts	Cut lead times	Provide spare capacity and inventory buffers
The verticals' actions:	<ul style="list-style-type: none"> • Use of real-time POS data to trigger production • Test shops • Continuous market screening • Taking customer feedback into account 	<ul style="list-style-type: none"> • Elimination of interim distribution levels • IT integration enables fast information flow • Shorter decision processes through employees' empowerment • Control and coordination of the end-to-end process, thus eliminating redundancies • Early procurement of fabrics • Zara: domestic production • Postponement strategies: Dyeing, design prototypes • Highly automated DCs • Air shipment 	<ul style="list-style-type: none"> • Booking of spare production capacity • Inventories of fabrics and components • H & M : high-volume, low cost production of basics in advance; fashion items close to the season

Table 2-1: Fisher's recommendations put into practice

Zara and H&M have especially perfected the cutting of lead times by pulling almost every possible stop.

Their supply chain efficiency and the resulting short lead times lead to several advantages⁴:

- They can respond extremely fast to market trends and customer feedback and thus reduce the fashion risk to a minimum, avoiding overstocks and markdowns.
- The high degree of influence on the supply chain minimizes the frictional losses throughout the channel. The elimination of interim levels - and therefore many redundancies in the chain - produces time and cost advantages as well as lower inventories.
- In contrast to the classical work sharing structure that involves two margins in the value chain - the retailer's and the manufacturer's - there is only one margin in the case of vertical companies.

⁴ Compare KPMG (2001), p. 17f.

- It is hardly possible to copy their fashion ideas due to the short collection rhythms, i.e. the assortments of the vertical chains are characterized by high exclusivity. Furthermore, the fast changing collections create a “climate of scarcity”⁵: One has to buy the item now because tomorrow it might be gone and will not be replenished.

3. Empirical Work

The cases studied show that the three Swiss companies stand at very different points and are facing different challenges, partly due to their different positioning strategies and market segments (compare table 3-1).

	Firm A	Firm B	Firm C
Size:	Big (turnover CHF 612 M io.; 153 stores)	Middle (turnover CHF 129 M io.; 35 stores)	Middle (turnover CHF 115 M io.; 33 stores)
Products:			
-Price segment	Women's, men's and children's fashion, in the "value-for-money", i.e. lower price segment	Women's, men's and children's fashion, in the middle price segment	Men's fashion, in the middle and high price segment
-Private label/ Brands ratio	95% private labels, only few branded items	45-50% private labels, 50-55% middle-price-range brands	50% private labels, 50% international luxury brands
-Fashion/Basic Focus	Mainly basic, fashion-basic	Fashion and fashion-basic	Fashion and fashion-basic
-No. of collections per year	Four collections per year	Ten to twelve collections per year	Two collections (summer/winter)

Table 3-1: Overview

Due to their different focuses, they have differently designed supply chains. While firm A receives the lion's share of clothes from Asia in large shipments and thus holds large inventories in warehouses, firms B and C have rather lean supply chain structures with low inventory levels and a higher share of European suppliers. Their problems lie more in the terms of delivery: especially

⁵ Crawford (2001)

branded manufacturers require orders to be put up to eight months in advance of delivery, which increases the fashion risk immensely.

	Firm A	Firm B	Firm C
Planning and Forecasting	Quarterly ; nine months in advance of delivery date	In a two-season cycle (summer and winter); more than one year in advance	Two-seasons rhythm ; nine months in advance
Design to shop time (for private labels)	Six to ten months	Three to nine months	Three to nine months
Order to shop time	Six to nine months	Two to eight months	Two to eight months
Delivery lead times (transport)	3-4 weeks (Europe) 8 weeks (Asia)	2 weeks (Europe) 6 weeks (Asia)	2 weeks (Europe) 6 weeks (Asia)
Frequency of shipments	Large shipments of high frequency	Monthly shipments	Several times per season
Supply Chain Structure (DC , warehouses)	70% of suppliers from Asia, 30% Europe Large warehouses, high inventory levels, several DCs	60% of suppliers from Europe, 40% Asia One central warehouse for NOS-items; inventory levels rather low , merchandise is passed on to stores	60% of suppliers from Europe, 40% Asia DC with small warehouse; merchandise is delivered to the stores
Replenishment Policies	Automated Replenishment from central warehouses; not automated reorder processes from suppliers	Only few products (NOS-items) are replenished from central warehouse. Most products are not replenished.	Most products are not replenished. Basics are delivered directly to the stores and directly reordered by the stores (weekly/ twice a month)
IT / communication	Building up a new IT system that will allow for electronic integration of key suppliers	Building up a new IT system that will allow EDI connections to suppliers	No electronic integration of suppliers

3-2: Overview Supply Chain Structures and Mechanisms

The three retailers have powerful positions regarding their private label suppliers; the power structure between the retailers and the branded manufacturers is more complicated: the bigger the brand the less bargaining power the retailers have. The most affected by this fact is firm C, having many famous international brands in its product range. This makes cooperation or collaboration initiatives difficult: the relationship is characterized by distrust, the retailer does not want to become even more dependent on its suppliers.

The most progressive regarding cooperation models is firm B. The balanced power distribution between retailer and branded manufacturers enables various risk-sharing models.

	Firm A	Firm B	Firm C
Supplier relations	Retailer has strong bargaining power	Balanced bargaining power between retailer and supplier	Brand manufacturer has strong bargaining power
Cooperation/ Collaboration Models	Until recently arm 's length relationships; now changing (supplier integration)	Several risk-sharing models (e.g. shop-in-shop, sales quota); quick response agreements	Arm 's-length relationships esp. to branded manufacturers
Developments	Working on a supply chain management project to identify key suppliers and electronically integrate them	Central warehouse is to be shutdown; replenishment-agreements with vendors for NOS-items	No signs of change; strong position of the branded manufacturers impedes changes so far
Problems/ Challenges	High inventory levels, long lead times, intransparency in the SC, delays	Dependency on suppliers; intransparency in the SC	Great dependency on suppliers; intransparency; low delivery service levels

3-3: Supplier Relations, Developments and Challenges

General trends: More speed and more transparency

In spite of their many differences, the three firms have all confirmed some general trends which shall be discussed in the following.

The out of stock issue seems to be less of a subject in apparel than in other industries; the store managers opine that most people do not come into the store with an exact idea of what they want to buy and are not fixed to a certain brand, thus they do not expect a certain item to be there, except for advertised products, of course. Much depends on displaying and presentation, as well as the sales staff and their advisory service. Therefore, the customer often buys a similar product to the one that is sold out and sales are not lost. However, since none of the companies actually measures out of stocks and the lost potential sales, they probably cannot judge the situation properly.

Overstocks and markdowns present a much bigger problem to the retailers, mainly caused by the poor forecast accuracy due to the long lead times. That is why the retailers call for shorter order fulfillment times. Their pivotal claim: They do not want to place their orders and commit to production months in advance of a season based on speculations what might become a future trend. They want to have the possibility of awaiting some market signals and then responding quickly to these trends.

To achieve this, they have realized that they have to engage more in optimizing the supply chain and cut lead times significantly. And they have the opportunity to do so, at least regarding their private labels. However, they have failed to tap the full potential of an integrated chain so far. Information flow and logistics processes have hardly been organized more efficiently than with the brand label suppliers. Until recently, none of the three had an information system that was sophisticated enough to support data exchange with suppliers. Nevertheless, two of the firms have realized the need for action and are laying the foundations of better coordination and more transparency through the implementation of new information systems.

The interviews with firms B and C have shown how poor transparency between retailers and branded manufacturers is: What is happening upstreams is a black box to the retailers, they gain no insight until merchandise is delivered at the DC. It would be of great advantage for the retailers to know earlier about shipments and delivery problems, but the structures are still dominated by rather adversarial ideas, especially if one party is much more powerful than the other. While the retailers see that they have to go about improving their private label supply chains, they put the responsibility for the branded items supply chain restructuring on the manufacturers. Manufacturers, however, as one interview partner highlighted, will not change until they have to, since a two-seasons strategy with long lead times is the best strategy for them regarding costs and production planning; splitting orders and production volumes would only expose them to higher risks and costs.

The demand for greater transparency in the supply chain has been confirmed by two firms, the third, however, is rather sceptical about it, especially with its branded label partners, fearing the loss of bargaining power.

4. Discussion: Feeling the verticals' pressure – following the verticals' strategy?

The retailers have recognized the need for coping with supply chain matters. But what are they really doing to improve the situation and make the channel more responsive?

Their processes shall now be evaluated in matters of forecasting quality, their efforts to reduce lead times as well as some hedging strategies, as presented by the accurate response approach and excellently practiced by Zara and H&M. This evaluation, however, refers to their private label supply chains, since they have very little influence on the supply chains of the branded items.

Forecasting:

In all three companies, planning, forecasting and the design of own brands still happen up to one year in advance of the season, orders have to be placed up to eight months before the season starts. This enormous time lag impedes the possibility of taking early sales data into account; responding real-time on customer demand as the verticals do is impossible. Therefore, they are exposed to the risks of a demand-supply mismatch. Nevertheless, these pre-season orders are decreasing, the budget is split and what can be ordered at shorter notice will be ordered later.

At firm B and especially at firm C, many people are involved in the forecasting process, following a top-down and bottom-up strategy, which – according to Fisher et al.⁶ – improves forecasting quality, but at the same time leads to longer lead times of the decision process.

Although forecasting processes rely on historical and macroeconomic data, they remain mainly a matter of “gut instinct”; the companies stress the fact that forecasting – especially many months in advance – can never be very accurate and that there are too many unpredictable factors involved.

Reducing supply chain lead times:

Design and ordering processes are still very long, with many loops and reviews, which can cost several weeks or even months. Orders are not automated, so far, there is no electronic connection to the suppliers. However, firm B and especially firm A will automate certain order processes: “The buyer then should not have to fly to Hong Kong for every T-shirt any more”, one interview partner remarked.

Fabrics or components are not procured by the companies, the retailers leave this up to the manufacturers. Production of fabrics can be a very long process, and the companies would be well advised coping with this issue, since holding “raw material” inventory is not that risky⁷, but saves much time in the production process.

The assembly time, or throughput time respectively, cannot be influenced directly by the retailers, since they do not control these processes. But they could, if necessary, exert some pressure on the manufacturers to speed up their processes, e.g. through modular assembly lines. The third starting point to cut lead times are the distribution processes. Firms B and C have a high share of European manufacturers and will increase this share, firm A also intends to increase the European share. This cuts lead times by at least four weeks in comparison to shipments from Asia. Firms B and C also have direct delivery and cross-docking agreements, as

⁶ compare Fisher et al. (2000), p. 118

⁷ compare Fisher et al. (2000), p. 119

well as streamlined processing at the DCs, which saves another few days. Firm A's lead times, however, seem to be a weak point due to several stations and handling processes.

Hedging strategies:

The companies have agreements with some of their suppliers that guarantee delivery in shorter than normal lead times, however, they do not book capacity. Firm B has some agreements with manufacturers that they do not process the full amount of fabrics but hold a rest in stock until sales and demand data are available and it decides whether or not it wants to produce more of the garments.

In conclusion, compared with the vertical "model pupils" of the business, the three companies are way behind, and only at the beginning of optimizing their supply chains. However, one should not forget that Zara and H&M focus on much more short-living fashionable items than the three Swiss retailers do. There is no need and no point in designing every supply chain responsive; they should focus on the right strategy for the different products. Especially firm A deserves a closer look considering its supply chain strategy, due to the fact that its product range consists of 95% private labels. The company designs its collections, determines fabrics and has the garments produced by contractors, just like H&M. In comparison, however, some clear differences can be observed: Zara and H&M have much faster collection cycles, a much narrower target group, sell younger and much more fashionable items and less or no basic items. Firm A, on the other hand, "only" launches four collections a year, which is rather little in today's dynamic apparel business. Moreover, it targets a very broad audience with much more basic merchandise. But, of course, the main difference lies in the very different levels of their logistics efficiency: Lead times of a few weeks in contrast to several months. But it would be a rash decision to just follow the verticals responsive supply chain strategy. As pointed out above, this retailer has a different target group and its product lines consist of many basic items. And as Fisher (1997) explains, the right supply chain strategy for these items is an efficient, cost-focused channel design, and a high share of manufacturers in the Far East is not a disadvantage. Speed for speed's sake is not sensible; one of the company's main selling propositions is price, and therefore, cost must be one of the main focuses of the supply chain design. Nevertheless, this does not justify the intransparency and inefficiencies in the company's supply chain, on the contrary, there lies a high potential in streamlining processes.

The lack of transparency and coordination in the companies' channels is probably one of the main causes of the long lead times and inefficiencies in their supply chains. And whether the objective is an efficient or a responsive channel, information-integration, i.e. the fast flow of information throughout the channel, is a crucial success factor.

But vertical integration is not the only answer to tackle this issue. Especially with branded manufacturers, the retailers have to cope with the problem of lacking upstreams transparency and control by other means. Furthermore, strong vertical integration premises a certain size; Firm A might have the critical volumes, but the other two are probably not big enough (and they have a private label share of "only" 50%) to justify strong vertical integration. An alternative is thus discussed below.

5. Collaboration – an alternative to vertical integration

The traditional structure of the textile-apparel-retail channel is very complex; the fragmentation leads to many interfaces, redundancies and frictional losses, and makes the supply chain slow and inflexible. There are two ways to go about this: Improving channel performance by owning key components of the supply chain – i.e. vertical integration - as Zara or H&M did, or alternatively, improved interface-management through better coordination and communication, i.e. vertical collaboration. A coordinated decision making process on the basis of centralized information can eliminate many redundancies⁸, for example planning and forecasting at several stages, and thus improve the overall supply chain performance.

Collaboration – or one could say "virtual integration" - might thus be an alternative to vertical integration. As Abernathy et al. (1999) point out: "An effective information-integrated channel probably works against vertical integration. Sharing information and current knowledge of the market across channel players achieves some of the same objectives of formally reaching forward or backward into markets."⁹

Collaboration surely can improve information flow between the members of the supply chain and so reduce the reaction time of the suppliers. However, without further changes of internal processes and structures the information flow will be of little use.

An obstacle to collaboration is the fact that there is still a rather competitive climate in the supply chain, especially between branded manufacturers and retailers, partly due to the fact that the retailers are at the same time the suppliers' competitors with their own brands. But not only

⁸ compare Sinch-Levi et al. (2000), p. 88

⁹ Abernathy et al. (1999), p. 268

the manufacturers seem to be cautious, some retailers – firm C, for example - are sceptical as well.

While collaboration in general can be rated as an effective approach to improve channel performance, the question remains whether the CPFR concept as presented by VICS makes sense for the apparel industry.

CPFR – made for the grocery industry

The initiatives like Quick Response, Vendor Managed Inventory or Continuous Replenishment serve the main purpose of making lead times shorter and improve forecast accuracy, and thus replenishment faster and more reliable. They concentrate on functional products with long life cycles that can be replenished. These models have brought great success in shortening replenishment times and lowering inventory, especially at the retailers. CPFR is said to be the next step, additionally solving the problem of managing exceptions, i.e. demand fluctuations due to promotions and the like.

The question now is whether CPFR is suitable and necessary for the apparel sector; some pilots – such as Wal-Mart's and Sara Lee's - show great success. However, one has to take a closer look at what items have been chosen: Underwear, i.e. basics that might be adjusted from time to time, but have a long life cycle. Those functional items are definitely suitable for CPFR, since they do not differ much from grocery products, for which CPFR was created. The supply chain of these basics can be designed no different from the supply chain of a detergent, for example, where needs can be well anticipated and fulfillment accomplished via straightforward automated replenishment. Whether CPFR is necessary or other more streamlined alternatives such as VMI or CRP are sufficient, depends on whether basic items are often subject to promotional activities that disrupt the stable demand patterns. In mass merchants' stores, they might be, and CPFR might thus be helpful. In apparel specialty stores, however, fashion products stand in the center of advertisements and promotions, rarely basic items.

CPFR for fashion items might be more complicated. The "F" poses the first problem: A joint forecasting process is claimed to be more accurate than individual forecasts, however, the many unpredictable factors and the high dynamism of the fashion business does not allow for very accurate forecasts, no matter how many parties are involved. Moreover, it is questionable how sophisticated forecasting capabilities of vendors are. So far, they waited for orders to arrive and then started production, thus forecasts were redundant.

Second, “R” – replenishment – is hardly practiced for fashion items; suppliers do not want to carry the inventory risk of these perishable goods and thus do not hold stock - and cannot produce fast enough to make to order.

Third, “P” involves strategical work and long-term commitments. However, retailers do not have such stable relationships to suppliers, especially not for fashion products.

And finally, “C” poses the question of trust and partnership, which is a very delicate issue, as mentioned above.

A further question is for what kind of apparel retailers CPFR would be applicable. The U.S. examples show that there are in general big companies involved. In apparel, the pilots include mainly mass merchants. This is reasonable, taking into account that their apparel lines consist of more basic styles and that (price) promotions are common (e.g. economy size packets, “3 for 2” for underwear, socks, T-shirts etc.) thus leading to demand fluctuations. Furthermore, mass merchants might have experience with CPFR in other product areas. It is therefore likely that if CPFR is to evolve in the Swiss apparel sector, it will be from the mass merchants like Migros.

6. Summary and Conclusions

The case studies of the three Swiss apparel retailers have confirmed that the firms have recognized that the optimization of their supply chains is the key to shorter lead times. But the interviews have also shown the very different points at which the companies stand. Firm A has already adapted the channel perspective and is integrating its supply chain by means of information technology and closer supplier relationships. Firm B has also been open to change and new business models, but so far “only” to the cooperative rather than collaborative ones. The implementation of the new system might first lead to more transparency and enable suppliers to respond faster (following the Quick Response approach), but finally, collaboration could become an issue; the company, however, is open and willing to cooperate and collaborate. Firm C, on the other hand, shows that traditional structures in its supply chain are still predominating and sharing data is a very delicate issue. The branded manufacturers’ position in this sector seems to be very strong and they are reluctant to change and to expose themselves to greater risk.

One key factor for improving the channel’s performance is information integration and coordination throughout the supply chain. To achieve this, some companies have sought the way of vertical integration and prove to be the best performing apparel retailers at the moment,

putting pressure on the rest of the sector by launching new collections every month. Due to the fact that they control their supply chains nearly from end to end, they are able to produce the most trendy fashion styles almost in real-time to respond to the fast-changing consumers' tastes. For smaller companies and those with an important share of branded labels, where vertical integration is not practicable, collaboration can be an alternative answer to the claim for more speed by improving information flow and reducing redundancies in the channel. But the task of building collaborative relationships should not be underestimated, also due to the fact that the industry is still mainly characterized by "island-" and adversarial rather than channel-thinking, especially between branded manufacturers and their retailers.

None of the three Swiss retailers has had or is planning a CPFR pilot; if this initiative is coming into Swiss apparel retail, it is likely to do so via the big mass merchants, as observed in the U.S. market. CPFR might be a suitable tool for basic items which do not differ much from grocery products, but will not solve the problem of dealing with fashion items and the high risk of markdowns and stockouts. Coping with fashion items is less an issue of improving forecasts and planning, but of reducing lead times. For these items it is therefore very important that they can be produced much closer to the season. The main objective is not to be able to replenish fashion items (i.e. the identical styles), but to be able to react very fast on changes of trends and consumer tastes in order to minimize the fashion risk. The time a market signal is recognized until it is translated into a new collection should be as short as possible. Forecasts concerning trends and styles tend to be very inaccurate, early sales data (i.e. market signals), on the other hand, are an excellent predictor of overall sales.¹⁰ Were the suppliers capable of producing and delivering merchandise within two or three weeks, forecasts would become redundant.

¹⁰ Fisher (2000), p. 116

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