



SUNIL CHOPRA

Wills Lifestyle in India

“We are much more flexible than third parties, but it is not clear that this flexibility is worth the price,” Chitranjan Dar, CEO of the Wills Lifestyle apparel brand, said at a senior management retreat. He pointed out that despite the company’s efforts to increase flexibility, including a 2003 initiative that brought manufacturing in-house, production costs remained about Rs. 50¹ per unit higher than those of third-party manufacturers. For several minutes the management team debated the outcomes and merits of the initiative.

Wills Lifestyle was a premium Indian apparel brand, part of ITC Limited’s fast-moving consumer goods (FMCG) portfolio. ITC was one of India’s larger private-sector firms, with a 2006 market capitalization of about \$15 billion and annual turnover of about \$3.5 billion. ITC had a diversified presence that included cigarettes, hotels, paperboards and specialty papers, packaging, agribusiness, packaged foods and confectionery, information technology, branded apparel, greeting cards, and safety matches.

In the 1990s, to exploit the liberalization of India’s economy, which for the first time allowed Indian firms to grow without government approval, ITC invested heavily in upgrading its manufacturing facilities. These investments were aimed at elevating capacity, quality, and labor productivity to international levels. ITC also invested in recruiting the best technical and managerial talent, as well as extensive training and development. By the end of the decade, these investments had paid off in terms of both profit and market share. The profits before tax for ITC increased from about Rs. 3 billion in 1992 to more than Rs. 16 billion in 2001. Return on net assets employed increased from less than 25 percent in 1992 to more than 45 percent in 2001.

During this period India’s apparel industry had few large, sophisticated players. Businesses tended to have low volumes and be entrepreneur-driven, with minimal investment in technology, processes, and people. Internationally, the market was driven by quotas allocated to various countries. Thus the primary objective of Indian entrepreneurs was to secure a share of the quota and fill their production capacity with export orders while keeping wages and investment as low as possible. In this environment, ITC recognized an opportunity in the apparel sector to better serve the Indian customers with disposable income, who were becoming increasingly aware of their choices.

ITC launched the Wills Lifestyle brand in an effort to capture this market in India in 2000. By 2003, however, the business faced multiple challenges. The buildup of unsold inventory equaled about 60 percent of the annual sales turnover of that period, and a lack of popular stock keeping

¹ On March 12, 2007, 1 U.S. dollar equaled 45.3 Indian rupees.

units (SKUs) increased the frequency of lost sales. On-time in-full delivery (OTIF), an unimpressive 40 percent, often delayed the season's launch. Customer returns were also high, at about 2 percent. In addition, low sales volumes meant the Wills Lifestyle management team was finding it difficult to retain garment vendors, forcing it to seek new ones each season.

In 2003 the team reconstructed the supply chain to be more responsive to customer demand and reduce obsolete inventory and lost sales. While the effort succeeded in matching supply and demand, internal costs of production continued to be higher than those of third parties, giving management much to debate at the retreat and upon their return.

Organized Retailing in India

India's long history of retailing was dominated by small businesses, or *dukandars*. By some counts, in the early 2000s India had more than 12 million *dukans*,² of which only 4 percent were larger than 500 square feet. Until the early 1990s the retail sector was largely unorganized, with products typically in short supply and wholesalers exploiting the absence of large retailers to extract a significant margin within the supply chain. Nonetheless, retailing had been one of the strongest contributors to India's economy, which by 2006 was the fourth largest in the world in terms of purchasing power parity (PPP). Retailing, estimated at US\$322 billion overall in 2008 and expected to grow at 5 percent per annum, accounted for 11 percent of the gross domestic product.

In the 1990s, with the rise of customer expectations and disposable income, organized retailers began to emerge. Shopper's Stop, established in 1991 in Mumbai, was one of the first department stores. Others soon followed suit, including the Pantaloon department store established by Pantaloon Retail India in 1997. Yet organized retailing in India was only US\$8 billion in 2005, representing a mere 4 percent of the total retailing market. Moving forward, the organized retailing market was projected to grow at a rate of 25 to 30 percent per annum, reaching an estimated US\$23 billion by 2010. Its contribution to total retailing sales was likely to reach 9 percent by end of the decade.

Apparel Retailing

Apparel claimed the lion's share of India's organized retailing market, accounting for 40 percent of total organized retailing in 2005, followed by 11 percent for food and grocery and 9 percent each for consumer durables and footwear. While domestic apparel brand stores such as Raymonds had existed for some time, in the mid- to late 1990s global brands such as Benetton, Nike, and Adidas arrived in India, followed in the early to mid-2000s by Tommy Hilfiger, Marks & Spencer, Mango, and Esprit. Raymonds, like many early entrants, had been very successful, with more than 330 stores across India as of 2006. Similarly, Benetton grew by 60 percent in 2004 and 2005 and was planning to double its number of stores, from 50 to 100, over the next three years. By 2006, the apparel brand store—including Wills Lifestyle—had become an established concept in Indian retailing.

² In Hindi, the term *dukan* refers to a retail store.

Yet India's organized retailing market presented significant challenges to existing and aspiring participants, especially in the initial phases of expansion. Preferences varied significantly by region, making it difficult to develop a single retailing model that was scalable across the country. For example, the first Shopper's Stop store was very successful in Mumbai (one of India's largest and most metropolitan cities, on the country's west coast), but the company could not duplicate these results with a similar shop in Jaipur (a second-tier city in the north). Thus reconfiguring product mix based on regional, city, and even community-based tastes and buying power was critical to the success of any retail chain in India.

Another major challenge was the high cost of real estate in large Indian metropolitan areas, the regions that drove most of the country's growth in organized retail. As of March 2006, no retailer had a sufficient number of outlets to exploit distribution economies. For example, Wills Lifestyle had only five stores in Delhi. Expensive real estate and the resultant lack of significant economies of scale in distribution made it difficult for retail chains to be profitable. In early 2008, the rent for prime real estate in Delhi was \$1,146 per square meter per year, according to Jones Lang LaSalle. In June 2008, the *Financial Times* quoted Kishore Biyani, chief executive of Pantaloon, India's leading retailer, "At current property prices, you can't exist in the modern retail business. Either productivity has to increase significantly or rent has to come down." However, with the development of quality retail space in newly constructed malls in first- and second-tier Indian cities that could draw a large number of customers, real estate costs were expected to decline, making retail operations more profitable. In fact, the correction in India's property market had started by the middle of 2008 with some, including Biyani, predicting that some shopping malls under construction would fail because of overcapacity.

The Indian Consumer

The changing demographics of Indian consumers helped fuel the country's growth in organized retailing. One of the most important drivers was Indians' diminishing age profile. In 2006 India had one of the youngest populations in the world, with 55 percent under the age of 25 and a median age of only 24. This youthful population, combined with rising purchasing power based on phenomenal growth in employment opportunities (in 2006 India recorded some of the Asia Pacific region's highest salary growth), fueled demand for fashion brands, technology gadgets, and fast food chains.

In addition, the mindset of the young Indian had shifted significantly. After 2001, the upper- and middle-class Indian consumer had evolved from a "self-denial" existence to one of "indulgence." Elevated exposure to the media and Western lifestyles (e.g., through the Internet), along with increased global travel, whetted the Indian consumer's appetite for Western fashion. These factors contributed to significant post-2001 growth in the target consumer segment for Wills Lifestyle.

Specifically, Wills focused on all subgroups within the Indian affluent segment, which comprised 30 to 35 million people total in 2005: 14 to 15 million upper-middle-class; 9 to 10 million mid-affluent; 6 to 7 million very affluent; and 1 million luxury-seeking.

ITC's Lifestyle Retail Business Division

By the late 1990s ITC had developed several competencies in its disparate businesses and sought growth avenues through synergies among these capabilities. Thus the Lifestyle Retail Business Division (LRBD) evolved through the integration of service-sector abilities (as related to hotels), brand management skills of the tobacco and FMCG businesses, manufacturing-process management expertise associated with several businesses including paper and packaging, and a nascent ability in garment sourcing. Because ITC's business divisions were built on large-scale manufacturing of products with low variability, addressing the apparel business's need for variety and rapid changes was a major challenge for the company.

ITC was not a complete stranger to the garment business, having gained some product sourcing experience for various divisions' sponsorships and events. A team of four people managed the design and sourcing of products, primarily athletic wear for golf and cricket. When the LRBD was conceived, there was no clear fashion leader in premium Western ready-to-wear clothing in the Indian market. The fashion benchmarks were European and American brands, to which Indian consumers other than those who traveled abroad had limited exposure.

An ITC team comprising managers from the FMCG division, assisted by a team from a major consulting firm, convened in 1999 to examine business opportunities in the retailing arena. To ensure the quality of ambience and customer service, the team decided to retail through exclusive brand outlets with a staff recruited by ITC. The LRBD started in 2000 with one store in South Extension, a premium high street in New Delhi, India's capital. Initially, the brand focused only on leisurewear for men and women under the name of Wills Sport. Good customer reception of the store and the brand motivated an aggressive expansion. One year later, the division opened a second store, this time in the South India metropolis Chennai. Over the next six months, 35 outlets were added across the country, with 12 more in the six months after that.

Chairman Y.C. Deveshwar's vision was to create "a world-class supply chain from fiber to fashion" and to make the division India's leading fashion brand for ready-to-wear Western clothing. To this end, a master facility in Gurgaon (near Delhi) was established to provide a platform for research and development activities related to fabrics and washes and to facilitate the prototyping of designs. Necessary product-focused capabilities included design, garment construction, specifications, sourcing/manufacturing, and testing of all inputs.

Four brands were introduced between 2000 and 2003. The firm aimed to make Wills Sport, the inaugural brand, "an international quality, premium full-range wardrobe brand for men and women, constituting relaxed wear for all occasions." In November 2002 LRBD added Wills Classic work wear, targeted at business professionals, and in December 2002 launched the John Players brand to extend its customer base beyond those who visited Wills Lifestyle stores. The business objective behind John Players was to tap the mass market to achieve high volume, which would help the LRBD exploit competencies and scale up operations. John Players represented a complete set of casual, work, and party clothes targeted to a younger audience who might not have the buying power of customers purchasing the other Wills brands. Wills price points started at about Rs. 1000 and went up to Rs. 4000 for a typical garment, while John Players prices ran from about Rs. 500 to around Rs. 1000. The John Players line was not available at Wills stores; it was sold through more than 1,800 multi-brand outlets and about 100 exclusive brand outlets by 2006. In May 2003 the company launched Wills Clublife, targeting the growing eveningwear segment. Along with apparel, each store sold accessories such as ties, cuff links, handbags, belts, and shoes (see **Exhibit 1**).

A typical customer returned to a Wills Lifestyle store every month and a half expecting to see new merchandise. To satisfy its customers, the LRBD introduced an extensive variety of products every season. The strategy was to offer significant variety to create a high-fashion image and provide customers with a greater number of choices. One of the key elements of the strategy was providing more size options than the Indian market had previously offered. In 2006 Wills stores offered three brands (Wills Sport, Wills Classic, Wills Clublife) in 500 styles—resulting in more than 8,000 SKUs per season.

In 2006, LRBD expansion plans included:

- Tripling total retail store space within three years
- Supplementing the brand with new categories such as suits, athletic wear, and personal care products
- Increasing the number of styles available by about 15 percent

No other single brand in India offered the total wardrobe solution that Wills did. In men's formalwear, the main competition was Louis Phillipe and Van Heusen—both owned by a large Indian business house. In leisurewear, the chief competition was from Indian brand Colour Plus and international brands such as Levi's, Dockers, Lee, Tommy Hilfiger, and Esprit (for women), which were sold through local franchisees. Judging the international brands its chief competition, Wills used these products as benchmarks for fashion and value.

A typical Wills Lifestyle store, at 1,800 square feet, could display about 360 garment options at a time. The two largest stores were 3,000 square feet each, and the smallest was 800 square feet. Sales averaged about Rs. 45 per square foot per day, with a typical store yielding revenues of Rs. 80,000 to Rs. 120,000 per day. Stores were located on high streets and in popular shopping areas, but the plan was largely to expand through shopping malls. The investment to open a store was about Rs. 7.5 million, excluding real estate costs.

The LRBD Supply Chain in 2002

The processes in the LRBD supply chain started with a forecast of overall fashion trends. The design team and merchants visited international trade fairs and retailers to identify popular themes and derive design inspirations. They also used international design forecasts available through the Internet and fashion publications. Simultaneously, the retail team constructed the product portfolio based on the number of options and projected sales volume at each price point, also known as range architecture (RA). Then, with the trends as inputs, designers developed ideas for a product range. The proposed range was presented as computer-aided design (CAD) printouts with representative samples for a few styles. From the product range proposed by designers, the senior management team selected styles for further development. At this stage, any gaps relative to the RA were identified, and styles were reworked or redesigned.

Once the range was approved, sales quantities were forecast for each product by consensus of the management team and the sales head. Wherever possible, the forecast quantity was based on actual samples. These quantities and selected style sheets were handed to merchants for development and sourcing of fabrics and finished garments. Garment quantities were constrained

by the requirement to order fabrics in minimum lot sizes—numbers determined by fabric mills—though customers could pay a surcharge for lower quantities.

Subsequently, manufacturing vendors (manufacturers) were identified and charged with production for each product. These vendors typically specialized by product; for example, shirting vendors generally did not make trousers, and denim manufacturers would not process silk or other fabrics. Thus, given the LRBD's aim of providing a complete wardrobe solution, the company had to employ a large number of vendors to make all categories of product. For a majority of the products, fabric was sourced by the merchants, and the vendors were paid for production based on trims and conversion costs.

The chief criterion for vendor selection was experience with international brands of high quality. Because the full range was to come to market simultaneously, the entire volume had to be manufactured together in a small time window. This requirement further increased the number of vendors, despite a low overall production volume.

All finished goods were delivered to an ITC warehouse, from which they were shipped to retail stores. The lead time for delivery of garments to the warehouse was about eight months after the finalization of the style and quantity. The main constituents of the lead time were:

- Fabric finalization and placement of the fabric order: 30 days
- Delivery lead time for fabric: 60 to 90 days
- Prototyping and manufacturing lead times: 60 to 90 days
- Delivery lead time: 15 to 25 days (from vendors to stores via the warehouse)

Exhibit 2 displays the sequence of these processes and a rough timeline.

The Indian calendar year for apparel retailing was divided into two sales seasons: winter (September through February) and summer (March through August). Because of the two- to three-month lead time for fabric and the three- to four-month lead time for manufacturing and delivery, a single manufacturing order was placed for the whole season's requirement. Most vendors produced large volumes at low cost, with minimum batch sizes ranging from 2,000 to 3,000 pieces per style. The large minimum batch sizes of most garment vendors, in contrast to the lower volume required by Wills, resulted in the entire season's requirement being produced at the season's start, as vendors were reluctant to split already small volumes further. As shown in **Exhibit 3**, manufacturing occurred in the three months preceding a season.

ITC had a single warehouse in Delhi that received all garments and replenished all stores. The national sales head, in discussion with regional sales heads and store managers, determined allocation of stock to stores. The allocation took into account the sales turnover target of each store and region and balanced available stock.

The LRBD found that the rapid expansion of stores during 2001 and 2002 created significant problems with its supply chain performance. Large amounts of inventory became obsolete at the end of a season, and sales were lost because popular products and sizes were out of stock.

Especially in the context of its ambitious growth plans, the division was concerned that these issues would dampen financial performance and future growth significantly. Additionally, the

vision of achieving international quality benchmarks was not being realized. For example, the “no questions asked” returns policy was resulting in 2 percent returns.

In analyzing the factors underlying these problems, the LRBD uncovered several issues. The first was the difficulty of making accurate forecasts; given the inherent unpredictability of demand for specific styles, forecast errors averaged 50 percent. With a widening base of stores, forecasting and stock allocation became more complex due to variations in size and style preferences across markets and geographies. This forecasting difficulty resulted in both overstock and lost sales. Meanwhile, the ability to reallocate stock across different parts of the country was constrained by poor stock visibility, as well as by government regulations, which made the process cumbersome.

The second major problem was that the LRBD had production volumes far lower than industry standards for garment manufacturing. Although vendors were willing to work with these limited volumes based on anticipated future growth and a desire to work with a reputable company, most garment manufacturers were geared for exports, for which the order size per style was roughly ten to twenty times that typical of Wills. Additionally, many export orders included significant penalties for manufacturing delays. Based on these factors, manufacturers often gave LRBD orders low priority or pushed them back in the face of capacity shortages, resulting in delayed deliveries.

The final issue was that a different LRBD function was responsible for each stage of the planning and forecasting process, and between-function handoffs did not occur until all decisions within a given function had been made. The between-function handoffs and associated issues were as follows:

1. Sales prepared the range architecture and handed it over to design.
2. The design department made designs for the entire range before sending them to the management group for selection, with little or no input from merchants or the sales department.
3. Selected designs were handed off to merchants for sourcing. Vendors made prototypes for approval by the design department, after which merchants took over manufacturing and delivery to the central warehouse.
4. Sales knew of the actual delivery quantity and date only when the product arrived at the warehouse just before the season’s launch.
5. Failures or delays at any stage of the process were not visible to other stages.

Modifying the LRBD Supply Chain

By the end of 2002 Anup Singh, the director in charge of the LRBD, recognized that it was crucial to manage these problems to ensure the success of the venture into lifestyle retailing. To investigate the processes of garment conversion more closely, he visited a number of manufacturing units. After these visits he conceived the idea of implementing just-in-time (JIT) manufacturing with the goal of “shifting the risk from finished goods inventory to fabric

inventory and manufacturing capacity.” He realized that it would be necessary to bring in outsiders to take this concept forward by designing a new manufacturing and supply chain strategy that would dramatically reduce lost sales and the degree of obsolescence. Paritosh Wali and Vivek Kamra, FMCG executives with experience in manufacturing and supply chain systems, were assigned to examine the idea. In addition, M. Vishwanathan, an experienced garment-manufacturing executive, joined the team to give an insider’s perspective of the industry, and Amandeep Singh Bedi, a young engineer from the FMCG business with interest in operations management and IT, was brought onto the core team. The general manager of operations in the FMCG business, B. Sumant, served as the sounding board for the team and also enabled access to FMCG resources.

The project team studied the weaknesses in existing processes and concluded that a responsive and flexible supply chain should be designed to enable several specific outcomes:

- Rapid response to winning styles
- Reduction of financial risk associated with “losers”
- Development and production of new styles using fabric left over from early losers

The team set an LRBD goal of increasing sales seasons from two (with five deliveries to stores) to six (with more frequent deliveries to stores). This increase required the restructuring of manufacturing and a reorganization of the entire supply chain for greater flexibility and responsiveness. While these changes meant increased unit production costs, they were expected to reduce obsolescence and lost sales significantly. Other expected benefits included:

- Improved service levels at stores, especially for size availability, leading to enhanced sales
- Improvement in product design relevance through reduction in the total lead time from concept to delivery
- Improvement in product quality

Based on the project team’s analysis and recommendations, management decided to establish manufacturing capacity dedicated to Wills, using JIT principles to produce high variety at low volumes. Bangalore was chosen as the manufacturing unit’s location because of its favorable industrial-relations climate and the availability of space in an old tobacco factory owned by ITC. ITC contracted with a vendor for a dedicated production facility, focusing investments on machinery and key managerial staff who understood and could implement JIT.

The team recommended the following major changes within LRBD to improve flexibility and responsiveness:

- Creation of concept-to-product cells
- SKU reduction and the use of design platforms
- Creation of manufacturing cells
- Demand-driven replenishment

Concept-to-Product Cells

To better integrate the various functions within the supply chain, the LRBD created concept-to-product cells (CPCs), which were responsible for all supply chain activities from concept to product release to manufacturing. Organized by category, each CPC comprised a designer, merchant, garment engineer, pattern master, finance resource, and retail operations resource. CPCs were integrated at the brand level (e.g., Wills Sport had two CPCs—one each for men and women—integrated under a category head for Wills Sport). At the next level the categories were integrated under the Wills CPC head (a merchant who reported to the head of sourcing and merchandising). Merchants were fully allocated to the CPC, with other members reporting to their functional heads. All CPC teams were located in the head office in Gurgaon and were focused on product (e.g., knits and wovens separately), brand, and gender. **Exhibit 4** presents the preproduction activities performed by each CPC.

SKU Reduction and the Use of Design Platforms

To reduce product variety while continuing to serve customers' needs, management established design platforms that encouraged commonality and reduced product development time. As part of this effort, the number of trouser sizes available was decreased from four inseams in each waist size to two inseams, and finally to only open length for business wear and a single inseam for leisure- and eveningwear. At the same time, the total number of waist sizes available was reduced from eleven to eight. Thus, the total number of SKUs per trouser option was reduced from forty-four to eight. Similar actions were taken for other products.

To decrease the length of the product development cycle given the large variety of items, "body blocks" were devised based on the dimensions of garments and the drape and fall that could be quickly finalized. This reduced the time required to achieve a proper fit and develop patterns. Trims were standardized, and a wash development library was created, largely because in previous seasons every style tended to be designed from scratch. Almost no styles were carried forward—not even those that had done well in the previous season—because of consumer demand for innovation.

The use of greige, or raw, undyed fabric, had not been considered as a cost-saving method because the brand relied on a large number of yarn dyes and on new and innovative fabrics. However, because the brand was looking at expanding the range of basic styles, greige fabric was seen as an important element in the supply chain of the future.

Manufacturing Cells

The goal associated with manufacturing was to increase flexibility and reduce batch sizes so that production could closely match actual sales at retail stores. The first step was to create manufacturing cells (see **Exhibit 5**) focused on clusters of product families with similar flows. The cell layout was designed to facilitate single-piece flow.

Styles were clustered in cells based on their commonality of operations and their sequence, with a goal of reducing setup times during style changes. Because of this process of clustering, the training of operators, the use of mobile layouts, and the increase in workforce flexibility

through multi-skilled employees, style changeover times were reduced from the industry norm of 72 hours to 30 minutes or less.

Cell operation involved several initial hurdles because the factory was always under pressure to produce styles immediately upon the release of style specifications by the product development team. This pressure limited the optimization of the style sequence for production and the training of operators regarding the style. Further, the style quantities were so low that instead of a daily production response as originally planned, the response was weekly. There was also only limited understanding of the spare capacity required for quick response because there was no analysis of variation from forecast. Delays in design development and pressures to cover unplanned demand further hindered implementation of the concept in its pure form.

Retraining the operators, production supervisors, and managers who were used to working in the conventional ways of the industry (batch and progressive bundle movement) was another challenge. In the initial phase, manager-led training was effective. As capacity expanded and more new recruits arrived, training was not systematically and uniformly administered. Additionally, as India's economy grew, retention of trained employees became a major challenge, especially given Bangalore's high economic growth. To overcome these issues, the LRBD established a training school to educate employees and motivate them to stay with the company.

The LRBD estimated that manufacturing cost was about Rs. 30 to 50 higher per piece in the firm's manufacturing cells relative to benchmark conversion costs. To begin with, worker productivity was lower than the Indian benchmark because of the high variety and low volumes of garments made. Second, the failure to use much of available capacity for long stretches during the year further affected costs negatively. The use of manufacturing cells, however, improved product availability and reduced product obsolescence. The LRBD estimated that the responsiveness of the JIT replenishment contributed about 6 percent to sales and saved Rs. 11 to 30 million by diminishing the number of obsolete products.

Demand-Driven Replenishment

The LRBD sourcing cycle was fundamentally changed from primarily forecast-driven to demand-driven, as shown in **Exhibit 6**.

Given a specific demand forecast, sales decided on the base lot order for each store to be delivered at the beginning of the season. Then a pool stock quantity was added to the base stock order for the initial production quantity. The pool stock consisted of seven days' estimated sales to buffer the production queuing, manufacturing, and delivery lead times. After the launch of the product to market, new orders, which were based on actual sales figures from store managers, drove the replenishment production plan for the week. The goal of production was to enable replenishment on a weekly basis by generating replenishment orders for each store based on its actual sales once the enterprise resource planning implementation was complete.

Challenges and Opportunities Going Forward

One challenge for LRBD arose in January 2006, when the Indian government began allowing foreign direct investment of up to 51 percent in single-brand retail businesses. According to the Department of Industrial Policy and Promotion, single-brand products were subject to the

following conditions: “Products to be sold should be of a ‘single brand’ only; products should be sold under the same brand internationally; and ‘single brand’ product retailing would cover only products which are branded during manufacturing.” This action was viewed as an initial opening of the retail sector in India to foreign direct investment. Over time, the government was likely to further open the sector. The new rule allowed retailers such as The Gap, Zara, and Ikea to enter the Indian market with majority ownership. After this announcement, Giordano, a Hong Kong apparel retailer, targeted India as a major market to enter.

Another major issue for LRBD was an analysis of its cost structure and decisions regarding how best to use internal manufacturing capacity. While it was much more flexible and responsive than third-party manufacturing, internal capacity was more expensive than third parties. This issue could become a big challenge as competition increased.

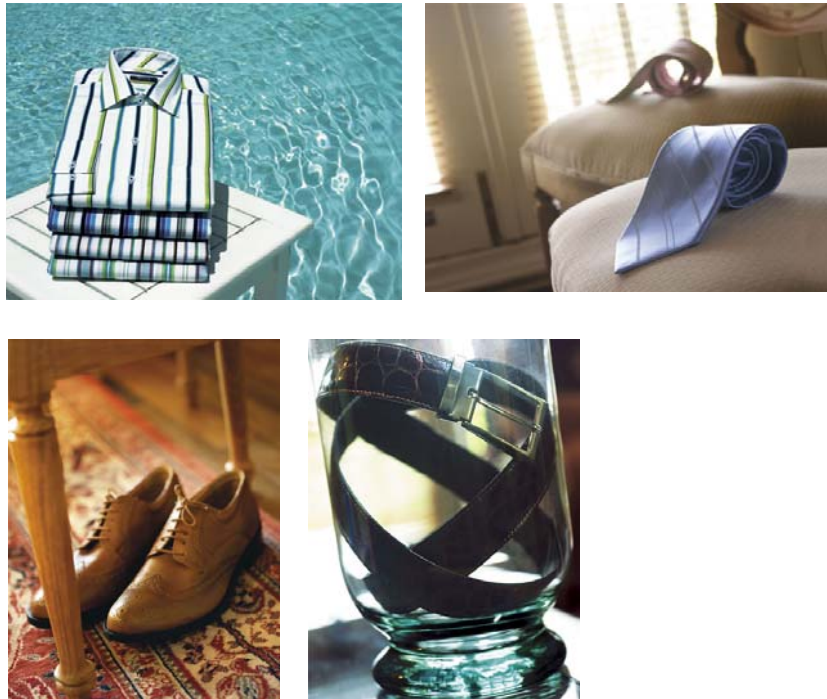
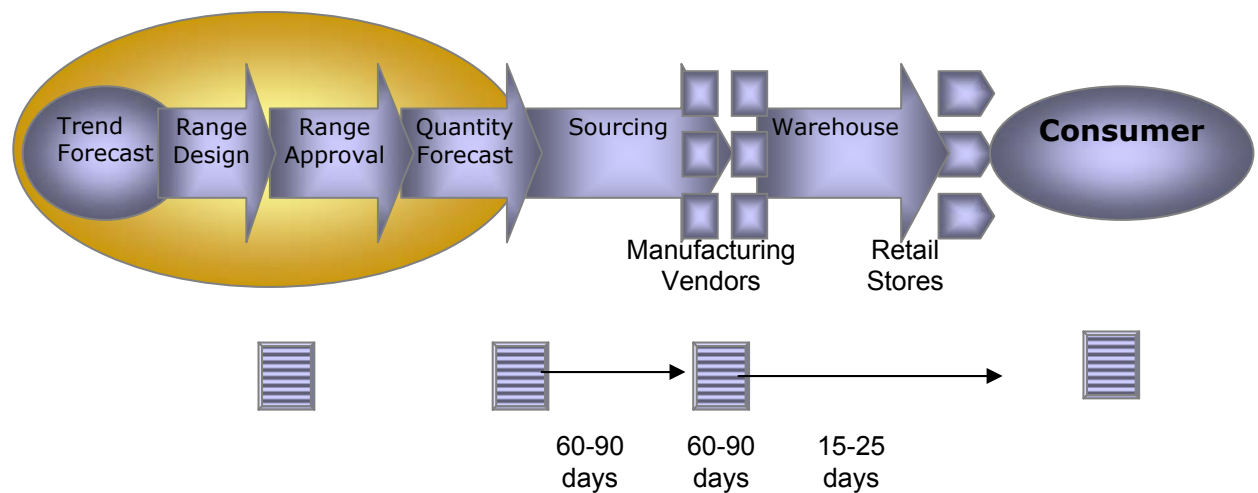
A final issue related to the managerial mindsets and metrics used to judge performance of the internal facility. Historically, the LRBD had focused on the cost of sourcing as the most important metric when evaluating suppliers. The company was struggling to identify suitable metrics to judge its sourcing decisions that could help align decision making across the supply chain.



Study Questions

For all analyses, assume that the margin associated with internal production is 30 percent (of cost) per style and the average cost of overstocking is 10 percent. Thus, a shirt that retails for Rs. 1,300 has a cost of Rs. 1,000, a margin of Rs. 300, and a cost of overstocking of Rs. 100. For all analysis, use the seasonal demand (for the six-month season) shown in **Exhibit 7**.

1. What are some challenges in the Indian market that make it difficult to establish and succeed with a chain of retail stores? Given the challenges, how do you think Wills Lifestyle is positioned?
2. Comment on the changes the LRBD made to increase responsiveness within its supply chain. Which changes do you think were the most significant? What do you think of the LRBD's decision to focus on manufacturing as the initial area for improvement? Should the company have targeted single-piece flow?
3. First consider the case in which LRBD sources from a third party (as was the case prior to 2003). The third party has a unit cost that is Rs. 50 per style lower than the costs implied in Exhibit 7. The manufacturer requires advance commitment (i.e., a single order for the season) and a minimum lot size of 2,000 units. What are the performance metrics that LRBD should focus on when judging performance of the third party? How much could LRBD benefit if the third party reduced the minimum order size but maintained the requirement of a single advance order for the season?
4. What are the metrics that LRBD hoped to improve by bringing production in-house to a more flexible and responsive facility?
5. Consider the revised process implemented by LRBD since 2003. The LRBD divides the sales season into six periods and arranges for multiple replenishments after bringing in an initial order quantity. Assume that each order cycle averages about one-sixth of the season's demand. What quantity of each style should LRBD ask for in the initial order (and successive replenishment orders) if the minimum order quantity is 2,000? How is the optimal ordering policy affected as the minimum order quantity drops from 2,000 to 500, in increments of 500? Do you think that LRBD should make an effort to reduce minimum order quantities below 500?
6. What do you think of a policy of starting the season with at least 40 percent of the forecast quantity for each style? Having a larger initial run lowers the cost of production per unit of the initial lot by Rs. 20.
7. How should the LRBD structure its sourcing strategy? What are appropriate metrics to judge the sourcing strategy? Can these metrics be used to align the different functions that are part of the supply chain?
8. What are the threats and opportunities for the LRBD as the Indian apparel retailing sector is opened to foreign competition? What role can the capabilities that the LRBD has developed play in global apparel supply chains?

Exhibit 1: A Sample of Products Sold by Wills Lifestyle**Exhibit 2: Garment Design, Production, and Delivery Process, 2002**

- Fabric finalization and placement of the fabric order: 30 days
- Delivery lead time for fabric: 60 to 90 days
- Prototyping and manufacturing lead times: 60 to 90 days
- Delivery lead time: 15 to 25 days (from vendors to stores via the warehouse)

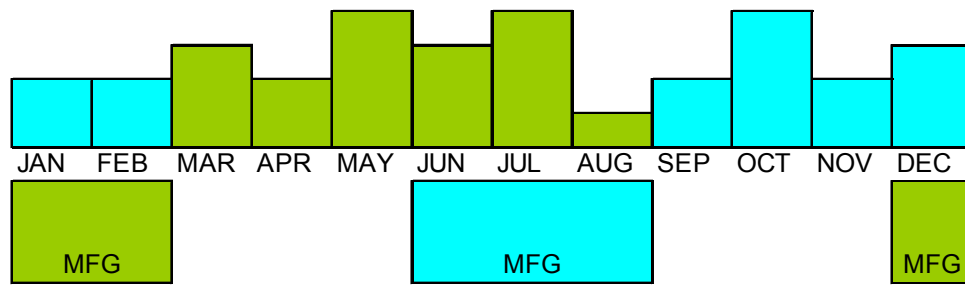
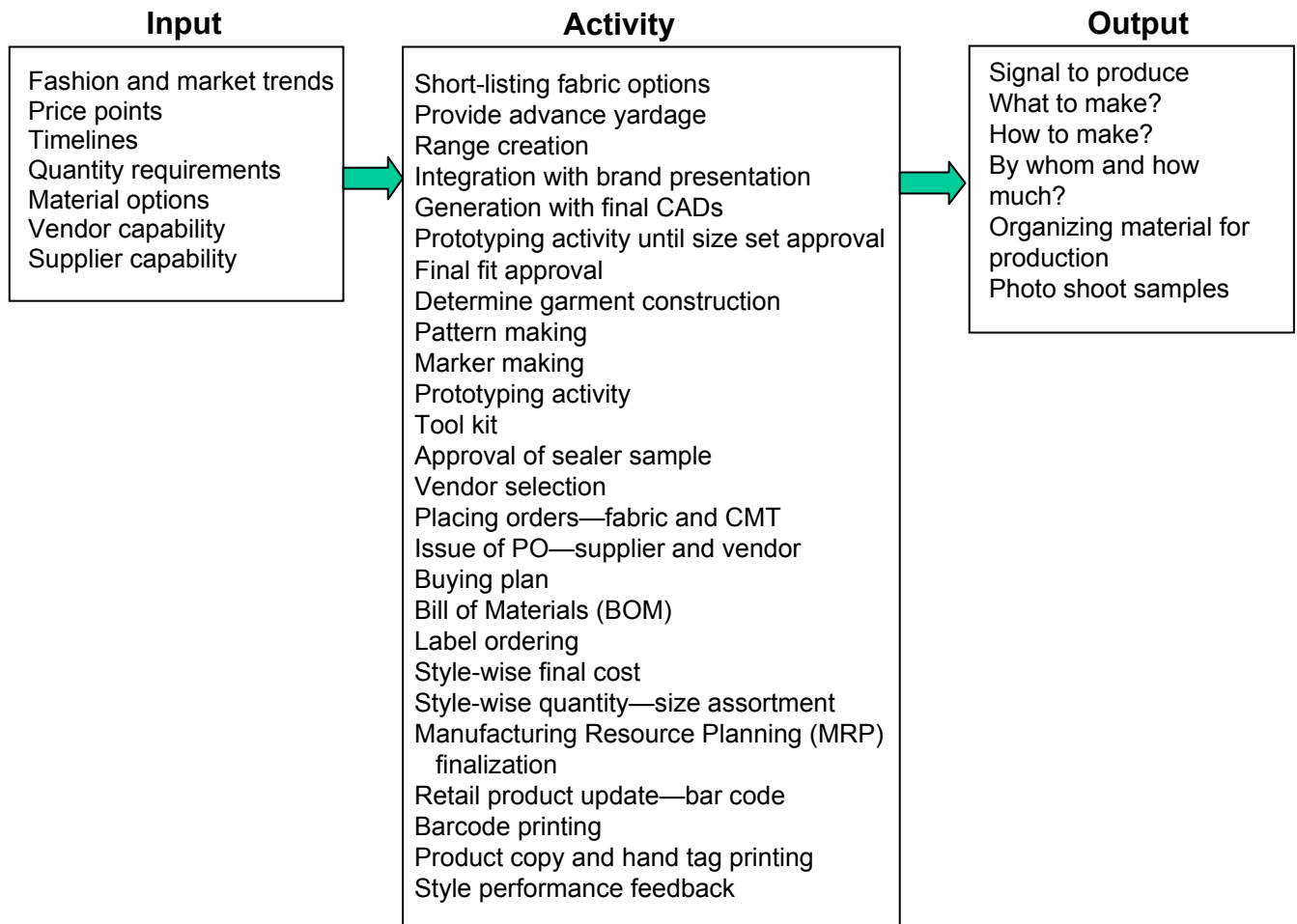
Exhibit 3: Consumption and Manufacturing Cycle, 2002**Exhibit 4: Activities Performed by a Concept-to-Product Cell**

Exhibit 5: Manufacturing Cell for Wide-Leg Stretch Pants

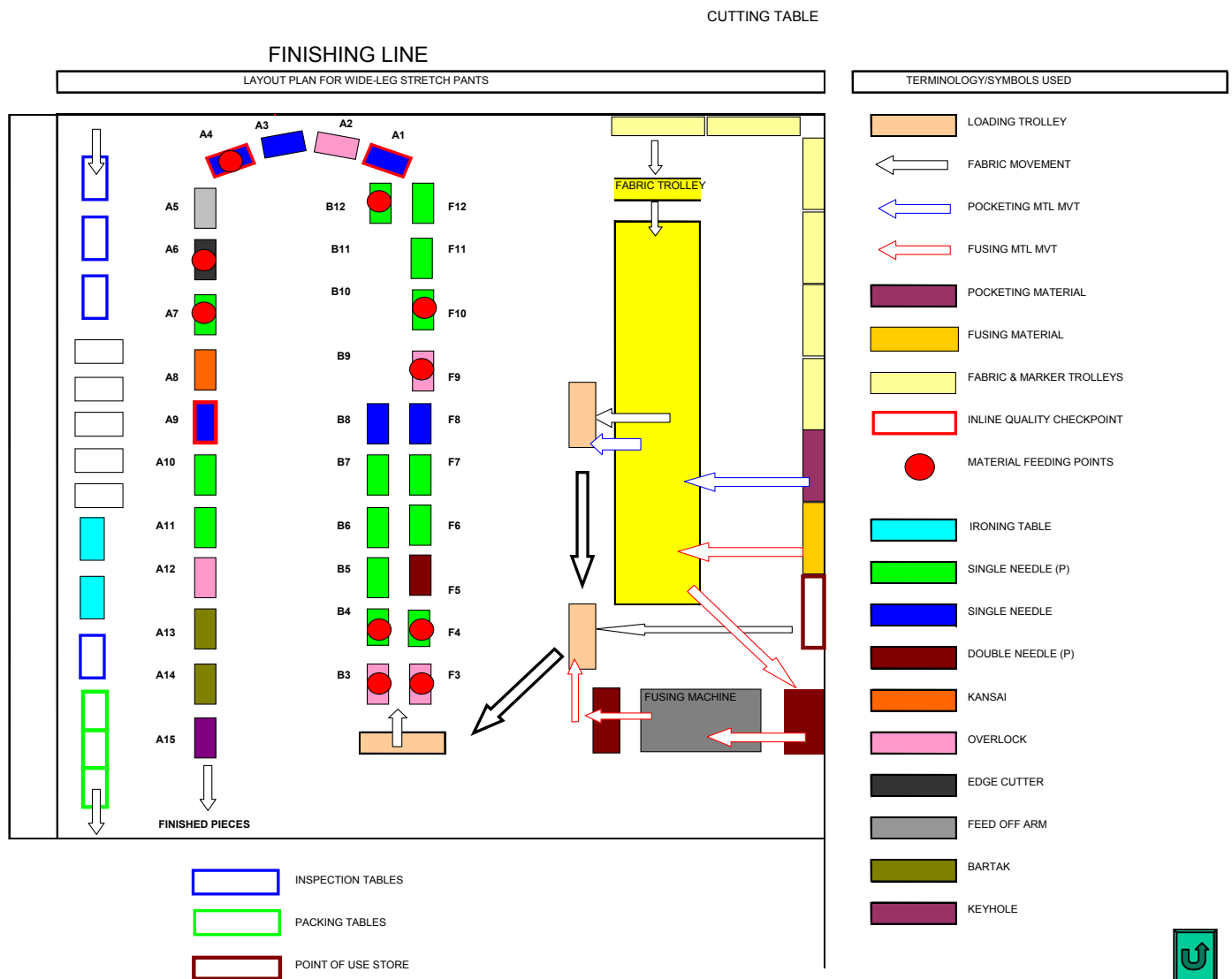
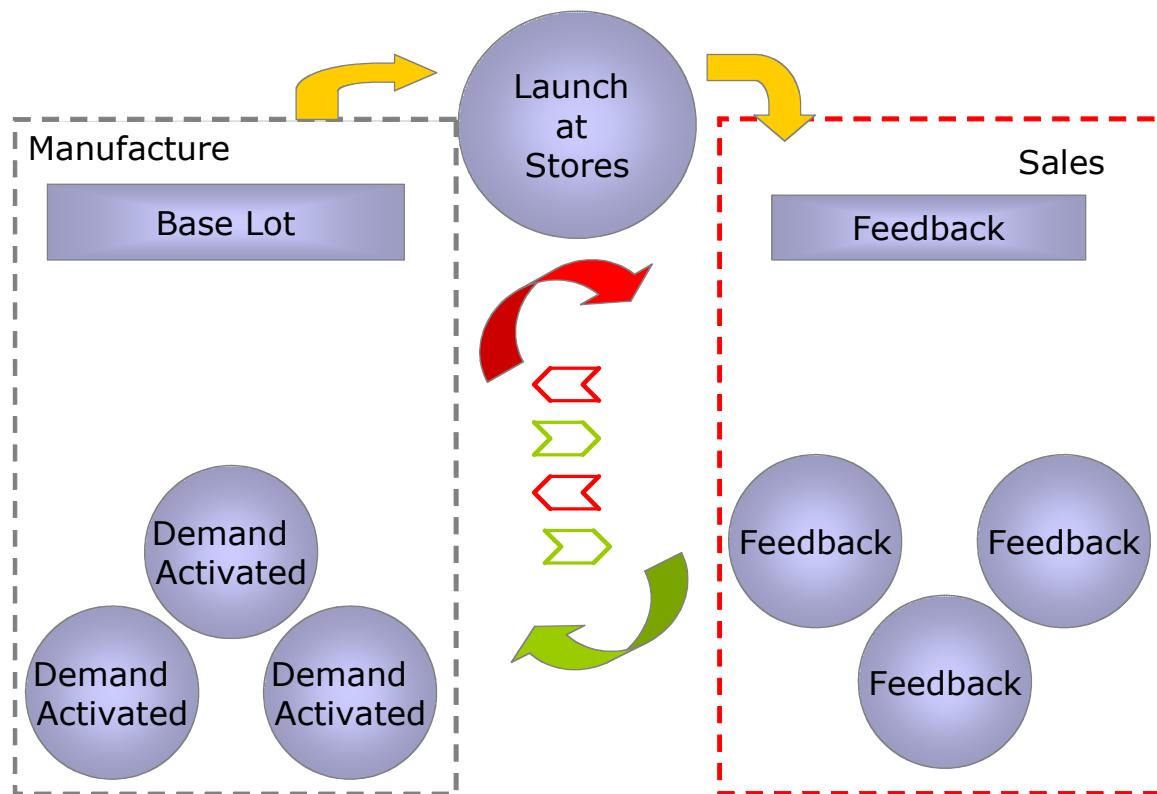


Exhibit 6: Demand-Driven Sourcing Cycle**Exhibit 7:** Demand Forecasts for Ten Shirt Styles

	Sale Price (Rs.)	Forecast Mean	Standard Deviation
Sun Orange	1,400	3,680	2,097
Short Sleeve Linen	1,300	3,551	2,276
Sunray Stripe	2,000	1,457	775
Regent Bias	2,000	1,065	610
Italian Dobby	1,500	3,441	1,115
Victorian Seamed	2,000	1,644	911
Delicate Dobby	1,600	2,316	697
Contemporary Stretch	1,700	1,528	338
Tue Purples	2,000	1,569	747
Pristine Cuff Detail	1,500	3,795	1,982