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Tefron: The Quest for Growth

Introduction and Main Dilemma

Tefron, based in the north of Israel, is one of the country's leading exporters of premium fashion apparel. It is also a world leader and pioneer of apparel based on seamless technology. The company has three main product lines, intimate apparel, active wear, and swimwear, which are divided across two divisions, cut and sew and Hi-Tex (seamless). In 2006, Tefron posted sales of \$188m; its objective is to increase sales to \$400m in four years, with an operating margin of 20%. The challenges it faces in achieving these goals are considerable.

We can best illustrate the nature of these challenges geographically. To its west are Tefron's main customers, mostly in the US. These are giant corporations, such as Victoria's Secret, Nike and Target. Their two main advantages, size and ownership of the brands, allow them to set the pace and the terms in the industry. To its east are the company's main competitors, aggressive low-cost producers from the Far East that are hungry for business, have almost endless mass production capabilities, and won't hesitate to undercut the competition. Positioned in between, with few natural advantages, a clear and effective strategy is crucial if Tefron is to achieve its goals.

The true nature of the challenge goes beyond how to deliver growth, but rather what will provide it. Though the company has been growing successfully, it is highly dependent on two key customers (accounting for almost 70% of sales), is facing an erosion of margins in intimate apparel products, and increasing competition for seamless products. The future growth of the company must therefore come from activities where it can create a competitive advantage that will provide long-term sustainable growth whilst improving margins.

In order to provide the solution to this dilemma, there are several possibilities. Tefron can use its existing products to expand into new geographical markets, such as Europe, or the Far East. It can also seek to expand the number of customers that it sells its products too. Equally, the company could enter new products, such as socks, etc.,. It can diversify across different market segments, targeting the mass market, for example. It can also develop further along the supply chain, creating the brands that represent the greatest added value in the industry, or even by creating a retail presence. What is certain, however, is that as with any company, Tefron has limited resources and cannot do everything at once.

Udi Aharoni from the Coller School of Management, The Eli Hurvitz Institute for Strategic Management prepared this case with the assistance of Gil Dattner and Erez Cohn as a basis for a case competition. The case does not intend to illustrate effective or ineffective handling or business processes or decisions.

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Tefron - Background

Tefron was established in Israel in 1977 as a manufacturer of clothing for export to Europe and the US. The initial concept was to take advantage of lower labour costs and favourable trade terms that existed at the time between Israel and the United States, and Israel and Europe. Israel is one of the few countries in the world that has free trade agreements with the United States, Canada, the European Union, or EU, and the European Free Trade Association. These agreements permit Tefron to sell its products in the United States, Canada and the member countries of the EU and the European Free Trade Area free of customs duties and import quotas. Tefron received substantial investment grants and still receives tax incentives provided by the government of Israel and from the peace agreement with Jordan, which enable Tefron to produce in Jordan and ship the goods to the EC and North America with no duties. Up until 1990, the main market was Europe, but in 1990 the company made changes in its production in order to gear it towards the market in the US, for everyday intimate apparel.

Intimate Apparel

The market for intimate apparel is large, estimated at \$100bn in terms of retail sales. Geographically, the main markets are Europe (31%), the US (28%), and Asia (15%). The main distribution channels are department stores (30%), specialty stores such as Victoria's Secret (VS) (29%), and mass merchants (27%). Looking further at the market, the wholesale value is estimated at \$60bn, and Tefron's specific market, defined as the US market for women's high-end apparel, is estimated at \$2bn. In terms of distribution channels, Tefron estimates revenues being divided in roughly equal terms between specialty stores, mass market stores (such as Target), and department stores (e.g., J.C. Penny). Most of the endmarket for high-end intimate apparel is dominated by big players with strong brands. Realising that the profit lay in the creation of big brands, most of these companies have outsourced production, and focused on the creation of a portfolio of brands. The distribution channel mix that these companies employ depends on their chosen strategy, with the main ones being self-operated stores, retail outlets, licensees, and direct sales, particularly through the internet. VS, for example, is owned by Limited, which has several brands, operates more than 3,500 stores (mostly speciality), and also sells through the web. VS operates about 1,000 stores, and posted sales of \$3.2bn in 2006. Warnaco, in contrast, owns many brands, among which: CK, OP, Speedo, Nautica, and more, operates relatively few stores, and generates most of its revenues through department and specialty stores, independent retailers, chain stores, membership clubs, mass merchandisers, and the internet.

Tefron first began targeting this market in 1990, and quickly saw results; in 1991, VS became a customer, followed by CK in 1994. Between 1992-1996, sales grew from \$18.6m to \$63.1m. By 1996, the company's situation appeared healthy, with sales and profits growing at a fast pace. Strategically however, the situation gave the company cause for concern. 90% of revenues were dependent on two customers - 48.2% for VS, and 42.3% for CK - in one geographic market, with over half the revenues coming from one product type (women's briefs). Tefron does not have long-term purchase contracts with its customers, or minimum purchase requirements that could safeguard future revenues. In addition, low-cost producers from the Far East were increasing the level of competition, and the company was forced to cut its margin levels in order to remain competitive.

The problem lay in the nature of apparel manufacture. The traditional technique for garment manufacture has changed little over the years. The fabric is dyed, patterns are cut out, and the different parts of the garment are then sewed together. Production is labour intensive and offers limited economies of scale. Nonetheless, Tefron's cut-and-sew (C&S) operation remains significant, and today still accounts for over a quarter of revenues. C&S operations

represent a valuable cash cow, and despite the falling profitability, there are still profitable projects to engage in. It also provides Tefron with greater production flexibility, and more of a one-stop-shop solution to its customers who usually purchase both C&S and seamless products. This ability to cross-sell raises the potential sales per customer. In addition, steps are constantly being taken to minimise erosion of profitability and loss of competitive advantage. In 2001, to reduce labour costs, a significant portion of production was shifted to Jordan, and in the future the company intends to shift more of its production to India. In addition, the company is taking steps to increasingly out-source the less profitable activities within C&S, while retaining and focusing on the more profitable, added-value activities.

Despite the importance of maintaining C&S operations, and the measures taken to minimise the haemorrhage, the company decided that to continue in its present path posed an existential risk to the business. The management decided that it had to find a way to leverage its existing competencies in order to find alternative sources of future revenues that could also provide it with a more secure source of competitive advantage. As such, it searched for processes where the technological element played a much larger role, as opposed to labour-intensive C&S production. In 1992, Tefron took its first significant step in this direction- it began marketing apparel based on a technique called body size. Using this method, knitting machines would produce tubular rolls of fabric, which eliminated some of the cutting and sewing necessary to make the garment fit the body. Realising the advantages to be had from automated production, Tefron sought to develop further in this direction. In 1996, it decided that it would develop a production activity based on seamless technology. It was a risky move which lacked support from the industry and, had it failed, could have risked the entire business.

What is Seamless

Seamless technology first came about in the 1990s, and was based on enlarged cylindrical knitting machines that were traditionally used in smaller cylinders for the production of socks. With this technique, rolls of pre-dyed fabric are not needed. Circular knitting machines are fed directly with yarn, and produce a nearly complete garment within a few minutes with only the minimum of sewing needed.

The success of seamless technology is based on its attractions to both producers and consumers. For the manufacturer, seamless knitting provides the benefits of modern technology in a traditional industry. In terms of operations, labour needs are drastically reduced, with engineers being able to supervise several machines that are able to work around the clock. Production times are shorter which helps reduce the manufacturing lead time. Seamless knitting machines also offer more production possibilities. The ability to use a combination of fabrics, and the use of varying techniques in one garment that contains 90% less seams, allows producers to create garments that have innovative features of style and functionality. The rapidity and flexibility of production also allows for the creation of samples within a short space of time. For customers, seamless technology offers a better fit for different body sizes and greater freedom of movement. The almost total absence of seams is also more comfortable, aesthetic, and provides garments that are more durable.

Seamless technology first took off in underwear. From its beginnings in 1997, it now accounts for a significant portion of global underwear production. The technology was developed by Santoni, based in Italy, which is still the sole supplier of seamless knitting machines. Over recent years, the application and popularity of seamless knitting has significantly increased; and can now be found in numerous products, from indoor and outdoor fashion, to sports and health.

Hi-Tex

Hi-Tex was established by Tefron in 1997 to focus on the production of garments based on seamless knitting technology. Tefron's search to leverage its know-how into a new, technologically-intensive area of garment manufacture led it to Santoni, and it quickly became its largest customer. In fact Tefron worked in cooperation with Santoni to help pioneer the new industry. The company raised \$50m in 1997, most of which were immediately invested in the purchase of machines. This was at a time when the industry was practically non-existent. Most of the 900 machines that Tefron owns today were purchased within the first four years that it initiated the business. Such a heavy investment in a market that was still in its infancy was driven by strategic considerations. The company targeted very large brands in the US, and if the new products were to succeed then Tefron had to offer its customers sufficient scale of production and a guarantee of supply.

The first and obvious use of the new technology was the production of seamless intimate apparel, particularly for VS. Tefron already had extensive knowledge of the market, and underwear was a product line where, due to the size and delicacy of the garment, seamless production offered a more obvious point of sale. In addition to providing a higher level of manufacturing efficiency, Hi-Tex offered production with a substantially wider range of fabrics, styles and product lines at a consistently higher level of comfort, quality and durability. This was made possible, in large part, because the Hi-Tex process knits a garment directly, rather than cutting it from fabric, allowing for the production of any size, pattern or design with even greater precision than previously available.

The first seamless panty was produced by Tefron in 1997. In the first few years of production, the product proved very successful; sales of seamless underwear to VS grew rapidly, replacing but not eradicating sales of C&S products. Sales of seamless underwear did not, however, fulfil the company's hopes for their newly developed activity. To begin with, there were challenges on the marketing side. Seamlessness in underwear was not considered a 'must-have' feature for which customers were willing to pay significant premiums. As a result, the retail price tag of the products failed to remain above \$20. Furthermore, the increased durability of seamless underwear increased the product's life cycle, and reduced repeat purchases. Another problem was the entry of competitors, both from the Far East and Delta based in Israel. The competitors were learning how to produce basic seamless products, and were competing with Tefron, pushing the prices down every year. Although cheap labour was not as important as in C&S, it was nonetheless cheaper for the entire operation to be based in low-cost developing countries. Given the lower retail price of the final product, differences in the businesses' cost structure were crucial. It became apparent that in order to get the most out of the new technology, Tefron had to leverage its leading position and create a 'killer' application that would bring innovation and value to a new and untapped market that was ripe for growth.

Despite the difficulties, Tefron still had important advantages. It was by far the largest owner of knitting machines, and therefore the largest manufacture of seamless products. It has a total of 750 fully equipped Santoni Knitting machines at the Hi-Tex facilities in Israel, 50 of which are dedicated to the R&D unit. The size of its operation and its ability to produce on a large-scale offered a natural advantage for large, premium-brand retailers. Competitors that have less than 250 machines (the vast majority) do not have the sufficient capacity to effectively compete against Tefron. It also had the most experience with the technology. The Hi-Tex manufacturing process represents a combination of cutting-edge technology and technical expertise developed in-house, and has further strengthened Tefron's reputation within the industry as a leader in automated manufacture and design. In addition, with both the Hi-Tex manufacturing process and the traditional C&S process, Tefron is able to produce garments made from synthetic yarns in addition to existing lines of cotton products.

The First Blue Ocean – The Move into Active Wear

In 2003, in an effort to increase sales and further diversify its revenue generation, Tefron began to produce active wear. The market for sports or active wear apparel is innovative and fast-growing. As opposed to traditional branches of fashion where the tone and style is set by the catwalks, the active wear market is driven by the professional sports industry, where world-class athletes have become world-class brands. As such, the element of performance is as important as style. The U.S market for active wear is estimated at \$21bn at the wholesale level. Of this, the market for performance apparel is estimated at \$5bn, of which Tefron evaluates its potential target market as \$3bn. On the retail side, the industry is led by such giant names as Nike, Addidas and Puma. Again, as opposed to traditional fashion markets, where there is a clearer demarcation in market positioning – the names on the runway are not those to be found in Wal Mart – the big players in this market have created strong bands with mass appeal by supplying apparel to star athletes.

Similar to the market for underwear, active wear, with its emphasis on comfort, durability, and cutting-edge design, offered a natural fit for seamless production. Active wear, as opposed to pure fashion products, must be engineered for performance, and provides more opportunity to add value. For example, garments can be produced with engineered zones that provide support, compression or ventilation where most needed. They also assist regulation of the body's temperature, and are both odour resistant and fast-drying. In 2003 the company began to supply active wear to Nike, and immediately saw the potential in this new market. Tefron's learning curve for active wear was both steep and costly- production required the utilisation of new raw materials, and was more complicated and time-consuming. Initial production experienced an astronomical defect rate of 50%, as the company struggled with production difficulties. Yet it remained committed. In 2004 Tefron established the Sports Innovation Division (SID) in Oregon, where Nike is headquartered. The division is a sales and marketing facility that, in coordination with its customers and the R&D division in Israel, could create the new generation of seamless active wear. The company's relationship with Nike was further cemented when, it 2006, it was invited into Nike's campus to establish the Center of Excellence for the development and design of new products. So far Nike has invested over \$60m in the marketing of seamless products, and appears committed to applying the technology as widely as possible.

The experience that Tefron has gained through the use and adaptation of seamless technology provides it with an advantage in the seamless market. It has a proven and sophisticated production platform with more know-how and manufacturing seamless capacity than its competitors. It also has working relationships with owners of key brands. The products it created under the Engineered for Performance (EFPTM) label are based on a steep learning curve that acts as a barrier to entry. Part of Tefron's long-term vision is to turn EFPTM into an ingredient brand (along the Intel InsideTM concept) which can command customer loyalty (both the immediate and end-consumer), and enjoy a premium value. The market is becoming more competitive, and as seamless technology becomes more widespread, there is the increased risk that low-cost producers will catch up and threaten Tefron's position. Opportunities, however, run both ways; in 2005 Tefron formed a joint venture in China with Langsha Knitting Co. Ltd., a leading Chinese textile brand name company, and Itochu Corporation, a Japanese Fortune-500 company with significant business interests and vast experience managing multinational joint ventures in China. The joint venture was formed to manufacture seamless underwear for the Asian market using 150 first generation Santoni knitting machines contributed by Tefron USA. Tefron will hold 50.1% of the joint-venture's equity. By developing its capabilities in the lower-end of the market, Tefron is able to expand sales and be better equipped to challenge its competitors.

Jumping in at the Deep End

2003 saw Tefron make another move towards increasing sales, and diversifying the source of its sales. In that year, the company bought out Macro Clothing, a swimwear company based in Israel. The swimwear market is estimated at approximately \$13bn a year. It has over the years moved from a purely functional product to an essentially fashionable one, but still remains a relatively niche market. There are about nine or so major names in the industry, such as Speedo, O'Neill, and Warnaco. Most swimwear is not sold in dedicated shops, Speedo being a rare example, while O'Neil sells swimwear as part of a lifestyle concept rather than a stand-alone item. The production of swimwear requires a certain degree of specialisation- for aesthetic and comfort purposes, the fit is very important, and the fabric has to withstand sun, seawater and chlorine. As an item that is worn outdoors (with little else) design is also very important. In addition, production runs are smaller, depriving the producer of the benefits of mass production. As a result, production is not very concentrated, with many small-medium producers and a lower intensity of competition than in, for example, the intimate apparel market.

Macro's was established in Israel in 1995. Its strategy was to provide its customers with a full-service concept. For many major fashion brands, such as Banana Republic, swimwear is a niche product but important to have in order to complement collections. A summer collection, for example, may include different accessories for the beach, one of which is swimwear. However, given the costs and complexity of production and the proportion of sales, it makes no sense to become involved in production. Moreover, the fact that swimwear sales are seasonal, it also makes little sense to become involved in the design, or logistics of the product. This was where Macro's full-service concept provided the customer with a compete solution. It offers design, development and production capabilities. With a staff of 25 designers, it offers the customer customised and affordable solutions for their collection needs, and then takes care of the entire production process, right up to delivery. Given its target market, Macro focused on design, quality, and a short time-to-market. Production was initially carried out in the company's facility in Israel. This was not, however, profitable, and after the acquisition Tefron decided to outsource production to China and Cambodia. Today, approximately 90% of production is outsourced.

Macro's acquisition represented significant synergies for both companies. Tefron was a production-oriented company, with concentrated sales by customer and product. Macro was a marketing-orientated company which targeted a market that sat well with Tefron's sport's business. This was an opportunity for Tefron not only to diversify its revenue base and increase sales, but to shift its focus further downstream, away from production, and towards the higher value-added marketing activity. Macro on the other hand, had the concept, but its marketing reach and resources were limited. Tefron already had established relationships with big names in the US. In 2003, when Tefron bought Macro, sales were \$5m; these made a quantum leap in the first full year under Tefron's ownership to \$10.3m in 2004, and continued to grow with sales of \$17.7m in 2005, and \$27.8m in 2006. Among its customers are Target, Swimwear Anywhere, Ralph Lauren and The Gap. Approximately 80% of its sales derive from two big customers, with another 30 odd customers proving the remainder. The aim is to increase the number of big name retailers that it provides, and to use Macro as a platform for Tefron to penetrate the European markets.

Tefron's Value Chain and Current Market Position

An inseparable part of Tefron's drive to develop new business and growing existing ones is the way in which it carries out certain key activities within the business. Tefron employs

vertically-integrated production processes and automated production techniques. These processes involve the following steps:

R&D

In the areas of development and design, Tefron has distinguished itself from many of its competitors. Whereas most companies tend to produce a line of products which they then offer to the retailer for purchase, or manufacture according to a development kit provided by the customer, Tefron works in collaboration with its customers in order to create products that are suited to them in terms of design, quality, and functionality. This has allowed Tefron to acquire premium retail brands as customers. Working with the customer also exposes Tefron to the end-market, its tastes and preferences, which in turn allows the company to create its own designs. The company retains numerous designers that are used in all of its divisions. Providing innovative solutions to the retailer helps to cement customer relationship and increase sales.

Tefron has also established important R&D activity surrounding its seamless technology. It is important to emphasis that the mere ownership of seamless knitting machines does not, in itself, represent a competitive advantage. Knowing how to use the machines to create different and complicated products is a lengthy and expensive process. Tefron employs 50 Santoni machines in its R&D unit. These are used not only to create new designs, but to learn and adapt the technology in order to create new techniques which can only then be used to create innovative products. Being Santoni's largest customer gives Tefron the ability to collaborate with the technology supplier in such a way as to enhance the utility that can be derived from the machines. Tefron also works with its yarn suppliers in order to find materials with properties that can deliver added functionality to the finished product. Over the years, the company has developed rare and extensive knowledge in the use of synthetic yarns for seamless production (Santoni machines were created primarily for use with cotton yarns). The expertise also extends to the dyeing-and-finishing process of the final product, which in itself is a complex process developed in-house by Tefron.

Raw Materials

Given the competitive nature of the apparel manufacturing industry, the efficiency in which raw material is procured and supplied is paramount. Any inefficiencies are translated into smaller margins, or an inability to compete on costs. In terms of sourcing, Tefron continuously strives towards achieving four goals: reducing the costs of raw material, preventing any dependence on suppliers, utilising technologically advanced materials, and cutting supply times, which allows Tefron to reduce the inventory of raw materials, shorten production lead time and thus reduce costs. There are times, however, when market conditions present an opportunity to procure raw materials at an advantageous price, at which times the company has the ability to purchase and store the material, thereby reducing overall production costs. Customers typically send projected product requirements between six and 12 months in advance of the delivery requirements and place firm orders between three to six months prior to the desired delivery date. This lead time allows Tefron to coordinate raw material procurement with its usage and to adjust production levels in order to meet demand.

Production

Tefron's product line includes knitted briefs, bras, tank tops, boxers, leggings, T-shirts, daywear, nightwear, bodysuits, swimwear, beach-wear, active wear, and accessories in

different styles, colour and varn combinations. It manufactures cotton-knit products using advanced proprietary manufacturing techniques, and also produces fine products from synthetic yarns, including micro-fibres, using C&S manufacturing process and the highly automated Hi-Tex manufacturing process. The company produces intimate apparel and active wear from both its C&S and seamless division. The production of swimwear for Macro remains a pure C&S activity. As a traditionally production-orientated company and one faced with cheap competitors from the Far East, Tefron has had to continuously improve its production capabilities. In line with its policy of raw material procurement, the company only produces to fill firm orders, having an inventory of only eight weeks. This reduces the costs of storage and wastage. As a company which strives to distinguish itself on technological capabilities, it makes significant capital expenditures to retain its advantage. Furthermore, where possible and preferable, Tefron has increased its vertical integration in order to secure supply levels and reduce costs. In other places, where it is more cost-efficient, production is outsourced to locations where labour costs are cheaper. In 2001 Tefron began outsourcing labour-intensive production to Jordan, where currently over 90% of C&S operations are carried out.

Tefron's C&S division has acquired a dyeing-and-finishing facility that can satisfy a significant portion of its needs in-house. The remainder is outsourced to subcontractors in Israel. The Hi-Tex division subcontracts almost all of its dyeing-and-finishing needs. Tefron has also established testing procedures which examine all fabric upon return to the factory, to ensure colour consistency, stability and durability of the dyed fabric.

Marketing

Most of Tefron's customers are primarily wholesalers, who supply retailers, and in some cases operate retail operations as well. The price that Tefron charges for its products represent approximately 20% of the final retail price, the remainder 80% is accounted for by the remaining links in the chain of supply. Tefron's collaboration with customers in the design and development of their products strengthens its relationships with its customers and improves the quality of its products. Its relationship with VS began in 1991, with Banana Republic and The Gap in 1993, with Warnaco/Calvin Klein in 1994, and with Target and J.C. Penny in 2000, in addition to relationships with Mervyn's, Puma, Patagonia, Adidas, Reebok and other well known American retailers and designer labels. In 2003 it began its relationship with Nike. Approximately 92% of its sales in 2004 and in 2005 were made to customers in North America. While these relationships are crucial, they are not inviolable. Tefron's competitors, especially those from the Far East, have also established relationships with its customers, which has caused an erosion of prices of some of the products in the C&S division. The reason that Tefron has so far concentrated on the US market, and not the European one, is due to the different characteristics of each market. The European market is more fragmented where large retailers, for the most part, have limited operations beyond their own country. The size of the American market offered more sales potential, and American companies are more willing to embrace new products or concepts that represent a point of differentiation over competitors.

The growth dilemma

In 2005 and 2006, Tefron was seeing results from its strategy begun at the end of 2002 to transform from an intimate apparel company with one anchor customer, to a more diversified active wear, swimwear and intimate apparel company with a broader customer base. Tefron's expansion into active wear and swimwear has provided it with an opportunity to increase sales to a larger customer base, including Nike, Reebok, Patagonia, Target, Swimwear

Anywear and others. During 2006, sales of active wear and swimwear products accounted for 46.4% of overall sales, compared to 40.7 in 2005 while in 2004 sales of these products accounted for 20.5% of overall sales only.

The growth in sales during 2005 and 2006 were due mainly to the significant growth in sales of active wear, and in particular sales to Nike for their Nike Pro category. Tefron is looking to further expand its relationship with Nike. The objective is to broaden product lines while entering into new categories and increase the visibility of its Engineered For Performance EFP^(TM) technology.



Appendices

Exhibit 1: Israeli Competitors

Delta Galil

Delta Galil Industries Ltd. is a leading global apparel company specialising in intimate apparel, men's underwear and socks. The Company produces customised, innovative fashion and basic apparel for leading retailers and brands around the world. In 1998 Delta began seamless apparel operation, adding to the variety of products in its offer. Since its inception in 1975, Delta has expanded from its original base in Israel to encompass design, development and manufacturing centres on four continents and service more than 50 customers in the US, the UK, continental Europe and Israel.

The company markets its products primarily in the United States, Israel, Canada, and Europe. Customer list encompasses Ralph Lauren, Calvin Klein, Hugo Boss, Nike, Puma and others, as well as leading retailers such as Marks & Spencer (UK), Wal-Mart, J.C.Penney, Target, Victoria's Secret (US), Hema (The Netherlands), Carrefour (France) and others. The Company is a licensee of prominent brands such as Wilson, Converse, Maidenform, Jeffrey Fulvimari, Barbie, Petit Bebe, Pierre Cardin and others. In addition, Delta sells garments under the Delta brand name in Israel, along with Fox, Disney and other licenses.

Delta Galil had sales of \$684m in 2005 and employed about 13,500 people with an emphasis on production in low labour cost countries.

Gibor

Gibor Sport Activewear, established in 1982, is a leading global designer and producer of high-quality performance socks and active wear for women and men. Gibor manufactures a collection of high-performance socks, which range from all-purpose to sports-specific socks, such as running, skiing, soccer and others. Complementing the sock collection, are Gibor Sport's seamless active wear, produced through the Gilon Sportswear subsidiary. These products includes beanies, vest tops, bra tops, pants, sleeved tops, hats, head and arm warmers, shorts and skirts.

Gibor was among the first companies involved in seamless sock production, and then took seamless manufacturing to a new level by helping pioneer the development of a circular knitting machine and process technology dedicated to activewear with the use of the most advanced yarns and state-of the-art machinery for production.

Gibor Sport customer base features many of the world's leading sports apparel brands (Nike, Speedo, Adidas and Reebok) and department stores. Gibor's active wear is worn by leading athletes, including several Nike-sponsored athletes and members of the English national soccer team, who wear Gibor Sport socks and shirts supplied by Umbro.

The company invests heavily in research and development, and has manufacturing plants in Israel, Turkey and Jordan. In 2005 it posted sales of \$30m, 87% from socks and 13% from seamless active wear

Exhibit 2: Apparel Companies

Abercrombie & Fitch

Abercrombie & Fitch Co., founded in 1892 and is headquartered in New Albany, Ohio, through its subsidiaries, operates as a specialty retailer in the United States and Canada. Its stores sell casual apparel, such as knit shirts, graphic t-shirts, jeans, woven shirts, and shorts; and personal care and other accessories for men, women, and kids under the Abercrombie & Fitch, Abercrombie, Hollister, and RUEHL brands. The company offers polos, humour tees, logo tees, athletic tees, sleeveless tees, shirts, shorts, surf or active shorts, pants, woven shirts, denim, outerwear, underwear, belts, jewellery, adjustable caps, stretch fit caps, flip flops, and cologne for men. It also provides polos, open neck knits, open neck graphics, shoulder show-off, ponchos, humour tees, vintage tees, tanks or camis, tube/halter tops, knits, shirts, denim minis, knit/woven minis, shorts, pants, fleece, sweaters, sleepwear, intimates, swimwear, totes/bags, belts, flip flops, and personal care for women. In addition, the company's stores offer films, photos, postcards, desktop images, and screen savers. As of April 1, 2006, it operated 850 stores in 49 states, the District of Columbia, and Canada. The company revenues of \$2.8bn in 2005, and \$334m net profit.

Limited

Founded in 1963, with one women's apparel store in Columbus, Ohio, Limited Brands has grown into more than 3,500 stores and seven retail brands in the United States, and employs 18,000 people.

The company sells women's intimate apparel, personal care and beauty products, and women's and men's apparel. It has three segments: Victoria's Secret, Bath & Body Works, and Apparel. The Victoria's Secret segment retails women's intimate and other apparel, beauty products, and accessories through retail stores, catalogue, and e-commerce. As of January 2006, it operated 998 stores. The Bath & Body Works segment retails personal care, beauty, and home fragrance products. As of the above date, it operated 1,555 stores. The Apparel segment includes Express stores, which offer women's and men's apparel, sportswear, and accessories; and Limited stores, a mall-based specialty store retailer of sportswear for women. As of the above date, it operated 743 Express stores and 292 Limited stores. The company also operates specialty stores in New York City; and Columbus, Ohio that feature fashion and personal care products for high-income women. Sales for 2005 were \$ 9.7bn, with a net profit of \$683m.

Maidenform Brands, Inc.

Maidenform Brands, Inc., an intimate apparel company, together with its subsidiaries, engages in the design, source, and marketing of various intimate apparel products worldwide. Its products include bras, panties, and shapewear, which are sold under Maidenform, Flexees, Lilyette, Self Expressions, Sweet Nothings, Bodymates, Rendezvous, and Subtract brands. The company sells its products through various distribution channels, including department stores, national chains, mass merchants, specialty stores, off-price retailers, and company-operated outlet stores, as well as through web sites. At the end of 2005 the Bayonne, New Jersey company had revenues of \$382m with a profit of \$9m, and operated 74 outlet stores.

The Gap Inc.

The Gap, Inc. operates as a specialty retailing company primarily in the United States. It operates retail and outlet stores that sell casual apparel, accessories, and personal care products for men, women, and children under the Gap, Old Navy, Banana Republic, and

Forth & Towne brands. The company provides a range of products, including denim, khakis, and T-shirts, fashion apparel, shoes, accessories, intimate apparel, and personal care products. It also offers products through gap.com, bananarepublic.com, and oldnavy.com Web sites in the United States. As of March 22, 2006, the company operated approximately 3,000 stores in the United States, Canada, the United Kingdom, France, and Japan. The Gap, Inc. was cofounded by Doris F. Fisher and Donald G. Fisher in 1969. The company is headquartered in San Francisco, California. 2005 revenues for Gap Inc. totalled \$16bn with \$1.1bn net profit.

VF Corp.

VF Corporation is one of the worlds largest apparel companies, founded in 1899. VF has grown by offering consumers high quality, high value branded apparel with a will to understanding consumer needs and work in partnership with its retail customers, VF's goal is to be the world's most responsive apparel company.

VF Corporation, through its subsidiaries, engages in the design, manufacture, and marketing of branded apparel and related products in the United States and internationally. Its product line includes jeanswear, outdoor apparel, intimate apparel, imagewear, and sportswear. The products comprise denim and casual tops, bottoms, backpacks, bookbags, luggage, outdoor gear, skateboard-inspired footwear and apparel, surf-inspired footwear and apparel, women's lingerie, occupational apparel, licensed sports apparel, athletic apparel, and fashion sportswear. The company offers its product lines under various brands, including Lee, Wrangler, Riders, Rustler, Vanity Fair, Vassarette, Bestform, Lily of France, Nautica, Earl Jean, John Varvatos, JanSport, Eastpak, The North Face, Vans, Napapijri, Kipling, Lee Sport, and Red Kap brands. It sells these products through specialty store, department store, midtier, chain store, and discount store channels, as well as through licensees and distributors. The company was and is headquartered in Greensboro, North Carolina.

Core Strategies of VF include Building a portfolio of strong brands that deliver great value to consumers, target VF brands to reach a variety of consumer segments across all retail channels, grow international presence and lead the industry in responsive service and maintain conservative financial policies. VF Inc. 2005 revenues were \$ 6.2bn and profit was \$ 0.53bn.

Victoria's Secret

Victoria's Secret is the leading specialty retailer of lingerie and beauty products, dominating its world with modern, fashion-inspired collections, prestige fragrances and cosmetics, celebrated supermodels and world-famous runway shows. Victoria's Secret is the largest subsidiary of Limited Brands (based on sales) and the biggest specialty retailer of women's intimate apparel in the US.

Bras, panties, hosiery, and more are sold under the Victoria's Secret brand and grouped in collections such as Body By Victoria and Very Sexy. Many Victoria's Secret lingerie stores feature beauty products that are also sold at some 100 stand-alone Victoria's Secret Beauty Stores in the US. Victoria's Secret Direct mails more than 400 million of its sexy catalogues per year, offering intimate apparel, women's clothing, and footwear. Operating about 1,000 Victoria's Secret lingerie stores in the US, mostly mall-based posted sales of \$ 3.2bn in 2006.

Volcom

Volcom, Inc. engages in the design, marketing, and distribution of clothing, accessories, and related products in the United States and internationally. The company defines itself as the epicentre of board sports culture, an innovative designer, marketer and distributor of

premium quality young men's and young women's clothing, accessories and related products under the Volcom brand name. Company products, which include t-shirts, fleece, bottoms, tops, jackets, board shorts, denim and outerwear, incorporate distinctive combinations of fashion, functionality and athletic performance.

Its products include t-shirts, fleece, bottoms, tops, jackets, board shorts, denim and outerwear, combines fashion, functionality, and athletic performance primarily for young men and women. The company offers accessories to the board sports of skateboarding, snowboarding, and surfing. It also offers various other accessories, including hats, wallets, ties, belts, and bags. At the end of the financial year of 2005, Volcom operated one Volcom branded retail store in Los Angeles. It also offered its products through online. In addition, the company sells music under its Volcom Entertainment label. It offers its products primarily to retail stores. Volcom was founded by Richard R. Woolcott and Tucker Hall in 1991 in Orange County, California. It was formerly known as Stone Boardwear, Inc. and changed its name to Volcom, Inc. in 2005. The company is based in Costa Mesa, California. In 2005 Volcom's achieved sales of \$160m, with a \$29m net profit.

Warnaco

The Warnaco Group was founded in 1874 and is headquartered in New York City. Originally, the company designed, manufactured and sold Warner's corsets to retailers. Warnaco evolved into a multi-brand, multi-channel apparel company, which endeavours to provide fashion for a country and a world in change. Warnaco engages in the design, manufacture, marketing, and sale of intimate apparel, menswear, jeanswear, swimwear, men's and women's sportswear, and accessories worldwide.

Warner products are distributed domestically and internationally, primarily to wholesale customers through multiple distribution channels, including major department stores, independent retailers, chain stores, membership clubs, specialty and other stores and mass merchandisers and the internet, including such leading retailers as Macy's and other units of Federated Department Stores, J.C. Penney, Kohl's, Sears, Target, Costco and Wal-Mart.

The company offers its products under various brand names, including Warner's, Olga, Lejaby, Body Nancy Ganz, Speedo, Anne Cole, Op, Ocean Pacific, Cole of California, and Catalina, as well as Chaps, J. Lo by Jennifer Lopez, Nautica, Michael Kors, and Calvin Klein. Its intimate apparel product line includes bras, panties, sleepwear, loungewear, shapewear, and daywear for women; and underwear and sleepwear for men. The company's sportswear product line comprises jeanswear, knit and woven shirts, tops and outerwear for men, women, and juniors. Its swimwear product line includes swim accessories, and fitness and active apparel for men, women, juniors, and children. The company distributes its products to wholesale customers through various channels, including department and specialty stores, independent retailers, chain stores, membership clubs, mass merchandisers, and the Internet. The company sold \$1.5bn in 2005, with \$49.5m profit and has 10,000 employees. It operates 121 Calvin Klein retail stores, two Speedo outlet stores, and one online store.

Exhibit 3: Activewear Companies

Gildan Activewear

Gildan Activewear, Inc. engages in the manufacture and marketing of basic activewear for sale principally into the wholesale imprinted activewear market in Canada, the United States, Europe, and Asia/Pacific. The company manufactures and sells 100% cotton t-shirts and 50% cotton/50% polyester t-shirts, placket collar sport shirts, and fleece products in various weights, sizes, colours, and styles. It also sells its products as 'blanks', which are decorated with designs and logos for sale to end users. Gildan's silhouettes include basic t-shirts, long sleeve and sleeveless t-shirts, ringer tees, tank tops, pocket t-shirts, basic sport shirts, pocketed sport shirts, crewneck sweatshirts, hooded sweatshirts, and sweatpants. The company was incorporated in 1984 under the name Textiles Gildan, Inc. and changed its name to Gildan Activewear, Inc. in 1995.

Gildan's corporate head office is located in Montreal, Canada. The company has over 15,000 full-time employees around the world. The company sold in 2005 \$ 773m and posted a \$ 106m profit and is listed on the Toronto Stock Exchange and the New York Stock Exchange.

Lululemon Athletica

Lululemon Athletica is a yoga-inspired athletic apparel company that provides components for people to live longer, healthier and more fun lives. Lululemon was founded in 1998 in Vancouver, Canada by Chip Wilson, based on the increase in the number of females participating in yoga and athletics offering technical apparel with flattering cuts for both women and men. In addition to yoga wear, Lululemon Athletica offers clothing for running, cycling, hiking, rock climbing, and other sports. The company also offers yoga props and accessories - including mats, straps, and blocks. Lululemon values the correlation between health and athletics and aspires to raise the level of health in every community it touches.

As of mid 2006 Lululemon had 51 stores in Canada, the USA, Japan and Australia. Manufacturing for Lululemon is done by factories in Canada, the USA, Israel, China, Taiwan, Indonesia and India.

Nike

Nike was co-founded by Philip H. Knight in 1964 and is headquartered in Beaverton, Oregon. Once a small company when established Nike is a giant player in it's field. Through its subsidiaries, NIKE, Inc., engages in the design, development, and marketing of footwear, apparel, equipment, and accessory products worldwide.

Nike designs athletic, casual, and leisure footwear for men, women, and children. The footwear products include running, cross-training, basketball, soccer, and sport-inspired urban shoes designed for tennis, golf, baseball, football, walking, hiking, outdoor activities, skateboarding, bicycling, volleyball, wrestling, cheerleading, aquatic activities, and other athletic and recreational uses. The company sells sports apparel and accessories, athletic bags, and accessory items; and offers licensed college and professional team and league logos. It offers a line of performance equipment under the Nike name, including golf clubs and balls, sport balls, eyewear, timepieces, electronic devices, bats, gloves, protective equipment, and other equipment designed for sports activities. The company provides licenses to produce and sell NIKE brand swimwear, cycling apparel, children's clothing, school supplies, electronic devices, eyewear, golf accessories, and belts.

Nike manufactures and distributes ices skates, skate blades, protective gear, hockey sticks, licensed apparel, and accessories. The company sells its products to retail accounts, through its owned retail stores, and through a mix of independent distributors and licensees. In 2005, this growing player achieved almost \$15bn in sales with a net profit of \$1.4bn. As of May 31, 2006, it operated 212 retail stores in the US and 206 retail stores internationally with an intention to grow by 100 more in the coming year, enhancing it's US and global market share.

Under Armour

Under Armour, Inc. engages in the design, development, marketing, and distribution of branded performance products for men, women, and youth in North America and internationally. This young company was founded by former University of Maryland football player Kevin Plank in 1996 as a simple plan to make a superior T-shirt. The company formerly known as KP Sports, Inc., changed it's name in 2005 to Under Armour, Inc. The company defines its mission to provide the world with technically advanced products engineered with our superior fabric construction, exclusive moisture management, and proven innovation.

Under Armour is considered by some as the originator of performance apparel - gear engineered to keep athletes cool, dry and light throughout the course of a game, practice or workout. Under Armour markets and sells a range of apparel, footwear, and accessories for use in athletics and outdoor activities, as well as for use as casual apparel. It offers long and short sleeve T-shirts, shorts, sweats, socks, performance bags, baseball batting gloves and football gloves, underwear, and other related products; and products for use in outdoor activities, such as hunting, fishing, and mountain sports. The technology behind Under Armour's diverse product assortment for men, women and youth is complex, but the program for reaping the benefits is simple: wear HeatGear when it's hot, ColdGear when it's cold, and AllSeasonGear between the extremes.

The company sells its products primarily through smaller, independent, and specialty retailers. It also sells its products directly to athletes and other users through its sports marketing group and to consumers through four retail outlet stores in the United States, as well as through its Web site. 2005 revenues were \$281m, with a net profit of \$18m.

Exhibit 4: Premier Apparel Company Sales World Wide

	\$ m				
	2003	2004	2005		
Gildan	533	654	773		
Limited	8,934	9,408	9,699		
Maidenform	293	337	382		
Nike	12,253	13,740	14,955		
Tefron	125	149	171		
Under Armour	115	205	281		
VF Corp.	5,207	6,055	6,502		
Warnaco	1,374	1,424	1,501		

Source: company fillings. Tefron adjusted without Alba Health

Exhibit 5: Tefron Growth Engines

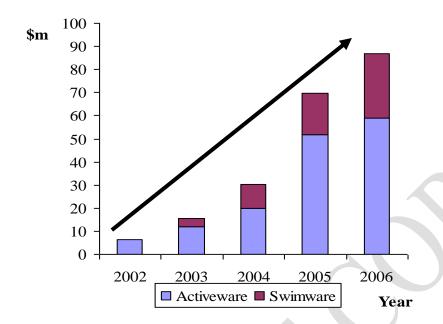


Exhibit 6: Tefron Sales by Product Lines

Sales \$ m					
	2003	2004	2005	2006	
Cut & Sew					
Intimate Apparel	48.0	47.4	37.6	53.1	
Activewear	1.6	7.6	6.1	5.0	
Swimwear	3.7	10.3	17.8	27.8	
Cut & Sew total	53.4	65.3	61.5	85.9	
Seamless					
Intimate Apparel	61.0	70.9	64.1	47.8	
Activewear	10.4	12.5	45.8	54.4	
Seamless total	71.4	83.3	109.9	102.2	
Total Revenue	124.8	148.6	171.3	188.1	

Exhibit 7: Apparel UnderwearWorld Market by Percentage, 2006

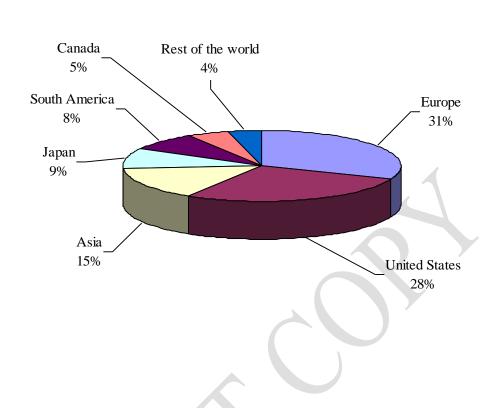


Exhibit 8: Tefron Revenues and Manufacture Location by Product Lines

	Cut & Sew			Hi-Tex		
	Activewear	Swimwear	Intimate Apparel	Intimate Apparel	Activewear	
% of 2005 Apparel Revenue	4%	10%	22%	37%	27%	
Knit & Cut	Israel (own plants)	For Fost	Israel (own plants)	Israel (own plants)	Israel (own plants)	
Sew	Mostly Jordan (own plants)	Far East (sourced)	Mostly Jordan (own plants)	Israel / Jordan	Israel / Jordan	

Exhibit 9: Tefron Sales by Geographical Area 2003-2005

	\$ 1,000			
	2003	2004	2005	
North America	116,410	134,715	153,984	
Europe	4,350	8,044	11,074	
Israel	2,782	2,892	3,865	
Other	1,258	2,969	2,413	
Total	124,800	148,620	171,336	

Exhibit 10: Tefron Sales to Main Customers by \$ 1,000

	2003		2004		2005	
VS	62.2	49.8%	70.4	47.4%	69.3	40.5%
Nike	5.3	4.2%	12.4	8.3%	44.1	25.7%
Target	14.8	11.9%	24.4	16.4%	18.5	10.8%
The GAP/Banana	9.2	7.4%	11.5	7.7%	9.2	5.4%
Other	33.3	26.7%	29.9	20.1%	30.2	17.6%
Total	124.8	100.0%	148.6	100.0%	171.3	100.0%

^{*} Figures excluding Alba Health

Exhibit 10.1: Alba Health

In 1999 Tefron acquired Alba Health which manufactures and sells textile healthcare products. In December 2005 Tefron exercised its option under the Alba Health Put Option Agreement to sell our ownership interest in Alba Health. The deal was closed in April 2006, a move described by Yosi Shiran, Tefron's CEO, as a strategic move to better focus on Tefron's core businesses - intimate apparel, active wear and swim wear. Alba Health accounted for \$34.2m or 16.7% of Tefron's sales in 2005. Under the sale agreement Tefron will receive approximately \$13 m (of which approximately \$10m paid in cash and \$3m in a subordinated note).

Exhibit 11: Santoni & World Production Capacity

The sole supplier of seamless knitting machines is Santoni. The company, which is based in Italy, was founded in 1919 to make machines that manufactured hosiery. The challenge in the seamless machinery field took as a result of the crisis and the following strong drop of production in the hosiery industrial segment. At that point the Lonati Group introduced the prototype circular knitting machine, which was built using a technology similar to the hosiery one. This innovative machinery allowed to knit ready-made apparel, something fully different from what had been done up to that time. Seamless knitting machines were initially developed at the Lantoni Company in Italy in 1988. In 1989, Santoni joined the Lantoni Company and began the commercial production of seamless knitting machines. Within a few years, demand began to grew, and by 1999 Santoni focused solely on the production of these machines. There are approximately 15,000 Santoni machines in the world today, and are currently being produced at a rate of about 1,500 per year, with an average cost of about \$90,000.

These innovative machines are able to produce 200 apparel products a day, one every 5-10 minutes, producing a yearly volume of \$200,000-250,000 per machine every year (in wholesale cost). The machines are also continuously being developed and improved. According to Santoni the company's machinery today is delivering an estimated 97% of world demand for seamless wear and is present in seventy countries. The company has no more than 400 customers world wide, only a few of which have more than 100 machines, while the average is approximately 50 machines per manufacturer. The largest costumers are Tefron with 900 machines, Sara Lee with about 350, a company in Sri Lanka (MIS) with about 250 machines and Delta with 200. The true potential of seamless is considered by Santoni as a billion dollar market which has only reached 10% of it's true potential.

Exhibit 11.1: Santoni Machines

<u>SM8 V.E.</u>

Santoni SM9 model



Source:Santoni site

Exhibit 12: Consolidated Statement of Income (excluding Alba Health)

Tefron Ltd. Consolidated Staten	nent of Income	e US \$ thousa	ınds	
	31/12/2003	31/12/2004	31/12/2005	31/12/2006
Sales, net	124,799	148,620	171,336	188,104
Cost of sales	113,622	136,424	141,621	145,144
Gross profit	11,177	12,196	29,715	42,960
	9.0%	8.2%	17.3%	22.8%
Selling, general and administrative expenses	14,299	16,912	13,579	17,077
Operating income (loss)	(3,122)	(4716)	16,136	25,883
- Formany	n/a	` _	9.4%	13.8%
			<i>y</i>	
Financial expenses, net	4,020	3,888	3,189	1,912
Income (loss) before taxes on income	(7,142)	(8,604)	12,947	23,971
	n/a	n/a	7.6%	12.7%
Taxes on income (tax benefit)	(616)	83	4,297	5,711
Equity in losses of affiliated companies	(183)			
Pre-acquisition earnings of subsidiary since April 1, 2003 through May 5, 2003	(85)			
Income from continuing operation	(6794)	(8687)	8650	18,260
8 1	(2.2.)	(2227)	2200	
Income (loss) from discontinued operations	2341	1822	(5357)	120
Net income (loss)	(4,453)	(6,865)	3,293	18,380
	n/a	n/a	1.9%	9.8%

Exhibit 13: Tefron Ltd. Balance Sheets (excluding Alba Health)

Tefron Ltd. Balanced	d Sheets US \$	thousands		
	31/12/2003	31/12/2004	31/12/2005	31/12/2006
Current assets:				
Cash and cash equivalents	3,784	2,462	7,652	3,966
Short term deposit				10,089
Marketable securities				4,975
Trade receivables	20,705	17,176	25,978	30,655
Other accounts receivable and prepaid expenses	5,728	5,545	4,956	4,166
Inventories	28,651	30,122	26,382	28,912
	58,868	55,305	64,968	82,763
Long Term investments:	,	,		
Deferred taxes	3,428	2,486		
Investment in affiliated company	296			
Bank deposit				1,029
Severance pay funds	217		634	778
Subordinated note				3,000
Other	56			- ,
	3,997		634	4,807
			351	
Property, plant and equipment, net	91,061	87,672	80,859	77,086
Goodwill	122	, , , , , , , , , , , , , , , , , , , ,		,,,,,
Other assets, assets attributed to discontinued				
operations and deferred charges	47,543	46,068	40,053	
		,	,	
Total assets	201,591	191,531	186,514	164,656
Current liabilities				
Short-term bank credit	25,319	15,543	14,713	
Current maturities of long-term debt:				
Loans from banks and others	10,328	9,039	6,373	5,948
Capital leases	975	17		
Trade payables	26,863	27,072	27,865	31,143
Conditional obligation with respect to issuance of				
shares		3,454		
Other accounts payable and accrued expenses	10,327	8,704	8,721	10,402
	73,812	63,829	57,672	47,346
Long term liabilities				
Loans from banks and others	47,472	41,908	35,535	19,322
Capital leases	130			
Deferred taxes	7,570	5,611	9,116	12,313
Accrued severance pay	2,486	2,744	2,695	3,298
• •	57,658	50,263	47,346	34,933
Liabilities and minority interest attributed to				
discontinued operations	33,466	30,695	26,811	
Shareholders equity	36,655	46,744	54,685	82,230
Shareholders equity	30,033	70,/74	34,003	02,230
Total liabilities and share holders equity	201,591	191,531	186,514	164,656