GeoMapping: A Cascading Impact on the Global Apparel Industry

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GeoMapping Analysis of various local, regional and global events and their direct/indirect impact on the complete value chain of the apparel industry starting from planning and product development to retailing.

Executive Summary

Before the global apparel industry has recovered from the economic crisis, it has been struck with another blow. Commodity costs in general and cotton prices in specific have begun to rise. The volatility of cotton prices has affected the global apparel industry. Dark clouds of uncertainty hang over it. Cotton prices, rising labor costs, inflation, the vagaries of natural calamities and a few other factors are wreaking havoc on retail prices and the margins of global players. The increase in cotton prices up to 60% and labor wages in apparel manufacturing hubs like Bangladesh and China which are up by 20% are putting stress across the value chain. It is anticipated that consumers will face the heat in the form of an increase in apparel retail prices by 10% to 15% in next few months of this year. The case in point is that of VF Corporation that has already raised the prices of their jeans in the first half of 2011. Unless product differentiation and consumer insights are followed closely, the brand companies, wholesalers, distributors and even retailers will have to sacrifice margins.

This paper presents and discusses a GeoMapping Analysis of various local, regional and global events and their direct/indirect impact on the complete value chain of the apparel industry starting from planning and product development to retailing. The paper also has recommendations for companies and suggests a re-examination of key strategies such as supply chain efficiencies, product mixing, postponement strategy and technology solutions.

Factors Influencing the Price Rise

While several economic factors are contributing to the escalation of apparel prices, the key is an increase in cotton prices. The robust demand post economic recovery, especially from two of the most populous economies – India and China – and an increase in labor wages in apparel manufacturing economies has fuelled the price rise.

Last year witnessed a flood in Pakistan (4th largest cotton producer) and Australia (7th largest cotton producer), global food inflation (as per Food and Agriculture Organization, FAO, Food price index was at a 20 year high in January 2011), and political unrest in the Middle East. These are factors that have catalyzed an increase in apparel retail prices. If we broadly analyze the key factors (Refer Fig 1.0), we can classify them into 4 major buckets: a) Cotton Prices b) Labor Cost c) Robust Demand d) Other factors such as inflation, earthquake in Japan, political unrest in the Middle East and other such unpredictable variables. These factors have a weightage based on the severity of their impact across the value chain of the apparel industry.

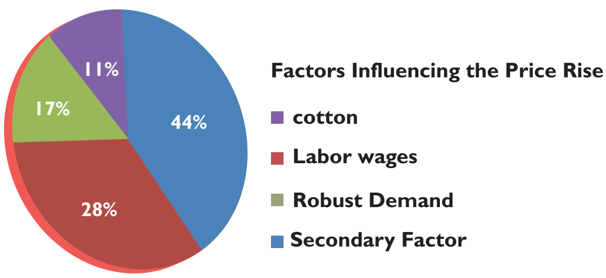

Fig 1.0: Influential Factors on Price Rise in the Global Apparel Industry

The price rise of raw material and increase in labor wages has a cascading effect on the value chain. The hit on consumer pockets is inevitable. It may start from an independent factor in a particular geography and end at the consumer's pocket. (Refer Fig 2.0) The cascading effect has an impact across the key stakeholders starting from supplier to manufacturer to wholesaler to retailer.

Cotton Price Rise: The textile industry primarily uses two major fibers as its basic raw material: cotton and polyester. Cotton prices have moved up by more than 50% in just the last 12 months, and by almost 150% in the last 2 years. The other fibers in the MMF (Man Made Fibers) category are also getting hit as oil prices are on a 30 month high. Oil is a key ingredient in MMF.

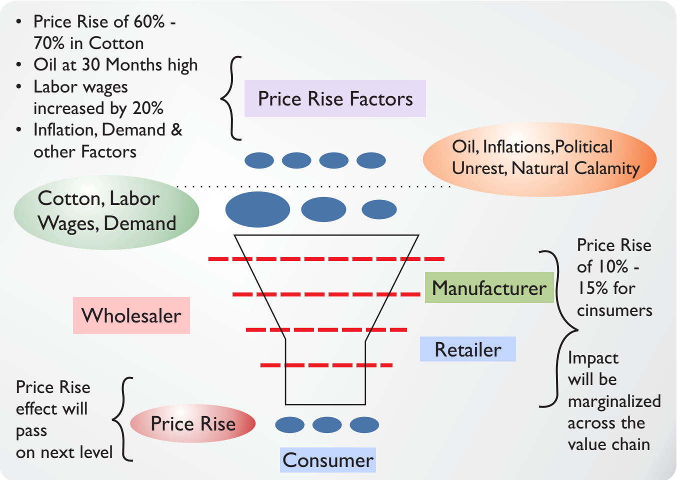

Fig 2.0: Price rise across apparel value chain

If we look at the top 4 cotton producing countries – China, India, US and Pakistan -- they contribute almost 70% or around 82 million bales (I bale = 500 lb approx.) out the total global production of 115 million bales. The global supply of cotton has remained largely static over the past two years, dropping slightly from 115 million bales during the 2009/2010 harvest to an estimated 114.5 m during the 2010/2011 crop. The severe flood in Pakistan washed away at least 15% of their cotton production. India, the world's second largest supplier by quantity and the largest by value, imposed restrictions on cotton fiber and yarn exports, which benefited the domestic market but its impact was on global cotton consumption. On the other hand the recent political unrest in Egypt, which is the world's 15th largest supplier of cotton, is cause for concern as it will have a negative impact on its cotton production and on crude oil supply. Though it is not a major concern from a cotton output perspective as Egypt's contribution to the global cotton pie is minimal, it is definitely a cause for concern to some buyers who heavily depend on Egyptian cotton for particular product categories.

Labor Costs: Apart from soaring cotton prices, labor cost is a factor that has spoiled the global apparel party. Last year, the Minimum Wage Act in Bangladesh increased labor cost in one of the top apparel manufacturing countries. A new government-backed pay deal for the Bangladesh garment industry came into force in November 2010. It triggered a minimum wage rise of over 70% to BDT3,000 (US$ 45) from around BDT1,800 (US$ 24) previously. Many global sourcing companies are grappling with this wage hike. They are exploring ways to absorb the wage hike with a minimal impact on the front end of the value chain.

Similarly, international pressure has led China to implement labor laws which have made workers assert their prices, leading to a rise in labor wages. The labor cost in China has increased by 10% - 12% in 2010, forcing many global players to rethink their strategy for using China as a production base. A case in point is Coach Inc., which has started moving out of China and is expanding its production capacities in India and Vietnam. Another example is apparel retailer Chico's FAS that is feeling the pinch of an increase in cotton prices, inflation and growing labor costs. Chico's is being less reliant on China and is exploring production facilities in Bangladesh, Vietnam and other countries. Major apparel manufacturers and retailers including Nike and Gap have warned about higher supplier prices. The increase in labor costs is resulting in a direct impact on the front end of the value chain. Retailers and consumers should brace themselves for a 10% - 15% increase in prices in the coming months.

Robust Demand: China's domestic textile market has grown from about US$ 70 billion in 2005 to about US$ 160 billion in 2010 and is poised to touch US$ 260 billion by 2015. China is blessed with one of the fastest growing apparel markets in the world. The changing retail industry landscape, coupled with rising purchasing power, government support and increasing influence of Western culture have continuously supported market growth in the past few years. A significant rise in the personal disposable income and the influences of Western culture are the factors responsible for the expansion of international brands in the country. China will account for about 20%, or RMB 180 billion (US$ 27 billion), of global luxury sales in 2015, according to McKinsey research. The positive ecosystem for the apparel demand is expected to lead to a CAGR of around 25% during 2009-2011.

Similarly in the world's second most populous economy, India, the domestic textile market has expanded from about US$ 30 billion to about US$ 52 billion in 2010, and is likely to grow further to US$ 90 billion by 2015. The country has witnessed an increase in consumer expenditure on apparel. Individuals have become more conscious regarding their outerwear and are willing to spend more on apparel. A rising population along with an increase in disposable incomes has led to an increase in the expenditure. There are various reasons for the growth of the Indian apparel sector. Some of the key factors among them are a shift from Ready to Stitch (RTS) to Ready to Wear (RTW), increased brand consciousness and changing consumer lifestyles and preferences.

Other Factors - Japan Earthquake: Though it is too early to quantify the impact on apparel firms, there can be a huge cascading effect if the situation in Japan worsens. As a producer Japan remains a key supplier of advanced high-tech fibres such as flame retardant fibres. Its fibre exports rose by 29% to US$ 1.32 billion last year – though the area in the north east of the country that has been worst hit by the quake accounts for just 3% of the country's total industrial production. The impact on the luxury goods market can also be felt as Japan is the third-largest market with around 11% of global sales. There is some impact on Coach, Gucci, LVMH, Tiffany & Co. and many other players who have significant exposure to Japan. A consequence of the quake has been a shift of sales to other Asian cities like Hong Kong and Singapore.

Price Rise in Other Fibers: Crude oil prices are surging and have touched a 30 month high. Various segments of businesses such as transportation and logistics will bear the brunt of the rise. Oil is also a major input for the production of MMF. So the prices of polyester, nylon and may be even nanofibers, which are used in sports apparel, sports shoes etc. are likely to rise sharply in tandem with oil prices in the coming months.

Indian Government Regulations: Indicating a major rise in apparel prices at both domestic and international markets, apparel exporters had requested the government to intervene to curb a sudden spurt in the prices of cotton and cotton yarn. As a result, the Indian government put a cap of 720 million kg of cotton yarn and 5.5 million bales of cotton export last year. This didn't help in easing soaring prices. Though the government has lifted the ban, the soaring prices caused garment manufacturers and the exporters to bear the brunt of the exposure. Across stakeholders in the industry, they were affected the most. Another whammy to the domestic apparel retailing industry from the government came in March 2011 when the financial budget announced a 10% excise duty on all branded apparels. The duty was implemented from 1 April onwards. This extra burden on the consumer may not have a major impact on overall demand. But, if oil prices, cotton prices and other factors continue to play their havoc, global consumers will have to shell out an extra 15% -20% on the maximum retail prices.

Inflation: The pressure on food requirements in the country has led China to reduce cotton acreage. This is a mounting problem for the global apparel market, where China roughly enjoys a share of 27% - 28% of total apparel exports. Food inflation is close to 10% in China. A similar story is unfolding in India where food inflation soared to 18% but eased to under 9% in April 2011. Similarly inflation is threatening other apparel manufacturing countries like Vietnam and Cambodia and is an indirect factor in the increase of cotton prices.

Impact Analysis - GeoMapping

The apparel industry is global. Sometimes a garment makes a complete round-the-world trip during its lifecycle starting from concept to last usage. Any major destruction in a particular geography can create ripples across the value chain spread across the globe.

Below is a GeoMapping analysis, which highlights local, regional and global events and their direct/indirect impact on the apparel industry.

In the GeoMapping chart (Refer Fig 3.0) there are many areas (shown in

red) highlighting various factors such as cotton, oil, natural calamity etc. across geographies.

India has witnessed a surge in cotton prices, government restriction on export of cotton yarn, inflation and an increase in excise duty of 10% on branded garments. The consumer is bound to feel the pinch. Similarly the impact of natural calamities in Pakistan, Japan and Australia has put a dent on global business. China is experiencing a heightened demand post the economic recovery, but an increase in labor wages, inflation and currency devaluation factors are dampeners. Inflation in Vietnam, Cambodia and labor costs surging across Bangladesh are also playing their role in creating a challenging business environment.

At the global level, the increase in demand in China and India, oil price rise and food inflation, in addition to the shrinking cotton crop acreage will play a significant role in the increase of prices at the consumer level over the coming months.

Impact Analysis – Geographical Mapping in context to Global Apparel Industry

Factors → / Countries ↓	Cotton	Inflation	Oil	Labor Cost	Natural Calamity	Political Unrest	Demand
China	High	High	Moderate	High	No Impact	No Impact	High
India	High	Moderate	Moderate	No Impact	No Impact	No Impact	High
Japan	No Impact	No Impact	Moderate	High	High	No Impact	No Impact
Bangladesh	Moderate	No Impact	No Impact	High	No Impact	No Impact	Less
Pakistan	High	Less	No Impact	No Impact	High	Less	No Impact
Egypt	Less	Less	High	No Impact	No Impact	High	No Impact
Global	High	Moderate	Moderate	High	No Impact	No Impact	High
Others like Vietnam, Cambodia, Australia	Less	High	No Impact	No Impact	High	No Impact	No Impact

Red	High
Orange	Moderate
Blue	Less
Yellow	No Impact

Fig 3.0: Impact analysis of key factors across geographies through GeoMapping chart

Looking for Combat Strategies

In a situation where costs are being impacted by a number of factors, the challenge is to keep pricing optimum, without affecting margins. Some of the key strategies (Refer Fig 4.0) mentioned below could be helpful in such a scenario:

Recommended Strategies to Manage Price Rise

Function	Recommended Strategy	Key Benefits
Sourcing	Early Birds	1. Better Plan for production capacities 2. No Surprise at Last Minute
Planning	OTB Focus	1. Sourcing & Storing Selling item only 2. Procurement at better price
Technology	Technological Solutions	1. Better Demand 2. Right Pricing Strategy 3. Supply chain Visibility
Costing	Product Mixing	1. Cost Effectiveness among low price brands 2. Cost saving in Product Development
Supply Chain	Supply Chain Efficiency	1. Product Differentiation 2. Quick Product turnover

Fig 4.0: Recommended Strategies to Manage Price Rise

Early Birds: To tackle the cotton price rise, companies can explore the option of booking yarn making vendors early. This will have the effect of freezing prices using an advance commitment. The early bird strategy can be applied to not only yarn sourcing but also to manufacturing. Booking capacities in advance can avoid last minute surprises on capacities, product delay arrivals and help improve the sourcing plan.

Focus on OTB: Sourcing and merchandising teams will face an uphill task this year to keep the target margin at the desired level. The Open to Buy (OTB) strategy, which helps merchandisers to optimize their spending as the season advances, can play a pivotal role. In the situation of increase in pricings, the planning and merchandising team should increase the OTB pie; the increase could be of 30%-40% over the previous year. Under the

OTB phase, the merchandising team looks at the front end of the value chain at the selling point to assess the situation and then directly at the back end to the manufacturer or supplier. So, this year, merchandising teams should focus in terms of time, effort and money spent on OTB phase and may be they can incentivize the manufacturers or even their vendors to wait and then run quickly as the selling signals come from the front end. That can be done through an increased OTB bucket that makes and delivers only those items which are quickly moving from the shelves.

Technological Solutions: In a scenario of increasing prices, technological solutions will play a critical role across the planning to selling cycle. It won't be easy for the consumer to accept the burden of the extra 10% to 15% on the same product. So price optimization and price intelligent solutions need to be developed. The price rise will affect consumption patterns where value for money is missing. The case in point for a drop in consumption patterns is the 2010 U.S. consumer price index for clothing (CPI) which dropped 12.4% over 1995. So companies should look at smart sourcing with the right mix of postponement strategies. The key insights about consumer's buying pattern and selling items on the self should be tightly integrated with the sourcing strategies. Smart sourcing calls for information sharing from the retailer to branding company to manufacturer. A close track of what is selling decides the manufacture of products. Manufacturers should postpone cutting the fabrics or even sourcing the raw material until there is a clear indication from the point of sales on moving items. The mutual trust and seamless information should flow from front end to back end for smart sourcing. To make this happen, analytics will be a defining factor. Analytics can rapidly reveal what the customer wants and is a key component in customizing applications across the value chain. Analytics can help drive innovation, continuous optimization and deliver business improvement. Apart from this, technological solutions that enable seamless information flow will be of immense value to all the stakeholders.

The first level of customer understanding about who is buying, what they are buying and why they are buying is already being managed by various predictive analytics, market basket analysis and many other facets of analytics. The new face of analytics is social analytics where you try to get the next level of customer understanding in terms of why they are not buying, what their key preferences are in terms of color, pricing or packaging. The integration between consumer's voice platforms and product development can be key. To increase the sell through rate, the postponement strategy should be looked at more seriously.

Product Mixing: The resulting cost increase from cotton will become more pronounced for certain product categories and the impact will vary from product to product. The extent of the impact depends on the contribution of cotton in the finished garment. A pair of jeans is a heavier product than shirts and consequently the cost impact will be more on players like VF Corporation (the world's leading jean making company) than other players who have jeans as part of a larger portfolio. With the advance of various technology solutions, companies are coming up with new product mixing which results in making the fabric waterproof, windproof and breathable through different finishing process (acetate, acrylic, sweat free cotton, anti static fabric and flame retardant fabrics are a few of them).

Though the quality of the product is of prime concern, low end brands in the cotton enriched category can consider mixing cotton with rayon or polyester, which are comparatively cheaper substitutes.

As we all know, product development is one of the most critical aspects of the apparel supply chain. It is estimated that major players like Nike, Adidas etc. have millions of pieces developed. The reason for such scale is the numbers of iterations required before reaching a final design and the number of variations on the design required for the market. Using cotton – rayon/nylon fabric during the first few iterations rather than using only cotton content fabric can save thousands of dollars in a season. A recent survey by Capital Business Credit showed that almost 90% of the respondents were thinking of using a cotton-rayon mix.

Supply Chain Efficiencies: Consumer will be forced to pay an extra 10% - 15% for the same product as compared to last year. They will demand extra in terms of new design, style, colors etc. Product differentiation in terms of new R&D fabrics, patterns, product styling and environment friendly packaging can drive consumers to a brand. The advancement in Auto CAD (Computer Aided Design), CAM (Computer Aided Machine) is opening new horizons to designing and product development. Similarly the speed to market through Product Lifecycle Management (PLM) can create differentiation in the product service. The product differentiation innovation for new fabric designs and product styling, quality of the product both during sourcing the raw material and even in bulk apparel product are the areas where companies can create more efficiency and absorb some portion of the price rise. Since most apparel branding companies are placing a greater emphasis on the front end of the value chain through their Direct to Store (DTC) drive, where consumer is connected at the last leg, the need of the hour is to have a single picture of product information. The process of linking the SAP AFS and SAP IS Retail will create such efficiencies, where seamless flow of information enables the desired supply chain efficiencies.

Apart from innovation, logistics and transportation optimization are other focus areas. The role of distribution centers, which cater to store clusters, becomes more critical than warehousing, where you can't afford to store the product for long time. Overall, wholesale warehousing is turning into retail warehousing, where shipping frequency is at a new high and storage time is shrinking.

Conclusion

The rising cost of raw material such as cotton, labor and oil pricing has changed the business landscape. Geographical factors such as floods in Pakistan, Australia and political unrest in the Middle East have placed a strain on pricing. The rising cost of inputs have created a perfect storm and its impact on the complete apparel value chain starting from suppliers, manufacturers, retailers to consumers will be felt through the second half of 2011.

There is a ray of hope. The industry is expecting cotton prices to cool down by the end of this year. Hopefully the political unrest will calm down too and oil price fall below $90 per barrel. The positive surge in global demand will keep business momentum up. The drop in prices of both cotton and oil will help global apparel players meet the soaring apparel demand in China, India and other parts of the world. Unless key strategies like innovation, right product mixing, postponement and relevant technological solutions are adopted, companies will find it a challenge to expand and meet the demand. The fundamental shift in the value chain will have a direct impact on the last link of the chain, which is the consumer and it will roll back in terms of less demand, more quality, more options in terms of pricing, color, packaging and styling. Apparel prices, as measured by the Consumer Price Index (CPI) have been consistent for the past several years. But they are unlikely to stay consistent in the coming months.

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Wipro in Apparel and Footwear Domain

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