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Production and supply network strategies within the fashion industry ☆

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ABSTRACT

Decisions on where and how to locate a production and supply network have become an increasingly important part of a firm's global supply network strategy and are critical to obtain competitive advantages. This paper contributes to extend knowledge in the field of production and supply network strategy in the fashion industry. Analysing the supply network strategy literature, the paper investigates production and supply network configurations that fashion-industry firms implement to remain competitive in a global context. Statistical analyses on survey data from 132 Italian fashion companies highlight the existence of three different clusters of companies that have identified alternative ways to organise their production and supply networks that are aligned with their specific competitive priorities (e.g., critical success factors). The study characterises the three different clusters of production and supply strategies of fashion companies, and provides useful interpretation of differences among clusters. In particular, the research distinguishes which subset of managerial capabilities (e.g., ability to trace supply network processes, collaborate along the chain and realize production, prototypes and samples in local networks linking brand reputation to Made-in-Italy,) fashion companies should possess and nurture to successfully develop and implement different, either local or international, production and supply network configurations.

1. Introduction

Fashion is a "cross-sector concept" that encompasses several industries, such as apparel, footwear, leather, jewellery, perfumes, and cosmetics (Brun et al., 2008). Currently, most apparel companies also sell shoes, bags, and even perfumes and cosmetics, whereas shoe and bag manufacturers are diversifying into apparel and even jewellery, searching for new and attractive ways to expand their brands and build sustainable businesses for the future (Cappellari, 2008). Fashion is, therefore, a broad term that typically encompasses any product or market in which style, as an ephemeral key element, is present and relevant (Christopher et al., 2006).

The European fashion industry sales equalled approximately €170 billion in 2012, with more than 181,000 companies, of which the 30% are Italian companies (SMI (Sistema Moda Italia), 2013). Fashion is one of the most important sectors in the Italian economy and plays a chief role at the international level. Both exports and imports are very relevant in the Italian fashion industry, representing 52.2% and 42.4% of revenue, respectively (SMI (Sistema Moda Italia), 2013), placing Italy as the second largest exporting country in the fashion industry worldwide, after China. Italian fashion sales equalled €51.1 billion in 2012, and companies employ more than one million workers, including those on the distribution side (SMI (Sistema Moda Italia), 2013). The Italian fashion system has been traditionally organised into industrial districts that are characterised by a large number of Small and Medium Enterprises (SMEs) and very specific inter-company synergies (Becattini, 2002). However, many important multinational groups (such as Gucci, Bottega Veneta, Armani,

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Fendi, Ferragamo, etc.), which have over time become important business models for all fashion companies worldwide, also operate in Italy (Guercini and Runfola, 2009).

The fashion system has become a global industry in which competition is worldwide. The fashion industry is delineated by different, complex supply networks, both in terms of fragmentation of production activities and geographical dispersion of the actors involved. This industry is also worth studying because of the context of uncertainty in which fashion companies compete. Currently, fashion companies not only must face challenges posed by demand unpredictability (Priest, 2005) but also must adapt to a new, competitive environment. Increasingly time-based competition (Forza and Vinelli, 1996; Jacobs, 2006), the mounting consumer sensibility to environmental issues (Caniato et al., 2011a), the growing relevance of the BRIC (Brazil, Russia, India, China) markets (Abecassis-Moedas, 2007), and rising labour costs in emerging countries (Sirkin, 2011) have driven fashion companies to reorganise their supply networks, searching for a new balance between local and global sourcing and production (Abecassis-Moedas, 2007; Dana et al., 2007). In recent decades globalisation in such sector has accelerated, as a result of the removal of the multi-fibre agreement (that imposed caps on export quotas by developing countries within the textile apparel industry) in 2005, the economic crisis of 2008 and the saturation of mature and traditional markets, upsetting traditional business models of the industry and necessitating a complex process of international production reorganization.

The need to identify robust business models for the fashion sector is the basis of this research project. Many authors encourage to study and periodically update supply network strategies in different sectors and settings through the use of configurations (Kathuria, 2000; Zhao et al., 2006; Miller and Roth, 1994; Bozarth and McDermott, 1998). This paper aims to identify the main production and supply network configurations and strategies applied by companies in the Italian fashion industry.

This industry-specific study is justified by the fact that existing taxonomies of production and supply network configurations have been mainly developed in other industries, such as the electronic, machinery, and electrical sectors or in specific segment of the fashion industry such as the luxury one (Caniato et al., 2009; Brun et al., 2008; Luzzini and Ronchi, 2010). Therefore, the first contribution of this research is to extend the focus of the analysis to the whole fashion industry, which ranges from mass-market to high-luxury segments.

Second, this work can also contribute to advance knowledge on the fashion industry identifying a taxonomy of production and supply network configurations based on the production location, i.e., the percentage of total production realised in different countries. Many authors have stated that the most appropriate way to form strategic groups depends on what the researcher intends to accomplish (e.g., Miller and Roth, 1994). For various reasons, we think that this represents an appropriate grouping criterion. Production location is a key decision for a fashion company, as stated before. It also is a distinctive characteristic that not only often denotes a firm's intention to pursue a precise strategy, but also has important implications for the firm's production and supply network (Christopher et al., 2006; Taplin, 2006; Brun et al., 2008; Şen, 2008).

Third, the study identifies and characterises three different clusters of production and supply strategies of fashion companies, and provides useful interpretation of differences among clusters in terms of fashion companies' competitive priorities (i.e., critical success factors, CSFs). Such link is not obvious, and mixed positions can be found in the literature. Several studies argue that realizing high-value products means avoiding international networks, while realizing low-value products means producing in low-labour cost countries (Shepheard-Walwyn, 1997; Taplin, 2006; Puig et al., 2009). However, nowadays this assumption seems too simplistic to explain the complexity of decision-making on production location, due to the technology and competence development of Far-East plants, and the renewed role of information and communication technologies to better connect global supply networks (Abernathy et al., 2000a; 2000b; Jin, 2004). This approach is in line with the ever-increasing consensus in the literature on characterising production and supply network configurations based on multiple competitive priorities (Kathuria, 2000; Ferdows and De Meyer, 1990; Bozarth and McDermott, 1998).

Fourth and finally, this research aims to identify and analyse specific and relevant managerial capabilities, which are needed for and can enable the successful implementation of different production and supply network configurations in the fashion industry. Indeed literature has indicated the capabilities-based view as an important way to buttress strategy definition and implementation (Jacobides and Winter, 2005) and has highlighted the importance of delving into the relationship between production and supply network configurations and plant capabilities (Srai and Gregory, 2008).

To investigate these issues, a survey-based methodology was used.

The paper is organised as follows. Section 2 first reviews the literature on supply network strategy and then focuses on production and supply network configurations, along with competitive priorities and managerial capabilities, in the fashion industry. Section 3 presents our research questions, and Section 4 shows our research methodology and data analysis. Section 5 presents our findings and discusses our results. Finally, Section 6 offers concluding remarks, notes the study's limitations, and outlines avenues for future research.

2. Literature review

2.1. Supply network strategy

The concept of supply network strategy has been proposed as an evolution of the consolidated frameworks of manufacturing and operations strategy proposed by Skinner (1969) and Wheelwright and Hayes (1985), extending these strategy frameworks to larger and more complex network systems in terms of competitive priorities, structure and infrastructure (Harland et al., 1999; Brun et al., 2008). It has been assumed that it is possible for companies to manage networks in which they operate and that it is therefore important to understand and develop appropriate supply network strategy (Harland and Knight, 2001). In this vein, supply network strategies can be defined as the set of plans put into practice to manage the integration of all supply network activities through improved relationships to gain a competitive network advantage (Hines et al., 2004). This advantage allows the focal company to overcome market competition and establish a significant distinction from competitors that can be preserved over time (Porter, 1998).

Designing manufacturing/operations strategy and, in a more extended sense, designing supply network strategy imply dealing with many difficulties due to trade-off choices (Skinner, 1969). The determination of homogeneous strategy configurations facilitates this task by allowing the identification of different approaches among companies. The power of these configurations is well-recognised in the manufacturing strategy literature and is becoming an important research theme in the strategic literature (Miller and Roth, 1994; Bozarth and McDermott, 1998). First, these configuration models can be used when the research aim is to determine dominant patterns in organisation; second, the configuration perspective argues that there are a limited number of viable strategies in a given context (Bozarth and McDermott,

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