LOGISTICS AND SUPPLY CHAIN MANAGEMENT IN LUXURY FASHION RETAIL: EMPIRICAL INVESTIGATION OF ITALIAN FIRMS

ALESSANDRO BRUN – Politecnico di Milano,
FEDERICO CANIATO – Politecnico di Milano
MARIA CARIDI – Politecnico di Milano
CECILIA CASTELLI *– Politecnico di Milano – *corresponding author*
GIOVANNI MIRAGLIOTTA – Politecnico di Milano
STEFANO RONCHI – Politecnico di Milano
ANDREA SIANESI – Politecnico di Milano
GIANLUCA SPINA – Politecnico di Milano

*Corresponding author, *Politecnico di Milano, Department of Management, Economics and Industrial Engineering, via G. Colombo 40, Milano, Italy; phone +39 02 2399 2814, e-mail address: cecilia.castelli@polimi.i*

Keywords: fashion industry, retail, luxury, supply chain management

Introduction

The industry of luxury goods, according to forecasts, has become in 2006 a $170 billion business worldwide (Egon Zehnder International, 2006), registering a growth of 7,3% compared to 2005 (Pambianco, 2006); Italian luxury brands represented in 2005 27.5% of the total luxury goods sold worldwide (Jucker, 2006), corresponding to about €40 billion. In particular, as far as luxury fashion goods are regarded, the Italian market of fashion goods in the luxury segment accounted for about €26 billion in 2006 (Il Sole 24ore, January 10th 2007) Despite the adverse economic cycle of the last few years, luxury goods experienced increasing demand: this is due in part to the increasing social relevance of owning luxury goods, in part to the strong commitment of the luxury companies in branding and communication management (Castaldo and Botti, 1999).

As a consequence, entering the luxury segment is a very attractive way to expand a brand and build a sustainable business for the future (Danziger, 2005): markets are polarizing, with growth concentrated both at the lower-priced and at the high-end, especially considering fashion-sensitive businesses.

Given this background, which is the role of operations and supply chain management in luxury fashion companies success? Which is the relative importance of superior product design, positive branding & communication action and operational excellence in building and sustaining the competitive advantage of a fashion luxury company? Of course, as in any other manufacturing business, production and sourcing management is a key factor (Thomassey *et al.*, 2005), and we know that balancing production and demand is one of the major challenges faced by fashion retailers (Nair and Closs, 2006). But when it comes to manufacturing fashion luxury goods, to what extent operations and supply chain strategies and techniques may affect the success of a luxury fashion company?

This paper presents some results of a wider research project launched by the Centre of Excellence in Supply Chain Management of Politecnico di Milano and named Supply Network Strategy (SNS

– Brun et al., 2005). The program aims at developing a framework model focused on critical decision areas in the strategy formulation process: strategy is studied in terms of goals (pursue of critical success factors), configuration choices and intra- and inter- firm management practices. The final goal is to provide a support for the definition of the suitable supply chain choices according to the competitive priorities of the supply chain: therefore the unit of analysis is the complete network of companies and relationships involved.

Given this introduction, the paper is arranged as follows. Section 2 presents a literature review about the luxury segment of the fashion industry and supply chain strategy, showing what are the main limitations in applying the existing supply chain strategy models to the luxury fashion industry. Section 3 is devoted to better outline the research questions, whereas in section 4 the research methodology is presented, introducing the main features of the companies involved in the performed case studies. Section 5 deals with the analysis of the results. Finally, Section 6 will draw some concluding remarks and suggest future research paths.

1. Literature review

Cigolini et al.(2004) and Miragliotta (2006) provided a comprehensive analysis of the most relevant supply chain management tools and techniques, as well as a conceptual model for efficient and stable product flow across the supply chain: the interested reader could refer to these papers for an introduction to the topic of supply chain strategy. This section will instead discuss two relevant topics for the forthcoming dissertation: first, a definition of the concept of "luxury" with respect to the fashion industry and, second, a review of the available supply chain strategy formulation models, in order to evaluate how these could fit to the luxury fashion industry

1.1 Overview of the concept of "luxury" with regards to the fashion industry

The concept of "luxury" traces its roots back to the history of the great civilizations of the ancient world: luxury goods have always been associated to wealth, exclusivity and power, as long as it

was identified with satisfaction of non-basic necessities. The term “luxury” itself comes from the Latin “luxus”, which means “soft or extravagant living, sumptuousness, opulence” (from the Oxford Latin Dictionary in Dubois et al., 2005) or from the Latin “luxuria”, which means “excess” or “extras of life” (Danziger, 2005).

The modern industry of luxury goods was born in the XIX century in Europe when, thanks to the industrial revolution, some entrepreneurs established companies aimed at creating exceptional products that represented the elitist lifestyle of the time. Since the seminal works dealing with fashion as a social phenomenon (Blumer, 1969) it was observed that fashion trends affirm themselves in a spontaneous way in accordance to the *Zeitgeist*, i.e. the spirit of the age prevailing at a given moment. Traditionally, a polarization can be observed in the fashion industry: some companies choose to operate in the mass market, selling low cost products that are available to a large number of consumer, whilst other companies are aiming at providing exclusive and expensive products to an elitist segment of consumer.

Luxury fashion used to be a geographically centralized industry where new trends were diffused from a single location – Paris in the past, Milan more recently – where the collections presented by a small network of couturier became the trends that everybody in the world imitated. Due to the limited local potential growth, these companies had to expand their sales outside the country of origin in order to reach a larger customer base. This put the basis for the present-day global luxury companies (Antoni et al., 2004). Nowadays luxury fashion originates from more sources, both in terms of design and production (Polhemus 1994, Crane, 1999) and it is distributed all over the world.

This led to a deep change in the concept of luxury fashion, stemming from the idea of *luxury for the masses* (Silverstein and Fiske, 2003). As business grew, the customer base became broader – as the elites of the world became larger and more diverse – and the reputation for exceptional quality evolved into well-established brands: today the brand image and characterization have become one of the most relevant aspects in order to get a positioning into the luxury market. The emotional

factors have been getting more and more importance, as customers are looking for goods that are characterized by reliable performances and perfection of details but at the same time they want to be emotionally involved and feel a complete and memorable shopping and ownership experience. In this regard, Reddy and Terblanche (2005) divided luxury brands into two categories: those which are primarily recognized for their technical features and those which, in the eyes of the customer, are primarily symbolic: people buy Ferrari, for instance, because of the vehicles' world-class performance and engineering, while other luxury brands, like Gucci, are valued more for the lifestyle they project than for the particular expertise or functionality they embody.

Today most authors agree that "luxury" doesn't actually identify a category of products rather than a conceptual and symbolic dimension, defined by values which are strongly related with the cultural elements that characterize a society in a particular historical period. A decade ago Nueno and Quelch (1998) highlighted that the idea of "luxury" do not merely apply to premium priced products; it encompasses a set of distinctive characteristics, namely *consistent delivery of premium quality, heritage of craftsmanship, recognizable style and design, exclusivity, emotional appeal, global brand reputation, association with a country of origin, presence of elements of uniqueness, lifestyle of the creator.* Antoni et al. (2004) proposed a similar framework, drawing the attention on *excellence*, *brand aura* and *desirability*.

A further shift was thus ready to come: Silverstein and Fiske (2003) described the shift from *old luxury* to *new luxury*. Old luxury was about the attributes, qualities and features of the product, and much of its appeal was derived from status and prestige. New luxury defines the category from the point of view of the consumer, that focus on the experience of luxury embodied in the goods and services they buy, not in ownership or possession itself. Luxury products should communicate and delivery emotions and experiences to the consumer. Luxury brand's role is hence to fulfil luxury fantasies of the customer (Danziger, 2005): performance – no matter what the product or service – is the key: the way the luxury brand delivers fulfilment in the emotional and physical realm of the consumer.

1.2 Brief overview on Supply Chain strategy literature

In the last two decades many authors dealt with the topic of supply chain management: some of them dedicated to the strategic level and developed models for a proper supply chain strategy, others focused on the identification of the available techniques and tools for supply chain configuration and management..

The concept of Supply Chain Strategy has been proposed as an evolution of the consolidated framework of Manufacturing and Operations Strategy proposed by Skinner (1969) and Hayes and Wheelwright (1984). Harland et al. (1999) proposed to extend the operations strategy framework to the supply chain (in terms of competitive priorities, structure and infrastructure). Other contributions expressed the need to focus supply chain strategy ad align it towards the critical success factors of the considered product/market. Product features indeed influence supply chain configuration and management choices; a well established classification is the one proposed by Fisher (Fisher, 1997): *functional* products and *innovative* products. Functional products match with a physically efficient supply chain management strategy, while innovative and fashion sensitive ones (Aitken et al., 2003; Stratton and Warburton, 2003) match with a market-responsive strategy. Many models have been proposed with the aim of matching the company goals and success factors to the most suitable supply chain strategy (Fisher, 1997; Lamming et al., 2000; Towill et al., 2002; Lee, 2002; Cigolini et al., 2004; Lee, 2004). However such models are meant for companies operating in the mass segment and they find low correspondence in the luxury segment of the fashion industry (Caniato et al., 2007).

For instance, luxury products cannot be considered as functional, since in the luxury segment cost issues are not as relevant as for Fisher's functional category; similarly the fashion component doesn't justify the inclusion of luxury products into innovative ones, where the stress is on reactivity performances due to their short lifecycle and highly volatile demand (Choi, 2006; De Toni and Meneghetti, 2000): in fact, in the luxury segment, some products could be classified as

“innovative”, while many other are not innovative at all. Reactivity is not the objective when products hand made details which require very long manufacturing lead times, nor when waiting lists are applied as happens for some super-expensive branded lady bags.

More recently researchers introduced other categories for the purpose of identifying the most appropriate supply chain configuration and strategy. A relevant category could be that of *unique* products (Lamming et al., 2000): uniqueness is often caused by the reputation of its brand, especially in market segments (e.g. apparel/fashion industry) in which the brand name is a determinant of success (Bruce et al., 2004; Byrnes, 2004). Such uniqueness should be created, supported and maintained by managing in an appropriate way throughout the various steps of the supply chain (Bowman, 2004). Manufacturers of unique products may nurture them and also protect them from other parties in the network, fearing that their products, and the resources and competencies which provide their competitive advantage, may be replicated by imitators. Therefore, as firms rely on and protect their unique resources in order to generate sustained competitive advantage, they may be expected to exercise caution in sharing them with other parties (Lamming et al., 2000).

As a matter of fact, the literature regarding the luxury goods industry is mainly focused on sociological, marketing and branding aspects, and little attention has been paid to the operations and supply chain strategy perspectives. Despite of this, our research experience shows that such issues are not ancillary in the luxury segment: as recognized by Nueno and Quelch (1998) too, design and communication activities may be the main success drivers, but excellence has to be pursued also in product line management, service management and channel management. Stemming from these consideration, a specific sub-area was opened in the SNS research program to explore the relevance of operations and supply chain management in the luxury fashion industry. The above mentioned research gap, together with the importance of the luxury industry in the Italian context, give reasons for this sub-project., which is the core topic of this paper.

2. Research Questions

As already stated in the introduction, the overall research aims at exploring the role of operations and supply chain management in luxury fashion companies, and in particular to which extent operations and supply chain activities impact on the success of luxury firms. In order to cope with this broad and ambitious topic it is necessary to take a step back, and focus on some preliminary questions regarding the critical success factors in the luxury industry and on the currently adopted operations and supply chain practices. Hence, the following research questions will be enquired in this paper.

1. *Which is the relevance, as perceived by luxury firms, of the various critical success factors?*

   By critical success factors the authors mean those features in terms of product or service design that allow a firm to succeed into a specific market segment: customers select the firm's product and not the competitors' ones because of those specific features (Rockart, 1986). Of course, a firm will not aim at excelling in the whole set of critical success factors that characterize the considered market segment: its competition will mainly focus on a selected subset of such factors, which can be addressed as the "niche area" of the brand. For the purpose of this research, the critical success factors proposed by Nueno and Quelch (1998) for the luxury goods industry have been taken as a reference.

2. *Which supply chain configurations are currently adopted by luxury firms?*

   Supply chain configuration is intended as a set of long term strategic decisions taken by the company in terms of make-or-buy, supply base definition, localization, and distribution channel (Harland et al., 1999).

3. *Which are the key choices that need to be considered by those companies?*

   It is important to assess which short and medium term decisions that need to be taken in order to manage the operational activities along the supply chain of the fashion-luxury

industry (i.e. decoupling point, inventory management, demand forecasting, supplier selection, etc.).

4. *Does any relationship exist between critical success factors and the adopted supply chain configurations and management choices in the luxury fashion industry*?

   This final question constitutes the definite step towards the overall aim of the research: it is important to understand whether luxury firms take specific supply chain strategic and operational decisions according to the critical success factors they declare to pursue.

3. Methodology

Given the above research goals and questions, the nature of the study is both explorative and explicative. In fact, we not only aim at describing the supply chain of Italian luxury fashion firms, but we also look at significant links between critical success factors and supply chain configuration and management choices.

For this purpose, the research is based on a multiple case study methodology, which involved a sample of twelve luxury fashion manufacturers in Italy (Table 1). According to Yin (2004) and Eisenhardt (1989) this number can be considered sufficient to give an accurate account in an empirical research.

Our focus is on the worldwide renowned Italian fashion luxury products, whose brands have achieved international recognition and are facing today the challenge of developing supply chain strategies that can support them in competing globally. For this reason, the industries considered are those related to the traditional Italian products: shoes, apparel, accessories. In order to be eligible for inclusion in the sample (Fernie et al., 1997), the fashion firms were considered only if they:

- have an international profile by appearing in a major catwalk in the key fashion capitals;
- have been established in the fashion business for several years;
- produce merchandise for sale in two or more continents;

- have registered positive and increasing economic results in the last years, thus encouraging us to consider them as good examples of effective managerial practices, despite the differences among them.

Our sample is mainly made of small and medium firms, who usually face great challenges in building global supply chains. The sample contains also some large firms, who were Small-Medium Enterprises (SME) and have grown to support their market expansion. The choice of such a varied sample – as regard to company size – makes it representative of the actual composition of the Italian fashion luxury market, which is made of very few fashion giants with billionaire turnover (i.e. Gucci: 3,1€ billion; Armani: 1,4€ billion; Prada: 1€ billion), tens of – equally renowned – medium-sized firms (i.e. Diesel: 0,6€ billion; Geox: 0,5€ billion; Tod's: 0,4€ billion; Versace 0,3€ billion) and plenty of smaller player, some of which owning worldwide known luxury brands (i.e. Iceberg: 92€ million; Liu Jo: 91€ million; Guru: 86€ million; Aspesi: 45€ million; Marinella: 12€ million).

Most of the firms considered in this research manage their own brands, while others just manufacture products that are sold under leading brands; in some cases, the manufacturers have been acquired by the brand owner. Companies in the sample have one or more product lines, as well as complementary accessories that enrich the product offering, and generally launch two collections each year, corresponding to the main selling seasons (fall-winter and spring-summer). At the same time, they offer evergreen items, or carry-over products. The choice of such an heterogeneous sample is due to the purpose of exploring different choices in terms of supply chain strategy and management. Moreover we used in the selection phase the replication technique (Yin, 2004) in order to obtain both convergent (literal replication) and contrasting results (theoretical replication).

Information was collected in each case using semi-structured interviews and documentary analysis. Owners and General Managers (in the case of smaller firms) and Operations Managers (in the case of larger firms) were interviewed; when possible, multiple interviews were conducted

in each company to achieve a broader perspective and perform data triangulation. Interviews were recorded and summary reports for each firm were prepared; cross case synthesis technique was used to analyse and compare data from the research. Moreover, pattern matching and explanation building techniques were helpful in order to understand how the different critical success factors impact on supply chain strategy and management choices (Yin, 2004).

Table 1: Sample

4. Findings

As anticipated 12 Italian manufacturing companies from the luxury segment of the fashion industry have been studied, in order to identify the critical success factors of their business and to assess the configuration and management choices of their supply chain (Cigolini et al. 2004).
In order to obtain comparable descriptions of the different companies, the information obtained during the interviews was organized as referring to three macro-processes (namely: sourcing, manufacturing and retailing): supply chain configuration and management choices were described and analysed with respect to these three areas. In the following sections the supply chain configuration of the companies will be presented; the supply management choices and tools will be analysed and the impact of critical success factors on such choices will be discussed.

5.1 Critical success factors in the luxury segment of the fashion industry

The first result to be obtained from the case studies was the identification of critical success factors for the luxury segment of the fashion industry. The interviewee were asked to identify, within those listed by Nueno and Quelch (1998), the critical success factors which more suitably applied to their business. Among the companies involved in the research, the following critical success factors were more frequently indicated (see Table 2) and therefore can be considered as most relevant:

- *Product quality:* this aspect is to be considered both in terms of product compliance with the specifications and in terms of superior manufacturing quality. Luxury brands are not just empty names: they have to stand for quality, so that it can be justified spending moneys in them.
- *Style and design:* superior material quality is not enough for the luxury segment of the fashion market; products must also convey emotions to the customer. Product design and aesthetic can make the product unique and they make customers associate emotions to the products.
- *Country of origin:* In most of the cases the value perceived by the customer is partly due to the country of origin of the product (i.e. *Made in Italy*).
- *Emotional appeal (mainly in terms of shopping experience):* this is to be considered both in terms of service level (time performances, product availability, product variety) and in terms of supporting the customer in the emotional elements of his/her shopping experience so that his/her luxury fancies are satisfied. Indeed marketing experts (Danziger, 2004) highlight that consumers look for a shopping experience that transcends the product to reach a new level of enhanced experience. Moreover, the aspects related to service level are becoming more and more important as the customer requirements increase, to the point that "service level" was indicated by some companies as a success factor to be pursued even beyond its contribution to creating an emotional appeal.
- *Brand reputation:* Brand related aspects emerge as a critical issue for fashion/luxury products. The customer has to feel he/she is part of the brand aura while buying the product as well as while using it.
- *Creation of a lifestyle:* this means a strong identification of the product and of the shopping experience to the values conveyed by the brand.

Only four of the interviewed companies indicated all the six factors as relevant for their business, while 11 companies over 12 highlighted the relevance of "made in Italy"; the same is true for the factor "product quality".

It is interesting to notice that – talking to the interviewed people about costs as a critical aspects – none of the companies interviewed included *costs* within their critical success factors. Of course – when expressly asked for – they stated that costs are always relevant, but performance (in terms of combination of the factors listed above) comes first. This seems to be reasonable for companies operating in the luxury market, where price is not the priority in the customer's mind: luxury consumers can afford to pay a premium price (and they do it with pleasure!) but the condition is that such price is justified by the compliance with a certain set of performances (Danziger, 2005).

Table 2: Critical Success Factors emerging from the case studies

5.2 Supply chain configuration in the luxury segment of the fashion industry

During the case studies, several supply chain configuration choices have been investigated such as the geographical extension of the supply chain, the location of the actors, the number of echelons of the supply chain, the size and type of the actors in the various echelons, the level of upstream and downstream integration and the outsourcing choices (see Table 3).

It is important to remark that although the sample included 12 companies, the supply chains taken into account were much more than 12: in fact each company is managing different supply chains due to the fact that they manufacture a certain variety of products and that such products are distributed through different kinds of points of sale. Differences existing between products and different requirements from points of sale impact on supply chain configuration and management choices (e.g.: company #4 chose to develop strategic know-how in cashmere technology and to consider clothes made of other kinds of fabric as a secondary product: this led to keep in house cashmere manufacturing while outsourcing the rest to specialized companies).

Table 3: supply chain configuration for the analyzed companies.

All the companies involved highlighted that the most relevant core competences to keep in house are those related to the design phase, which defines material requirements, aesthetic aspect and style of the product. This is the reason why these companies rely on a qualified design team and often collaborate with external designers or brand owner's design team (when they are licensee for other brands), in order to create products which are compliant with brand image as well as with customers' requirements.

In the luxury segment high quality products must be guaranteed, therefore sourcing has to ensure high quality raw materials and components and every phase of the manufacturing process must be compliant to the desired quality level. As a consequence, often materials have to be sourced in particular countries (e.g.: leather in Italy, cashmere wool in India, crocodile leather in Australia, etc.) and from specialized suppliers. Likewise, the most critical production phases (e.g.: the cutting phase) are to be kept in house while only the non-critical and most labour intensive phases (e.g.: sewing) can be outsourced. Anyway even for those phases that don't take place in house, suppliers are carefully selected and the customer company usually applies some kind of control or monitoring on their operations. In some cases (e.g. company #12) luxury firms outsource all phases of manufacturing to several neighbouring craftsmen or small companies, often belonging to the same industrial district, who are considered as their production department. The focal company performs all the planning and procurement activities and assign the work to the various suppliers, who are often completely dedicated and therefore cannot be left idle. This close relationship allows strict control over quality and avoid the creation of a grey market (i.e. suppliers manufacturing products that are sold through unauthorized channels). Moreover, such a supply base is very flexible, allowing to cope with a fluctuating and unpredictable demand; furthermore in this way it is also possible to customize products to a great extent, since batch sizes are very small.

It is worth noticing that, in the cases where the critical success factor “country of origin” is relevant, production phases – even when operated in outsourcing – take place in Italy (with some exceptions for entry level lines): in fact the label “made in Italy” is still regarded worldwide as synonymous of high quality and original design, and this strongly contributes to justifying the premium price requested to consumers.

Regarding the upstream part of the supply chain, several sourcing and manufacturing echelons can be identified: apart from the focal companies, several tiers of suppliers and outsourcers exist. On the contrary, the downstream section of the chain is often very short: companies prefer (when possible) to sell their product directly to the final points of sale, so bypassing any kind of wholesaler or distributor. This allows companies to have a better control on the retailing echelon, which is critical in reaching the final customers. In fact, regardless the fact they own a direct operated retail network or not, virtually all the companies involved in the present research agreed on one point: it is essential to build a direct contact with the consumer and this could be obtained by means of some kind of downstream integration. Consequently many companies establish – at the retailing stage – a network of mono-brand boutiques, partly owned and partly in franchising. Such points of sale are preferably located in the city centre of worldwide renowned shopping capitals and they are characterized by an interior design that convey the style of the brand: this combination of design and exclusive location contributes to guarantee a strong coherence with brand image and values. Furthermore, this allows companies to better understand customers’ needs and to improve the relationship with them, and it is also useful in order to obtain reliable sales information on which forecasting activities are based.

As mono-brand boutiques pursue the mission of protecting the values of the brand, multi-brand shops and department stores help to enlarge the potentially reached customer base, and are carefully selected to display the products in a proper way, following the guidelines provided by the focal company.

Another reason why companies pursue downstream integration through mono-brand boutiques is related to counterfeiting issues: having higher control and information exchange with the retail echelon the manufacturing or brand-owner companies can guarantee that products sold in these shops are original and provide all the promised features.

This observed preference for internal control over distribution (company-owned retail network, shops in strategic locations, consistency of the retail environment) and over outsourcing confirms the statements by Moore and Birtwistle (2004) about trends in the luxury fashion retailing.

5.3 Supply chain management choices in the luxury segment of the fashion industry

Regardless the specific configuration of their supply chain, the management choices and tools of the interviewed companies have been investigated so as to get a good understanding of their operations management approach (see Table 4).

Table 4: Supply chain management choices in the investigated companies.

For all the studied companies, demand is highly variable, influenced by fashion trends, and the selling season is very short: this is the reason why design activities begin very early (on average 9-12 months before the product is available for the consumer) and the first production launch takes place soon after (7-8 months before the product is available in the points of sale).

As stated before, cutting production costs is not a priority for high-end companies; even so the finished product is manufactured starting from high value materials (e.g. very expensive exotic leather) and the risk of obsolescence is very high. In order to avoid excessive stock, some companies in the sample prefer to produce only on the basis of order received by the point of sale, so pursuing a make to order strategy: this happens especially when the company can't rely on past selling data obtained from the points of sale, when customization is high and postponed assembly can't be applied.

The make to order strategy is not feasible when operations lead time is longer than the delivery lead time expected by the market. In the studied cases, this happens for two main reasons. On the one hand, a considerable part of collection time window is taken up either by the engineering phase or by the order collecting phase, so forcing sourcing, production and distribution phases to take place in a narrow time window. On the other hand, companies often cope with demand variability and uncertainty recurring to outsourcing, so increasing their production flexibility: this choice, besides requiring a strict quality control of outsourced materials, makes manufacturing lead time longer and more uncertain.

In order to reduce such risk many companies chose to produce some lines (those supposed to be "best sellers") in advance. In particular, product lines which are regarded as "classics" are usually managed through a make to stock manufacturing strategy, as well as items outsourced in low cost countries (provided that in the studied sample the choice of outsourcing in low cost countries was really uncommon, and pursued only for non critical products or process phases).

Overplanning technique (both of materials and of finished products) has been observed as an effective lever for facing demand uncertainty. In order to better match production and demand, information exchange on sell-out data and forecasts between manufacturers and retailers is very frequent: some companies register very detailed information not only about the products but also about the customers, e.g. day and time of the transaction, sex and age of the customer, weather conditions..

On the retail side of the chain, the companies involved in the research expressed a wish for downstream integration, as this is universally recognized as a critical aspect for success in the considered segment. In many cases retailers can access a reserved area of the company website and put replenishment orders that will be registered on-line. Major efforts are aimed also at creating a direct relationship between the consumer and the company through the redesign of the retailing system: this means creating a network of mono-brand controlled (owned or franchised) boutiques as well as improving the service to this kind of retailing channel in terms of delivery lead times,

product availability, direct communication with the focal company, replenishment programs, support to the sales people and information sharing.

Finally, it is worth highlighting the role of the factory outlet channel, allowing companies to "absorb" the mistakes of the planning and manufacturing processes (poor quality, wrong demand forecasts, etc.). Sometimes the outlet channel is used to keep the utilisation of production system to high values, and the outlet collection (if exists) keeps the production lines running during the "hiatus" between the regular collections.

Information exchange is less frequent in the upstream part of the supply chain where production plans are made by the focal company and communicated to suppliers and outsourcers only through specific orders: this is due to the fact that outsourcers and suppliers are mainly small or craftsman companies, and the focal company believes they are not ready to look at the business from a wider point of view, and dealing with integrated supply chain planning and management. Anyway some of the interviewed companies are introducing some collaboration programs in order to increase the level of integration with their first tier suppliers and improve coordination with outsourcers (see details in Table 4): e.g. company #5 coordinates a large network of small leather manufacturing companies by means of a detailed collaborative forecasting and planning program which includes frequent information exchange about production plans and execution progress. In some cases the presence of collaboration programs gave place to a performance measurement system which overcomes the boundaries of the company and includes key performance indicators (KPI) related to the logistic performances of the supply, outsourcing and retailing network as a whole.

However, the presence of small companies and craftsmen in the investigated supply chains is almost a constant element, and ca be justified considering three reasons. First, according to cultural and historical reasons, the Italian economic system is mainly composed of small (family run) enterprises, and so it is easier to find suppliers and outsourcers of small size; second, as documented by the related literature (Naylor et al., 1999; Lee, 2004), supply chain flexibility is a key performance nowadays: outsourcing to a large number of small enterprises allows supply

chain to be more flexible (especially in terms of volumes and variety) than outsourcing to a few large companies; third, all the interviewed companies deal with products which often require *hand-made* quality details, and specialised craftsman companies can easily guarantee such excellence in manufacturing; furthermore *hand-making* contributes to make each item a unique piece, so increasing its exclusiveness.

The role of suppliers and outsourcers is critical also in terms of innovation and new product development, since in many cases products are co-designed. In this way focal companies can access the innovative competences of the various suppliers specialized on different technologies and materials. Case #1 is very interesting from this point of view: despite products appear very simple (lingerie and beachwear), the company worked with various suppliers form both the same industry (i.e. textile) and other industries (e.g. biomedical) to jointly develop innovation in materials (e.g. new fabrics) and functionalities (e.g. air pressure push-up bras).

5.4 Impact of critical success factors on supply chain configuration and management

The supply chain configuration and management choices described in the previous sections clearly reflect a coherence with the critical success factors declared by the companies. The following consideration are summarized in Table 5. Fir the sake of convenience, the factors named "lifestyle creation" and "brand reputation" have been put together into a single paragraph, since they produce analogous implications on supply chain choices.

- The requirements of superior *product quality* leads to a careful selection of material suppliers and outsourcers and to the creation of long term partnerships in order to ensure a reliable quality over time and to make collaborative improvement possible on both sides. Also the use of parallel sourcing strategies – i.e. outsourcing each specific product or activity from a single companies, but having different suppliers for similar products or activities – is due to quality matters: this can guarantee uniformity within a single product

line, while maintaining a broad supply base. In many cases the search for high product and process quality leads to pursue a "made in Italy/source in Italy" strategy.

Also supply chain coordination, control and monitoring are critical issues in order to ensure the required superior quality. For instance company #9 is an Italian manufacturer specialized in high quality shoes which was acquired by a famous Italian fashion *maison* that wanted to enter the shoe manufacturing industry; in fact the latter –, after a series of unsuccessful attempts to outsource the whole supply chain, decided to increase its control over the supply chain and to internalize the shoe-design and shoe-making know how by means of such acquisition.

- *Style and design* excellence are achieved by keeping in house the design activities and, at the same time, collaborating with experienced external designers and stylists. Suppliers are also critical for finding new materials, technologies and solutions that bring innovation and are appreciated by final customers. Co-design is often used also to transform the ideas of designers and stylists into real product, often adopting or even inventing new technologies and manufacturing processes. Finally, the style and the aesthetic requirements of the company drives also the design of mono-brand boutiques, thus drawing a link from manufacturing to retailing.
- When the *country of origin* is a key competitive factor, the supply chain configuration is baldly affected by constraints on location of the country-sensitive phases; for instance, for a company aiming at manufacturing high-end fashion leather products, leather tanning must be located in Tuscany.
- Providing a complete *shopping experience* (design of point of sale, assistance from the shop personnel, availability of some exclusive products, etc.) conveys the appropriate *emotional appeal* and contributes to reach customer satisfaction as well as the feeling of a direct contact with the manufacturing company. Downstream integration towards points of sale (mono-brand boutiques and flagship stores) is a way to satisfy luxury consumers who

are seeking new experiences. Some of the interviewed companies resort to fidelity programs, other go further and allow full product customization in order to assure the uniqueness of the bought item. Also providing a special design packaging is a way of enhancing shopping experience. Finally, companies have experienced that product shortage, which in some cases contributed to create a sense of exclusivity, is no more sustainable in the long term: the case studies have shown that higher and higher attention is devoted to increasing production flexibility in order to rapidly ramp up production of hit products; in particular, the shifting of manufacturing organisation from job-shops to cells has proven to be an effective lever in this regard.

- The need of creating a *lifestyle* coherently with the *brand values and reputation* influences most of the choices in the design and retailing phases: design activities are often performed in collaboration with designers and brand owners in order to enhance and maintain the established brand style. On the retailing side the creation of a mono-brand retailing network allows the identification of the shop (strongly characterized in terms of layout and interior design) with the brand image; even the behaviour of shop assistants should convey the brand values and help the customer in feeling a complete shopping experience. Equally, the shops location in exclusive town centres contributes to the creation of a luxury lifestyle. Sometimes also marketing activities are performed together with suppliers who might contribute to create the main brand lifestyle: this is the case of suppliers with a strong and recognizable brand, which can be associated to the brand of the final product in the advertising campaign, so as to strengthen each other brands.

Table 5: Critical success factors and Supply Chain processes

5. Conclusions and further developments

In this paper we have investigated the relationship between supply chain management strategies and practices and the luxury segment of Italian fashion industries. The topic is rather

innovative *per se*, since managerial literature so far has mainly dealt either with supply chain management in mass markets, or with other aspects of luxury, such as marketing and branding. The case studies analyzed have shown that operational issues are nevertheless relevant also for luxury fashion firms in order to build an support their brands, deliver their products and satisfy their very demanding customers. In particular, we have shown how supply chain configuration and management decision can impact the critical success factors of luxury fashion firms, thus supporting them to achieve a competitive advantage.

It is also interesting to highlight that the company included in the sample share a deep commitment as regards excellent product quality; at the same time they generally state that controlling or reducing costs is not the main objective. This reveals the presence of actual material quality beyond the care for superior brand image: supply chain configuration and management choices are therefore often directed towards creating and preserving such quality excellence.

The results of our study suggest that a major trend is taking place within this industry: in order to maintain control on both the supply and the distribution side of the chain, brand owners are either integrating or increasing their control over the supply chain. On the supply side this is due to the need to ensure product quality and availability, while on the distribution side this is even more important in order to achieve a direct relationship with the final customer.

A further emerging issue is the heterogeneity of approaches in terms of configuration and management choices among the sample: in fact the range goes from vertically integrated companies to complete outsourcing of manufacturing processes; from absence of information exchange to extremely detailed flow of information from end to end of the supply chain; from simple craftsman-based businesses to companies with a very structured strategic plan.

In this scenario, SMEs are either growing and trying to evolve their traditional role of specialized manufacturers, e.g. by developing their own brands and distribution channels, or they are becoming part of larger groups or networks of firms. The cases have shown that also

traditional Italian SMEs have developed supply chain management competencies that allow them to manage a supply base, manufacture their products at extremely high quality levels and distribute them all over the world.

We are confident that this research project, whose early results are published in this paper, will provide useful insights both for researchers and practitioners: for researchers, since it highlights an interesting business segment where many of the consolidated supply chain management models seem to fail or be inadequate, therefore claiming for further investigation; for practitioners, since it highlights the relationship between critical success factors and supply chain strategies and practices, targeting complementary management actions and guidelines with respect to well acknowledged efforts in marketing and design. This can be of great help for those firms in the luxury fashion segment that are now facing the challenge of an increasingly fierce competition, on a global playground.

We see several direction to enrich this first research pattern. First, in our study we have considered successful companies in order to evaluate their supply chain strategies and practices, under the hypothesis that such choices have contributed to the company success, but further investigation is needed to better understand causal relationships between supply chain management and company performance. Second, although Italy is globally recognized as one of the countries where luxury fashion is created, there are other countries playing a fundamental role in this segment; therefore, the study presented in this paper has to be replicated in other key countries. This represents the future research being carried out as a result of this first study.

Abstract:

The Italian industry of fashion goods is a business worth €67.6 billion in 2006 (Il Sole 24ore, January 10th 2007), of which about €26 billions are due to the luxury segment. Marketing gurus state that "consumers everywhere at every income level want more luxury" (Danziger, 2005): therefore companies should move brands towards a higher positioning and add more valuable features to products and services, but this cannot be obtained only by means of marketing efforts. Which is the role of operations and supply chain management in luxury fashion companies' success? This paper presents the results of the exploratory stage of a research project ongoing at Politecnico di Milano and dealing with supply chain management in the luxury fashion industry. 12 Italian luxury fashion retailers have been studied in order to describe the main features of operations and supply chain strategies in the luxury fashion segment and to identify their role with respect to the relevant critical success factors.

Tables

Table 1: Sample

Name	Managed brands (owned)	Turnover Employees	Main products	Accessories	Evergreen products	Collections per year
1	5 (5)	€ 30-40 mln 120 empl.	Beachwear Lingerie	Handbags, scarves, pareos, beach related	Yes	2
2	1 (1)	€ 20-30 mln 20 empl.	Shoes in exotic leather	Belts	Yes	2
3	3 (1)	<€ 10 mln 40 empl.	Leather shoes	No	No	2
4	1 (1)	€ 50-60 mln 360 empl.	Knitwear, jackets, suits, apparel in cashmere wool	Leather accessories	Yes	2
5	1 (1)	>€ 100 mln 400 empl.	Handbags, leather wallets, shoes	Textile accessories	Yes	2
6	7 (1)	€ 20-30 mln 40 empl.	Handbags, wallets, belts, other leather accessories	No	Yes	No collections
7	9 (1)	€ 20-30 mln 50 empl.	Handbags, leather wallets,	No	No	2
8	1 (1)	>€ 100 mln 300 empl.	Shoes	Handbags, belts, wallets, gloves, umbrellas	Yes	2
9	3 (3)	€30-40 mln 160 empl	Shoes	No	No	2
10	1 (1)	€30-40 mln 60 empl	Handbags and suitcases	No	No	2
11	4(2)	€60-70mln 200 empl	Shoes	Key rings, bags	No	2
12	1(1)	>€100mln 300 empl	Handbags, leather wallets, shoes	Leather accessories	Yes	2

Table 2: Critical Success Factors emerging from the case studies

Company	1	2	3	4	5	6	7	8	9	10	11	12
Creation of a lifestyle	X			X	X	X	X	X	X	X	X	X
Product quality	X	X	X	X	X	X		X	X	X	X	X
Made in Italy	X	X	X	X	X	X	X	X	X		X	X
Style and design	X					X		X	X	X	X	X
Shopping experience	X				X		X		X	X	X	
Brand reputation	X	X	X	X	X	X	X	X	X	X	X	X

Table 3: supply chain configuration for the analyzed companies.

Case study	Suppliers (localization)	Production (localization)	Retailing
1	Consumables (Italy and abroad) Fabrics (Italy) Accessories (Italy)	Cutting: in house. Outsourcing of labor-intensive phases (Italy)	Mono-brand boutiques Multi-brand shops Department store corners **Worldwide**
2	Leather and shoe components (Italy)	Outsourcing (Italy)	Multi-brand shops **Europe, USA**
3	Leather (Italy)	Inside (Italy)	Multi-brand shops Department stores **Europe, USA, Japan**
4	Raw material (abroad) Cashmere thread (Italy)	Cashmere products: in house. Clothes: outsourcing (Italy)	Mono-brand boutiques Multi-brand shops Department stores **Worldwide**
5	Leather and accessories (Italy)	Outsourcing to specialized companies (Italy)	Mono-brand boutiques (mostly) Department store corners **Worldwide**
6	Leather (Italy) Fabrics (Abroad) Special components (Italy)	In house (Italy and abroad)	Mono-brand boutiques Multi-brand shops **Worldwide**
7	Leather (Italy) Fabrics (Italy and abroad)	Outsourcing (Italy and abroad)	Mono-brand boutiques Multi-brand shops Department stores **Worldwide**
8	Leather (Italy)	In house Outsourcing of labor intensive phases (Italy)	Mono-brand boutiques Multi-brand shops Department store corners **Worldwide**
9	Leather (Italy) Special components (specific countries)	In house Outsourcing to specialized companies (Italy)	Mono-brand boutiques Multi-brand shops Department stores **Worldwide**
10	Leather (Italy) Other components (Abroad)	Abroad	Mono-brand boutiques Multi-brand shops Department stores **Worldwide**
11	Leather (Italy) Special components (specific countries)	In house Outsourcing to specialized companies (Italy for high end lines, Romania for entry level lines)	Mono-brand boutiques Multi-brand shops Department store corners **Worldwide**
12	Leather (Italy) Special components (specific countries)	Outsourcing to local excellent craftsmen (Italy)	Mono-brand boutiques Multi-brand shops Department store corners **Worldwide**

Table 4: Supply chain management choices in the investigated companies.

Case study	Decoupling point	Information sharing	Sourcing choices	Manufacturing choices	Retailing choices
1	Make to stock 70% Make To Order 30%	Forecasts and sell-out data (with retailers). On-line connection with points of sale	Codesign with suppliers also from other industries Long term partnership Vendor selection based on quality	Coordination through structured contracts and informal processes Cellular batch manufacturing Flexibility through overtime Internal quality control	Training and support to sellers Downstream integration: mono-brand boutiques. No intermediaries Weekly replenishment allowed
2	Make to order	Production plans (with outsourcers)	Co-design with outsourcers Long term partnership. Parallel sourcing. Relationship with second-tier suppliers	Outsourcers development Reserving upstream capacity and stock Internal quality control	Exclusive locations Selected multi-brand shops No intermediaries
3	Purchase to order	None	Vendor selection based on quality and reliability	In house manufacturing	Selected multi-brand shops No intermediaries
4	Make to order 80% Make to stock 20%	Forecasts (with retailers and raw materials suppliers)	Co-design with outsourcers. Vendor selection based on experience Reserving upstream material stock.	Combine tradition and technology	Downstream integration: company owned boutiques No intermediaries when possible Exclusive locations Replenishment allowed
5	Make to order 80% Make to stock 20%	Forecasts (with retailers) Production plans (with outsourcers)	Vendor selection based on quality and flexibility Relationship with second-tier suppliers	Joint forecasting and production planning Parallel sourcing Coordination of supply and outsourcing network Coordination of retailing network	Downstream integration: mono-brand boutiques. No intermediaries Wide range of products available in the shops Replenishment allowed Retailing system redesign
6	Make to order 40% Make to stock 60%	Design specifications (with brand owners)	Vendor selection based on quality Parallel sourcing Long term partnership	Tracking of logistics transactions	Introducing mono-brand boutiques No intermediaries when possible
7	Make to order	On-line ordering system. Real-time monitoring of sell-out data	Co-design Parallel sourcing Low cost countries for fabric items	Continuous Replenishment Program Tracking of logistic transactions. Supply Chain Key Performance Indicators (KPI) system.	Downstream integration: company-owned boutiques Replenishment allowed Retailing system redesign Customized packaging
8	Make to order 80% Make to stock 20%	Forecasts and sell-out data (with retailers)	Parallel sourcing Long term partnership	Reserve upstream capacity and stock	Downstream integration: mono-brand boutiques No intermediaries Exclusive locations
9	Make To Order	Sell-out data and customer's history (with retailers).	Parallel sourcing Long term partnership. Co-branding with branded suppliers Relationship with second-tier suppliers	Coordination of the supply and outsourcing network. Internal quality control.	Downstream integration: mono-brand boutiques. No intermediaries Exclusive locations
10	Make To Stock 75% Make To Order 25%	Daily communication of sell-out and shop's stock. On-line ordering system.	Materials sourced in Italy (high quality). Labor sourced in low cost countries	Coordination of the supply and outsourcing network. Logistic effectiveness. Tracking of logistic transactions. Supply Chain Key Performance Indicators system.	Delivery priority to mono-brand shops Market penetration through specialized and non specialized shops
11	Make to Order	Sell-out data and customer's history (with retailers).	Materials sourced in Italy (high quality). Vendor selected on quality and reliability Internal quality control	Manufacturing system redesign. Coordination of the supply and outsourcing network. Parallel sourcing. Internal quality control	Delivery priority to leading customers and flagship stores. Exclusive locations. No intermediaries Retailing system redesign Customized packaging

12	Make to Order	Production plan (with outsourcers)	Materials sourced where quality is best (e.g. crocodile from Australia) All component suppliers are from Italy	Outsourcers located in the Tuscany leather district. Strong quality control. Order overplanning as a lever for coping with materials shortage New manufacturing planning IT system	Direct operated showrooms in high end shopping districts all over the world Some exclusive multi-brand retailers in the USA

Table 5: Critical success factors and Supply Chain processes.

CRITICAL SUCCESS FACTOR	SOURCING	MANUFACTURING	RETAILING
Brand reputation and creation of lifestyle	Collaboration programs. Integration	Ensuring product quality to sustain brand reputation	Retailing network redesign (mono-brand boutiques) Coordination of retail network. Shop location. Training and support to salespeople. Delivery priority to mono-brand shops
Product quality	Vendor selection Coordination of the supply network. Information exchange Parallel sourcing Long term partnership Quality control	In house manufacturing Coordination with subcontractors in order to assure high-end quality of manufacturing Internal quality control Subcontractors development and training Combine tradition (craftsmanship) and technology	No intermediaries Information exchange. Tracking of sales.
Country of origin	Suppliers localization.	Subcontractors located in Italy or even in the same district In house manufacturing	Emphasize country of origin in store design
Style and design	Co-design with suppliers, also from other industries Extraordinary/exotic materials	Preserve elements of craftsmanship	Shop location. Shop interior design. Information exchange on customers preferences.
Emotional appeal (& service level)	Co-branding with branded suppliers. Allow customization. Information exchange. Tracking of logistic transactions.	Coordination with subcontractors and among suppliers and subcontractors in order to have good time-performances (timeliness, punctuality) Supply Chain KPI measurement system Increasing production flexibility by means of cellular batch manufacturing, overtime, seasonal workers, subcontractors Order overplanning as a lever for coping with materials shortage Joint forecasting and production planning with subcontractors Continuous replenishment programs	Exclusive locations Shopping environment Behaviour of shop assistants. Product availability Communication with the *maison.* Logistic effectiveness Fidelity programs. Tracking of logistics transactions Continuous replenishment program Supply chain KPI measurement system

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