

DETERMINING PERFORMANCE ATTRIBUTES USING SCOR MODEL TO COMPARE APPAREL RETAILERS

Selin Hanife Eryuruk¹; Serra Aydin¹ & Fatma Kalaoglu¹

¹ *Istanbul Technical University, Textile Technologies and Design Faculty, Textile Engineering Department, Istanbul, Turkey*
eryuruk@itu.edu.tr

Abstract: The apparel industry is characterized by intense competition and short product life cycles. Retailers are beginning to assume a central role in the configuration of supplier networks, being operators who act globally either in terms of market seeking or resource seeking. Today, many researchers have been focused on the increasing importance of retailing. The retail distribution channel structure of the apparel industry is a very important and also strategic decision. Many global brands are relocating their production and sourcing from different suppliers. This paper firstly analyse three important global brands, Zara, H&M and Marks&Spencer in order to define important performance attributes and then specify performance attributes and their relation to selected marketing mix elements using SCOR model. This study aimed to provide textile scientists and academicians to create a comprehensive and valuable database for comparing some successful retailers according to the performance attributes.

Key Words: Apparel industry, retailers, distribution channel design, Supply Chain Operation Reference (SCOR), Performance Attribute, ZARA, Hennes & Mauritz (H&M), Marks&Spencer (M&S)

1. Introduction

Today, global firms in distant places trying to find ways of controlling larger webs of production and distribution. While the retail sector has always been very competitive, in recent years, the competitive nature of the field has increased dramatically. The supply chain of the clothing sector has very distinctive processes. Different supply methods, push and pull logistics as well as the non replenishment approaches especially for the fast fashion sector are affecting processes in the supply chain. In addition, the depth and range of assortments such as different sizes, colors, and cuts of a collection requires very efficient and optimized logistics. Furthermore time efficiency is one of the key factors for this industry to provide a competitive advantage [1]. Kocaoğlu et. al. stated that due to the increasing complexity and size of supply chain manufacturing industry, a large and complex supply chain usually makes it difficult to coordinate and thus degrades its performance [2]. Chen et al. considered the planning of a multi-product, multi-period, and multi-echelon supply chain network that consists of several existing plants at fixed places, some warehouses and distribution centers at undetermined locations, and a number of given customer zones[3].

La Londe and Masters proposed that a supply chain is a set of firms that pass materials forward. Normally, several independent firms are involved in manufacturing a product and placing it in the hands of the end user in a supply chain—raw material and component producers, product assemblers, wholesalers, retailer merchants and transportation companies are all members of a supply chain [4]. Another definition notes a supply chain is the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services delivered to the

ultimate consumer [5]. In other words, a supply chain consists of multiple firms, both upstream (i.e., supply) and downstream (i.e., distribution), and the ultimate consumer.

The goal of a supply chain should be to maximize overall supply chain profitability. Supply chain profitability is the difference between the revenue generated from the customer and the total cost incurred across all stages of the supply chain. Supply chain decisions have a large impact on the success or failure of each firm because they significantly influence both the revenue generated as well as the cost incurred. Successful supply chains manage flows of product, information, and funds to provide a high level of product availability to the customer while keeping costs low [6]. McGoldrick analysed the elements of retail mix [7]. He stated that elements of retail mix consist of product image, shelf price, brand image, advertising, product range, self space & store layout, logistics, information, customer relationship.

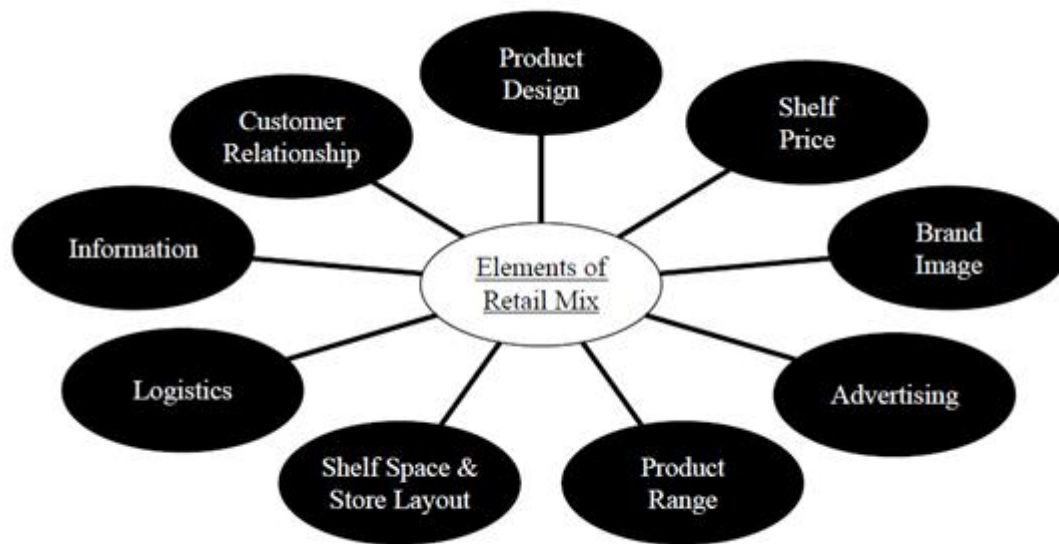


Figure 1: Elements of retail mix [7].

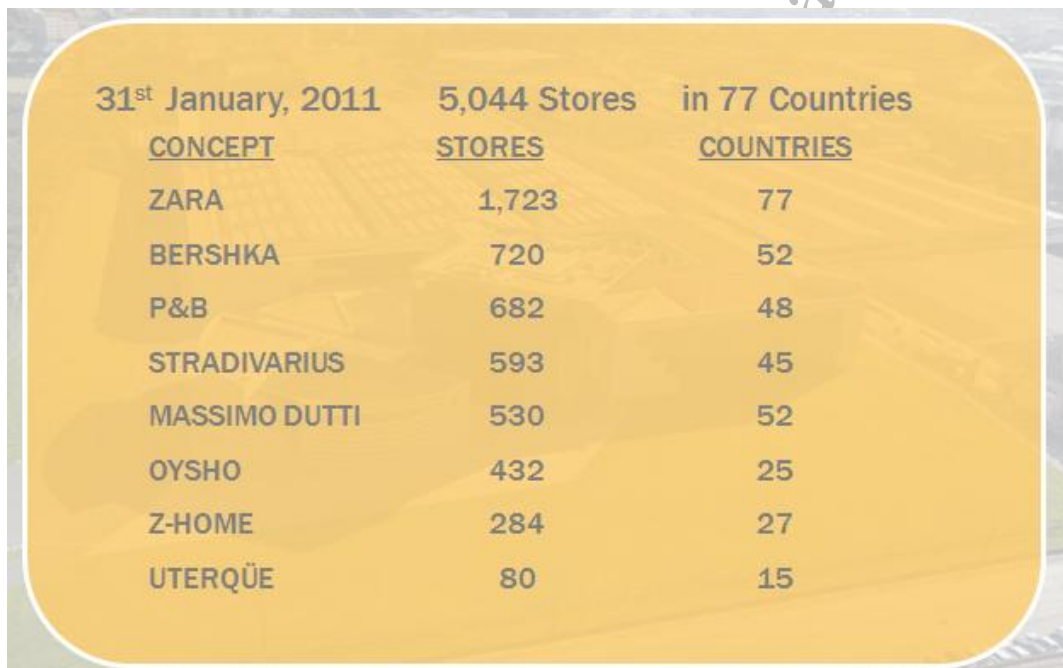
Stephen Wigley and Chu-Ling Rachel Chiang investigated the retail marketing strategies of one fashion retailer as they are applied in two national markets, and to identify means by which international retailer success may be assured[8]. Salmon and Tordjman identified three strategic approaches for internationalisation dependent on a retailer's trading characteristics and internal capabilities; the international investment, global and multi-national models [9]. Ural investigated the effect of store image and product attributes on consumer evaluations of store brands, in Turkey context [10]. Three store image factors were identified: layout, merchandizing and service.

To be a successful international fashion retailer, the ability to apply and adjust the retail marketing mix elements according to specific target-market conditions is very important. This study aims to investigate to analyse three important global brands, Zara, H&M and Marks&Spencer in order to define important performance attributes using SCOR Model.

2. Analysing Three Important Retailers: Zara, H&M and M&S

2.1. ZARA Case Study

Zara is a Spanish clothing and accessories retailer based in Arteixo, Galicia, and founded in 1975 by Amancio Ortega and Rosalía Mera. It is the flagship chain store of the Inditex group; the fashion group also owns brands such as Massimo Dutti, Pull and Bear, Oysho, Uterqüe, Stradivarius and Bershka. Zara has resisted the industry-wide trend towards transferring fast fashion production to low-cost countries. Figure 2 shows that Inditex runs over more than 5000 stores all over the world according to datas of the year 2011 and Zara runs about 1723 stores in major cities worldwide, while Bersha runs about 720 stores in 52 countries.



31 st January, 2011	5,044 Stores	in 77 Countries
<u>CONCEPT</u>	<u>STORES</u>	<u>COUNTRIES</u>
ZARA	1,723	77
BERSHKA	720	52
P&B	682	48
STRADIVARIUS	593	45
MASSIMO DUTTI	530	52
OYSHO	432	25
Z-HOME	284	27
UTERQÜE	80	15

Figure 2: The Concepts-Stores Of Zara[11]

Zara is able to design, produce and deliver the product to the customer in just one month. The main reason for this is that Zara does not forecast the designed clothing. Fabrics and garments are the only materials to be purchased on the basis of forecasts. Their main strength is to capture real-time information on the shop floor and develop designs on the basis of this information: so-called 'commercial managers' conceptualize the type of garments and the kind of fabric it will be made off. Based on this real-time information, garments and its technical specifications are prepared in strong collaboration with other departments along the supply chain. In doing so, the final design is 'assembled' on the basis of current customer demand. This gives Zara a strong competitive advantage since they integrated the product development with up-to date marketing activities and information [12].

While many fashion houses create designs for the public, Zara's designs are created by the public. Zara further hones their portfolio of designs by constantly checking sales data as well as informal interactions with customer, who happily divulge to sales clerks the style they like. Young Designers (26 average) draw the design sketches then discuss it with market specials and planning staff. Designs inspiration is copied from different sources (trade fairs, catwalks, magazines) from all around the world as mentioned above. It is worth to mention that out of 40,000 designs only 10,000 are approved. This illustrates the flexibility of ideas generation and on the other hand the huge number of designs reflects the ability to meet almost all the fashion requirements by customers of all ages (up to 55).

Zara's product merchandising policies emphasized broad, rapidly changing product lines, relatively high fashion content, and reasonable but not excessive physical quality: "clothes to be worn 10 times," some said. Product lines were segmented into women's, men's, and children's, with further segmentation of the women's line, considered the strongest, into three sets of offerings that varied in terms of their prices, fashion content, and age targets [13].

It is claimed that Zara needs just two weeks to develop a new product and get it to stores, compared with a six-month industry average, and launches around 10,000 new designs each year. Zara has resisted the industry-wide trend towards transferring fast fashion production to low-cost countries[14].

Vertical integration, a distinctive feature of Zara's business model, has allowed the company to successfully develop a strong merchandising strategy (Herreros). This strategy has led Zara to create a climate of scarcity and opportunity as well as a fast-fashion system. Zara manufactures 60% of its own products. By owning its in-house production, Zara is able to be flexible in the variety, amount, and frequency of the new styles they produce. Also, 85% of this production is done through the season, which allows the chain to constantly provide its customer with very updated products[13].

The company avoids mass production. Although some stock is replenished, its clothing, for both men and women, is deliberately made in small batches. This helps create a scarcity value: better buy now in case it is gone tomorrow. It also keeps shops looking fresh and reduces markdowns. In Zara shops, there are two new collections every week, and the company manages to design, produce, distribute and sell each of its collections in just four weeks. In contrast, its competitors take several months [15].

Zara's target market is very broad because they do not define their target by segmenting ages and lifestyles as traditional retailers do. Its target market is a young, educated one that likes fashion and is sensitive to fashion. Today, people around the world through various communication devices have more access to information about fashion. Therefore, fashion has become more globally standardized and Zara uses this to their advantage by offering the latest in apparel. For that reason, 80- 85% of the products that the company offers globally are relative standardized fashionable products. The international strategy of this fashion chain is excellent because it adopted a balanced mixture of standardization and customization[15].

As a result of evaluation, it can be summarized that Zara:

- Has various products,
- Accelerates process of purchasing and production by adopting the standardized semi-finished products method after dyeing the white piece goods,
- Has small batch production,

- From the point of age, it aims the ranges from 0-55.
- From the point of target user, it covers men's wear, ladies' wear and children's wear,
- Accelerates distribution process by using perfect logistics system to stop production of unsalable goods
- Accurate response to sales information for result of great reduction of bullwhip effect and problems of demand forecasting and inventory in the whole supply chain,
- Position of the stores is very important for their sales policy,
- Boasts a significantly lower percentage of unsold items.

2.2. Marks & Spencer

The company was founded by a partnership between Michael Marks and Thomas Spencer. On his arrival in England, Marks worked for a company in Leeds, called Barran. In 1884 he met Isaac Dewhurst, the owner of a Leeds warehouse, which resulted in him opening his own stall on Kirkgate Market, in Leeds. The next few years saw Michael Marks open market stalls in many locations around the North West of England. In 1894, Thomas Spencer invested in Marks' activities and they opened their first store, in partnership, in Manchester [16].

Marks and Spencer, known colloquially as "Markies", or "M&S", made its reputation in the early 20th century on a policy of only selling British-made goods (a policy eventually discontinued in 2002). It entered into long term relationships with British manufacturers, and sold clothes and food under the "St Michael" brand, that was introduced 1928. The St Michael honours Michael Marks. It also accepted the return of unwanted items, giving a full cash refund if the receipt was shown, no matter how long ago the product was purchased, which was unusual for the time. It adopted a 90-day returns policy in 2005 but on 12 April 2009 the refund policy changed once again to 35 days. By 1950, virtually all goods were sold under the "St Michael" label. M&S lingerie, women's clothes and girls' school uniform were branded under the "St Margaret" label until the whole range of general merchandise became St Michael. Simon Marks, son of Michael Marks, died in 1964, after fifty-six years' service. Israel Sieff took over as Chairman and in 1968, John Salisse became the company Director. A cautious international expansion began with the introduction of Asian food in 1974. M&S opened stores in continental Europe in 1975 and in Ireland four years later[16].

The company put its main emphasis on quality, including a 1957 stocking size measuring system. But for most of its history it also had a reputation for offering fair value for money. When this reputation began to waver, it encountered serious difficulties. Arguably, M&S has historically been an iconic retailer of 'British Quality Goods'. All international shops are operated under franchise, with the exception of those in the Republic of Ireland and Hong Kong which remain in company ownership[16].

By 2000 the M&S management knew that more needed to be done about the supply chain. Between 2001 and 2004, M&S continued the shift in its emphasis towards sourcing from abroad, and encouraged its suppliers to relocate elsewhere. Very significantly, during 2004–2005, M&S turned to direct buying, opening regional buying offices in Turkey, India and Hong Kong. By sourcing directly via its own offices, M&S aimed to cut out the middlemen. By 2006, the number of regional offices had increased to seven, and these buying offices handled around 30

per cent of all clothing purchases by M&S – most of the remaining 70 per cent still being provided by an even smaller number of UK-based full service vendors. During 2006–2007, M&S began to recover as a combination of faster fashion, more effective merchandizing and advertising, and store refurbishment began to take hold. Finally, the retailer seemed to be on its way to transforming itself into a more upmarket fast fashion retailer that offers fashionable garments of very good quality throughout the year. Financial recovery followed: for example, the group's operating profits, which were 15.9 per cent down in the year 2004–2005, were 34 per cent up in 2005–2006. Similarly, revenues that were down 1.8 per cent in 2004–2005 were up 3.4 per cent in 2005–2006. Clothing, especially womenswear, was at the heart of the recovery, and M&S's share of the UK womenswear market rose to over 10 per cent [17].

2.3. Hennes & Mauritz (H&M)

Hennes & Mauritz (H&M) is a global fashion company operating in 22 countries with its fully owned 1193 stores. The headquarters is in Stockholm/Sweden. Clothing collections for women, men, teenagers and children are created in house by more than one hundred designers, working together with buyers and pattern makers in order to offer the latest fashion.

The global business concept of H&M is to offer fashion and quality at the best price. In order to achieve this objective, H&M applies policies such as using few middlemen, buying in large volumes, having a broad & in-depth knowledge of design and textile technologies, buying the right products from the right market, being cost-conscious at every stage and having efficient distribution. The company is capable of delivering new goods the stores daily. H&M also supports the brand image and reputation with being deeply ethical in terms of relations with its suppliers, employees and staff [18].

The company doesn't have its own production facilities: instead, the products are sourced from a wide variety of geographical regions from around 700 carefully selected and managed independent suppliers in primarily Asia and Europe. H&M has more than 50,000 co-workers around the world [18].

The company also gains advantage by purchasing in large volumes directly from the suppliers without middlemen and the flexibility to get the clothes manufactured in the cheapest location at any given time. H&M not only becomes the vertical competitors of the manufacturers; besides, having more control over value chain, but also becomes vertical competitors of the vendors both in production, distribution activities and product design [18].

H&M defined its customers as “fashion-conscious women from 18 to 45 years of age – or who feel that they belong in that age range in the annual report of 2000. However 3 years later the target customer was broadened as “fashion-conscious and fashion-aware women of all ages” and clearly mentioned the range of sub-segments: woman willing to wear most up-to-date international fashions and woman who prefers classic fashion; pregnant women and “plus-sized” women [18].

3. Methodology

3.1. SCOR Model

The purpose of this paper is to investigate the retail marketing strategies by analysing three global successful retailers Zara, H&M and M&S to better understand the practical implementation of the retail processes and identify strategic retail marketing approaches toward success in diverse foreign markets.

In this study Supply Chain Operation Reference 10 (SCOR 10) model was used to determine the performance criteria. The Supply Chain Operations Reference (SCOR) Model released by Supply Chain Council (SCC) in 1996 has been widely studied and used in research and industry. Researchers and practitioners have found the SCOR Model a good reference that integrates most of the business processes of an organization in a cross-functional framework. SCOR is based on five distinct management processes, namely Plan, Source, Produce, Deliver and Return. These five processes form the top level of the SCOR model. Each process is further decomposed into lower levels. Level two is called configuration level where a company implements its strategy by configurations. Level three is the process elements levels to fine tune the detailed operations. Level four is the implementation level that directly deals with the practices and activities[19].

The use of a standardised reference model such as the SCOR model in supply chain simulation would allow for quicker model building and introduce understandable processes and metrics, already defined in the SCOR model [20].

It is important to note that this Model describes processes not functions. In other words, the Model focuses on the activity involved not the person or organizational element that performs the Activity as can be shown in Figure 3.

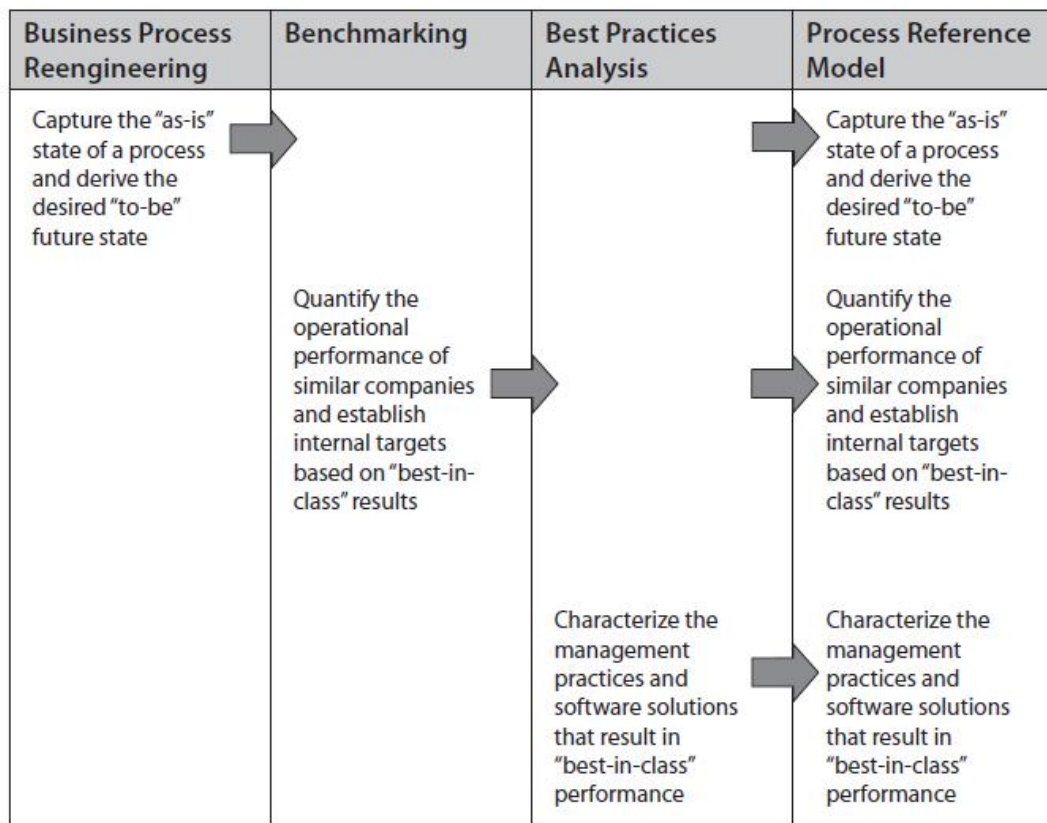


Figure 3: SCOR is a business process reference model.[21]

SCOR benefits,

The advantages of SCOR model has been widely publicized by Supply Chain Council with illustrative case histories. The condensed generalized achievements of SCOR implementation in wide range of industries worldwide can be cited as follows [22]:

- Cost reduction and customer service improvement, offering on average 3% rise in total operating income.
- Within 12 months of project implementation, almost 2–6% improvement in return on investment (ROI).
- Noticeable improvement in return on assets (ROA) because of cognizant decisions in capital investment.
- Standard supply chain definitions and interpretations facilitating use of standard features of IT systems, reducing the operating costs drastically.
- 1–3% profit step up through continuous improvements in supply chain management.

Schniederjans and Garvin indicated that strategic objectives (cost, quality, delivery, etc.) were too highly aggregated to direct decision making [23]. They are broad and generic categories with a multitude of possible interpretations. For example, “quality” can mean reliability, durability, or aesthetic appeal. Many researchers have indicated that the process of linking strategic objectives to actions is often overlooked and poorly implemented.

The suggested methodology to implement a SCOR based work- ing environment consists of four steps [24].

- (i) Analyse the basis of competition,
- (ii) configure the supply chain,
- (iii) align performance levels, practises and systems, and
- (iv) implement supply chain processes and systems.

The second step (ii) configure the supply chain, refers to the modelling using the standardised processes defined by the modelling tool in the SCOR model. This modelling is done from the top and down, increasing the level of detail for each level of the SCOR model. Modelling is only done for levels 1 and 2 whereas level 3 is generic and left untouched.

3.2. SCOR model performance attributes and metrics

The performance measure framework utilized in our research is based on SCOR-model version 10. Furthermore, we concentrate the research scope to Level 1 performance attributes and metric specifically. The SCOR-model contains five basic management processes: Plan, Source, Make, Deliver, and Return (level 1 process) (Fig. 4). The model is hierarchical with three levels.(Figure 5) Each process element in Level 1 can be decomposed to Level 2 process elements. Likewise, each Level 2 process element consists of Level 3 process elements.

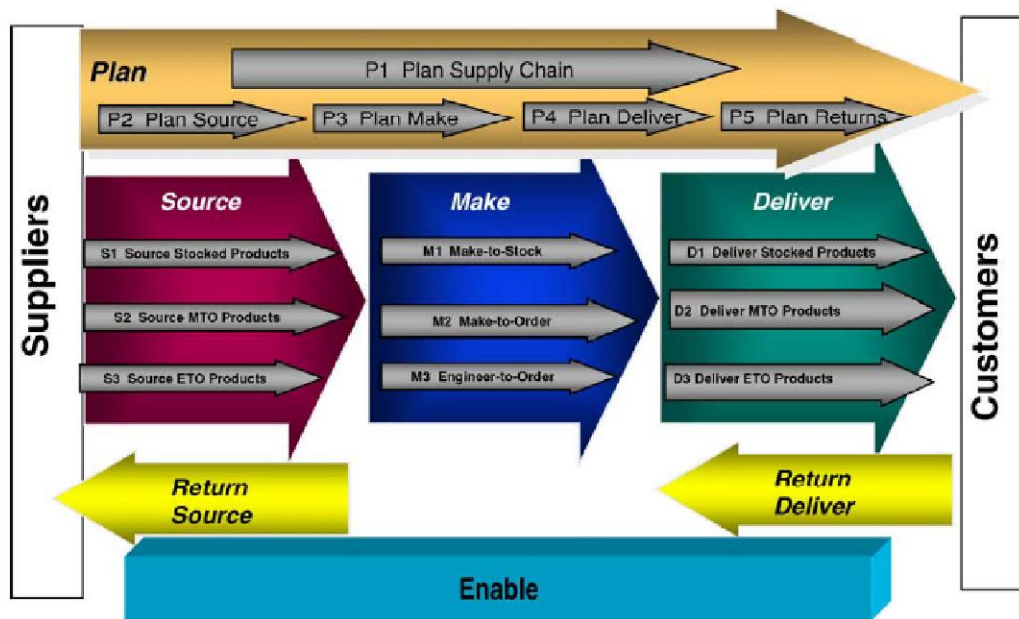


Figure 4: The SCOR infrastructure [25].

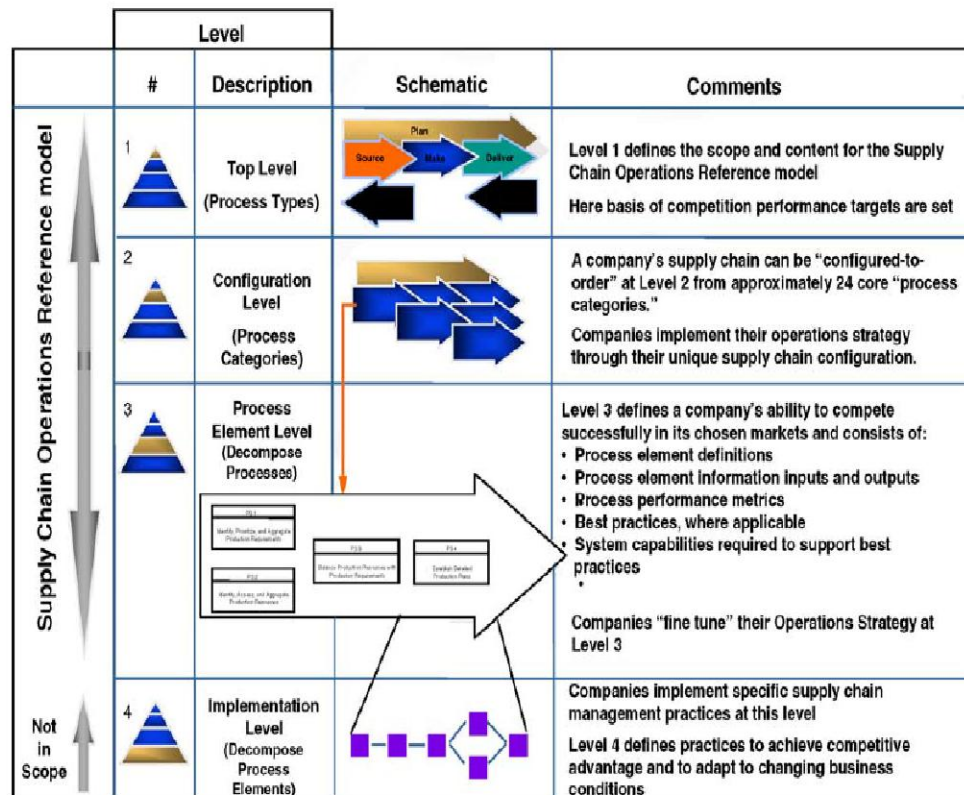


Figure 5: The SCOR process levels [25].

The Performance Attributes are characteristics of the supply chain that permit it to be analyzed and evaluated against other supply chains with competing strategies. For example we

can compare an organization that chooses to be the low cost provider against an organization that chooses to compete on reliability and performance. On the top of SCOR, the strategy map enables to decompose objectives in the strategic world; while on the down side, SCOR metrics provide a very good foundation for translating strategic objectives into supply chain operations of different levels. Associated with the Performance Attributes are the Level 1 metrics. (Table 1) These Level 1 metrics are the calculations by which an implementing organization can measure how successful they are in achieving their desired positioning within the competitive market space [2].

Table 1: Definitions for SCOR Performance Attributes and listing of associated Level 1 metrics[21]

Performance Attribute	Performance Attribute Definition	Level 1 Strategic Metric
Supply Chain Reliability	The performance of the supply chain in delivering: the correct product, to the correct place, at the correct time, in the correct condition and packaging, in the correct quantity, with the correct documentation, to the correct customer.	Perfect Order Fulfillment (RL.1.1)
Supply Chain Responsiveness	The speed at which a supply chain provides products to the customer.	Order Fulfillment Cycle Time (RS.1.1)
Supply Chain Agility	The agility of a supply chain in responding to marketplace changes to gain or maintain competitive advantage.	Upside Supply Chain Flexibility (AG.1.1)
		Upside Supply Chain Adaptability (AG.1.2)
		Downside Supply Chain Adaptability (AG.1.3)
		Overall Value At Risk (AG.1.4)
Supply Chain Costs	The costs associated with operating the supply chain.	Supply Chain Management Cost (CO.1.1)
		Cost of Goods Sold (CO.1.2)
Supply Chain Asset Management	The effectiveness of an organization in managing assets to support demand satisfaction. This includes the management of all assets: fixed and working capital.	Cash-to-Cash Cycle Time (AM.1.1)
		Return on Supply Chain Fixed Assets (AM.1.2)
		Return on Working Capital (AM.1.3)

A metric is a standard for measurement of the performance of a process. SCOR metrics are diagnostic metrics. SCOR recognizes three levels of pre-defined metrics:

- Level 1 metrics are diagnostics for the overall health of the supply chain. These metrics are also known as strategic metrics and key performance indicators (KPI). Benchmarking level 1 metrics helps establishing realistic targets to support the strategic directions.

- Level 2 metrics serve as diagnostics for the level 1 metrics. The diagnostic relationship helps to identify the root cause or causes of a performance gap for a level 1 metric.

- Level 3 metrics serve as diagnostics for level 2 metrics. The analysis of performance of metrics from level 1 through 3 is referred to as decomposition.

Decomposition helps identify the processes that need to be future studied. (Processes are linked to level 1 and level 2 metrics).

SCOR recognizes 5 performance attributes:

Reliability

The Reliability attribute addresses the ability to perform tasks as expected. Reliability focuses on the predictability of the outcome of a process. Typical metrics for the reliability attribute include: On-time, the right quantity, the right quality. The SCOR key performance indicator (level 1 metric) is Perfect Order Fulfillment. Reliability is a customer focused attribute.

Responsiveness

The Responsiveness attribute describes the speed at which tasks are performed. Responsiveness addresses repeated speed of doing business. Agility describes a different speed, the speed to change the supply chain. Example metrics are cycle time metrics. The SCOR key performance indicator is Order Fulfillment Cycle Time. Responsiveness is a customer focused attribute.

Agility

The Agility attribute describes the ability to respond to external influences; the ability to change. External influences include: Non-forecastable increases or decreases in demand, suppliers or partners going out of business, natural disasters, acts of (cyber) terrorism, availability of financial tools (the economy), labor issues. The SCOR key performance indicators include Flexibility and Adaptability. nAgility is a customer focused attribute.

Cost

The Cost attribute describes the cost of operating the process. Typical cost includes labor cost, material cost, transportation cost. The SCOR key performance indicators are Cost of Goods Sold and Supply Chain Management Cost. These two indicators cover all supply chain spend. Cost is an internal focused attribute.

Assets

The Asset Management Efficiency ('Assets') attribute describes the ability to efficiently utilize assets. Asset management strategies in supply chain include inventory reduction and in source vs. outsource. Example metrics include: Inventory days of supply, capacity utilization. The SCOR key performance indicators include: Cash-to-Cash Cycle Time, Return on Fixed Assets. Asset Management Efficiency is an internal focused attribute. (Supply Chain Council, 2012)

3.3. Adaptation of the criteria to the SCOR model Traditional Criteria

Traditional performance measures have been primarily based on cost output and used in management accounting systems. As a result, most of the manufacturing performance criteria focus on financial data such as return on investment, return on sales, price variances, sales per employee, productivity, and profit per unit of production [26].

These criteria have many limitations and are applicable in today's competitive environment. Traditional criteria are based on financial terms though some strategic goals are financial and some are not. Today manufacturing organizations have to face issues such as customer satisfaction, quality, speed, flexibility, and innovation besides costs. In this point of view, traditional measures can be evaluated having "lack of relevance." Moreover, accounting systems and concepts are objective and consistent. On the other hand, the goals and needs of firms may need improvements or modifications over time in today's dynamic environment. In this perspective, traditional measures resulted in having "lack of flexibility" [27].

In general, modern performance measures can be grouped in two categories such as individual performance and integrated performance measures [28]. There are different ways in which these two groups of performance measures can be categorized. The individual performance measures found in the literature are generally quality, flexibility, time, delivery, and customer satisfaction measures. However, the individual measure is concerned with the activity at its own place such as shop floor level. As the effectiveness of the activities is important for firms, these individual performance measures are not capable to reflect the complete performance necessities. As a consequence, the integrated performance measures have been generated to overcome the limitations of the individual performance measures [28]. The reasons for the need of change in performance criteria can be summarized as increases in customer preferences, changes in management methods, increases in variation of social conditions such as team works, leadership, social responsibility and flexibility, changes in the consideration of the long term objectives and the progress of the firms because Japanese have been able to solve the problems through basic procedures.

This study aims to investigate to analyse three important global brands, Zara, H&M and Marks&Spencer in order to define important performance attributes using SCOR Model. Supply Chain Operation Reference 10 (SCOR 10) model was used to determine the performance criteria. It is obvious that defining the right criteria is very important for achieving the main goal. So, a sensitive study must have been made to determine the criteria accordingly. After identification of the criteria, some modifications are needed in order to adapt SCOR model to our study which was applied in clothing sector. The main criteria can be listed as Production & Quality, Speed, Marketing & Innovation, Asset Management and Cost which also can be seen in Table 2.

Table 2: *Adaptation of the criteria to the SCOR model for clothing industry*

PERFORMANCE ATTRIBUTE	DEFINITION	ADAPTATION OF SCOR MODEL TO APPAREL INDUSTRY
Reliability	The ability to perform tasks as expected. Reliability focuses on the predictability of the outcome of a process. Typical metrics for the reliability attribute include: On-time, the right quantity, the right quality.	PRODUCTION & QUALITY 1. Defective production ratio. 2. Percentage of quantity that can be delivered on time/ customer order 3. Green production. 4. Quality relative to competitors(material and accessories quality) 5. Variety of the goods (Color and product variety)
Responsiveness	The speed at which tasks are performed. The speed at which a supply chain provides products to the customer. Examples include cycle-time metrics.	SPEED 1. Lead tim 2. The number of collection per year 3. Percentage on-time for rush orders
Agility	The ability to respond to external influences, the ability to respond to marketplace changes to gain or maintain competitive advantage. SCOR Agility metrics include Flexibility and Adaptability	MARKETING & INNOVATION 1. The number of fairs attended (frequency) 2. Flexibility and Adaptability 3. Strong market image and good marketing techniques 4. Ability to offer new and innovative 5. Fashion follow- up speed
Costs	The cost of operating the supply chain processes. This includes labor costs, material costs, management and transportation costs. A typical cost metric is Cost of Goods Sold.	COST 1. The ability to reach to the target price of the customer. 2. The cost of operations and supply chain processes.
Asset Management	The ability to efficiently utilize assets. Asset management strategies in a supply chain include inventory reduction and in-sourcing vs.outsourcing. Metrics include: Inventory days of supply and capacity utilization.	ASSET MANAGEMENT 1. Inventory days of supply 2. Capacity utilization.

4. Conclusion

The importance of the supply chain structures in the textile and clothing retail industry can not be deniable. The purpose of this paper was to analyse three important global retailers, Zara, H&M and Marks&Spencer in order to define important performance attributes along their supply chain structures. Then, the criteria or performance attributes were determined and adapted to the SCOR model, which contains standard metrics to measure process performance. This study aimed to provide textile scientists and academicians to create a comprehensive and valuable database for comparing some successful retailers according to the performance attributes with the view of the retailers' suppliers. As a future study, it will be aimed to compare some of the important global retailers with the view of Turkish' suppliers using multi-criteria decision making processes.

References

- [1] Eryürük, S.H., Kalaoglu, F. And Baskak M., A Site Selection Model For Establishing A Clothing Logistics Center, *Tekstil ve Konfeksiyon*, 22 (1), 40-47, (2012).
- [2] Kocaoğlu B., Gülsün B., Tanyaş M., *A SCOR based approach for measuring a benchmarkable supply chain performance*, Springer Science, (2011).
- [3] Chen, C.L., Yuan, T.W., Lee, W.C., Multi-criteria fuzzy optimization for locating warehouses and distribution centers in a supply chain network, *Journal of the Chinese Institute of Chemical Engineers*, 38(2007), 393–407.
- [4] La Londe, Bernard J. and James M. Masters, Emerging Logistics Strategies: Blueprints for the Next Century, *International Journal of Physical Distribution and Logistics Management*, Vol. 24, No. 7, (1994), pp. 35-47.
- [5] Christopher, Martin L., *Logistics and Supply Chain Management*, London: Pitman Publishing, (1992).
- [6] Chopra, S. and Meindl, P., *Supply Chain Management: Strategy, Planning, and Operations*, Pearson Education, Inc., New Jersey, (2004).
- [7] McGoldrick, P.J., *Retail Marketing*, 2nd ed., McGraw-Hill Education, London, (2002).
- [8] Wigley S. And Chiang C.L.R., Retail internationalisation in practice: per una in the UK and Taiwan", *International Journal of Retail & Distribution Management*, Vol. 37 No. 3, (2009), pp. 250-270.
- [9] Salmon, W. and Tordjman, A., The internationalisation of retailing, *International, Journal of Retailing*, Vol. 4 No. 2, (1989), pp. 3-16.
- [10] Ural, T., Factors affecting the success of store brands in Turkish retailing market, *Innovative Marketing*, Volume 4, Issue 2, (2008).
- [11] Cernades Lopez A., Türkiye giyim sanayicileri derneği , (2011) Lecture notes.
- [12] <http://www.impgroup.org/uploads/papers/7315.pdf>, date retrieved 16.06.2011.
- [13] <http://www.carlospitta.com/courses/negocios%20internacionales%20y%20e-business/readings%20and%20papers/parte%209/zara%20%28harvard%20case%29.pdf> (nueno), date retrieved 16.06.2011.
- [14] <http://upcommons.upc.edu/pfc/bitstream/2099.1/9620/1/67041.pdf>>, date retrieved 10.03.2012.

- [15] Cuc S., Tripa S., “Strategy and Sustainable Competitive Advantage The Case of Zara Fashion Chain”, Volume vi (xvi), (2007) 3-4.
- [16] http://en.wikipedia.org/wiki/Marks_%26_Spencer, date retrieved 16.01.2012.
- [17] Tokatli, N., Wrigley, N. and Kizilgun, O., “Shifting global supply networks and fast fashion:made in Turkey for Marks & Spencer”, *Global Networks* 8, 3 (2008), 261–280.
- [18] H&M Annual report, (2005).
- [19] Chen, S. J., & Huang, E., A systematic approach for supply chain improvement using design structure matrix, *Journal of Intelligent Manufacturing*,(2007), 18, 285–299.
- [20] Albores, P.,Love,D.,Weaver,M.,Stone,J.,Benton,H., 2006. An evaluation of SCOR modelling techniques and tools.In:Proceedings of theEuroMOT2006Conference, URL: /<http://www.iamot.org/conference/index.php/ocs/9/paper/view/2045/965S>, Accessed2008-01-09.
- [21] Supply Chain Council, (2011), available at: www.supply-chain.org.
- [22] Bolstorff, P., & Rosenbaum, R., *Supply chain excellence: A handbook of dramatic improvement using the SCOR model*. New York: AMACOM, (2003).
- [23] Schniederjans, M. J., & Garvin, T. Using the analytic hierarchy process and multi-objective programming for the selection of cost drivers in activity-based costing, *European Journal of Operational Research*, 100(1),(1997), 72–80.
- [24] Meyr, H., Rohde, J., Stadtler, H., Basics for modelling. In: Stadtler, H., Kilger, C. (Eds.), *Supply Chain Management and Advanced Planning*, second ed. Springer- Verlag, Berlin, (2002), pp. 45–70.
- [25] Stephens, S., *Supply chain council & supply chain operations reference model overview*, Supply Chain Council, Inc,(2001).
- [26] Ghalayini A. M. and Noble J. S., The changing basis of performance measurement, *International Journal of Operations & Production*, vol. 17, issue 11,(1996), pp. 63-80.
- [27] G. Manoochchri, Overcoming obstacles to developing effective performance measures, *Work Study*, vol. 48, no. 6, (1999), pp. 223-229,
- [28] Mola, K. M. G.,A methodology to measure the performance of manufacturing systems, A dissertation presented to the Faculty of the Department of Industrial Engineering University of Houston, August (2004).