

Quality Management in the Italian luxury industry: an empirical investigation on cashmere.

Alessandro Brun¹, Chiara Lideo

¹ Politecnico di Milano, Dipartimento di Ingegneria Gestionale, via Lambruschini 4/b, Milan, Italy.

alessandro.brun@polimi.it.

Abstract

In recent years the worldwide interest in luxury significantly increased, following the exceptional growth experienced by luxury industry: worldwide luxury goods market revenues are growing as much as 50% faster than global GDP, and arguably – according to the latest estimates – they will soon break the €1 Trillion sales threshold (Brun and Castelli, 2013; Altagamma Consensus, 2014). Meanwhile, this market is becoming more and more complex, requiring to adopt always new strategies and methodologies in order to keep up with the challenging demand of product and service excellence. Despite the notable amount of studies on this topic, the current literature on luxury industry is mainly focused on sociological, branding and marketing aspects. Among the typical “Critical Success Factors” (CSFs) in luxury, *premium quality* is definitely one of the most important, yet least analyzed in current literature. In fact, although the concept of “quality” and “quality management” (QM) have been deeply studied in recent years, few authors explicitly addressed these topics with regard to luxury industry as a whole, let alone the idiosyncrasies of Italian approach to luxury. In choosing to focus the research on Italy, cashmere was found to be one of the symbols of Italian excellence. Moreover, cashmere is still worldwide synonymous with luxury. Based on 9 cases of Italian cashmere luxury textile-fashion companies, the present empirical and explorative study has been realized with the twofold goal of (1) describing quality management organization, system and practices of Italian textile-fashion luxury firms working in the cashmere sector, and (2) understanding the significant impact of contingent factors on those variables. Results show that a common QM organizational structure is not adopted, however a high hierarchical status is usually ensured to QM managers. Moreover, companies showed a generally high commitment to quality. Meanwhile, a general resistance toward formalization and standardization appeared. Along the Supply Chain, suppliers seem involved in quality issues mainly through long-term and high trust relationships, generally managed in an informal way. The focus on customer is increasing. Finally, the contingent factors with the highest relevance in our analysis were company *size* and the *level of luxury positioning*.

Key Words: luxury, cashmere, quality management, supply chain, Italy

1. Introduction

In recent years, worldwide interest in luxury significantly increased, following the exceptional growth experienced by the luxury industry (Brun and Castelli, 2013; Corbellini and Saviolo, 2007). As forecast by Bain & Co., worldwide luxury goods market revenues will grow as much as 50% faster than global GDP, on track to break the €250 billion sales threshold by mid-decade (Bain & Co., 2013, by Claudia D'Arpizio). Bain's studies underline that in the long run Italian brands have gained the largest market share of luxury sales, moving from 21% in 1995 to 24% in 2013, nearly equaling French brands' share of 25%. Meanwhile, according to D'Arpizio, this market is becoming more and more complex, thus "while still showing steady growth, brands are adjusting to a new set of scientific tools in order to keep creativity and product excellence at the center of their strategies and organizations" (Bain & Co., 2013B, by Claudia D'Arpizio).

Despite the considerable number of existing studies, current literature on luxury industry is mainly focused on sociological, branding and marketing aspects. Starting from the will to investigate luxury sector more deeply, Critical Success Factors (CSFs) of the industry have been considered: *premium quality, style and design, country of origin, emotional appeal (mainly in terms of shopping experience), brand global reputation, creation of a lifestyle* (Brun et al., 2008) and moreover *exclusivity, uniqueness, a heritage of craftsmanship, superior technical performance* (Brun et al., 2008; Caniato et al., 2009; Brun and Castelli, 2013). Among those, *premium quality* was found fascinating but also scarcely analyzed in current literature. In fact, although quality and, thus, "quality management" have been extensively studied in recent years, few authors expressly dealt with these themes with regard to the luxury industry or to the Italian geographical area.

Given this background and considering that some empirical studies have addressed the influence of country on quality management effectiveness (e.g. Rundtusanatham et al., 1998), it was decided to focus the research on Italy. In doing so, *cashmere* was found to be one of the symbols of Italian excellence. In fact, among the most important and famous manufacturers of yarns, fabrics and cashmere garments in the world there are certainly Italian players such as: Brunello Cucinelli, Loro Piana, Ermenegildo Zegna (The Financial Times, Il Sole 24 Ore). Besides, an aura of luxury and prestige is still perceived around cashmere (Faust, 2013;

www.cashmereworldfair.com). This noble fibre comes from the fine undercoat (dehaired) fibres produced by a *cashmere goat* (www.cashmere.org) and, according to Faust (2013), the main factors which serve to qualify cashmere as a luxury good are: a particular softness and lightness of the fibres, scarcity of raw material, difficulties with sources (e.g. China, Mongolia, India) and the preparation and processing of fibers. In fact, the cashmere SC (Supply Chain) is complex, generally involves a high number of partners and is geographically long (Towers et al., 2013). Furthermore, increased raw cashmere Chinese domestic demand (due to the fiscal advantages promoted by the Chinese government in favor of internal production as opposed to raw cashmere export), adverse climate and husbandry-related issues have made the price of raw cashmere skyrocket in recent years (Taipei Times, May 8, 2011; Il Sole 24 Ore, June 29, 2012; The Woolmark Company, January 30, 2013). All these elements make cashmere price incredibly high compared to wool and many manmade fibers (Watkins and Buxton, 1992).

The cashmere market is considered a *niche* segment (McGregor, 2000), in fact, animal fibers represent roughly 0.1% of the textile market and goat fibers contribute 0.06%. When specifically analysing the Italian textile-apparel sector, it represents 12.7% of Italian manufacturing companies (data analysis by Movimprese: Il Sole 24 Ore, April 19, 2013) and it comprises very few “fashion” giants, some medium-sized players and a myriad of small and micro firms, facing the challenges of an inevitably globalized environment.

A peculiarity are *industrial districts*: a large number of small entities (craft workshops or small industrial firms) that operate in a geographically limited area in which a heritage of shared values and know-how are widespread. By clustering together, those small firms are able to achieve economies of scale while maintaining flexibility and high production capabilities, giving rise, simultaneously, to a useful competition (Djelic and Ainamo, 1999; Guercini, 2004; Merlo, 2003; Corbellini and Saviolo, 2004; Corbellini and Saviolo, 2009; www.sistemamodaitalia.com; SBA, European Commission at http://ec.europa.eu/index_it.htm).

Despite the importance of this sector in Italy, the data reported by “Camera Nazionale della Moda Italiana” (processing by Hermes Lab for CNMI on ISTAT data, Fashion Economic Trends commented by Mario Boselli, www.cameramoda.it) show how it has been heavily affected by the 2008 global financial crisis and the subsequent recession. Forecasts for 2014, however, are quite encouraging, especially thanks to exports: revenues for the entire textile-clothing-leather-footwear SC are expected to reach 62.4 billion €, with new growth (+5.4%) after two years of decline.

Given this introduction and wishing to contribute to bridging the above mentioned gap, the purpose of this qualitative and empirical study is both to describe quality management organization, system and practices of Italian textile-fashion luxury firms focused on the cashmere sector and to understand the significant impact of contingent factors on those variables. This paper presents some of the results of a more extensive research project ongoing at “Politecnico di Milano” studying quality management practices in luxury companies.

Finally, the paper is construed as follows: after the above brief overview on luxury, cashmere and Italian textile-apparel markets, Section 2 presents a literature review about quality management, showing existing gaps, then in Section 3 research questions are better outlined. In Section 4 the research methodology together with the main features of the companies involved in the completed case studies are presented. Furthermore, in Section 5 the interview protocol, developed from the literature, is presented. Section 6 deals with the analysis of the findings and lastly, Section 7 will draw some concluding remarks and suggest future research paths.

2. Literature review

In the *introduction*, a brief overview of the current situation of the luxury sector, of cashmere and the textile-fashion Italian context can be found. In this part, the theme of quality management will be examined in depth: firstly presenting its main concepts and then the development of literature on the subject.

a. Introduction to Quality Management

Over time, many different definitions of *quality* have been given: experts and practitioners mainly agree on the fact that there are many different interpretations of the term. Notwithstanding this, Dr Joseph M. Juran’s definition of quality as “fitness for use” is widely recognized today as one of the more useful (Bisgaard, 2007): it means that the customer, and not the provider, is the one who defines the quality, and, further, quality depends on circumstances.

Central to an organization, and immediately linked to quality, is *quality management* (QM). In one of his famous research papers, Flynn (Flynn et al., 1994) describes it as “an integrated approach to achieving and sustaining high quality output, focusing on the maintenance and continuous improvement of processes and defects prevention at all levels and in all functions of the organization, in order to meet or exceed customer expectations”. QM allows the achieving

and sustaining of a competitive advantage through the design and the production of products which aim to be superior to those of competitors combined with a process focused on building quality. According to Juran, managing for quality consists of three basic quality-oriented processes: *quality planning*: designing products, services and processes that will be able to meet established goals under operating conditions, *quality control*: operating and when necessary correcting the process so that it performs with optimal effectiveness and *quality improvement*: devising ways to take the process to unprecedented levels of performance (Juran, 1986).

The International Organization for Standardization (ISO) defines Quality Management System (QMS) as “a set of interrelated or interacting elements that organizations use to direct and control how quality policies are implemented and quality objectives are achieved”. According to Yeung et al. (2003), modern QMS evolved from a simple inspection function within the production department to a separate but essential work unit. The introduction of the Total Quality Management (TQM) philosophy and ISO 9000 standard (www.iso.org) in the 1980s further influenced the development of QMS in modern manufacturing organizations. This resulted in some basic requirements for quality systems as well as a comprehensive set of quality management theories, tools and techniques (Feigenbaum, 1991).

Total Quality Management philosophy

TQM is defined as “the agreed company-wide and plant-wide operating work structure, documented in effective, integrated technical and managerial procedures, for guiding the coordinate actions of the people, machines, and information of the company and plant in the best and most practical ways to assure customer quality satisfaction and economical cost of quality” (Zairi, 1991). According to De Araujo (1997), the implementation of TQM implies training at all levels of the organization, the creation of partnerships along the SC, the control of the statistical process and the implementation of a real-time production management system to obtain the required information. From existing literature, a significant association between TQM activities and organizational competitiveness transpired and, according to the supporters of TQM, it should drive the changes taking place within today’s organizations (Irani et al, 2004).

ISO 9000 standards

The ISO 9000 family addresses various aspects of QM and contains some of ISO’s best known standards. The standards provide guidance and tools for organizations that want to ensure that

their products and services consistently meet customers' requirements and that quality is consistently improved. It is interesting to note that the *documentation system* plays an important role in the implementation of QMS and in the introduction of standards or certifications (Baysinger, 2000). ISO 9000 documentation systems are usually structured in a three levels pyramid: quality manual, procedures and instructions, records (www.iso9000resources.com; www.iso.org).

Quality management organization

How to manage quality in a company is still an open topic. What is certainly common in most firms is the presence of line operators or unit dedicated (part-time or full-time) to the operational quality control, or "check for defects" (*non-quality*). Generally, there are multiple quality checks throughout the SC (e.g. on raw materials, semi finished and end goods) and control procedures can be *systematic* (100% inspection) or *sampling* (certain %) (Cooklin, 2006). Although alongside check-for-defects workers there are always supervision and coordination figures (*quality manager*, even if sometimes on a part-time vis-a-vis their roles within the company), an identified *quality management department* is not always present. In this sense, there is an open debate about the adoption of a *department dedicated* to QM (for instance, Forker et al. findings (1997) show that the quality department is of primary importance in assuring quality performance) rather than a *decentralized* organizational structure (Vickery et al., 1999; Nicolas and Valceschini, 1995), up to "*widespread* quality function" (according to whose supporters, when every employee is responsible for quality the need for a quality department disappears) (Ishikawa, K., 1985).

Several different authors have addressed the importance of corporate culture: a *quality culture* widespread throughout the company contributes to increasing employees' involvement in quality despite their role within the organization (Schein, 1985; Corbett and Rastrick, 2000; Maull et al., 2001; Irani et al., 2004). Furthermore, according to Zhang et al. (2012), the organizational structure can support QM effectiveness: a structure which balances the need for control with the flexibility needed to quickly respond to the changing market. Hence, ensuring the correct hierarchical status for the quality manager is one of the fundamental rules for the effective operation of a QMS (Cooklin, 2006). Vickery et al. (1999) considered three key dimensions of organizational design: decentralization (vertical locus of decision-making authority in the firm), layers (in the chain of command) and span of control (number of subordinates reporting directly

to a supervisor). Finally, concerning the internal organization of the QM department, the main point is, as with any organizational problem, about division of labor and coordination. Hence, according to Zhang et al. (2012), internal fit with the right type of quality practices and organization structure leads to higher performances, particularly with high environmental uncertainty.

b. A brief overview on Quality Management literature

Starting from the studies of quality “gurus”, such as Juran’s (1986), other important contributions have been provided over time. In 1994, Flynn et al. proposed a much-quoted framework which assesses QM practices at plant level. Reliability and validity analysis was conducted with a sample of 716 workers and managers in 42 plants in the USA in transportation components, electronics and machinery industry. Seven elements for QM are articulated: *top manager support, quality information, process management, product design, workforce management, supplier involvement, customer involvement*. A contribution by Lengnick-Hall (1996) claimed that, regardless of the specific tools and methods a firm adopts, managing for quality and competitive advantage means a firm must become *customer oriented*. The author integrated insights from organization theory, services marketing, strategic management and total quality concepts to develop both a conceptual model and ten propositions.

Yeung et al. (2003) investigated the existence of different patterns of QMS and the relationship between such patterns and organizational performance by conducting a study of 225 firms in the electronics industry in Hong Kong. The cluster analysis results in the identification of four patterns of QMS according to the characteristics they possess among: *implemented ISO 9000 certification, TQM claimed as implemented, quality council and steering committees, quality awareness, role of top management in quality, role of middle management in quality, role of quality teams, role of workforce, quality circles among workers, quality systems procedures, use of quality tools, distribution of quality responsibility*. It was found that the four QMS patterns are associated with different company performances according to their level of development.

Irani et al. (2004) instead, focused their research on TQM, stressing the importance of a strong quality corporate culture as a key element to successfully implementing a TQM system. According to the authors, *customer focus, systems approach, teamwork, involved management and continuous improvement* are the aspects of TQM which facilitate improved organizational

success. Further research on TQM has been done by Conca et al. (2004). The authors started from the EFQM model (European Foundation for Quality Management), which provides a framework that encourages cooperation, collaboration and innovation, and developed a model to support managers in measuring TQM implementation. It includes the following factors: *leadership, quality planning, communication, training, specialized training, suppliers' management, customer focus, process management, continuous improvement, learning*.

Moreover, many other authors investigated the topic of quality in regard to the SC. For instance, Lin et al. (2005), through the use of empirical data collected from Taiwan and Hong Kong, showed that QM practices are significantly correlated with the “supplier participation” strategy and this influences business results and customer satisfaction levels. The variables they considered and some of the constructs included are: QM practices (*top management leadership, training, product/service design, supplier QM, process management, quality data reporting, employee relations, customer relations, benchmarking learning*), supplier participation, supplier selection (*quality-oriented, cost-oriented*), organizational performance.

In 2008, Kaynak and Harley (2008), through the development of a structural equation model, investigated how SC management-related quality practices (specifically: supplier QM and customer focus) influence performances, using survey data gathered from firms operating in the US. The QM practices investigated are: *management leadership, employee relations, training, customer focus, quality data and reporting, supplier QM, product/service design, process management*. The authors concluded by highlighting the need for implementing QM as an integrated system, meaning the development of interlocking practices between each firm in the SC that are based on collaboration, communication and collaborative integration.

Further, Yeung (2008), based on a quantitative and qualitative investigation of 225 electronic companies, examined the organizational impact of Strategic Supply Management (SSM) and the company milieu that facilitate such an endeavor. It is interesting to note that in order to distinguish QM-intensive firms from non-QM-intensive ones, key distinguishing features were analysed: the presence of *formal working groups for implementing QM, formalized continuous QM training, communication to the public that they are TQM organizations*. The research reveals that SSM is essentially a QM initiative and thus is not associated with the basic requirements of the ISO 9000; on the other hand companies implementing QM induce SSM.

Still in 2008 Sroufe and Curkovic used the case method to study the efficacy of ISO 9000:2000 within an SC management context. They argue that the ISO standard demonstrates that a quality

system exists, however it does not guarantee its efficacy. On the other hand “prospector companies” gain the greatest opportunities for a competitive advantage from registration.

Finally, in recent literature, some authors linked quality to a theme on which global attention is increasingly drawn: Corporate Social Responsibility - CSR (e.g. McAdam and Leonard, 2003; Foster and Ogden 2008; Caniato et al. 2012; Towers et al., 2013; ISO www.iso.org).

Concluding, according to many authors (e.g. De Araujo, 1997; Sohal and Terziovski, 2000; Benson et al., 1991) the implementation of a QMS is affected by several contingent elements related to characteristics of both the single company and the specific industry. Thus, despite the number of researches already existing on the subject, there is still an urge for further research in some areas, such as specific industries (most of the previous researches have been conducted in electronics, machinery, transport industries) and geographical areas (most of the previous studies are based on US and Japan).

3. Research questions

Even though the literature review shows that QM has been extensively studied in recent years, few authors have expressly dealt with this theme in the luxury industry or in the Italian area. Another limitation of the literature is the object of the analysis: in most cases previous studies in the luxury field deal with the distribution side of the SC and usually they do not consider the manufacturing-supply side, even if a “whole SC” perspective is recognized to be very relevant (Caniato et al., 2009B; Towers et al., 2013).

Wishing to bridge the above-mentioned research gap, as already stated in the introduction, the overall research aims at describing quality management organization, system and practices of Italian luxury cashmere firms and at understanding the significant impact of contingent factors on those variables. Hence, the specific research questions addressed by the present paper are:

1) Which is the actual approach to quality management organizational structure adopted by Italian luxury firms focused on cashmere?

How do contingent factors impact on the quality management organizational structure adopted by Italian luxury firms focused on cashmere?

This research question aims at understanding the choices about the organizational structures for the QM (level of centralization, management and hierarchical position of the QM department)

made by Italian luxury companies operating in the cashmere sector. Moreover, it aims at qualitatively investigating the possible impact of contingent factors on those variables.

II) Which is the actual approach to quality management system and process quality management adopted by Italian luxury firms focused on cashmere?

How do contingent factors impact on the quality management system and on the process quality management practices adopted by Italian luxury firms focused on cashmere?

The answer to this question is expected to qualitatively define the approach adopted by Italian cashmere luxury firms to QMS (elements used to direct and control how quality policies are implemented and quality objectives are achieved) with a particular focus on the manufacturing-processing part of the SC covered by the brand owner. Again, the relationship between the most relevant contingent factors and those variables have also been analyzed.

III) Which is the actual approach to quality management along the SC adopted by Italian luxury firms focused on cashmere?

How do contingent factors impact on the quality management along the SC practices adopted by Italian luxury firms focused on cashmere?

The answer to this research question has to identify the choices made by Italian cashmere luxury brand owners about QM practices both upstream SC (suppliers' quality management and relationship with suppliers on quality issues) and downstream SC (focus on customer). Finally, it aims at identifying the possible impact of contingent factors on those variables.

4. Methodology

Given the above research questions, the nature of this empirical and qualitative study is *exploratory*. In fact, its purpose is not only to describe the QM organization, system and practices of Italian luxury companies operating in the cashmere sector, but also to understand the significant links between contingent factors and those variables. Considering the nature of this study, the research is based on *multiple case studies* (Yin, 2009). The case study methodology was chosen because, according to Eisenhardt (1989), case studies can be used to provide description, test theory or generate theory. The research involved a sample of nine luxury textile-fashion manufacturers focused on cashmere and based in Italy (Table 1). According to Yin

(2009) and Eisenhardt (1989), this number can be considered sufficient to give an accurate account in an empirical research.

In order to select the sample companies and aiming at obtaining a list of the best known and interesting ones, many information sources have been carefully inspected such as distinguished newspapers (e.g. *Il Sole 24 Ore*, the *Financial Times*, www.cashmere.org), public rankings on the best luxury brands (e.g. *Infomat Fashion* at www.fashion.infomat.com) and websites and blogs dedicated to cashmere, due to the importance of word-of-mouth for a brand to become globally recognized (e.g. www.aboutcashmere.com, www.umbriacashmeredistrictaward.it, www.italiancashmere.com). Although being as objective as possible in selecting the case companies, some realistic constraints, such as responsiveness and helpfulness of the companies contacted in the first place, have influenced the final choice of the sample.

Company	Employees	Turnover [mln€]	Product categories*
1	>7000	1261	Fine fibers fabrics, apparel, knitwear, underwear, accessories such as sunglasses, leather goods, watches, perfumes
2	2530	630	Fine fibers yarns, fabrics, knitwear, woven garments, apparel, leather accessories, sports accessories, other accessories, gifts
3	1100	281	Fine fibers and materials knitwear and apparel, leather goods, accessories, lifestyle objects (e.g. cashmere pillows and blankets)
4	300	64	Fine fibers knitwear, fabrics and apparel, leather accessories
5	67	17	Cashmere knitwear, fine fibers and materials apparel, leather accessories
6	50	9	Cashmere knitwear and some accessories (e.g. cashmere pillows and blankets)
7	38	8	Cashmere knitwear, total look fine materials apparel, accessories such as necklaces in eco friendly materials
8	10	4-5	Cashmere knitwear
9	10-15	2	Cashmere knitwear, Silk knitwear

Table 1. The sample companies

*accessory lines (e.g. eyewear, perfumes, accessories, leather goods) have not been considered in the further analysis.

The sample is mainly made of small and medium firms, but also contains some globally recognized companies. The choice of such a varied sample, in terms of company size, has been made in order to be representative of the actual composition of the Italian enterprises system (see *Introduction*). Moreover, this choice allowed to analyze different contingent factors and to interpret convergent and contrasting results among cases according to the principles of both literal replications (where some cases are expected to provide similar results) and theoretical replication (where some cases are expected to provide contrasting results for predictable reasons) (Caniato et al., 2011; Yin, 2009).

All the companies considered are *brand owners* (they produce for the B2C apparel market); besides, most of them manufacture semi-finished and finished goods for other leading brands as well. Indeed, some of the companies interviewed have a supplier-customer relationship with

each other. With this in mind, the “*products categories*”, which each company listed in the table above deals with, are mainly those intended to the B2C channel.

Due to the well-founded importance of studying management practices along the SC and wishing to have a broader and deeper view on the subject under examination as well as on empirical support for the research, two important Italian companies operating at different levels of the upstream side of the cashmere SC were also interviewed.

Information was collected during 2013 from the case companies by means of semi-structured interviews and document analysis, the secondary data considered were only highly reliable and official sources such as scientific papers, company websites and reports which were publicly available (e.g. Financial Statements). In order to collect direct data, a semi-structured interview tool was developed based on the interview protocol described in the next section. Although identical questions were addressed to all companies, the interviewed subjects had the possibility to freely describe their company practices by answering open questions (Caniato et al., 2012). With only one exception, owners, general and plant managers were interviewed; moreover, interviews were mainly done face-to-face at the company headquarters or main plant location. When possible, multiple interviews and company site visits (*direct observation*) were conducted in each case sample to achieve a broader perspective and perform data triangulation (Eisenhardt, 1989; Yin, 2009). In some cases, a further *questionnaire* was submitted to respondents for integration or confirmation of the collected data.

Finally, interviews were recorded and summary structured reports for each firm were prepared. Answers were aggregated according to the interview protocol, meanwhile qualitative comments were also analyzed to consider the overall company situation for a more complete data discussion. Data analysis was conducted by cross-case techniques to compare data from the research.

5. Interview protocol

In the previous sections a gap in current literature has been evidenced and research questions of this study have been presented (Section 3). In order to investigate those questions, starting from both an in-depth review of the literature on QM and an overview of luxury, cashmere and Italian textile-fashion markets, summarized in the first two sections, key variables were identified and classified in the *interview protocol* shown below.

First of all, general information about the company, its branding and SC choices was asked in order to have, firstly, a general overview of the sample analyzed and, secondly, to investigate about the possible *contingent factors* to be considered in the analysis (Table 2). In fact, the global set of contingent factors can be summarized as: *environmental factors* and *technological factors* (external), *strategic factors* and *company "personal" factors* such as its size (internal) (Spina, 2008; Delmestri, 1996; Daft, 2001). After the literature review and considering that the external factors are generally the same for all the companies in the sample as they are all operating in the same industry and they are all based in Italy, it is interesting to focus on the internal ones. In the first part of the next section the data collected and the specific contingent variables taken into account will be shown. The latter are the ones considered most significant in studying the particular luxury cashmere textile-fashion industry with its features, as well as with respect to the specific sample considered.

VARIABLE	DESCRIPTION	VALUE		REFERENCE		
Size	Number of employees	#		-		
Turnover 2012	-	[mln €]		-		
Product categories	-	-		-		
Brand positioning	Positioning and personality of any brand owned by the company	Luxury level	Absolute/aspirational/accessible	D'Arpizio, 2007; Brun and Castelli, 2008		
		Quality	Very high/high/medium-high			
		Design	Very high/high/medium-high			
		Craftsmanship	Very high/high/medium-high/medium-low			
		Made in Italy label	Yes/No			
SC model	Make or buy choices, ownership and locations at the different levels of the company supply chain	SOURCE		Chaudhry and Hodge, 2012; Ngai et al., 2014; Towers et al., 2013; Brun and Castelli, 2008; Brun et al., 2008		
		cashmere collection, sorting, washing and dehairing	In house/Outsourcing (location)			
			In house/Outsourcing (location)			
		MAKE				
		product design and development	In house/Outsourcing (location)			
		spinning	In house/Outsourcing (location)			
		dyeing	In house/Outsourcing (location)			
		knitting	In house/Outsourcing (location)			
		weaving	In house/Outsourcing (location)			
		garment making and labeling	In house/Outsourcing (location)			
		packaging	In house/Outsourcing (location)			
		DELIVER	Mono-brand boutiques		Yes/No -Owned/Franchising (location)	
					Yes/No (location)	
			Department store corners		Yes/No (location)	
			Multi-brand shops		Yes/No (location)	
e-commerce	Yes/No					
Outlet	Yes/No					

Table 2. General information framework about the sample company, including its branding and SC choices

Additionally the *quality variables* included in the interview protocol have been gathered in three main groups: i) *quality management organizational structure*, ii) *quality management system and process quality management practices*, and iii) *upstream and downstream SC quality management practices*.

i) *Quality management organizational structure* (Table 3): features of the organizational structures for QM adopted by the companies analyzed (beyond the mere presence of inspections and checks for defects as argued in the literature review section). Please note that the *quality management organizational structure* part of the interview protocol comes from an adaptation (based on the study of the literature up to the present) of a previous one proposed in a recent study, to be yet published (Elfie Meneses, 2011; *Organisation and supply chain for quality control in luxury companies*).

VARIABLE	DESCRIPTION	POSSIBLE VALUES	REFERENCES
Level of centralization	Continuum between the existence of a function dedicated to quality management (stand-alone and centralized) and quality management spread in the different departments	Distributed (quality problems managed at local level)	Vickery et al., 1999
		Part-time (quality function is identified and is the responsibility of someone who already has another function in the company)	
		Full-time (quality function is identified and there is a full-time quality manager inside the company)	
Position in the company organizational chart	Dependence of the quality manager inside the company organization	R&D manager	Vickery et al., 1999
		Production manager	
		Top management (e.g. plant management)	
		CEO or Owner	
Organizational chart of QM department	Internal QM department grouping criteria	An internal organizational QM department chart exists (criteria used)	Zhang et al., 2012
		None	

Table 3. Interview protocol: *quality management organizational structure*

ii) *Quality management system and process quality management practices* (Table 4): organizational culture, procedures, processes and resources needed to implement QM. As mentioned before, the QMS is a set of interrelated or interacting elements used to direct and control how quality policies are implemented and quality objectives are achieved: this part of the interview protocol specifically covers the QM practices in internal processes adopted by the brand owner company in the “making” or “processing” part of the SC that the latter covers.

VARIABLE	DESCRIPTION	VALUES	REFERENCES
Quality culture	Specific aspects of organizational culture, that encapsulate the ideology of the group about quality	<i>Open answer</i>	Schein, E. H., 1985 Corbett and Rastrick, 2000; Mauil et al., 2001
Scope of quality management	Goal the company is aiming at by managing quality	Final inspection	Yeung et al., 2003
		Controlled by systems	
		Controlled-assured by systems	
		Strategic planning for improvement	
Quality	Quality management is (is not)	Quality as a framed control function	Yeung et al., 2003;

awareness	the firm's primary competitive strategy in operations	Quality as an important defensive strategy		Yeung, 2008
Role of workforce	Workers' awareness of the importance of quality	Quality as a strategic weapon		Kaynak and Hartley, 2008; Yeung et al., 2003;
		Not aware of their roles in quality		
		Aware of their roles but not committed to quality		
		Aware of their roles in quality with some commitment		
Leadership	Acceptance of quality responsibility by top management and his/her participation in quality improvement efforts	Aware of their roles in quality with high commitment		Conca et al., 2004; Flynn et al., 1994; Lin et al., 2005; Kaynak and Hartley, 2008; Yeung et al., 2003;
		Not involved		
		Involvement but not commitment		
Training	Specifically about quality: there is (is not) a formal and continuous quality management training in the company	High involvement and commitment		Conca et al., 2004; Flynn et al., 1994; Lin et al., 2005; Kaynak and Hartley, 2008; Yeung et al., 2003; Yeung, 2008;
		No training		
		On the job training		
		General training on quality		
Role of quality team	The firm has (or not) a formal working group/committee about quality	Some specialized training (e.g. quality management, statistical, problem solving)		Yeung et al., 2008; Yeung, 2008
		No teams		
		No formal quality management teams		
		Some project teams		
Continuous improvement	Whether the firm reinforces continuous study and improvement of all its products, services and processes by identifying actions through information management	Quality team established and formalized		Conca et al., 2004; Flynn et al., 2008; Yeung, 2008
		Use of specific tools to support quality improvement (e.g. plan-do-check-act cycle, self-assessment activities as EFQM model, seven quality control tools)	Yes	
			No	
		Use of specific organizational structure to support quality improvement (e.g. work teams, a person in charge of quality)	Yes	
Official implementation of TQM	The firm claims (or not) to his clients and public that it is a total quality organization		No	Irani et al., 2004; Yeung et al., 2003; Yeung, 2008
		Yes, formalized application		
		No, but high attention and informal application		
Corporate Social Responsibility	Level of commitment in ethics and sustainability in business	No		Caniato et al., 2012; Foster and Ogden, 2008; Towers et al., 2013; ISO standards
		High commitment, environmental and/or social sustainability projects		
		Medium commitment, eco and/or social friendly (e.g. bio eco-compatible materials researched)		
Certification	Adoption or not in the company of any certification/standard	Low, some involvement		Yeung et al., 2003; Sroufe and Curkovic, 2008; ISO standards
		None		
		Country (e.g. Made in Italy)		
		Personal certification		
		ISO certifications (e.g. ISO 9000, ISO 14000)		
Documentation	The presence, or not, of quality documentation	Other certifications		Flynn et al., 1994; Yeung et al., 2003; ISO standards
		None		
		Procedures documentation (specific way to fulfill an activity or a process: who, what, how; generally for the production site or the workstation)		
Quality KPI (Key Performance Indicators)	Use of KPI: how the organization controls and improves its processes by setting quality measures	Quality manual (document specifying a company's quality management system)		Conca et al., 2004; Flynn et al., 1994
		Yes		
Reports	Quality data and reporting records	No		Flynn et al., 1994; Forker et al., 1997; Kaynak and Hartley, 2008; Lin et al., 2005
		Availability of report and analysis on quality	Yes	
			No	
		Feedback of quality data to employees and managers for problem solving	Yes, in real time	
			Yes	
Level of control of finished goods	Operative control in terms of % on the total products		No	Cooklin, 2006; Kaynak and Hartley, 2008
		Systematic(100%control)		
		Statistic (sample control)		

Table 4. Interview protocol: quality management system and process quality management practices

Quality management along the Upstream (Table 5) and Downstream (Table 6) side of the SC, with a focus on the relationship with the end customer: first focus is on upstream supply quality management (suppliers quality control and relation with suppliers in order to reach the quality specifications demanded by the brand owner). Then, variables in the second table regard customer focus that is one of the most highlighted themes in various studies (Section 2).

<i>Upstream SC quality management practices</i>			
VARIABLE	DESCRIPTION	VALUES	REFERENCES
Suppliers selection	The criteria used by the brand owners to let a supplier be in their suppliers register	No certifications required	Conca et al., 2004; Flynn et al., 1994; Lin et al., 2005; Sroufe and Curkovic, 2008
		Specific supplier audit (inspection and controls)	
		ISO 9000	
Relationship management	The decision to resort to the competitive market through short-term relationship, rather than the establishment of long-term consolidated ones	Long term relationships	Brun et al., 2008; Flynn et al., 1994; Kaynak and Hartley, 2008
		Spot	
Suppliers training on quality	Whether training suppliers on brand owners quality standards and requested practices is required	Yes	Conca et al., 2004; Lin et al., 2005
		No	
Suppliers evaluation	Whether a formal system for the evaluation of supplier performance exists	Yes, formal (e.g. Performance Measurement System)	Conca et al., 2004; Luzzini and Ronchi, 2010; Kaynak and Hartley, 2008
		Yes, informal	
		No	
Information Sharing	The depth of the information sharing flow between brand owner and suppliers	High	Brun et al., 2008; Lin et al., 2005; Kaynak and Hartley, 2008
		Medium	
		Low	
Control of inbound materials	Operative control in terms of % on total inbound materials	Systematic (100% control)	Kaynak and Hartley, 2008
		Sample control	
		No, because of strong trust relationship	

Table 5. Interview protocol: upstream SC quality management practices

<i>Downstream SC quality management practices: customer focus</i>			
VARIABLE	DESCRIPTION	VALUES	REFERENCES
Level of focus on customer	Whether or not the company is focused on increasing contacts between the organization and customers, identifying their requirements, assessing their satisfaction and supporting activities to improve customer satisfaction	High: the customer is the final arbiter of quality, there is emphasis on trust between brand and customer in order to achieve greater customer satisfaction (<i>Obs.: variable value possible only if explicitly claimed by the respondents after an open question</i>)	Lengnick-Hall, 1996; Flynn et al., 1994; Irani et al., 2004; Lin et al., 2005; Kaynak and Harley, 2008
		Medium: after sales used as added value to solve structural problems	
		Low: after sales used to manage complaints only	
Measurement of customer expectations	How the company manages customer expectations (before the goods purchase)	Survey market researches	Conca et al., 2004
		Reports from agents and buyers	
		Direct observation	
Measurement of customer satisfaction	How the company manages customer satisfaction (after the goods purchase)	Satisfaction surveys	Conca et al., 2004
		After sales interviews / direct observations	
		Reports from agents and buyers	

Table 6. Interview protocol: downstream SC quality management practices and customer focus

6. Findings

In this section, case study results will be analysed in order to provide an answer to the research questions (Section 3) aiming at bridging the literature gap discussed in the previous sections.

The present section is organised as follows:

- firstly, an overview on sample data and the argumentation on the identification of contingent factors are given;
- secondly, answers to the research questions are provided;
- finally, an attempt at critical analysis of the results has been made.

6.1 *Data analysis and contingent factors identification*

As mentioned before, some contingency factors have been considered in order to identify whether they could help in discriminating among different brand owner companies' strategies. Moreover, as argued in the last section, it seemed interesting to focus on internal contingent factors (strategic and "personal"). Keeping in mind the previously listed luxury industry CSFs (Section 1), the literature overview, and the first part of the interview protocol (Table 2) the most significant contingent variables for the present study emerged to be: *company size*, *luxury level*, *upstream SC configuration* and *downstream SC configuration*.

Size. Considering the sample data given in Table 1 and the definition of SMEs given by the European Commission (http://ec.europa.eu/index_it.htm), two clusters have been identified:

- *SMEs*: #5, #6, #7, #8, #9 cases;
- *Large companies*: #1, #2, #3, #4 cases.

Positioning of the brand: luxury level. The factors considered include many of the luxury industry CSF seen before: quality, design, craftsmanship, country of origin and luxury level (from the definition given by D'Arpizio, C., 2007 at www.altagamma.it) (Appendix table 1). Please note that whenever more than one label for each brand owner exists, the main line label was considered in the analysis. Regarding the level of *craftsmanship*, it is considered from medium-high to very high for all the cases analyzed: how respondents have noted, in particular for knitting and garment making, there are no appropriate machineries capable of replacing human labor. In this sense, some companies (e.g. #9) have decided to implement training courses trying to attract and train new resources essential to the manufactures. On the other hand, advanced technology is available for both yarn and textile. The level of *quality*, with one

exception, is considered high or very high by all the respondent companies, while the level of *design* is high for two out of nine cases and medium-high or high for the others. Moreover, company #1 is the only one where most but not the totality of goods have a *Made in Italy* label (totality in all the other cases), although the majority of the production is made in Italy. Finally, the most significant variable to be considered as a discriminating contingent factor seemed to be the *luxury level positioning* of the brand. The respective clusters are:

- *Absolute*: #1, #2, #3 cases;
- *Aspirational*: #4, #5, #7, #8, #9 cases;
- *Accessible*: #6 case.

SC configurations: upstream and downstream. Due to the importance of SC configuration, each interviewee was asked to describe his/her company's general SC configuration, pointing out, for each phase, the in-house versus outsourcing decisions and the geographical area (Appendix table 2). Interesting highlights are the following. *Product design and development* is kept in house by the entire analyzed sample: its importance is underlined. Moreover, two main SC configurations emerge from the data: almost complete vertical integration and almost complete outsourcing configuration strategy. However, it must be noted that, firstly, most companies using outsourcing strategy operate in the Italian districts: as for the characteristics of the districts (Section 2), it may be appropriate to classify this strategy as "*collaborative market*" (Spina, 2008). Secondly, in most cases the brand owner company purchases the raw cashmere staples or yarn and gives it to be processed to external sub-contractors: at each stage of the processing SC, the semi-finished product is returned *in house* (brand owners plants) and more quality checks and controls take place. Considering the discussion and the data above, the clusters related to the *upstream SC configuration* contingent factor are:

- *Vertical integration*: #1, #2, #6 cases;
- *Collaborative market*: #3, #7, #8 cases;
- *Intermediate* between vertical integration and collaborative market: #4, #5, #9 cases.

As regards the downstream SC, it was asked through which channels the companies being interviewed were operating and in which geographical areas (distribution strategy) (Appendix table 3). Almost all surveyed companies have pointed out that a very high percentage of their products (on average declared as over 70%) is sold abroad. This confirms the information previously shown on luxury sector trends (Section 1) and the importance that *Made in Italy* brand, fortunately, still enjoys worldwide. Moreover, increasing mono-brand retail growth (both

owned and in franchising shops), according to interviewed companies, has been a winning strategy as it helps in being closer to end customers. In addition, almost all respondents underlined their care in choosing selective distribution that gives visibility to the brand (e.g. strategic roads in strategic cities) and that is consistent with the positioning and the image they want to express identifying the brand. Finally, in recent years, luxury and fashion companies, typically latecomers to the Web (Corbellini and Saviolo, 2009), initiated e-commerce: except for two of the sample cases, all the other interviewees have an e-commerce channel. The clusters identified about the *downstream SC configuration* contingent factor are:

- *downstream integration* (direct channel also): #1, #2, #3, 4#, 5#, 6# cases;
- *no downstream integration* (indirect channel only): #7, #8, 9# cases.

The four contingent factors identified will be considered in the following part for answering the research questions as previously listed.

6.2 1st Research question

a) *Which is the actual approach to quality management organizational structure adopted by Italian luxury firms focused on cashmere?*

The case studies which were analysed, nine Italian luxury companies operating mainly in the cashmere textile-fashion niche, generally show that a common approach to QM organizational structure is not adopted (Appendix table 4). In fact, considering the *quality management department level of centralization*, 33% of sample companies adopts a full-time model department, 55% a part-time one, while in only one case a distributed one is adopted (company #7 where an “operative quality control office” dedicated to inspections and checks for defects exists and is managed by the production manager). Among the firms having a full-time QM department, two underlined that as the workforce is highly skilled it may itself contribute to quality management both in terms of quality control and quality assurance (Kenneth, 2005; Hoyle, 2009; www.iso.org), even if not strictly “belonging” to the quality department. This, in a certain sense, can be considered a way between a centralized organizational structure (Forker et al., 1997) and a widespread quality function (Vickery et al., 1999; Nicola and Valceschini, 1995). On the other hand, in two cases the company owner is directly accountable for quality management (in a contingency perspective, due to their limited size). Finally it can be concluded that, both part-time and full-time, the presence of a department accountable for QM is preferred

by Italian luxury firms focused on cashmere. A detail observed: a common way to appoint the “quality management department” did not transpire.

Furthermore, an internal formal *organizational chart for the quality department* was found in 44% of cases. In two cases, #1 and #4, the department is grouped in different divisions by transformation phases (raw materials, working processes, end products), in case #2 by company divisions (textile and luxury goods) and in case #3 both by item material (e.g. knitwear VS woven garments) and by specific transformation phases. Thus, the most common grouping criteria appeared to be by transformation phases.

Lastly, instead, an approach shared by all sample companies is the high hierarchical status generally ensured to quality managers (they report to top management or CEO). This highlights the critical role played by quality in the luxury industry. For instance, the interviewee in company #4, one of the top managers in charge for QM part-time, stated that the company’s ownership is generally involved in their work and decisions due to the high cost of materials they deal with, thus involving a certain economic risk.

b) How do contingent factors impact on the quality management organizational structure adopted by Italian luxury firms focused on cashmere?

Since the previous analysis shows that there is no common organizational model chosen by all the Italian luxury sample companies (except for the high hierarchical positioning of the quality manager), in order to answer the second part of the first research question, it was necessary to further search for possibly recurring patterns based on different contingent factors as previously identified.

Firstly, in analyzing the *level of centralization* variable some relevance of the *size* factor can be found (Appendix figure 1): with the exception of company #4 (part-time), all the other three large firms have a full-time QM department. Moreover, all the SMEs have part-time QM departments, with the exception of #7 that has a distributed one. A possible explanation can be the need felt by the largest companies to have a centralized full-time quality department due to the considerable amount of processed items and data, while resources in smaller companies may be unsaturated if 100% is dedicated to QM. On the other hand, the *luxury level*, again considering the *level of centralization*, seems to be discriminating only for the companies with absolute luxury positioning (Appendix figure 2): all those companies have a full-time QM department. As for aspirational and accessible luxury companies a part-time QM department

organization is the most adopted. Apparently, absolute luxury firms feel the necessity for higher structuring and quality centralizing.

An extreme relevance of the *size* contingent factor in discriminating between the adoption or non-adoption of an internal *grouping criteria of the quality management department* was then found (Appendix figure 3). All large firms have formalized criteria to organize the QM department, while it is the opposite for SMEs. This can be explained by the higher need for labor division in the biggest companies due their size.

In conclusion, unexpectedly, no interesting patterns regarding the role of *upstream SC configuration* in discriminating QM organizational structure were found.

6.3 2nd Research question

a) *Which is the actual approach to quality management system and process quality management adopted by Italian luxury firms focused on cashmere?*

In answering this research question, it was interesting to start with an overview on what *quality* means to the companies interviewed (Appendix table 5). All the companies underlined their commitment to quality, even if at different levels and with various nuances. The most common lines are: the search for the best raw materials together with highly skilled labor in order to have a “product with intrinsic quality”, but also attention to detail and passion. Companies #2 and #3 explicitly stressed that quality is for them a "company business philosophy".

The results obtained during the case studies (Appendix table 6 and 7) show that *quality awareness* is extremely high in all the Italian cashmere luxury companies in the sample: quality is a strategic business weapon or an important defensive strategy (one case out of nine). Besides, the *management* appears to always be highly committed to quality issues (active involvement in the organization’s quality efforts, communication of their commitment to quality and acceptance of quality responsibility). On the contrary, a common pattern was not evident regarding the “*scope of quality management*” variable: 22% of the sample has a “controlled by systems” scope, 44% a “controlled-assured by systems” one, while in the remaining 33% the QM scope is “strategic planning for improving”. Considering the “*role of workforce*” variable, even though the workforce in all sample companies seemed to be aware of its role in quality, it does not necessarily succeed in *committing workers to quality*. Again a shared trend is not found: in 33% of cases a high commitment of the workforce to quality has been stated (e.g. in company #1

particularly for the textile division, a certain percentage of the salary, for both workers and managers, depends on the level of items quality), in 55% some commitment, and in one case the workforce is aware of its role but not committed. Moreover, with regard to the “*training on quality*” variable, specialized training on quality does not seem to be widespread among the companies in the sample; it is adopted in 33% of cases (e.g. problem solving courses for managers in company #5) while training on the job or general training are more common (as stated by the respondents, particularly needed for new processing or products). The same applies to *quality teams* that are adopted by the 22% of sample companies.

Furthermore, none of the companies are involved in official TQM implementation (in some cases, 33%, they appeared to be more aware of the theme). Notwithstanding this, some of the sample companies actually share many of the “ideal TQM paradigm” characteristics (e.g. Yeung et al. 2003). With regard to *continuous improvement*, none of the companies in the sample claimed to use specific tools; besides, despite 55% of firms stating that specific organizational structures for continuous improvement are adopted, a general continuous improvement culture widespread in most of the companies under review was evident. Finally, a general interest toward *corporate social responsibility* was found among the companies (both social and environmental interest): high commitment in 44% of cases, medium commitment in 44% of cases as well, and some involvement in one case.

Subsequently by focusing on QM practices in working processes (Appendix table 8) it immediately appears that firms are totally resistant to official quality certifications such as *ISO 9000*, even if respondents have proven to be aware of them. The reasons given were several, such as the risk of increasing bureaucratic procedures or, especially for the most known brands, the presence of a company *personal code* tied to the history and fame of the company that *guarantees* their “way of working”, reliability and ethics to the stakeholders (44% of cases). In one case, company #5, this resulted in an RDIF tag implemented project (enabling to trace the whole SC steps up to the final product, as a way to increase the “quality image” allowing transparency towards end customers) while in 33% of cases a Made in Italy certification is adopted (mainly because required by overseas clients). Regarding the *quality documentation system*, none of the sample companies adopts a quality manual, while in 66% of cases a procedures documentation system is present (in companies #1 and #2 it is directly embedded in their Information System - IS: based on the area of competence and responsibility, workforce and managers can access and consult it). As for the “*measurement of quality KPI*”, in 77% of

cases it is adopted (in two cases KPIs are traced in real time thanks to the centralized IS). With regard to the *availability of reports on quality data*, this practice is adopted in 66% of the cases under consideration; additionally 88% of sample companies stated their practices in *giving feedback on quality data* to employees and managers (two of the companies not adopting a quality reporting system claimed that feedback on quality is given to employees in any case but managed locally). Finally, the *level of control of finished goods* is systematic in all cases. An exception is for a small production amount in company #2, for which sample control is practiced (even in this case garments are made with textiles that underwent several systematic controls).

b) How do contingent factors impact on the quality management system and on the process quality management practices adopted by Italian luxury firms focused on cashmere?

Analyzing the impact of contingent factors on QMS and process quality practices in the Italian luxury industry focused on cashmere, the most interesting results are about the “*role of workforce*” variable. In fact, the *level of luxury* proves to be a very significant factor in discriminating among the different levels of *role of workforce in quality*: all *absolute* luxury companies present a highly committed labor force (probably because end customers of absolute luxury goods are the most demanding, thus entailing very high involvement, attention and passion for quality by the entire workforce involved in the creation of each piece); then, the workforce of all aspirational luxury firms is aware of its role in quality with a certain degree of commitment and, finally, in the only accessible luxury company workers are aware of their role in quality but they are not committed to quality (Figure 1).

<i>Not aware of their roles in quality</i>			
<i>Aware of their roles but not committed to quality</i>			#6
<i>Aware of their roles in quality with some commitment</i>		#4, #5, #7, #8, #9	
<i>Aware of their roles in quality with high commitment</i>	#1, #2, #3		
	Absolute	Aspirational	Accessible

Figure 1: Role of workforce compared to level of luxury

Then, the *quality documentation system* variable was considered: the contingent *size* factor has been found to have a certain impact (Appendix figure 4), in fact all large companies in the sample adopt a procedures documentation system which includes quality issues (conversely, a common pattern cannot be found among SMEs). This can be explained by the need for greater structure and formalization of instructions and procedures that increase with the growing size of the firm and the resulting greater number of resources and processes to be managed.

Moreover, the *upstream SC configuration* contingent factor (Appendix figure 5) appeared to have a slight impact: all vertically integrated companies have adopted a quality procedures documentation, but moving toward an intermediate configuration and then to a collaborative market configuration, there is a gradual shift to non-adoption of a quality procedure system. An explanation for this trend can be that, as more and more individual processing phases are delegated to sub-contractors, the latter are actually expected to have a certain quality procedures documentation. In addition, quality requirements, both in terms of product and used procedures, are expected and regulated by contracts.

Lastly, in regard to the “*availability of quality reports*” variable, *size* seems to be partially discriminating. In fact, in all large firms considered reports on quality data are available; conversely, a common practice is not shared by SMEs (Appendix figure 6). Reasons can be: the will of the CEO to make an effort in tracing, collecting and summarizing data on quality (regardless of firm size), the need for performance and processes data visibility felt by CEO of big companies that, otherwise, cannot have a global control of the whole company, and, also, the greater resources available to bigger companies such as centralized IS that automatically traces and generates quality data and thus reports.

6.4 3rd Research question

a) *Which is the actual approach to quality management along the SC adopted by Italian luxury firms focused on cashmere?*

- *Upstream SC*

With regard to quality management along the SC in the analyzed Italian cashmere luxury sample companies, an overall high involvement of suppliers and subcontractors in quality issues was found (Appendix table 9). Firstly, in *selecting suppliers*, quality criteria are globally preferred to cost-oriented ones. Moreover, through inspections, controls and material tests, specific supplier audits are conducted mainly to ensure potential supplier capacity to meet the needs of the brand owner company in terms of quality practices, law compliance, truth of declared specifications (e.g. Made in Italy processing, 100% cashmere) by all the companies in the sample. In some cases (22%) compliance with the brand owner protocols and ethics code is required as well. None of the enterprises in the sample requires suppliers to be ISO 9000 certified. Furthermore, all brand owner companies stated to have mainly established long-term supportive *relationships*

with suppliers and subcontractors, characterized by high mutual trust. In 44% of cases, in addition to long-term relationship suppliers, a small percentage of relations on spot market exists, primarily for special seasonal fashionable manufacturings and to test new potential suppliers. Still, a high level of *information sharing* between supplier and subcontractors is generally adopted (medium level with new ones); among those, in 55% of cases virtual or actual partnerships are established. Many of the respondents claimed that with some of their suppliers there is an informal and even friendly relationship. On the contrary, among the sample companies, there is not a common approach to “*supplier training on quality*”: in 66% of case it is implemented while in 33% it is not (in this case, the reason given is because best performers are selected). In addition, in regard to *suppliers’ evaluation on quality performance*, the mainly adopted approach is an informal evaluation (66% of cases), while only in 22% of cases a formal one is found; in one case there is not supplier evaluation on quality. These findings are related to the previously discussed “long term and close relationships” which may lead to a “more informal way” to manage the relationships themselves.

Finally, again, there is not a shared approach with regard to the *level of control of inbound materials*. In fact, 22% of the enterprises in the sample adopts a sample control, 33% a systematic one, while 44% does not control inbound items due to the strong trust relationship. It must be noticed that within the same company more than one diverse approach may be adopted depending on the different kinds of inbound materials: for instance, companies stated that quality controls are not usually carried out on yarn for several reasons such as a greater difficulty together with a lesser efficacy of the control itself (e.g. compared to raw cashmere or semi-finished products), thus tests on yarn are generally done only at the beginning of a new supply relationship; moreover, firms that buy raw cashmere, despite the previous tests done by suppliers, usually carry out further sample controls (generally up to the 30% of each inbound batch) in laboratories.

Concluding, as mentioned in Section 4, due to the recognized importance of a SC perspective in the study of QM practices, two important Italian companies operating at different levels on the upstream side of the cashmere SC were interviewed as well. Results show an approach to QM that aims at searching for top quality, as well as high service level and flexibility: it appeared to be generally more formalized and structured compared to the one mainly adopted by brand owner companies. This difference can be explained both considering that the supplier may want

to prove its QM *best* practices to the clients by whom he is selected and evaluated and by the fact that some upstream production phases are mostly highly automated.

- *Downstream SC*

Considering the downstream side of the cashmere textile-fashion SC, analysis has been focused on end customer involvement on quality (Appendix table 10). In this case, a common approach to QM practices among the sample has not been found. First, considering the *level of focus on customer*, it is high in 25% of the companies in the sample and medium in the remaining 75%. Some of the tools implemented to enhance customer service were found to be CRM system, RFID tags and made-to-measure production service (due to the close relationship with the customer, evidenced in companies #1, #2, #3, #9 of the sample). Moreover, regarding the *measurements of customer expectations*, reliance on reports and “advice” from buyers and agents is highly adopted (63% of cases) as well as survey market researches (50% of cases). For instance, company #6 stated that in its factory outlet new garment models are “tested” to observe customer preferences and wearability before proposing them to the entire market. On the other hand, with regard to *measuring customer satisfaction*, submitting a satisfactory after-sales survey is not very common among the sample, company #2 explained this stating that due to the peculiarity of top luxury customers, common satisfaction surveys (such as Amazon’s famous ones) are not suitable; on the contrary, all analysed enterprises highly consider reports from buyers and agents. Finally, all the companies in the sample agreed in identifying direct observation of customers’ behaviours and attitudes and dialogue with them as the most important tool both to assess customer expectations and customer satisfaction; having a direct channel (e.g. mono-brand boutiques) largely facilitates this approach thanks to highly skilled shop assistants to understand customers’ behaviours. Lastly, two sample companies underscored the importance of having a centralized IS to manage the amount of data on customers.

b) How do contingent factors impact on the quality management along the SC practices adopted by Italian luxury firms focused on cashmere?

Studying the possible impact of contingent factors on QM practices along the upstream and downstream SC adopted by Italian luxury firms focused on cashmere results in little significant outcome.

As for the “*control of inbound materials*” variable, the only interesting outcome, with regard to the *size* contingent factor, is that all SMEs, with one exception, do not control inbound material

because of strong trust relationship with suppliers. Once again, none of the other contingent factors under consideration was found to be discriminating in the identification of common patterns: likely, because most of them simultaneously influence the choices of a single company. Lastly, the impact of contingent factors on the “*level of focus on customer*” variable has been analysed. The *level of luxury positioning* seems to be discriminating (Figure 2): all absolute luxury companies have a strategy highly focused on customers (this is in line with the high attention expected by a customer buying an absolute luxury level item). All other companies have a medium focus on customers and none of them has a low one: this can be explained by the increasing attention for customer care and customer experience given nowadays.

High	#1, #2		
Medium		#4, #5, #7, #8, #9	#6
Low			
	Absolute*	Aspirational	Accessible

Figure 2: Level of focus on customers compared to level of luxury

*Data on company #3 not available

Finally, surprisingly, the “*downstream SC configuration*” contingent factor was not found to be significantly discriminating on any QM variable.

6.5 Observations and critical analysis

On the basis of the previous extensive discussion and results analysis, an attempt at critical analysis has been made.

Firstly, considering the QM organizational structure, it appears that the QM department (both full-time and part-time), in Italian textile-fashion luxury firms focused on cashmere, is mainly closely related to quality planning and quality control activities. Instead, quality improvement seems to be a “culture” widespread in most of the companies considered, while quality assurance, in most cases, is associated with the concept of “selecting best raw materials and components to avoid constant intervention during production operations”.

Secondly, Italian cashmere luxury firms are globally extremely committed to quality and, in an SC perspective, suppliers and sub-contractors are highly involved in QM issues through long-term and high-trust relationships. According to several authors (e.g. Fabbe-Costes and Jahre, 2008), the general strong links and high degree of integration across organizational boundaries,

lead to better performance. On the other hand, those relationships are mainly informally managed. This consideration leads to an open question: whether and how such an informal way to operate might negatively impact on effectiveness of business operations and, in this case, on quality issues. Moreover, during the case studies, it appears that among Italian cashmere luxury firms there is a generally widespread resistance to formalization, standardization and certification. While, for instance, collecting quality data is recommended by several authors that, in previous studies, although focused on different industries, proved to be positively impacting on performance (e.g. Flynn et al., 1994; Forker et al., 1997; Kaynak and Harley, 2008). Furthermore, even if the awareness of the importance of customer involvement is increasing among Italian luxury companies, they should be careful not to risk "falling in love" with the product, reducing the focus on end customers' actual expectations.

Finally, the most impacting contingent factors were found to be *company size* and *luxury level* positioning, while the company configuration influence, both upstream and downstream, surprisingly was found to be low.

7. Conclusions and further development

The present paper provides a contribution to the research both in the luxury industry and in the quality management fields by analysing quality management organization, system and practices of Italian textile-fashion luxury firms focused on the cashmere sector and understanding the significant impact of contingent factors on those variables. The topic is innovative *per se* since despite the recognized primary importance of "premium quality" among luxury industry CSFs, research on quality management with regard to the luxury sector is very limited so far. Meanwhile, in choosing to focus the present research on Italy (since few studies on QM are based on this area) cashmere was found to be one of the symbols of Italian excellence as well as synonymous with luxury worldwide.

Firstly, a study of cashmere, luxury and Italian textile-apparel markets together with a literature review were performed. Secondly, the most interesting quality organization and management variables as well as meaningful contingent factors were identified and later classified in forming the interview protocol. Then, nine case studies were conducted. Finally data collected were summarized in cross-case tables and analyzed. Results show that a common QM organizational structure is not adopted, however a high hierarchical status is usually given to QM managers.

Moreover, a globally high commitment to quality has been found among companies. Meanwhile, a general resistance toward formalization and standardization emerged. Along the SC, suppliers seem to be involved in quality issues mainly through long-term and high trust relationships, generally informally managed. Customer focus is increasing. Generally, the contingent factors found to be the most impacting are company size and the level of luxury positioning.

This research project, whose early results are published in this paper, can provide useful insights both for researchers and practitioners. For researchers, as this study highlights an interesting business segment where QM is still little studied. Thus, by filling the gap in literature, this work represents a step forward in research determining the main trends in quality management organizational structures, system, process practices and along the SC practices. Moreover, by empirically examining the impact of contingent factors, this study also represents a step forward in the identification of contingency discrimination in terms of quality management. The present study is thus an important starting point for further research. For practitioners: this work can help managers in identifying the currently most frequent quality management organization and practices in luxury companies and, if any, the main pitfalls. An added value is the supply chain perspective of the study.

On the other hand, the present research is somewhat limited by the sample selection, in fact some of the companies at first identified as relevant in the Italian cashmere luxury industry were not willing to grant the requested interview. This also limited the sample size. Thus, the purpose of the present study was “restricted” to an exploratory one. Moreover, since it is focused on cashmere industry and in Italy, analogue research in other countries or markets can result in different findings. However, with appropriate caution, it can be argued that, tendentially, extending the focus on Italian luxury-fashion textile industry (operating with natural fibers) similar results can be expected.

Concluding, some future research paths can be identified. Firstly, further investigation is needed to understand the causal relationship between quality management practices and company performance. For instance, in past studies on different industries, the adoption of the TQM approach was found to be positively impacting on firms performance; therefore more research is needed to find which of the TQM practices are actually significant in the luxury industry. Moreover, even though Italy is recognized worldwide for its cashmere luxury industry excellence, there are other countries playing an important role in this sector; thus, this study can

be replicated in other key countries. Finally, other different specific commodity markets (e.g. leather accessories) could be the focus of further researches to replicate the present study.

This is the starting point for future research based upon results of this initial study.

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