Supply Chain Management

A research comparing different SCM-Systems in the Mass-Fashion Apparel Industry

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Enschede, 12th March 2015

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MASTER THESIS

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A research comparing different SCM-Systems in the Fashion Apparel Industry: A qualitative semi-structured interview study

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Student declaration

I hereby declare that this master thesis is my own work. I have acknowledged material taken from other peoples' work and I have clearly marked and given references to all quotations.

PREFACE

This final thesis has been originated within the scope of my Master of Business Administration at the University of Twente in Enschede within the period of October 2014 until March 2015.

Due to personal preferences and my educational background in Textile management, I was interested in a topic dealing with the fashion apparel industry. While reading scientific papers about this subject, I soon recognized that the majority of literature is either focusing on the fashion apparel industry as a whole without a distinction between several categories or groups or on its sub-industry of fast fashion, including companies like Zara or Benetton. Due to the limited distinctiveness of those types of supply chain strategies, the aim of this research is to address this gap and provide an extensive overview on trends for researchers and practitioners within different groups of purchasing and production strategies. Additionally, this study should also be a starting point for further researches dealing with this topic and developing it further.

This research gave me the opportunity to deal with unknown challenges and to further develop my knowledge and skills. For the support during the time of my research, I want to express a special thanks to Prof. Dr. habil. Holger Schiele and Dr. Niels J. Pulles who supported me during the stages of my research. In addition to that, I want to thank all those professionals working at fashion apparel companies that took the time for an interview during their busy working times:

No public information	Head of Global Sourcing, Atelier Gardeur GmbH
No public information	Technical Manager of Producing & Sourcing, Atelier Gardeur GmbH
No public information	Department Manager Hero- & Textile Brands, Baur Versand GmbH & Co. KG
No public information	Head of Buying & Product Management, Blutsgeschwister GmbH
No public information	Managing Director in Logistics, IT und Project, Brax (Leineweber GmbH & Co. KG)
No public information	Owner ATS Gildehaus GmbH; EU importer DL1961 Jeans
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No public information	Product Manager, Oui Gruppe GmbH & Co. KG
No public information	Product Manager, Eisend Kids e.K.

MANAGEMENT SUMMARY

This research has been originated in order to determine the trends in the SCM of mass-market companies in the German fashion apparel industry, while differentiating between (1) fashion apparel retailers, (2) companies in the fashion apparel industry whose production is contracted out to a third party and (3) companies in the fashion apparel industry with their own facilities for manufacturing.

The fashion apparel industry can be characterized as being very specific and highly important in terms of volume. While being global, complex and dynamic in character, it is one of the largest and oldest export industries in the world.[1] Key features of supply chains in the fashion apparel industry incorporate seeking for low cost manufacturing possibilities by increasingly sourcing offshore, the emerging use of quick response systems and the rise of electronic commerce. According to that, scholars describe the management of supply chains as being a critical success factor in fashion retailing with which sustainable competitive advantages can be achieved.[2]

In order to stay competitive in this industry, fashion apparel companies are choosing different SCM strategies resulting in diverse practices of purchasing and production strategies and approaches on how to reach and interact with the final customer. In general, an apparel company has to deal with two main strategic choices, the sourcing strategy, either outsourcing or in-house production, and the location of the production, either shifting the production to low-wage countries or locating the production in domestic manufacturing facilities to increase speed-to-market.[3] In general, the amount of companies trying to respond to customer demands by forecasting is decreasing. The organizations' flexibility and responsiveness is becoming increasingly important, as the customers' demands for products is becoming hard to forecast. According to that, literature recognizes a shift from companies that increasingly focus on the reduction of lead times in order to quickly respond to the customer demand, instead of long forecast horizons.[4]

According to that, literature and professionals being interviewed during this research recognize several trends being important for those three mentioned categories:

[1] See Gereffi (1999), p. 40; Hines and McGowan (2002), p. 80
[2] See Brun and Castelli (2008), p. 178; Christopher (2011), p. 6
[3] See Abecassis-Moedas (2007), p. 293
[4] See Christopher et al. (2004), p. 4; Christopher (2011), p. 101

Companies in the *fashion apparel retail* trade mentioned aspects as the quality of the item, factors of sustainability along all supply chain activities and the flexibility as highly important. Due to their dependence on the fashion apparel industry, these aspects are relatively hard to achieve. Fashion apparel retailers try to increase the degree of those aspects by close and long-term collaborations with partners in the industry. A relatively small amount of large and financially strong companies is using backward integration to strengthen their market position.[5] Great opportunities are offered by the possibilities of the internet. While fulfilling omnichannel needs, the importance of integrating all channels, i.e. online and offline channels, is gaining great attention.[6] Additionally, a greater specialization by product and price within the retail sector can be recognized.[7]

In general, companies in the *fashion apparel industry* are using *outsourcing* in order to reduce their total costs of ownership. Next to the cost aspect, factors as quality, sustainability and flexibility gained additional attention.[8] In order to ensure high quality standards, great flexibility and the transparency of incorporating sustainability aspects, fashion apparel companies outsourcing their production prefer long an close relationships with a limited amount of suppliers. For both categories, companies in the fashion apparel industry either outsourcing their production or using own manufacturing facilities for production, forward integration is becoming a popular method to increase their market position by selling and communicating directly with the final customer.[9]

Due to their in-house production, companies in the *fashion apparel industry* with own manufacturing facilities for producing their articles have high transparency considerations.[10] Thus, these companies are able to control their own standards of quality and sustainability. Quickly responding to market demands is restricted to the production facilities they are owning which in turn limits their overall flexibility.

Next to these aspects, additional trends have been mentioned being equally important for both, the fashion apparel retail trade and the fashion apparel industry:

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[5] See Gereffi (1999), p. 45; Hines and McGowan (2002), p. 80; Sen (2008), p. 582; Commerzbank – Group Risk Management (2011), p. 18
[6] See Kurt Salmon (2013), p. 6; Schwarzl and Wünnenberg (2014), p. 2-4; Tailorit (y.u.), p. 3
[7] See Gereffi (1999), p. 44-45
[8] See Sheu et al. (2005), p. 288; KPMG (2012), p. 46
[9] See Loock (2008), p. 41-44; Sen (2008), p. 582; Commerzbank – Group Risk Management (2011), p. 17; Deutsche Post DHL and Buck Consultants International (2012), p. 6
[10] See Kurt Salmon (2013), p. 6

1) Being market sensitive and demand driven by using elements of agile SCM is gaining increasing importance for all fashion apparel companies in order to compete with vertically integrated companies.[11]
2) Companies might increasingly operate in niche markets or specialize by product group and/or price segment and strengthen their national and international brand image.[12]
3) Internationalization is gaining great importance. It became almost a necessity for companies to open retail shops in proximate countries.[13]
4) Supporting elements that increase the flexibility, which in turn positively influence the response time might be a reliable and well-organized supplier network that allows the company to be flexible.[14] Additionally, the advanced use of technological opportunities might support flexibility.[15]

Thus, the strategic choice of a company is dependent on its focus on those mentioned aspects and their individual weighing, which in turn influence the decisions whether to outsource or use in-house production and whether to make use of domestic or off-shore production locations. For instance, the reduction of the lead times, in order to quickly respond to customer demands, requires a shift to near-shore production locations, which in turn increase the overall costs.[16] As a result, fashion apparel companies are executing a mixture of those mentioned strategies, as well in their choice for a certain sourcing strategy, the make-or-buy decision, as the locational strategy, either domestic of off-shore production. While working with different suppliers and production locations worldwide, companies choose the production location for each product separately. According to the requirements of the product and the market, the article will be produced in a certain production location that matches these specifications.[17] In general, for each product an assessment between price and location is carried out.

Key words: Supply Chain Management, Fashion apparel industry, Outsourcing, In-house production, Make-or-Buy decision, Quick response, Fast Fashion

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[11] See Lane and Probert (2004), p. 256; Focus medialine (2006), p. 22; Abecassis-Moedas (2007), p. 298; Deutsche Post DHL and Buck Consultants International (2012), p. 4; Kromer et al. (2013), p. 3-4
[12] See Lane and Probert (2004), p. 256; Abecassis-Moedas (2007), p. 298
[13] See Matthes (2002), p. 5-6, 12; Lane and Probert (2004), p. 256; Commerzbank – Group Risk Management (2011), p. 20; Deutsche Post DHL and Buck Consultants International (2012), p. 4; Kromer et al. (2013), p. 4-5
[14] See Masson et al. (2007), p. 251
[15] See Kurt Salmon (2013), p. 6; Rinnebach (2013), p. 3
[16] See Christopher et al. (2004), p. 4; Christopher (2011), p. 101
[17] See Abernathy and Volpe (2006), p. 2218

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No public information

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LIST OF ABBREVIATIONS

C&A	Clemens & August
e.g.	exempli gratia
etc.	et cetera
et al.	et alia
H&M	Hennes & Mauritz
JIT	Just-in-time
KBV	Knowledge-based view
KSF	Key Success Factors
NPD	New product development
POS	Point of Sale
PR	Public Relations
QR	Quick Response
RBV	Resource-based view
RFID	Radio-frequency identification
SC	Supply chain
SCM	Supply chain management
SKU	Stock keeping unit
TCE	Transactional Cost Economics

1. Introduction: Research context, research question, relevance and outline

1.1 Research context: The German mass-market fashion apparel industry

1.1.1 Research situation and complication: The fashion apparel industry, including complex SCM strategies and a wide ability of practices and trends

In general, the textile industry can be divided into three generally defined markets: home textiles, technical textiles and apparel.[18] The focus of this research will be laid on the latter, as this industry is very specific and highly important in terms of volume. The fashion apparel industry can be characterized as one of the largest and oldest export industry in the world, being global, complex and dynamic in character.[19] In 2006, the trade of textiles in general has been estimated at USD 530 billion, with about 60 percent accounting for the fashion apparel industry (USD 319 billion).[20] According to FashionUnited, in 2010 the global fashion apparel market was valued at USD 1.7 trillion and employed around 75 million people worldwide.[21]

The fashion apparel industry can be described as being a dynamic sector, facing constant change and great price competition. Undergoing substantial change, key features of supply chains in the fashion apparel industry incorporate seeking for low cost manufacturing possibilities by increasingly sourcing offshore, the emerging use of Quick Response systems and the rise of electronic commerce. The increasing competition from fast fashion companies and the entrance of supermarkets selling clothes highly-successful exerts additional pressure on the industry and reshapes the customers' buying behaviour.[22] The contemporary nature of this industry can be characterized by short product life cycles, high volatility, low predictability, high product variety and "(…) high levels of impulse purchase."[23] The Western fashion industry can no longer compete on the price aspect alone.[24] Customers are highly brand-sensitive, focussing on factors as the reputation of the brand, its stake in sustainability and its status, making the distinction of brands an

[18] See Thomassey (2010), p. 470
[19] See Gereffi (1999), p. 40; Hines and McGowan (2002), p. 80
[20] See Thomassey (2010), p. 470
[21] See Global fashion industry statistics – International apparel (y.u.)
[22] See Hines and McGowan (2002), p. 81; Sen (2008), p. 581-590; Bruce and Daly (2008), p. 329-330; Bruce and Daly (2011), p. 210; De Felice and Petrillo (2013), p. 1
[23] Bruce and Daly (2011), p. 210
[24] See Christopher, et al. (2004), p. 2; Sen (2008), p. 571; Bruce and Daly (2011), p. 210

important factor to sustain a competitive advantage.[25] Christopher, Lowson and Peck (2004) characterize the fashion industry as "(…) one of the most demanding challenges for logistics management with hundreds of colours, thousands of styles and millions of SKUs on the retail shelves at any one time [and] (…) the average shelf lives of these merchandise items shorten with each passing year"[26], demanding an efficient supply chain management (SCM) strategy that incorporates both, the characteristics of the product and the uncertainties associated with it.[27] Additionally, the fashion apparel's long and complex supply chains might include numerous companies[28] "(…) from the spinning to the distribution which are required to transform the fibre into the final garment."[29] According to Sorensen (2008), "for companies in the European textiles and clothing sector, the global developments create new challenges as well as strategic options (…) making it possible for companies to move their activities to locations that offer the best possible combination of benefits and costs to the company. (…) In the last two decades, many western European textiles and clothing companies have moved manufacturing activities to low-cost countries in Eastern Europe or to non-European."[30]

Due to complex SCM strategies and a wide availability of practices and trends in the fashion industry, managers lack a clear framework showing the right SCM strategy which might be best for their particular company's situation and their type of product.[31] A hand full of scholars started to remark a variation in strategies between companies with different purchase and production policies, without making this subject their main research question. This research is aimed to use those differences between fashion apparel companies as a starting point to create a conceptual model showing the diverse trends concerning SCM strategies within different purchasing and production strategies.

[25] See Nagurney and Yu (2012), p. 533
[26] Christopher et al. (2004), p. 16
[27] See Christopher et al. (2004), p. 16
[28] See Kim (2013), p. 215
[29] Thomassey (2010), p. 470
[30] Sorensen (2008), p. 1
[31] See Fisher (1997), p. 106

1.1.2 Research questions for determining the success factors in the SCM of mass-market companies in the German fashion apparel industry

The goal of this research is the creation of a model outlining the characteristics and key trends of SCM strategies for fashion apparel companies within different purchasing and production strategies, giving a clear and distinct overview for a particular company's situation and the appropriate trends in SCM strategies.

This research goal leads to the research question and its sub-questions, which will be answered within this research paper:

Main research question

Supported by theoretical and empirical evidence, which aspects are the trends in the SCM of mass-market companies in the German fashion apparel industry, while differentiating between (1) fashion apparel retailers, (2) companies in the fashion apparel industry whose production is contracted out to a third party and (3) companies in the fashion apparel industry with their own facilities for manufacturing?

Sub-research questions

1. Giving an overview, how can the fashion apparel industry, especially in Germany, be characterized?
2. What are the key trends in the SCM of the fashion industry mentioned by literature while differentiating between
   a) retailers acting as an intermediary between the manufacturer and the final customer,
   b) companies with their own buying department responsible for the purchase of fabrics, materials and garments, but whose production is contracted out to a third party and c) companies with both their own buying department responsible for the purchase and/or production of all the raw materials necessary for the production of the garment and their own facilities for manufacturing.
3. Looking into practice, which SCM trends and characteristics are mentioned by professionals working in fashion apparel companies within the three different groups?
4. What are the similarities and differences between the SCM trends mentioned in literature and those mentioned by companies in practice? Are these two sources complementing or detracting each other?

1.2 Academic and practical relevance: SCM as a KSF, distinctiveness of SC strategies and the fashion industry as a suitable avenue of SCM

While competing in the modern marketplace, the effective management of supply chains has been recognized as a key success factor (KSF) in developing a sustainable competitive advantage and has become increasingly strategically important.[32] A relatively huge amount of SCM research within the fashion apparel industry has already been conducted in the field of fast fashion, while studying vertically integrated fast fashion retailers such as Zara, Benetton, H&M and New Look. According to numerous researchers "fast fashion is a concept that will continue to affect the fashion apparel industry over the next decade (…)."[33] Fast Fashion is a consumer-driven approach to SCM[34] with rapid responsiveness techniques such as just-in-time, quick response, and agile supply chains.[35] However, fast fashion does account for not more than 20 percent of the whole range of articles in stores.[36] But then, what about the SCM strategies of the remaining 80 percent not accounting to fast fashion? Will they be affected by the fast fashion concept by adopting techniques or will new trends emerge independently from fast fashion developments?

As literature has either focused on the fashion apparel industry as a whole or on its sub-industry of fast fashion, limited insights into the distinctiveness of specific types of supply chain strategies has been offered. The aim of this research is to address this gap and to provide a background for practitioners and researchers on emerging trends in SCM strategies. The primary focus will be the German fashion industry, while taking into account three distinct categories of SCM categories:

(1) Fashion apparel r**etailers** acting as an intermediary between the manufacturer and the final customer, with a buying department responsible for the purchase of already finished garments;

(2) Companies in the fashion apparel industry with their own buying department responsible for the purchase of fabrics, materials or garments, but whose **production is contracted out** to a third party and

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[32] See Hines (2003) p. 108-109, p. 117-118; Brun and Castelli (2008), p. 179
[33] Bhardwaj and Fairhurst (2010), p. 171
[34] See Barnes and Lea-Greenwood (2006), p. 269
[35] See Bhardwaj and Fairhurst (2010), p. 171
[36] See Barnes and Lea-Greenwood (2006), p. 260; Bruce and Daly (2011), p. 211

(3) Companies in the fashion apparel industry with both their own buying department responsible for the purchase and/or production of all the raw materials necessary for the production of the garment and their **own facilities for manufacturing**.

In addition to that, a huge focus of literature about fashion apparel is concentrating on US cases,[37] although the German fashion apparel industry offers a relevant data gathering opportunity. With EUR 58.5 billion turnover in 2012, the German fashion apparel industry can be characterized as the highest retail sales sector in Europe with a market share of 19.4 percent.[38]

1.3 Outline of the Research: Theoretical and empirical analysis

Aiming at answering the research question, the research paper is structured as follows:
After the introduction chapter describes the problem definition, including background information, the problem context and the research questions (chapter 1), an overview about the German fashion industry will be given (chapter 2.1). After that, the research will continue with a review of already existing literature and their contribution in answering the research question. SCM as a key success factor in achieving a sustainable competitive advantage will be described in detail, including different strategies and trends in the SCM of fashion apparel companies (chapter 2.2). Additionally, different purchasing and retail channel strategies will be described, including motives, retail formats and trends for each of the three categories: fashion apparel retailers with multi-branded stores, fashion apparel companies with outsourced production and those with self-owned facilities for manufacturing (chapter 2.3). In the next section, a theoretical framework will describe the theoretical model including the key success factors and trends of the fashion apparel industry according to the different purchasing and retail channel strategies mentioned in literature (chapter 2.4). Then, chapter 3.1 gives a description of the methodology used for conducting and analysing the interviews. The data analysis section will give an answer on the research question according to professionals from the field (chapter 3.2). Chapter 4 gives a comparison of the SCM features mentioned in literature and those mentioned by companies in practice – are these two sources complementing or detracting each other? Finally conclusions, discussions, limitations and inputs for further research are pointing out the findings of this study (chapter 5 and 6).

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[37] See Lane and Probert (2004), p. 243; Lane and Probert (2006), p. 35; Abecassis-Moedas (2007), p. 292; Bruce and Daly (2011), p. 210
[38] See Textilwirtschaft (2012), p. 8

2. Theoretical framework: The nature of supply chains of the German mass-market fashion apparel industry

2.1 Market profile: The German mass-market fashion apparel industry as the highest retail sales sector in Europe

"Germany is quite definitely one of Europe's most important markets."

- Roberto Cavalli

According to the Textilwirtschaft (2013), Germany can be characterized as the most interesting sales market in Europe. Compared to other European countries, Germany has the highest turnover and market share (*Figure 1*).[39]

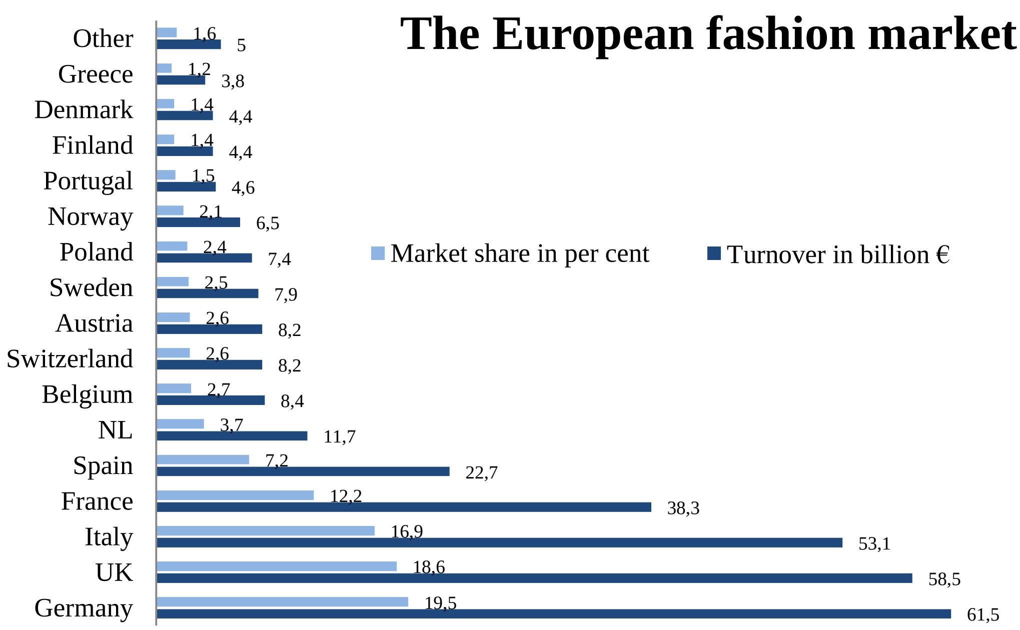

Figure 1: A comparison of the European fashion market

Source: Textilwirtschaft Media Kit (2013), p. 8

Additionally, Germany can be considered as an important key player in trading textiles and clothes. With an export quota of 42 percent, Germany is the third largest exporter of textiles and clothes worldwide, after China and Italy. In 2012, Germany counted exports of

[39] See Research and Markets (2013); Textilwirtschaft (2013), p.8

EUR 24.1 billion. Reaching textile imports of EUR 35.6 billion in 2012, the country is the second largest textiles importer after the United States.[40]

While focussing on the German market, the textile and clothing industry can be considered as being the second largest consumer goods market after the food and beverage industry, counting almost 1,200 small and medium sized organizations and about 120,000 employees in Germany.[41] Although experts recognized a downside trend in the past years, Research and Markets (2013) forecasts an increasing demand in fashion, encouraging customers' spending. Between 2013 and 2018, a growth of 9.4 percent is expected due to a more frequent purchasing behaviour, caused by increased competition and the availability of fashionable products.[42] The 'Gesamtverband textile + mode' also forecasts an increasing demand in German textile companies, due to their strong and innovative brands and designs.[43] In Germany, the group of textiles includes fashion and apparel textiles, functional and home textiles, as well as technical textiles offering solutions for the automotive, aviation, medical and the construction sector.[44] Today, the group of the German fashion and textile industry counts about EUR 28 billion annual sales and about 120,000 employees, with about 43 percent of annual sales coming from the fashion and apparel industry.[45] In 2013, the German fashion and apparel industry counted about 997 companies, reaching a sales volume of EUR 7.46 billion. Thus on average, every fashion and apparel company generated a sales volume of EUR 7.5 million.[46]

This research will focus on those textiles finding their application in the fashion sector, as this segment of fashion and apparel textiles obtains general public attention, due to several successful business strategies obtained from companies like Zara and Benetton.[47] "The fashion industry is complex in the sense that some companies merely are retailers, others combine retail with production, or with wholesale."[48] Additionally, the fashion apparel industry is very important in terms of volume, being one of the oldest and largest industries in the world.[49]

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[40] See Focus Medialine (2006), p. 27; Bundesministerium für Wirtschaft und Energie (2014); IXPOS (2014)
[41] See Gesamtverband textile + mode (2014); IXPOS (2014)
[42] See Research and Markets (2013); Bundesministerium für Wirtschaft und Energie (2014)
[43] See Gesamtverband textil + mode (2014)
[44] See German Trade Association (2009), p. 76
[45] See Gesamtverband textil + mode (2014)
[46] See Statista (2013)
[47] See Van der Veen et al. (2012), p. 46; Gesamtverband textil + mode (2014)
[48] Van der Veen et al. (2012), p. 46
[49] See Gereffi (1999), p. 40; Hines and McGowan (2002), p. 80

2.2 SCM as a key success factor in achieving sustainable competitive advantage

2.2.1 The emergence of SCM, its development as an important influence upon successful retailing strategies and operations and the importance of a focused strategy

Managing a supply chain, being a network including numerous businesses and connections, received increasing importance in theory and practice. Researchers recognized the effective management of supply chains being a key success factor for developing a competitive advantage. Thus, due to the growing attention in effectively managing the supply chain, the management of it cannot be left to chance anymore.[50]

In general, SCM incorporates the whole value chain and involves all activities associated with "(…) materials and supply management from the extraction of raw materials to its end of useful life"[51], describing that focusing on a single element of the chain does not assure the effectiveness it would have while considering the whole supply chain[52] and that the management of supply chains is a complicated task.[53] Factors as economic conditions, political regulations, laws, technological developments, trade agreements between different companies and most importantly the customers influence the degree of competition and cooperation within an economic system, which in turn effect companies' supply chains.[54]

Gaining competitive advantage, especially in the fashion apparel industry, is highly important. The effective management of supply chains, with the goal of being hard to imitate by competitive companies, is becoming a strategic management focus.[55] In general, the fashion apparel industry "(…) create[s] short-lived differentiation advantages that are easily and rapidly eroded through imitation and innovative new styles"[56], making it difficult to create such a competitive advantage.[57] A frequently mentioned capability resulting in a competitive advantage is the expansion and combination of knowledge and information.[58] A prominent example is the capability of a company to quickly respond to the market by reducing the market reaction time, supported by technological possibilities

[50] See Chen and Paulraj (2004), p. 136; Brun and Castelli (2008), p. 179
[51] Tan (2000), p. 40
[52] See Croom et al. (2000), p. 69; Chen and Paulraj (2004), p. 136; Hines (2004), p. 5
[53] See Wang and Chan (2010), p. 333
[54] See Hines (2004), p. 5, 26
[55] See Kotabe and Murray (2004), p. 7
[56] Richardson (1996), p. 400
[57] See Gereffi (1999), p. 44; Ünay and Zehir (2012), p. 318
[58] See Richardson (1996), p. 400

to rapidly learn, communicate and coordinate, in order to quickly imitate rapidly selling styles, rather than focusing on long forecast horizons.[59] Next to that, companies are facing a constantly changing nature of SCM strategies, due to increasing competition of international companies offering products and services fast and efficiently worldwide. Besides that, the fact that a significant amount of the production is outsourced to third companies located in other countries, increased the complexity of managing supply chains.[60] Additionally, the final customer is determining the actual success or failure of a given SCM strategy. "Getting the right product, at the right price, at the right time to the customer (…)"[61] has become a necessary condition for survival in current marketplaces. Scholars additionally expect an increasing competition between supply chain networks, instead of companies competing each other.[62] The message is that SCM needs to incorporate a strategy that satisfies all, the company, its products and the marketplaces the company is acting in.[63] Thus, companies should apply different SCM strategies to satisfy different patterns of demand. A so-called "one size does not fit all"[64] or a focused strategy for SCM is highly needed.[65] In the textile and apparel industry, the term supply chain is often explained by the term 'from concept to customer' or 'textile pipeline' (*Table 1*).[66]

Processing of raw materials	**Processing of textiles**	**Fashion apparel industry**	**Fashion apparel wholesale**	**Fashion apparel retail**	**Final customer**	**Waste disposal**
- Natural fibres - Synthetical fibres	- Fibre preparation - Yarn spinning - Yarn processing - Finishing	- Fashion apparel assembla ge	- Wholesale - Purchasing associations	- Specialized retail - Retailer chain stores - Department store - Mail-order - Self-service department stores - Others	- Private customers - Institutional customers	- Destruction - Second hand marketplaces

Table 1: The "textile supply chain" or the "textile pipeline"

Source: Loock (2008), p. 40[67]

Concluding, "the area of SC strategy actually is seen by fashion companies as an area where sustainable competitive advantages can be achieved."[68]

[59] See Richardson (1996), p. 400; Perry et al. (1999), p. 119
[60] See Halldorsson et al. (2007), p. 284
[61] Mason-Jones et al. (2000), p. 4061
[62] See Min and Zhou (2002), p. 231
[63] See Sharifi and Zahng (1999), p. 9, 21; Mason-Jones et al. (2007), p. 406; Brun and Castelli (2008), p. 169
[64] Brun and Castelli (2008), p. 169
[65] See Fisher (1997), p. 106; Lee (2004), p. 1; Brun and Castelli (2008), p. 169-171
[66] See Hines (2004), p. 5; Loock (2008), p. 39
[67] See Seuring (2004), p. 1063 for a similar presentation of a "textile supply chain"
[68] Brun and Castelli (2008), p. 178

2.2.2 Strategies and trends in the SCM of mass-market companies in the fashion apparel industry

2.2.2.1 Cost reduction focus, through sourcing in low labour cost areas versus in-house production and the influences of the TCE, RBV and KBV

In the last several years, the fashion apparel industry has been in modification, due to new entrants and innovative strategies arising from globalization. Increased imports from low-wage countries with similar quality and performance standards forced fashion apparel companies to come up with alternative strategies in order to stay competitive.[69] The wage differences between developed and low-developed countries pushed fashion apparel companies to adjust their value chains.[70] In this case, in-house production versus outsourcing is an important strategic choice in the fashion apparel industry – commonly known as the make or buy decision.[71] While making use of outsourcing, companies may gain cost advantages and shift parts of the risks associated with the production and related processes to third parties. In developed companies, especially Germany, the average costs per working minute are much higher than the costs in low-wage countries (*Figure 2*).[72]

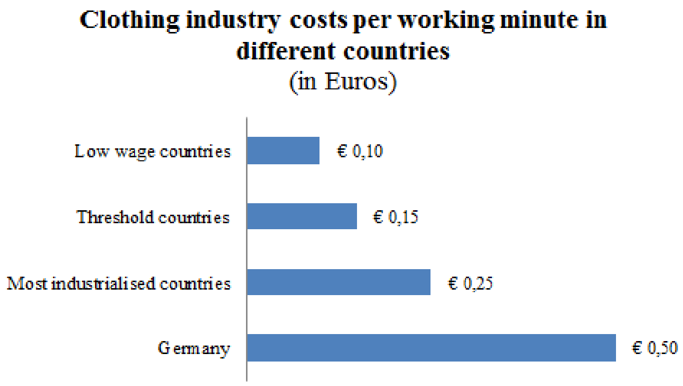

Figure 2: Clothing industry costs per working minute in different countries (in Euros)

Source: Lane and Probert (2006), p. 43 from Volksbanken Raiffeisenbanken (2003) Branchen Special, 32 (July)

This makes jobs in the production of fashion apparel items that do not require high skills, like sewing, almost disappear from more developed countries.[73] Especially in the fashion apparel industry, outsourcing is a frequently used strategy to cover those industrial

[69] See Adler (2002), p. 31; Matthes (2002), p. 1; Sen (2008), p. 590
[70] See Lane and Probert (2006), p. 43
[71] See Welch and Nayak (1992), p. 23; Lane and Probert (2006), p. 51; Abecassis-Moedas (2007), p. 293
[72] See Adler (2002), p. 32; Graafland (2002), p. 282; See Matthes (2002), p. 12; Dunford (2004), p. 14; Choi (2007), p. 521
[73] See Christerson and Appelbaum (1995), p. 1364; Lane and Probert (2006), p. 43

developments. Since the production of the majority of fashion apparel items does not require specific know-how, the relocation of the production is made possible.[74]

In fashion, a creative industry with short product life cycles and organizational success based on NPDs, the motives of either choosing for outsourcing or a vertical integration can be explained while integrating different theories. The most frequently mentioned motivation for companies to choose for a shift of their production to third parties is the cost reduction focus.[75] According to the Transactional-Cost-Economics (TCE), companies are searching for the lowest total costs,[76] influenced by the factors asset specificity, uncertainty and frequency of transactions.[77] In this more cost-oriented approach of outsourcing, the TCE, the option with the lowest total costs of ownership, either in-house production or outsourcing is chosen.[78] The focus on the company's core business might be another motivation for outsourcing, explained by the resource-based view (RBV). In the RBV, outsourcing is used to add value to non-core activities of the company[79] and concentrates on having valuable, rare, imperfectly imitable and non-substitutable resources.[80] While those non-core activities are outsourced to specialists, the company can concentrate on its core internal activities and can gain access to expertise outside of the organization.[81] The knowledge-based view (KBV) suggests that a company should chose for the option of outsourcing if knowledge gaps appear.[82] Additionally, the management of risk might be an additional driver of choosing outsourcing over vertical integration. The management of risk will play an increasingly important role within the activities of outsourcing, while mentioning that leading and innovative sourcing agents will increasingly incorporate risk management into their core strategies.[83]

[74] See Adler (2002), p. 35; Abecassis-Moedas (2007), p. 292
[75] See Navaretti et al. (2001), p. 452; Everaert et al. (2007), p. 723
[76] See Klein and Shelanski (1995), p. 337; Klein and Shelanski (1996), p. 282-283; Grossman and Helpman (2002), p. 86, 118
[77] See Williamson (1985), p. 367; Williamson (1992), p. 341-342
[78] See Klein and Shelanski (1996), p. 282-283; Lin et al. (2013), p. 297
[79] See Lin et al. (2013) p. 296; Kim (2013), p. 216
[80] See Barney (1991), p. 105-112; Hart (1995), p. 986
[81] See Grant (1991), p. 133; Hamel (1991), p. 83; Barney (1999), p. 145; Lin et al. (2013), p. 296
[82] See Grant (1996), p. 110; Cabrera-Suárez et al. (2001), p. 39; Ketchen and Hult (2007), p. 575-576
[83] See Abernathy et al. (2006), p. 2228-2229; Lane and Probert (2006), p. 64; Masson et al. (2007), p. 238; Vedel (2013), p. 518

2.2.2.2 Time reduction approaches and practices, resulting in shorter horizon forecasts, enabling the company to quickly respond to customer demands

An alternative or additional strategy to cope with the increasing competition of foreign fashion apparel companies is the demand driven strategy. This approach makes use of manufacturing facilities with physical proximities to the customers in order to quickly respond to their demands.[84] Local suppliers, sometimes in combination with others located offshore, are preferred in order to make a quick response to customers' and retailers' needs and replenish stocks accordingly.[85]

The demand driven approach is supported by technological innovations and business practices in order to achieve a highly flexible response to customer needs in such a volatile market as the fashion apparel industry. In order to achieve this strategy, Quick Response (QR) systems are used. "Quick Response refers fundamentally to speed-to-market of products which move rapidly through the production and delivery cycle, from raw materials and component suppliers, to manufacturer, to retailer and finally to end consumers."[86] While considering the need of reducing lead times and accomplishing a QR system, the use of lean, agile and 'leagile' approaches should be emphasised.[87] The lean manufacturing concept has its origins in the Toyota Production System, also known as the Kanban or just-in-time system, while focussing on the increase of production efficiency by eliminating waste.[88] Abernathy (2000) explained the differences of a lean retailer compared to the traditional retail model in the fashion apparel industry where orders were placed more than six months before the delivery of the goods. In lean retailing a replenishment of products in less than a week is required in order to fulfil varying customer demand.[89] The agile supply chain on the other hand can be characterized by being market sensitive[90] "(…) with the ability to respond to real time changes in demand."[91] The exchange of information between supply chain partners is necessary for the effective management of agile supply chains.[92] While traditional supply chains are more forecast driven and inventory-based, agile supply chains can be explained by being

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[84] See Sen (2008), p. 583
[85] See Bruce et al. (2004), p. 152
[86] Perry et al. (1999), p. 119
[87] See Bruce et al. (2004), p. 155-156
[88] See Ohno (1978), p. xiii; Naylor et al. (1999), p. 108
[89] See Abernathy (2000), p. 12-13
[90] See Christopher and Towill (2000), p. 208; Power et al. (2001), p. 247; Bruce et al. (2004), p. 154; Christopher et al. (2004), p. 9-10
[91] Bruce et al. (2004), p. 154
[92] See Power et al. (2001) p. 262 ; Bruce et al. (2004), p. 154

more information-based.[93] According to several scholars, the optimal solution would be the combination of the lean and agile principles. This combined version is called 'leagile' SCM incorporating both elements,[94] "(…) being able to respond quickly to changing markets [agile supply] and be able to provide quick replenishment [lean supply]."[95]

According to that, an important feature of this demand-driven approach is the advanced use of information and manufacturing technologies, making a huge amount of point-of-sales data available. According to these received information, companies are able to adjust their production to the customer demands, their "(…) preferences over styles and colors, their size distribution and the dynamics of sales."[96] Another advantage associated with the demand-driven strategy is the shift of risk related to changing customer tastes and needs from retailer to supplier. This reallocation of risk onto the supplier forces manufacturers to adjust their strategies associated with costs, planning, inventory, production and sourcing.[97] Often credited examples of fashion apparel companies bringing their products quickly to the market are the international fashion retailers Zara and Benetton, often referred as fast fashion retailers. The production of Zara is largely vertically integrated by making use of in-house production and a relatively small amount of products that is outsourced to small suppliers located in Spain and Portugal.[98]

2.2.2.3 Domestic versus off-shore production, the incorporation of a sourcing intermediary and the increasing importance of information technology

Next to the strategies in the SCM of the mass-market fashion apparel industry, either being cost-oriented, focused on the customer demand or using a complementary strategy of both, additional strategic choices and important aspects for each category are arising. Besides the make-or-buy decision, companies can either produce in domestic or in off-shore locations. Factors as "(…) production and purchase costs, inventory storage costs and transportation costs"[99] influence the choice of a location. In many cases, fashionable pieces are produced in local manufacturing facilities, while off-shore production is used for more basic fashion items.[100] Off-shore production might also incorporate potential risks due to the long distance transportation, such as "(…) exchange rate volatility, risks to duty preferences,

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[93] See Christopher et al. (2004), p. 8; Masson et al. (2007), p. 239
[94] See Naylor et al. (1999), p. 117; Bruce et al. (2004), p. 166
[95] Bruce et al. (2004), p. 154-155, 166
[96] Sen (2008), p. 590
[97] See Abernathy (2000), p. 5
[98] See Hines (2003), p. 114; Focus Medialine (2006), p. 27; Tokatli (2008), p. 21
[99] Sen (2008), p. 585
[100] See Masson et al. (2007), p. 244; Sen (2008), p. 576

social and environmental risks, and also political risks which became specifically evident in the protests in Bangladesh and Cambodia during the last year."[101]

When focusing on the reduction of lead time in order to quickly respond to customer demands, local suppliers are preferred offering an increasing responsiveness due to distance advantages.[102] While this option may incorporate higher costs, lower risks near sourcing locations can be achieved.[103] Again a decision between outsourcing, in-house production or a mixed strategy is necessary. Tokatli (2008) recognized that even fast fashion retailers can be assigned to one of these sourcing strategies. While fast fashion retailers such as Gap, H&M and Mango have no own manufacturing facilities making use of outsourcing, other retailers such as Benetton and Zara have in-house manufacturing competencies.[104]

Especially in the fashion apparel industry, companies using the strategy of outsourcing are frequently sourcing through intermediaries.[105] While some large retailers have managed to build their own buying offices in off-shore locations to manage their outsourcing process, the majority of companies is cooperating with sourcing agents.[106] "Many of the intermediaries are agents in the broadest sense of the word, with no manufacturing or logistics capability or assets whatsoever, but who do have access to an appropriate supplier network. They are in essence used to manage the supply network immediately downstream from the retailers, taking responsibility for the whole process of sourcing product from low-cost countries, and subsequently managing the logistics of delivery to the retailers' European distribution centres."[107] An important feature of using sourcing intermediaries, besides the price advantage, is the possibility to increasingly shift risks.[108] Especially young, entrepreneurial companies often lack experience and financial resources for the effective commercialization of their products on their own.[109]

Additionally, information technologies are becoming increasingly important for the demand-driven strategic approach, providing tools that allow people to accomplish their

[101] Rinnebach (2014), p. 2
[102] See Lowson (2001), p. 550-551; Kromer et al. (2013), p. 5-6
[103] See Rinnebach (2014), p. 3
[104] See Tokatli (2008), p. 24
[105] See Masson et al. (2007), p.247; Vedel and Ellegaard (2013), p. 518-519
[106] See Burgel and Murray (2000), p. 36; Abernathy et al. (2006), p. 2211-2212
[107] Masson et al. (2007), p. 247
[108] See Abernathy et al. (2006), p. 2229; Lane and Probert (2006), p. 64
[109] See Burgel and Murray (2000), p. 36

work more effectively.[110] Available technologies are capturing all data on the customer's demand to make a direct response possible. According to this, information technology is also able to share data between all supply chain partners,[111] constructing a "virtual supply chain".[112]

Next to that, the aspect of sustainability is gaining increasing importance, influencing the strategic choices of fashion apparel companies. A growing amount of social-conscious consumers is demanding and also willing to pay more for green products that are ethical and environmental friendly along the whole SC of fashion apparel products.[113] Pookulangara and Shephard (2013) describe a movement associated with sustainable SCM as the 'Slow Fashion' movement, a counteraction to the market dominating concept of fast fashion, resulting in overconsumption by customers buying more than they actually need.[114] Thus, the image of companies, their attitude towards customers and their relationships are increasingly influenced by their sourcing strategies.[115]

2.2.2.4 Concluding: Strategic decisions influencing the combinations of in-house and third-party manufacturing, as well as the locational choices of the production

In this context, there is "(…) a variety of situations combining the organisational (internal versus external [production]) dimension [also known as the make-or-buy decision] and the location (domestic versus international [off-shore]) one (*Table 2*)."[116] Of course, the motivation for a company to outsource or not depends on the company's overall sourcing strategy, influenced by factors and motivators, such as firm size, ethnicity, logistical issues, financial evaluations, efficiency, trade regulations and risk considerations.[117] However, the most prominent motivation is that of reducing costs, as mentioned by the TCE, and the access to expertise the company does not owe yet (RBV).[118]

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[110] See Swartz (2000), p. 124
[111] See Christopher (2011), p. 94-95 and 144-147
[112] Christopher and Towill (2000), p. 208; Christopher (2011), p. 142-144
[113] See Brito et al. (2008), p. 550 ; Seuring and Müller (2008), p. 1699; Kahn (2009); Pookulangara et al. (2011), p. 480-481; Nagurney and Yu (2012), p. 532, 539
[114] See Pookulangara and Shephard (2013), p. 200
[115] See Ganesan et al. (2009), p. 85
[116] Abecassis-Moedas (2007), p. 293
[117] See Fill and Visser (2000), p. 43; Tayles and Drury (2001), p. 606; Kotabe and Murray (2003), p. 9; Kim and Rucker (2005), p. 1; Parmigiani (2007), p. 304
[118] See Fill and Visser (2000), p. 44; Navaretti et al. (2001), p. 466; Grossman and Helpman (2002), p. 86, 118

Organisation/location	IN (domestic)	OUT (offshore)
IN (in-house)	In-house and domestic	In-house and offshore
OUT (outsourced)	Outsourced and domestic	Outsourced and offshore

Table 2: Relocation configurations according to organisation and location

Source: Abecassis-Moedas (2007), p. 297

But not in all cases, a company is necessarily selecting either the outsourcing or the in-house production strategy. A combination of both strategies is also possible, the so-called selective outsourcing strategy or the hybrid mode.[119]

While further differentiating within the categories of outsourcing and in-house production, an additional distinction can be made between the domestic production and production at off-shore locations. Forney, Rosen and Orzechowski (1990) identified that lead time was the most important criterion for selecting a production location for domestic firms, while overseas firms focused more on the aspect of costs. For both groups, the quality control criterion has been considered as being highly important.[120] The aspect of forecasting, as mentioned by Thomassey (2010), has gained special importance in the fashion apparel industry as well,[121] just as the time-to-market.[122] With outsourcing to off-shore locations the time-to-market and the sales forecasts might be longer, whilst domestic in-house production could manage a shorter time-to-market and due to higher flexibility shorter forecast horizons.[123]

In this case, fashion apparel companies are facing a strategic dilemma. On the one hand, companies are forced to source or produce in low-wage countries to achieve cost advantages, on the other hand, the strategy of outsourcing and the production in off-shore locations is resulting in longer lead times, increasing the total response time.[124] According to that, literature recognized a shift from companies that increasingly focus on the reduction of lead times in order to quickly respond to the customer demand, instead of long forecast horizons.[125]

[119] See Parmigiani (2007), p. 304; Bruce and Daly (2011), p. 217
[120] See Forney et al. (1990), p. 39
[121] See Thomassey (2010), p. 470
[122] See Christopher and Peck (1997), p. 63; Abernathy et al. (2006), p. 2217
[123] See Lowson (2001), p. 550-551
[124] See Christopher and Peck (1997), p. 63; Abernathy et al. (2000), p. 12-13; Christopher and Towill (2000), p. 208; Christopher et al. (2004), p. 1-3
[125] See Christopher et al. (2004), p. 4; Christopher (2011), p. 101

2.3 Trends in different purchasing and retail channel strategies in the fashion apparel industry

2.3.1 Different retail formats are used to exploit the contact between products and customers, ranging from mono-brand stores to department stores

Additionally, different combinations of retail formats are used by fashion apparel companies to reach their final customers, exploit their interaction with them and increase their brand awareness. In order to target different customer segments accordingly, different kinds of formats are used, ranging from mono-brand stores, to department stores, to flagship-stores, to specialist stores, to online shops.[126] According to the Textilwirtschaft (2014), specialist stores and clothing retails are dominating the German fashion apparel market.[127] See appendix A, *figure 5* for a detailed breakdown of marketing channels in textiles and apparel by respective share of retail sales.

Retailing being one of the final stages of the supply chain, connects the company owning the brand and the retail organisation. The overall business strategy of a company also contributes to the combination of retail channels that are used.[128] According to that, the right alignment between the retail format and the company's image is necessary to assure a sustained competitive advantage and customers' loyalty.[129] Of course, the strategic choice on either close-to-market sourcing or off-shore sourcing, just as the focus on either outsourcing or in-house production may also influence the chosen retail format.

According to that, Loock (2008) differentiates between two different strategies in the sector of the fashion apparel, the fashion apparel industry and the fashion apparel retail trade. Fashion apparel companies that are designing, producing and selling their products to the group of fashion apparel retail trade companies are characterized as being active in the fashion apparel industry. Nowadays, these companies either produce their products in own manufacturing facilities (in-house production) or making use of third part manufacturers by sourcing out parts of their supply chain. On the other hand, companies in the fashion apparel retail trade are selling products directly to the final customer, having an intermediary function between the fashion apparel industry and the final customer. An increasing amount of companies acting in the fashion apparel industry is also present in the retail trade of fashion apparel products by making use of forward integration, running their

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[126] See Guy (1998), p. 255-256; Moore et al. (2000), p. 919
[127] See Textilwirtschaft (2014), p. 9
[128] See Guy (1998), p. 255-256; Brun & Castelli (2008), p. 171, 173
[129] See Moore et al. (2000), p. 919; Brun & Castelli (2008), p. 171

own and independent retail shops. Retail trade companies, on the other side, are making increasing use of backward integration by producing their own collections. According to that, in most cases, an explicit separation between companies acting in the fashion apparel industry and those in the retail trade is not possible anymore.[130] Thus, companies are either distributing their products nationally or "(…) internationally via wholesale arrangements to third-party retailers"[131], as well as by own retail channels or a mixture of both opportunities – "sometimes the same retailer uses different entry mechanisms for different store formats (…)."[132] The decision on the combination of retail formats depends on a variety of factors, such as entering a new market, intending to grow in an existing market, the accessibility of a logistical structure, the availability of networks and the activity of competitive companies.[133]

2.3.2 Fashion apparel retail trade: Retailers with multi-branded stores

2.3.2.1 Fashion apparel retailers, acting as an intermediary between manufacturer and final customer, with a buying department responsible for the purchase of finished garments

This category incorporates different retail formats having one aspect in common, selling already finished garments in multi-branded stores. This might be department stores in the fashion apparel industry but also non-clothing retailers, being apparel retailers with either a physical multi-branded store selling offline, retailers selling online ("internet pure players"[134]) while using the possibilities of the internet or a combination of both. These retailers are varying from independent and giant to medium-sized, often regional chain department stores and specialized clothing retailers.[135] Well-known German companies that can be accounted to this category are retailers such as Peek & Cloppenburg, Breuninger, Reischmann, Lafayete, KaDeWe, Karstadt and Galeria Kaufhof, but also Zalando, Baur and Otto.

In 2005, companies in the fashion apparel retail trade were generating a turnover of about EUR 27 billion. Department stores were responsible for almost EUR 7.1 billion and mail order companies reached a turnover of about EUR 8 billion, taken together accounts for about 27 percent of the total sales of textiles in 2005. Additional competition is coming

[130] See Loock (2008), p. 41-44; Sen (2008), p. 582
[131] Moore et al. (2000), p. 925
[132] Dawson (2001), p. 259
[133] See Dawson (2001), p. 259-260
[134] Schwarzl and Wünnenberg (2014), p. 4
[135] See Lane and Probert (2004), p. 257

from companies outside of the fashion apparel industry, like supermarkets and chemist's shops, whose market share is increasing.[136] In 2006, the turnover coming from these companies outside of the fashion apparel industry counted 13.3 percent while being compared to the total turnover of the fashion industry.[137]

2.3.2.2 Trends for fashion apparel retailers with multi-branded stores: Innovative technologies, omnichannel fulfilments and backward integration

The growing digitalization and new mobile devices capable of connecting to the internet changed customers' buying patterns and purchasing behaviours. An increasing amount of customers prefers online shopping instead of going to physical stores located in shopping centres. Especially the amount of customers that are first searching online for further information and price comparisons before buying the product offline in a physical store, is growing rapidly[138] ("ROPO" - Research Online Purchase Offline[139]).

The increasing importance of digital trade and customers demanding a variety of products anytime and anywhere, forces companies to redesign their supply chains facing growing numbers of new product flows and service requirements.[140] In order to compete in this challenging marketplace, retailers recognize an increasing demand of the further development of omnichannel fulfilments.[141] Omnichanneling, meaning cross-channel shopping and fulfilment will continue to accelerate significantly within the next few years, making a suitable product information system key component of mastering the huge amount of data generated across several channels. Additionally, retailers need to make advantage of their stores in order to fulfil omnichannel needs.[142] Their stores need to "(…) satisfy customer needs by reducing the likelihood of out of stocks, increasing sales and reducing the need to drastically mark down leftover merchandise at season's end."[143] In order to make sure that every product is available to fulfil both profitability and customer experience, inventory across the several channels need to be increased.[144] According to Kurt Salmon (2013), "if supply chain leaders can deliver on five key imperatives—increasing speed, supporting customization, sourcing shifts, internationalization and omnichannel—they will be in an unprecedented position to drive top-line business growth

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[136] See Focus medialine (2006), p. 21; Commerzbank – Group Risk Management (2011), p. 16
[137] See Textilwirtschaft (2007)
[138] See Schwarzl and Wünnenberg (2014), p. 2-3
[139] Schwarzl and Wünnenberg (2014), p. 4
[140] See Kurt Salmon (2013), p. 6; Schwarzl and Wünnenberg (2014), p. 2-3
[141] See Kurt Salmon (2013), p. 6; Schwarzl and Wünnenberg (2014), p. 4; Tailorit (y.u.), p. 3
[142] See Kurt Salmon (2013), p. 6; Tailorit (y.u.), p. 7
[143] Kurt Salmon (2013), p. 6
[144] See Kurt Salmon (2013), p. 7

now and for years to come."[145] According to that, customer satisfaction is highly influenced by their perception of an integration between both, online and offline channels.[146] Additional technologies at the POS can support purchasing decisions.[147] Especially, internet pure players, such as Zalando, Amazon and other small, agile and creative start-ups are setting highly innovative standards concerning omnichannel fulfilments, influencing traditional fashion apparel trading companies. Key to their supply chain strategy is their innovative technological system.[148]

Additionally, Gereffi (1999) recognized that "the global retailing industry is dominated by large organizations that are moving toward greater specialization by product (the rise of specialty stores that sell only one item, such as clothes, shoes, or office supplies) and price (the growth of high-volume, low-cost discount chains)."[149] Especially those sales areas dedicated to shop-in-shop concepts for exclusive and popular brands are increasing in department stores.[150] Further competition is coming from new entrants of foreign retail chains. Companies like Primark, Bershka and Abercrombie & Fitch changed the market and the customer shopping behaviour – customers are continuously looking for new product lines and ideas. Especially, those companies that are increasingly verticalizing are exerting additional pressure on the fashion apparel industry.[151]

In the recent years, an increasing number of fashion apparel retailers with multi-branded stores started producing their individual collections by creating their own brand names, eliminating some middlemen.[152] Due to the backward integration of those retailers, it is hard to make a clear distinction between fashion apparel retailers with solely multi-branded stores and those companies being active exclusively in the fashion apparel industry.[153] In most cases, this trend can be recognized within both categories, the fashion apparel retail trade (backward integration) and the fashion apparel industry (forward integration), as described in the following two sections 2.3.4 and 2.3.5.

[145] Kurt Salmon (2013), p. 7
[146] See Schwarzl and Wünnenberg (2013), p. 13; Tailorit (y.u.), p. 7
[147] See Schwarzl and Wünnenberg (2013), p. 17
[148] See KPMG (2012), p. 47; Schwarzl and Wünnenberg (2013), p. 4, 14
[149] Gereffi (1999), p. 44
[150] See Focus medialine (2006), p. 23
[151] See Commerzbank – Group Risk Management (2011), p. 1; KPMG (2012), p. 46
[152] See Gereffi (1999), p. 45; Hines and McGowan (2002), p. 80; Sen (2008), p. 582; Commerzbank – Group Risk Management (2011), p. 18
[153] See Loock (2008), p. 41-44; Sen (2008), p. 582

2.3.3 Fashion apparel industry: Companies outsourcing their production

2.3.3.1 Fashion apparel companies with their own buying department responsible for the purchase of fabrics, materials or garments, but whose production is contracted out to third parties

The majority of European fashion apparel companies can be assigned to this category while outsourcing parts of their supply chains to low-wage cost suppliers located all over the world,[154] also called the "manufacturers without factories".[155] "The clothing firm designs the product and buys the fabric, and the contractor cuts, manufactures and trims [the fabric], (…) [making] the clothing manufacturers (…) the middlemen between the retailers and the offshore factories."[156] While not owning any manufacturing facilities, these companies rather focus on "(…) the design, planning and marketing functions of the supply chain."[157] Lane and Probert (2004) characterize these companies as "(…) 'co-ordinated firms', i.e. as firms which co-ordinate the whole value chain, from design to distribution of final products, but which do not necessarily undertake all steps in-house."[158] Thus, this category refers to fashion apparel companies making use of third party manufacturing, either locally or in off-shore production locations, incorporating both companies with own stores and those with no own stores.

In general, China is still the most important sourcing location, although the total costs in this region increased by 160 percent from 2005 to 2013. Due to increasing costs in the Far East and its proximity to Europe, Turkey remains on the third position (*Figure 3*).[159]

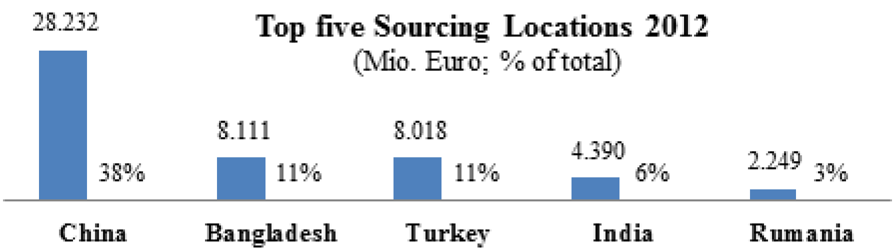

Figure 3: Top 5 Sourcing Locations 2012 (Mio. Euro and % of total)

Source: Kurt Salmon (2013), p. 3 (from Eurostat)

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[154] See Lane and Probert (2006), p. 56; Masson et al. (2007), p. 244
[155] Gereffi (1999), p. 46
[156] Abecassis-Moedas (2007), p. 297
[157] Masson et al. (2007), p. 244
[158] Lane and Probert (2004), p. 244
[159] See Rinnebach (2013), p. 2-3; Deutsche Post DHL and Buck Consultants International (2012), p. 7; Kurt Salmon (2013), p. 5

2.3.3.2 Trends for companies with an outsourced production: Cost reduction, risk shifting to sourcing intermediaries and sustainability

Offering relatively high flexibility, while taking into account the possibility of switching from one supplier to another, low capital investments and great control, outsourcing parts of the production to third party suppliers is becoming a frequently used practice in the fashion apparel industry.[160]

Due to an increasing variety of products requiring a quick introduction to the market, which in turn needs a greater amount of skills and abilities, companies might tend to outsource parts of their production. But this variety, resulting from an increasing number of products and a growing volume per product, requires the management of a large network of suppliers.[161] To handle this complexities, companies increasingly rely on sourcing agencies handling their import and export activities, "(…) have[ing] product technical expertise, knowledge of and access to an existing supplier network, and almost always offer a complete sourcing and logistics service with local expertise to overcome many of the problems of complexity, [being] one of the key value-adding players in the fashion supply chain."[162] Additionally, by passing responsibilities in the sourcing locations to those intermediaries, risk is managed effectively and their access to a large supplier base is enhancing flexibility.[163] But companies might also directly cooperate with offshore factories to reduce prices and decrease lead times.[164] Most commonly, companies are sourcing off-shore in low labour cost areas with similar quality and performance standards to reduce costs and manage risk effectively.[165] Additionally, a gap in the value chain coming from lacking domestic suppliers or customers might force fashion apparel companies to choose for offshore manufacturing.[166] On the other side, companies might choose for outsourcing in physical proximities to quickly respond to customer demands.[167]

Additionally, the issues of green and sustainable SCM activities has gained increasing interest in recent years, especially for outsourcing companies, becoming an important factor just as product quality, flexibility and reliability.[168] Well-known fashion apparel

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[160] See Lane and Probert (2006), p. 56
[161] See Masson et al. (2007), p. 247
[162] Masson et al. (2007), p. 247
[163] See Masson et al. (2007), p. 251
[164] See Abecassis-Moedas (2007), p. 297
[165] See Cachon and Swinney (2011), p. 781
[166] See Abecassis-Moedas (2007), p. 297
[167] See Christopher and Peck (1997), p. 63; Abernathy et al. (2000), p. 12-13; Christopher and Towill (2000), p. 208; Lowson (2001), p. 550-551; Christopher et al. (2004), p. 1-3
[168] See Kurt Salmon (2013), p. 6

firms like Nike, Levi Strauss, Benetton, C&A and Adidas have been made responsible for problems occurring within their supply chains while producing fashion products.[169] Especially brand-owning companies are blamed for environmental and social issues concerning their entire supply chains.[170] Outsourcing parts of the supply chain to third companies also increases the risk of losing the transparency and control of all supply chain activities involved.[171] With regards to the incorporation of sustainability in the entire SCM activities, outsourcing companies are "(…) under enormous pressure to ensure that (…) [their] production adheres to socially and environmentally responsible standards (…)."[172] Thus, the proper management of sourcing locations in the several countries and the selection of appropriate suppliers is necessary to assure a high degree of control within all parts of the supply chain.[173] Analytical and other technology-based solutions, just as "PLM systems will play an important role by enabling retailers and brands to better plan and to increase the degree to which they collaborate with their suppliers on the SKU level."[174]

In general, the key drivers for companies choosing for strategic outsourcing is the cost reduction factor. But outsourcing does also incorporate a relatively long planning horizon. While working with third party manufacturers, who need to schedule the production as well, companies need to incorporate a relatively long forecast horizon.

2.3.4 Fashion apparel industry: Companies with self-owned facilities for manufacturing

2.3.4.1 Fashion apparel companies with both their own buying department responsible for the purchase and production of all materials and products and their own facilities for manufacturing

Today, only a small majority of companies is choosing for the operation of fully owned manufacturing facilities. According to Lane and Probert (2006) interviewing German fashion apparel companies, no responding firm has adopted the strategy of solely relying on fully owned in-house production.[175] While being dependent on self-owned manufacturing, the flexibility of companies might be restricted while taking into account geographical movements and the response to customer demands and emerging fashion trends. Additionally, the "(…) maintenance and employment costs during quiet periods in

[169] See Seuring and Müller (2008), p. 1699
[170] See Seuring and Müller (2008), p. 1699
[171] See Sheu et al. (2005), p. 288; KPMG (2012), p. 46
[172] Kurt Salmon (2013), p. 6
[173] See Gereffi (1999), p. 47; Kurt Salmon (2013), p. 4
[174] Kurt Salmon (2013), p. 4
[175] See Lane and Prober (2006), p. 52

the fashion and production cycles"[176] might also hinder companies to fully own their manufacturing facilities. Frequently cited examples that have been studied by many scholars are the innovative strategies of fast fashion retailers, who can also be assigned to the categories of either no manufacturing competencies of their own or companies with factories and those competencies. The latter category is represented by fast fashion companies like Benetton and Zara, often called the 'New Verticals'.[177]

2.3.4.2 Trends for companies with in-house production: Control mechanisms, fast fashion and the issue of sustainability

Although, the number of companies that have chosen for the operation of self-owned manufacturing facilities is relatively low while being compared to those pursuing the outsourcing strategy, companies derive major advantages of this strategy. A key advantage motivating companies to choose for self-owned manufacturing facilities is the aspect of control.[178] Especially when a company has proprietary knowledge or brands creating a competitive advantage, a tightly controlled supply chain is preferred to avoid these information will be leaked outside.[179] While the in-house production in off-shore locations is primarily chosen for cost reduction reasons, the self-owned manufacturing facilities in physical proximities might by chosen to reduce lead times in order to quickly respond to customer demands. The latter strategy is frequently conducted by a great portion of the group of fast fashion companies, well-known as the 'New Verticals', which are preferring the control of the whole supply chain, including self-owned manufacturing facilities and the opening of own retail shops to remain independent from powerful retailers.[180] In order to match the supply with the uncertain customer demand, those companies drastically decrease lead times by near shoring.[181] Fast fashion companies can be characterized by two aspects, firstly, their short production and distribution lead times by making use of advanced information technologies and producing in domestic or close production locations and, secondly, by closely monitoring customers' preferences and the industry's demands and characteristics, a highly trendy product is designed.[182] While being compared to traditional fashion retailers that are more forecast driven with a production lead time on the order of about 6-12 months, fast fashion retailers have shorter lead times in order to

[176] Lane and Probert (2006), p. 52, 56
[177] See Lane and Prober (2006), p. 48; Tokatli (2008), p. 24; Cachon and Swinney (2011), p. 778, 781
[178] See Murray and Kotabe (1999), p. 805; Lane and Probert (2006), p. 52
[179] See Kim (2013), p. 226-227
[180] See Lane and Probert (2006), p. 48; Tailorit (y.u.), p. 5
[181] See Deutsche Post DHL and Buck Consultants International (2012), p. 7
[182] See Cachon and Swinney (2011), p. 778

quickly cover with trends.[183] Quick response systems with "(…) the ability to procure additional inventory after obtaining updated demand information, albeit at a higher unit cost than the initial order"[184] are providing valuable support. Although, this strategy might be more cost intensive, due to the placement of a large amount of in-house designers and costly local labour, the localized production and the use of advanced shipping methods when needed,[185] fast fashion retailers might manage to "(…) reap additional benefits by minimizing strategic behavior, more so even than employing either production strategy by itself."[186]

Additionally, as well as the other categories of purchasing and producing strategies, for companies maintaining self-owned facilities for manufacturing, social responsibility within the management of supply chains is gaining increasing importance. Due to a growing pressure coming from diverse stakeholders, environmental and social initiatives are becoming highly important for brand-owning companies.[187] Especially in the fashion apparel industry, the accounting of environmental emissions during the transportation and distribution of the product from the plant location to the distribution centres and to the several demand markets have been recognized as an issue for guaranteeing a sustainable supply chain.[188] While in-house production increased transparency and the control instances and possibilities, sustainability might be easier implemented and assured. Also in this case, analytical and other technology-based tools might support the accomplishment of sustainable products and production.[189] Developments in the fashion apparel market, especially the growth of vertical oriented companies, has weakened the classical sales channels. In order to ensure the management of supply chains that is efficiently integrated, companies in the fashion industry using either strategic outsourcing, in-house production or a combination of both are increasingly using forward integration. By operating and expanding their own and independent retail channels, companies are strengthening their retail activities.[190]

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[183] See Cachon and Swinney (2011), p. 781
[184] Cachon and Swinney (2009), p. 497
[185] See Cachon and Swinney (2011), p. 793; Tailorit (y.u.), p. 6
[186] Cachon and Swinney (2011), p. 793
[187] See Beamon (1999), p. 334-335; Sarkis (2003), p. 397; Kleindorfer et al. (2005), p. 482; Linton et al. (2007), p. 1075; Seuring and Müller (2008), p. 1699
[188] See Nagurney and Yu (2012), p. 533, 539
[189] See Kurt Salmon (2013), p. 6
[190] See Loock (2008), p. 41-44; Sen (2008), p. 582; Commerzbank – Group Risk Management (2011), p. 17; Deutsche Post DHL and Buck Consultants International (2012), p. 6

In many cases, companies do not solely rely on this strategy, but combine in-house production with outsourcing other parts.[191]

2.3.5 Summary of relevant elements: What all these groups have in common

Concluding, there are some key trends mentioned by literature that are important for all of those three strategic purchasing and production categories.

Being market sensitive by using elements of agile SCM is gaining increasing importance for all fashion apparel companies. By closely observing customer demands and competitive products, companies try to identify fashion products that might be successful in the future.[192] Of course, a reliable and well-organized supplier network is allowing the flexibility needed to realize short lead times.[193] “They must, moreover, build country and supplier portfolios that on one hand meet their needs in terms of quality, flexibility and raw materials, and on the other benefit from the cost savings offered by aspiring and newly developing sourcing regions whenever possible.”[194] According to Kromer et al. (2013), companies have two geographical choices concerning their product supply, either shifting the production to low-wage countries or locating the production in domestic manufacturing facilities to increase speed-to-market. This strategic choice is influenced by several factors, as the duration of the production (long term versus short term), the duration of the design cycle (long term versus short term) and the costs involved (*Table 3*).[195]

Design-cycle (short / €€€€)

Production (long / €)

Testing and Scaling	Fast Programmes
> Planning reliability: low	> Planning reliability: high
> Marge: low	> Marge: very low
> Number of styles: high	> Number of styles: low
> Volume: low	> Volume: low
Standard	Waiting and Reacting
> Planning reliability: high	> Planning reliability: low
> Marge: high	> Marge: low
> Number of styles: average	> Number of styles: average
> Volume: high	> Volume: high

Production (short / €€€

Design-cycle (long / €)

Table 3: The four approaches of low-cost versus near-shoring supply

Source: Kromer et al. (2013), p. 7

In addition to that, Gereffi (1999) points out that the geographical expansion of a company also depends on the company’s overall business strategy. While less expensive products

[191] See Lane and Probert (2006), p. 52
[192] See Masson et al. (2007), p. 251; Kromer et al. (2013), p. 6
[193] See Masson et al. (2007), p. 251
[194] Kurt Salmon (2013), p. 6
[195] See Kromer et al. (2013), p. 5

are "(…) pushed into lower-cost production sites, and (…) the higher price points of fashionable retailers reflect more complicated products and differentiated styles."[196]

But the majority of traditional fashion apparel companies is not manufacturing in local manufacturing facilities anymore. Due to their increased off-shore manufacturing, companies establish other value-adding activities in order to stay competitive. Scholars mention four key strategies being important for fashion apparel companies.[197]

1) In order to strengthen the national and international brand image, companies might operate in market niches, bringing whole collections to the market including matching clothes and accessories.[198]
2) By quickly responding to customer demands, fast deliveries and introducing an increased number of collections per year, companies are more strongly customer oriented. Quick responding integrated forecast systems are a key component for fashionable products in need for relatively short lead times.[199]
3) In order to improve their control over the last stages of the value chain, fashion apparel companies are increasingly making use of forward and backward integration, by running their own and independent retail shops or producing their own collections.[200] In this case, omnichannel retailing is a widely used SCM practice.[201]
4) While internationalization is gaining great importance, companies are opening new retail shops in developed countries. In order to provide sufficient and proximate customer service, companies tend to locate additional offices and shops in those importing countries.[202]
5) Additionally, companies need to make advanced use of technological opportunities. Kurt Salmon (2013) points out that "the winners will be those retailers and brands that succeed in establishing a consistent information and coordination process (…)."[203]

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196 Gereffi (1999), p. 40
197 See Lane and Probert (2004), p. 256; Abecassis-Moedas (2007), p. 298
198 See Lane and Probert (2004), p. 256; Abecassis-Moedas (2007), p. 298
199 See Lane and Probert (2004), p. 256; Focus medialine (2006), p. 22; Abecassis-Moedas (2007), p. 298; Deutsche Post DHL and Buck Consultants International (2012), p. 4; Kromer et al. (2013), p. 3-4
200 See Lane and Probert (2004), p. 256; Abecassis-Moedas (2007), p. 299
201 See Kromer et al. (2013), p. 2-3
202 See Matthes (2002), p. 5-6, 12; Lane and Probert (2004), p. 256; Commerzbank – Group Risk Management (2011), p. 20; Deutsche Post DHL and Buck Consultants International (2012), p. 4; Kromer et al. (2013), p. 4-5
203 Kurt Salmon (2013), p. 6; also see Rinnebach (2013), p. 3

2.4 Theoretical framework: A conceptual model describing the trends in the SCM of mass-market companies in the fashion apparel industry

According to literature, a conceptual model can be drawn describing the key trends for the different strategies. In order to identify the those main trends, the motives for sourcing and locational strategies are influencing factors. Above other factors as the company's business strategy, its logistical possibilities, the firm size and ethnicity,[204] literature mentions seven key aspects that are influencing both, the make-or-buy decisions of fashion apparel companies and the strategic decision of the production location, either domestic or off-shore production, which in turn influence the trends within the different purchasing and retail channel strategies (*Figure 4*).

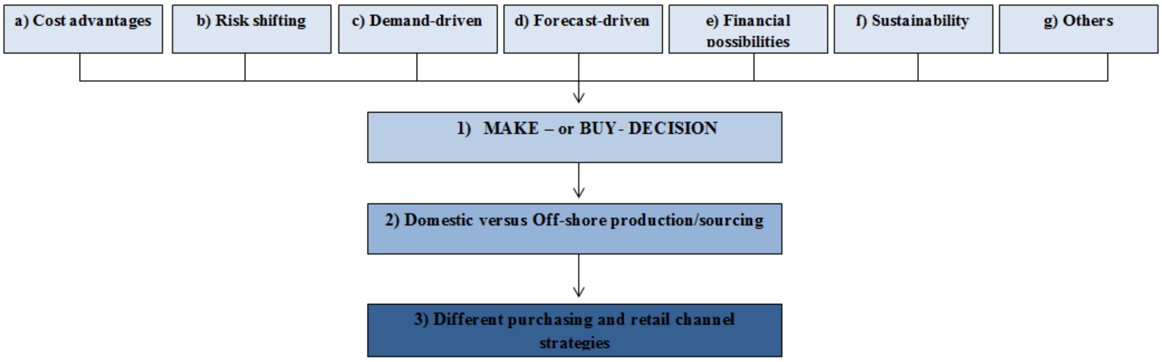

Figure 4: Influences on the strategic decision of purchasing and retail channels

Source: Own evaluation

According to the TCE, companies are searching for the lowest total costs of ownership. In order to achieve *cost advantages*, the production might be shifted to low wage countries.[205] Above that, *shifting risks* to third parties is also influencing the strategic choices of companies. The incorporation of sourcing agents[206] or the establishment of quick response systems to quickly adapt to changing customer demands might decrease risk considerations.[207] Being *demand-driven* to quickly respond to customer demands by short lead times instead of long *forecast horizons* is another important factor.[208] Additionally, the *financial possibilities* of a company – external sourcing requires less financial capital than

[204] See Fill and Visser (2000), p. 43; Tayles and Drury (2001), p. 606; Kotabe and Murray (2003), p. 9; Kim and Rucker (2005), p. 1; Parmigiani (2007), p. 304
[205] See Adler (2002), p. 32; Graafland (2002), p. 282; See Matthes (2002), p. 12; Dunford (2004), p. 14; Choi (2007), p. 521
[206] See Abernathy et al. (2006), p. 2228-2229; Lane and Probert (2006), p. 64; Masson et al. (2007), p. 238; Vedel (2013), p. 518
[207] See Abernathy (2000), p. 5; Rinnebach (2014), p. 3
[208] See Forney, Rosen and Orzechowski (1990), p. 39; Christopher et al. (2004), p. 4; Sen (2008), p. 583; Christopher (2011), p. 101

in-house production would need-[209] and the transparency of the SC to guarantee *sustainability* are becoming increasingly important.[210] See appendix A, *Table 7* for a detailed score card for each of the four sourcing and location strategies.

Table 4 highlights the trends for each of the three strategies mentioned by literature are:

Fashion apparel retail trade	Fashion apparel industry: Outsourcing	Fashion apparel industry: In-house production
…Backward integration	…Forward integration	...Forward integration
…Quick response	…Quick response	…Quick response
	…Sustainability	…Sustainability
…Omnichannel fulfilment	…High variety and flexibility	….Reduction of lead times
…Specialization by product and price	…Sourcing agents/intermediaries	…High control

Table 4: Trends for different purchasing and retail channels

Source: Own evaluation

While fashion apparel retail trade companies are increasingly integrating backwards by creating own brand names and eliminating the middlemen,[211] the fashion apparel industry is relying on forward integration by running their own and independent retail shops.[212] Additionally, sustainability is gaining increasing importance for the fashion apparel industry.[213] Within all three distinct groups, being market sensitive by closely observing the customer demands is mentioned as a critical point.[214] Key trends for fashion apparel retail trade companies are omnichanneling to cope with new trends coming from the growing digitalization[215] and the specialization by product (e.g. speciality store) and price (e.g. high volume, low cost discount stores).[216] Outsourcing companies in the fashion industry might increasingly use sourcing agents to manage risks effectively and make use

[209] See Tayles and Drury (2001), p. 605
[210] See Brito et al. (2008), p. 550 ; Seuring and Müller (2008), p. 1699; Kahn (2009); Pookulangara et al. (2011), p. 480-481; Nagurney and Yu (2012), p. 532, 539
[211] See Gereffi (1999), p. 45; Hines and McGowan (2002), p. 80; Sen (2008), p. 582
[212] See Loock (2008), p. 41-44; Sen (2008), p. 582
[213] See Sheu et al. (2005), p. 288; Kurt Salmon (2013), p. 6
[214] See Lane and Probert (2004), p. 256; Abecassis-Moedas (2007), p. 298; Masson et al. (2007), p. 251; Kromer et al. (2013), p. 3-4, 6
[215] See Kurt Salmon (2013), p. 6; Schwarzl and Wünnenberg (2014), p. 4, 13
[216] See Gereffi (1999), p. 45

of the agent's knowledge and network.[217] Next to that, the flexibility of switching from one supplier to another and the variety of the products is getting increasingly important.[218] Within the category of in-house producing companies in the fashion industry, a trend concerning the lead time reduction by producing in domestic locations to quickly respond to customer demands can be recognized.[219] Additionally, high control can be achieved while proprietary knowledge and competitive advantages are protected.[220]

[217] See Masson et al. (2007), p. 251
[218] See Lane and Probert (2006), p. 56; Masson et al. (2007), p. 247
[219] See Lane and Probert (2006), p. 48
[220] See Murray and Kotabe (1999), p. 805; Lane and Probert (2006), p. 52; Kim (2013), p. 226-227

3. Empirical findings: Key success factors and trends in the German mass-fashion apparel industry

3.1 Methodology: An explorative qualitative research combining semi-structured interviews with case studies

3.1.1 Type of study: An explanatory study to seek new insights

With the intention of answering the research question, an explorative qualitative study of the German fashion apparel industry is conducted utilizing key informant interviews. An exploratory research is most appropriate when a subject got less attention or is less understood, a possibility to research this topic shaping the research agenda.[221] A semi-structured interview approach with supply chain professionals in the mass-fashion apparel industry is combined with case studies from secondary research in order to understand how companies are acting and to show evidence for the validity of the conceptual model proposed by theory. Semi-structured interviews "(…) are well suited for the exploration of the perceptions and opinions of respondents regarding complex and sometimes sensitive issues and enable probing for more information and clarification of answers."[222] Additionally, the use of open and non-standardized questions is preferred as a result of the different backgrounds of the interviewees with regards to their professional, educational and personal qualifications.[223] Due to the fact that this is an exploratory study giving insights into a subject that has not been studied in detail so far, semi-structured interviews will allow new perspectives to develop freely and without any obstructions.

In order to avoid reliability and validity biases, the semi-structured interview method is applied correctly. The interviewer is not taking any leading position, but is able to lead the conversation to the topics necessary to be discussed. By asking probing questions, the interviewer is confirming the correctness of the interpretations of the answers. [224]

This research is conducted by first searching for relevant topics in literature and then talking to professionals in the fashion apparel industry. All interview questions evolved around the topic of trends in the mass-fashion apparel industry.

[221] See Ghauri and Gronhaug (2002), p. 88
[222] Barriball and White (1994), p. 330
[223] See Barriball and White (1994), p. 330
[224] See Aira et al. (2003), p. 271; van Aken (2007), p. 134-135; Babbie (2010), p. 277

3.1.2 Selection of samples for secondary data: Companies and interview partners

About 100 companies in the German mass-fashion apparel industry were contacted to explain the research purpose. When agreeing to cooperate, an appointment of about 30 to 60 minutes was scheduled for conducting the interview. The data collection phase continued until a point where no new insights and subjects develop, the saturation of the data.[225] In the end, for each of the three categories of supply chains in the fashion industry, about five extensive interviews were conducted, amounting to a total of 13 in-depth personal interviews. Key executives representing fashion buying, sourcing, merchandising and supply chain activities, but also, specialty retailer and owners of independent boutiques were chosen as the unit of analysis to receive information. All these respondents had several years of experience with the companies' supply chain activities, often spread across different product groups. *Table 5* gives an overview of companies falling into the three supply chain categories with the supply chain professionals being interviewed during the research. Additionally, the chief editor of the German Textilwirtschaft added his experiences concerning trends in the fashion apparel industry during an interview.

Fashion apparel retail trade	Fashion apparel industry: Outsourcing	Fashion apparel industry: In-house production
Baur Versand GmbH & Co. KG *(Department Manager Hero- & Textile Brands)*	**Blutsgeschwister GmbH** *(Head of Buying & Product Management)*	**Atelier Gardeur GmbH** *(Head of Global Sourcing & (Technical Manager of Producing & Sourcing)*
Reischmann GmbH & Co. KGaA *(Central Buying Men)*	**Brax (Leineweber GmbH & Co. KG)** *(Managing Director in Logistics, IT und Project)*	**ATS Gildehaus GmbH; EU Importeur DL1961** *(Owner)*
Weare GmbH *(Buying Assistant)*	**Kaufland Warenhandel GmbH & Co. KG** *(Head of Purchasing International)*	**Trigema** *(Managing Director)*
Hamm Reno Group GmbH *(Managing director)*	**Oui Gruppe GmbH & Co. KG** *(Product Manager)*	**Zara** (case study)
-	**Eisend Kids e.K.** *(Product Manager)*	-

Table 5: Interview partners for each of the three supply chain categories

Source: Own elaboration

In most cases, personal interviews were conducted. Due to locational and time difficulties, some interviews were also be held while using electronic devices and tools, i.e. telephone

[225] See Aira et al. (2003), p. 271; van Aken (2007), p. 134-135; Babbie (2010), p. 277

interviews or skype interviews. Due to the semi-structured nature of in-depth interviews, the interviews were tape-recorded and later transcribed for further analyses.

3.1.3 Conceptualization and operationalization

Conceptualization is "the mental process whereby fuzzy and imprecise notions (concepts) are made more specific and precise."[226] Thus, specifying those terms that used in the research.[227] *Table 6* is specifying the concepts of the interview accordingly. There were four major themes that emerged from the literature review which provided a framework for the development of the interview questions. These were: buying activities, outsourcing versus own production, supply chain strategies and future perspectives.

Title	Description
Supply Chain Management	SCM incorporates the whole value chain and involves all activities associated with "(…) materials and supply management from the extraction of raw materials to its end of useful life."[228]
Fashion apparel industry	Fashion apparel companies that are designing, producing and selling their products to the group of fashion apparel retail trade companies are characterized as being active in the fashion apparel industry. These companies either produce their products in own manufacturing facilities (in-house production) or making use of third part manufacturers by sourcing out parts of their SC.[229]
Fashion apparel retail trade	Companies in the fashion apparel retail trade are selling products directly to the final customer, having an intermediary function between the fashion apparel industry and the final customer.[230]
Outsourcing	"The clothing firm designs the product and buys the fabric, and the contractor cuts, manufactures and trims [the fabric], (…) [making] the clothing manufacturers (…) the middlemen between the retailers and the offshore factories,"[231] also called the "manufacturers without factories."[232]
In-house production	Companies producing in self-owned manufacturing facilities located either in lower-wage countries, in domestic locations or in a combination of both.[233]
Fast Fashion	"A consumer driven approach to supply chain management; (…) improve responsiveness of supply chains in the fashion industry have been made with

[226] Babbie (2010), p. 127
[227] See van Aken (2007), p. 71; Babbie (2010), p. 130
[228] Tan (2000), p. 40
[229] See Loock (2008), p. 41-44; Sen (2008), p. 582
[230] See Loock (2008), p. 41-44; Sen (2008), p. 582
[231] Abecassis-Moedas (2007), p. 297
[232] Gereffi (1999), p. 46
[233] See Lane and Probert (2006), p. 52

	introduction of concepts such as just-in-time, agile supply chains and quick response systems."[234]
Quick Response	"Quick Response refers fundamentally to speed-to-market of products which move rapidly through the production and delivery cycle, from raw materials and component suppliers, to manufacturer, to retailer and finally to end consumers."[235]
Mass-fashion apparel companies	Companies specialized in the mass production of clothing.
Trends	"A general direction into which something is developing or changing."[236]

Table 6: Conceptualization of constructs

Source: Own elaboration

While "conceptualization is the refinement and specification of abstract concepts, (…) operationalization is the development of specific research procedures (operations) that will result in empirical observations representing those concepts in the real world."[237] As this study is explorative in nature, while using semi-structured interview approach, there is no exact specification used that indicates the respondents approval or disapproval for different situations or questions. Instead, a more open way of asking questions was exploited to make new ideas develop without any obstructions coming from standardized possibilities to answer. The respondents were encouraged to freely discuss their views and experiences with trends in the SCM of mass-fashion apparel companies. Further, the interviews were conducted in a rather unstructured and non-standardized way. A list of questions according to the four major themes has been developed in advance in order to guide the process of the interview. The order of the questions of the interview were depending on the flow of the conversation, instead of the order given by the interview itself. Although, the order of the questions varied by respondent, it should be noticed that all interviewees had answered the same set of questions.

The interview questions and their motivations from literature are included in Appendix B.

[234] Barnes and Lea-Greenwood (2006), p. 262
[235] Perry, Sohal and Rumpf (1999), p. 119
[236] Oxford Dictionaries (y.u.)
[237] Babbie (2010), p. 139-140

3.1.4 Data analysis by using the 'coding' method

All interviews were recorded, transcribed for later analysis and coded. The transformation of information into analysable data is done using the 'coding' method, which is "(…) classifying or categorizing individual pieces of data."[238] In in-depth interviews coding can be used for the "(…) discovery of patterns among the data, patterns that point to theoretical understandings of social life."[239] During the coding process, memo writing and a dated codebook is used to guarantee a consistent use of codes and make later tracing and access to information and materials possible. Additionally, a guideline for coding with corresponding explanations and examples has been developed to ensure an appropriate process of coding. The guideline for coding has been included in Appendix C. According to this guideline, the process of coding was done by two persons who worked separately on the data while using the computer programme MAXQDA 11, in order to increase the reliability of the study. To guarantee a sufficient inter-rater-reliability between those two persons coding the data, Cohen's Kappa is calculated. In this case, Cohen's Kappa was 0.79, which is sufficient while being compared to the standard of 0.75.

Just as the data collection process, the data analysis phase was finished when no new concepts or links emerge while developing the categories, called theoretical saturation.[240] The transcribed interviews with the several companies were added to Appendix D.

3.1.5 Reliability and validity: strengths and possible threats

"The results of a study are reliable when they are independent of the particular characteristics of that study and can therefore be replicated in other studies."[241] Biases might occur within four different fields: The researcher, the instrument, the respondents and the circumstances of the research.[242] In order to increase the reliability of the study, two people were coding the data received from the interviews, which in turn resulted in a higher inter-rater reliability. Additionally, for each category of purchasing and production strategies different respondents were interviewed until no new insights emerged – by repeating measurements, the reliability has been increased.[243] Although a standardized questionnaire was prepared, a threat to reliability might be the use of open questions enabling the interviewer to influence the results of the study - the interviewees might

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[238] Babbie (2010), p. 400
[239] Babbie (2010), p. 400
[240] See Wolfswinkel et al. (2011), p. 51
[241] Van Aken et al. (2007), p. 158
[242] See Van Aken et al. (2007), p. 158
[243] See Van Aken et al. (2007), p. 158

respond in a way the interviewer would appreciate it. Different degrees of experience or knowledge might also be a disadvantage connected to this data collection method. Furthermore, the study has been carried out at one moment in time interviewing each correspondent only once, which might decrease the reliability concerning influencing circumstances.

"Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. (…) Validity means that we are actually measuring what we say we are measuring."[244] Validity includes three different concepts: Construct validity, internal validity and external validity. Construct validity measures the quality of the operationalization of a certain concept.[245] In order to assure a relatively high construct validity, this research intended to cover the complete concept of supply chain trends in the fashion apparel industry. Additionally, experts were asked to evaluate the measuring instruments, i.e. the interview questions. "Internal validity of the study is high when any of the actual causes of the business problem are found."[246] While studying the research question from different angles, i.e. the fashion apparel retail trade and the fashion apparel industry using outsourcing and in-house production, all possible cases might be discovered. This process is increasing the theoretical triangulation which in turn positively influences the internal validity. The generalizability of the research results and conclusions are determined by the external validity of the study.[247] By increasing the number of interviews and by using contrasting cases, the diversity of cases is relatively large, which in turn increases the external validity. The main advantage of this source is its validity, as the interviews measure what is intended to measure – these data are collected for this special research purpose only. Due to the fact that this research question has not been investigated in detail so far, this exploratory research might also incorporate risks. Due to a limited time and financial scope, a limited amount of companies has been interviewed. Although, at some point no new insights emerged, future research should further investigate this topic using a larger amount of distinct cases.

[244] Babbie (2010), p. 153
[245] See Van Aken et al. (2007), p. 163
[246] Van Aken et al. (2007), p. 165
[247] See van Aken et al. (2007), p. 165

3.2 Empirical findings: Results of the interviews for each purchasing and retail channel strategy

3.2.1 In-case analysis: Companies being interviewed

Atelier Gardeur GmbH

Founded in 1920, the German company Atelier Gardeur is specialized in offering high quality pants with a perfect fit for men and women. While producing about 70 percent of their articles in own manufacturing facilities in Tunisia, Atelier Gardeur can be characterized as an exception while the majority of fashion apparel companies is outsourcing their production to third parties. In total, the vertically integrated company Atelier Gardeur is employing about 2,000 employees in both, their headquarter in Mönchengladbach (Germany) and their two production locations in Tunisia. The other 30 percent of the production that is not produced in own manufacturing facilities, is outsourced to third parties located in Europe only. At this point of time, Atelier Gardeur is supplying about 3,000 customers in more than 50 different countries worldwide. The company is not operating own retail shops, but reaching their final customers through concepts as shop-in-shops in large department stores, mail order companies or their own online shop.[248]

ATS Gildehaus GmbH (EU Importer DL1961)

The company ATS Gildehaus was founded in 1913 and developed from a traditional weaving mill to a company trading in materials for the textile industry to an European importer of the American jeans brand DL1961. Thus, since 2009 ATS Gildehaus is importing and distributing products of the brand DL1961 in more than seven countries across Europe. The products of DL1961 are produced in own manufacturing facilities in America, employing around 5,000 people, making DL1961 a vertically integrated company. Each month, their self-owned manufacturing locations produce more than 3 million meter jeans fabric, amounting to a total of 15 million pants each year. At this point of time, pants of the brand DL1961 are available in more than 300 points of sale within Europe. Due to the specialization of DL1961 on pants only, there are no own operated DL1961 shops yet. Their products are available in boutiques, wholesale shops and online shops.[249]

[248] See interview no. 1, Appendix IV pages 1-11; Atelier Gardeur (y.u.)
[249] See interview no. 2, Appendix IV pages 12-18; DL1961 (y.u.)

Baur Versand GmbH

Founded in 1925, the company Baur Versand GmbH became one of the most popular German post-order companies. Baur developed from a company concentrating on selling articles through their catalogues to a company operating their own fully integrated online shop. At this point of time, their online presence accounts for more than 80 percent of their total sales volume. Next to third party brands such as Mexx, Adidas, Tom Tailor and s.Oliver, the Baur company developed own brands in order to distinguish themselves to other post-order companies. The production of their own brands Aniston, Cheer, Vivance and Corley is outsourced to third parties located in India, Thailand, Hong Kong, China and Turkey. Being a sub-company of the Quelle Group, Baur can use the worldwide Otto offices and their resources for producing in other foreign markets. In Germany in 2013, about 3,000 employees were working for the Baur Group, with their headquarter located in Burgkunstadt (Oberfranken).[250]

Blutsgeschwister GmbH

Since 2001, the company Blutsgeschwister creates clothes, accessories and home-wear for women and kids. The three symbols ‘the cross’, ‘the heart’ and ‘the anchor’ became well-known characteristics for the brand. The design and creative development of their collections is managed from Berlin, while all managerial functions, such as sales, accounting and the operation of the online shop, are located in Stuttgart. While the creative creation of the several products is done in one of their headquarters in Germany, the production is sourced out to third parties located in China, India or Turkey. Their products are sold through whole sale agreements, own retail shops and an online shop. Currently, Blutsgeschwister counts about 300 different whole sale customers, with 80 percent located in Germany. The other 20 percent of whole sale partners are mainly located in the Netherlands, Switzerland and Austria. Next to whole sale agreements, Blutsgeschwister is also reaching their final customers through ten own retail stores, two outlet stores and an online shop.[251] In 2012, about 70 people were working in the headquarters of Blutsgeschwister.[252]

[250] See interview no. 3, Appendix IV pages 19-30; Baur (y.u.)
[251] See interview no. 4, Appendix IV pages 31-40; Blutsgeschwister (y.u)
[252] See Textilwirtschaft (2012)

Brax (Leineweber GmbH & Co. KG)

Founded in 1888, the company Brax developed from a company concentrating on the production of pants only, to a brand offering whole outfits to their customers. Each year, the 1,141 employees of Brax create eight collections, amounting to a total of 6.5 million pants and 2.3 million upper parts. In 2013, a total of 8.9 million pieces were produced. According to Brax, their brand value is quality, reliability and the correct fit of their products. Within their headquarter located in Herford (Germany), Brax manages the development of the collections and products, but also the buying part of materials necessary for the production. The production is sourced out to manufacturing facilities located on four continents, amounting to a total of 35-40 production locations. After being produced, the articles are collected in Herford where being shipped to their 4,500 customers in more than 58 countries. The company Brax operates more than 100 own retail stores. Next to China, Belgium, Luxemburg and the Netherlands, Germany can be characterized as being the most important marketplace for Brax.[253]

Eisend Kids e.K.

Since 1983, the German company Eisend Kids creates dresses and fancy apparel for girls. The company is located in Gochesheim (Bayern) and operates in the B2B business. While not selling directly to the final customer, Eisend Kids reaches its customers, which are specialized shops, department stores, mail-order companies and other enterprises in Europe, through fairs, sales representatives, agents and their own online shop. At this point of time, Eisend Kids produces three different collection each year, a spring/summer collection, an autumn/winter collection and a festive collection. According to Eisend Kids, 90 percent of their production is sources out to the Far East, while 10 percent is still produced in small series in Gochesheim. Next to Austria and Switzerland, Germany can be characterized as being their most important marketplace. In the future, Eisend Kids is intending to further expand their international businesses, while cooperating with other online market place such as Zalando, Amazon, Babymarkt and Limango.[254]

Hamm Reno Group

The Hamm Reno Group specialized on selling all kinds of shoes and shoe-related accessories. Since 2005, the Hamm Reno Group consists out of two components, the wholesale business, while locating shop-in-shop concepts in large department stores such

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[253] See interview no. 5, Appendix IV pages 41-48; Brax (y.u.)
[254] See interview no. 13, Appendix IV pages 101-104; Eisend Kids (y.u.)

as Real, Metro and Wöhrl and the self-operated stores known under the name Reno. The Hamm Reno Group is available in more than 20 different countries worldwide, with about 2,700 points of sales and more than 6,000 employees in Europe. While concentrating on the division of 750 self-operated Reno stores, the group offers third party brands and own brands. Own brands such as Bama, Venturini, Sansibar, Chiemsee, Mercedes Schuhe are amounting to a total of 65 percent of the total shoes collection in the Reno stores. The production of their own collection is sourced out to production facilities located in China, India and Myanmar. On average, about 30 percent of the total sales of the Reno stores comes from transactions in their own online shop.[255]

Kaufland Warenhandel GmbH & Co. KG

Kaufland is a food retail sales chain, with more than 65,000 employees in 2012. The company Kaufland is a sub-company of the Schwarz Group, which also owns the food retail sales chain Lidl. Within this research, the focus will be on the working clothes of the employees of Kaufland. The production of these garments is sourced out to third parties located in East Europe, China and Germany. In some cases, Kaufland is also cooperating with leasing companies supervising the whole production process. Germany can be characterized as the most important marketplace for Kaufland, while the majority of working clothes is produced for German employees. While wearing the garments almost every day, the quality standard of the working clothes were considered to be highly important.[256]

Oui Gruppe GmbH & Co. KG

More than 50 years ago, the German company Oui was founded in München (Bayern). Each year, Oui develops eight collections focussing on offering an entire outfit to its target group women. Their production is outsourced to third parties located in Europe, but also in Asia and Turkey. While outsourcing the production of their collections, Oui is working with agents in the several countries that are supervising and regulating the production process. Currently, their products are available in more than 30 different countries worldwide, with Germany being their most important marketplace. Next to several shop-in-shop concept in department stores and speciality stores, Oui is operating an online shop.

[255] See interview no. 11, Appendix IV pages 84-94; Hamm Reno Group (y.u.)
[256] See interview no 8, Appendix IV pages 65-68; Kaufland (y.u.)

In the future, the company is also intending to expand their network of own retail shops. In total, the products of Oui are available in more than 1,000 point of sales in Germany.[257]

Reischmann GmbH & Co. KGaA

Since 1860, the German company successfully developed four department stores located in Ravensburg, Kempten, Memmingen and Ulm. At this point of time, the four stores are offering collections specialized on fashion and sports with more than 1,200 brands, such as Adidas, Bench and Hugo Boss, on a sales area of more than 40,000 square meters. Reischmann is not offering any own brands anymore. Next to their four department stores, Reischmann has chosen for a website only, instead of an online shop. According to Reischmann, this has been a strategic choice in order to guarantee a consistent service level, which is only available in the physical department stores. The customer can look at their entire collection online, reserve the favourite pieces and try them on in one of the Reischmann department stores. Currently, Reischmann counts more than 1,100 employees.[258]

Textilwirtschaft

The Textilwirtschaft is a German professional magazine focussing on the textile and fashion industry. While coming with a new edition every week, more than 35 journalists and correspondents are reporting about topics important for the textile and fashion sector.[259]

Trigema

Founded in 1919, the company Trigema developed to one of Germany's largest producer of sport and fashion clothes. Trigema differentiates itself by operating all supply chain activities in-house in Germany. Each year, Trigema develops two different collections that are sold through different channels. Being a multichannel company, Trigema sells its products through 46 so-called 'test-stores', where Trigema products are sold for the cost price. Next to that, the company sells about eight percent of its products through their own online shop and cooperates with more than 4,500 distributors worldwide. While selling

[257] See interview no. 12, Appendix IV pages 95-100; Oui (y.u.)
[258] See interview no. 7, Appendix IV pages 56-64; Reischmann (y.u.)
[259] See Textilwirtschaft (y.u.)

about 95 percent of their products in Germany, this market can be considered as being most important for Trigema.[260]

Weare GmbH

Since 2007, the company Weare GmbH is selling sport-related fashion and accessories through their online shop. Weare can be characterized as a multi-brand online shop with their focus on street-wear, sneakers and board-sport. Next to third party brands, such as Adidas, Levis, Nike and The North Face, the company has also developed their own brand for shirts and caps. The design for their own collection is developed in the headquarter located in Hamburg. The production is sourced out to third parties located in Turkey and Asia. Weare is cooperating with agents in the several countries that organize and supervise the production. At this point of time, Weare is available in Germany, the Netherlands, Austria, Switzerland and France. About 75 percent of their total sales is generated on the German marketplace.[261]

3.2.2 Cross-case analysis

3.2.2.1 What all groups have in common - Quick response, quality standards, internationalization, specialization and information technologies

The results of the industry interviews amongst leading German fashion apparel retail and fashion apparel industry companies show a number of trends and developments which supply chain professionals believe will form the agenda for all fashion companies the coming years. *Tables 7 and 8* give an overview about the cross-case analysis divided into three categories of analysis “outsourcing versus own production”, “supply chain strategies” and “future perspectives”.

Professionals mentioned an increasing uncertainty caused by changing weather and atmospheric conditions and quickly changing fashion trends which in turn decrease the reliability and accuracy of traditional forecast methods.[262] Thus, being flexible by quickly responding to customer demands on the market is becoming a key trend for almost all fashion apparel companies. According to that, companies are trying to shorten all processes within the supply chain, especially the production and lead times, to quickly respond to

[260] See interview no. 6, Appendix IV pages 49-55; Trigema (y.u.)
[261] See interview no. 10, Appendix IV pages 80-83; WeAre (y.u.)
[262] See Fashionunited (2013); interview no. 2, Appendix IV pages 12-18; interview no. 5, Appendix IV pages 41-48; interview no. 7, Appendix IV pages 56-64

market demands.[263] In this case, the location of the production facilities is a key factor influencing the companies' flexibility. In order to quickly respond, companies are executing different strategies. Fashion apparel companies that can be accounted to the group of vertically integrated companies are able to drastically fasten parts of their supply chain processes, while other traditional companies are working with wholesale concepts, thus not controlling all parts of their supply chain activities - aspects as the speed, the amount of collections and forecast horizons are less quick and flexible. Whereas vertically integrated fashion apparel companies are operating almost all supply chain processes on their own, management decisions are made relatively quick.[264] A case study of the vertically integrated Spanish retailer Zara is given in Appendix E. As a result, especially companies that cannot be accounted to the group of vertically integrated companies are preferring so called flash or fast programmes in order to quickly respond to market needs and trends. In general, flash or fast programmes are relatively small collections that can be quickly introduced when new trends are emerging on the marketplace.[265]

"As you could see, fashion is getting highly dependent on the weather conditions. Retailers are getting into trouble with winter jackets already hanging in the shops while it is still warm outside.(...) The customer wants more up-to-date articles that are quickly available whenever he or she asks for them."[266]

While being quick and flexible in order to be customer-oriented has been recognized as an important aspect, the main focus should be laid on the quality of the product. All respondents agreed that being fast is getting more and more important, but not at the expense of the quality of the product.[267]

"In my opinion, people will not spend more money on clothes in the future. We strongly belief that fashion will become more valuable. All those rubbish that can be bought for two euros, which you wash twice and then throw away, will gain decreasing attention. People

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263 See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83; interview no. 13, Appendix IV pages 101-104

264 See interview no. 5, Appendix IV pages 41-48; interview no. 9, Appendix IV pages 69-79

265 See interview no. 1, Appendix IV pages 1-11; interview no. 5, Appendix IV pages 41-48; interview no 9, Appendix IV pages 69-79

266 Interview no. 2, Appendix IV pages 12-18

267 See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 3, Appendix IV pages 19-30; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 6, Appendix IV pages 49-55; interview no 8, Appendix IV pages 65-68; interview no. 10, Appendix IV pages 80-83; interview no. 11, Appendix IV pages 84-94

will buy more and more clothes that can be worn for a long time with a perfect fit and quality."[268]

Another important aspect that developed as a result of the process of globalization is the internationalization of companies which is gaining increasing importance. Professionals mentioned the necessity of being available in several countries by creating at least an online shop for each country of delivery to strengthen their market position. A further step would be the establishment of offices, shop-in-shop concepts or (mono-brand) stores to offer additional services specified to the demands of each country.

Additionally, they mentioned a trend of companies specializing in several niche markets, such as pants, shirts or jackets.

"You will recognize an increasing amount of specialized brands. (…) Thus, there will be less brands presenting whole collections, but sub-collections such as bottoms or tops, and a specialization will take place resulting in shorter lead times."[269]

Moreover, sustainable aspects and social standards along all supply chain processes were getting great attention.[270] Upcoming developments in information technologies, such as ID tagging and RFID, might be supporting tools to achieve the transparency of supply chain activities. As a result, companies could easier guarantee aspects of sustainability, quality or other aspects that increase the possibility of quickly responding to market demands.[271]

Besides that, contacts with national and international institutions and the active participation in the fashion apparel sector were considered being important as well.[272]

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[268] Interview no. 1, Appendix IV pages 1-11
[269] Interview no. 2, Appendix IV pages 12-18
[270] See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 3, Appendix IV pages 19-30; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 10, Appendix IV pages 80-83; interview no. 11, Appendix IV pages 84-94; interview no. 13, Appendix IV pages 101-104
[271] See interview no. 9, Appendix IV pages 69-79
[272] See interview no. 1, Appendix IV pages 1-11

	Retail Trade				Outsourcing					In-house production		
Outsourcing vs. own production	**Baur**	**Reischmann**	**WaAre**	**Hamm Reno**	**Blutsgeschwister**	**Brax**	**Kaufland**	**Oui**	**Eisend Kids**	**Atelier Gardeur**	**DL1961**	**Trigema**
Motives for sourcing strategy	Volume, price, flexibility	No own brands anymore	Volume and the lack of experience and financial resources	Historical reasons	Volume	Historical reasons, variety of products, flexibility	Volume, quality and price aspects	Volume, size and variety aspects	Price aspects	Control, logistical and quality advantages and flexibility	Speed, quality and flexibility	Historical and quality reasons; flexibility
Location of main suppliers	India, Thailand, China and Turkey	-	Turkey and China (own brand)	Europe and Asia (own brands)	Turkey, China, India and Korea	Southern and Eastern Europe, North Africa and the Far East	Eastern Europe, Germany and China	Europe, Asia and Turkey	Germany and Far East	Tunisia	America	Germany
Use of sourcing agents	No, cooperating with worldwide Otto offices	-	Yes	Yes	Sometimes	Yes	No			No	No	No
Strengths & weaknesses current strategy	Quick responses while cooperating with dedicated suppliers; differentiate own brands from third party brands	High dependency on fashion industry, which makes quick responses difficult to achieve	Low degree of control; high quality standards	Differentiate own brands from third party brands	High quality, but relatively long response rate	High quality standards, being able to quickly respond	High price-quality ratio	High quality standards	Relatively long response rate; low control over quality	Flexibility, quality, process speed, but high investments necessary; make sure the production runs at full capacity	Speed, quality and flexibility; dependency on own manufacturing facilities	High quality and flexibility
Future perspectives	**Baur**	**Reischmann**	**WaAre**	**Hamm Reno**	**Blutsgeschwister**	**Brax**	**Kaufland**	**Oui**	**Eisend Kids**	**Atelier Gardeur**	**DL1961**	**Trigema**
Future of mass-fashion apparel industry	Increasing use of the possibilities of the internet	Increasing use of the possibilities of the internet; Quick response	Increasing use of quick response systems, JIT concepts and the internet (e-commerce)	Offer a shopping experience that is connecting online and offline channels; ID tagging of products	Increasing use of the possibilities of the internet; increasing importance of sustainability standards	Increasing use of the possibilities of the internet; being international; designing a SC that is transparent; guaranteeing high quality standards	Not available	Quick response combined with a high degree of quality	Increasing use of the possibilities of the internet; being international	Quick response; increasing importance of sustainability standards and quality	Quick response; increasing importance of sustainability standards and quality; increasing specialization	Increasing importance of sustainability standards and quality; increasing use of the possibilities of the internet; internationalization

Table 7: Cross-case analysis “outsourcing versus own production” and “future perspectives”

Source: Own evaluation

	Retail Trade				Outsourcing					In-house production		
Supply Chain Strategies	**Baur**	**Reischmann**	**WaAre**	**Hamm Reno**	**Blutsgeschwister**	**Brax**	**Kaufland**	**Oui**	**Eisend Kids**	**Atelier Gardeur**	**DL1961**	**Trigema**
Fast Fashion and its influences	Being quick and cheap, but low quality and sustainability standards	Influences their response time: Need to be quick	No influence due to other quality standards (fast fashion: low quality and sustainability standards)	No threat coming from fast fashion companies, due to their low quality considerations	No threat coming from fast fashion companies, due to their low quality considerations, but need to be quicker in general	Fast fashion is getting increasing importance: Working with flash collections to quickly respond	Not available	No threat coming from fast fashion companies, due to other target group: Being quick is important, but no priority	No threat coming from fast fashion companies, due to other target group: Being quick is important, but no priority (niche position)	Fast fashion is getting increasing importance: Working with flash collections to quickly respond; focus on quality	No threat coming from fast fashion companies, due to other target group: Being quick is important, but focus on quality	No threat coming from fast fashion companies, due to other target group
Unique characteristics of SC	Incorporation of sustainable and quality aspects	High level of customer service in store: Focus on customer; good relationship with fashion industry	High level of quality; good relationship with fashion industry; (for own production) sustainable aspects	Incorporation of sustainable and quality aspects	Long lasting relationships with suppliers; high quality and sustainability standards; international orientation	Long lasting relationships with suppliers; high quality and sustainability standards; international orientation	High quality and sustainability standards	High quality standards, long relationships with suppliers; high service considerations in store	Design and quality considerations; sustainability aspects; long lasting relationships with suppliers	Vertically integrated company; high control, quality and sustainability aspects; long lasting relationships with suppliers	Vertically integrated company; high control and quality aspects	High quality, speed and flexibility; sustainability aspects
Retail format	Multi-Channel company (Internet and catalogue)	Four department stores located in Southern Germany	Online-pure-player	Multi-Channel company (Internet, own retail stores and shop-in-shop concepts)	Wholesaler with own shops and onlineshop	Wholesaler with own shops and onlineshop	Not available	Own shops and shop-in-shop concepts	B2B	Multi-Channel company (Internet, shop-in-shop concepts and wholesale partners)	Wholesaler	Multi-Channel company (wholesale, own retail shops and onlineshop)
Motives retail format	Historical reasons, being part of the Quelle Group	Being close to the final customer (headquarter and stores)	No plans for physical stores	Historical reasons	Not available	Not available	Not available	Offering a whole concept/outfit	Not available	Not available	Being a specialist in pants, makes the operation of mono brand stores impossible	Not available

Table 8: Cross-case analysis “supply chain strategies”

Source: Own evaluation

3.2.2.2 Trends in the category of the "Fashion apparel retailers"

Supply Chain professionals working in leading German fashion apparel retail companies are highlighting trends within the management of supply chains which they experience as being significant. As already mentioned before, for companies in the fashion apparel retail trade, quickly responding to market demands is considered to be highly important. With an increasing competition coming from fast fashion companies with vertically integrated supply chains, retailers need to make sure to allocate the right article in the right place at the right time. In many cases, this development of being fast is creating a great challenge for fashion apparel retail companies, due to their dependency on the fashion apparel industry. A popular solution facing this challenge is the close and long-term collaboration with the fashion apparel industry in order to get cost advantages and increase the flexibility. [273]

"Of course, we are extremely dependent on the fashion apparel industry. There is the enormous need to get articles more quickly and more up-to-date. (…) In my opinion, that's the problem of the retail trade. At this point of time, we are very dependent on the fashion industry. That's why we are trying to react on the market demand by introducing strong in-between collections.(…) But we can only provide more collections if the fashion industry is producing more."[274]

Although, the creation of own brands would decrease the dependency of fashion apparel retails on the fashion apparel industry, backward integration is only feasible for a relatively small amount of companies. The introduction of own brands could be done by either creating products in the low-priced segment, that do not require additional marketing expenses or by producing high quality products, that involve higher marketing costs. According to professionals, many fashion apparel retailers would like to operate own brands, but they lack the necessary resources, as the introduction of own brands is considered to be time and cost intensive. In general, only financially strong companies with a certain size, volume and expertise are able to successfully introduce own brands.[275] The German fashion apparel company Peek & Cloppenburg is a prominent example of a retail company with strongly positioned own brands. The success of their own brands has been

[273] See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83
[274] Interview no. 7, Appendix IV pages 56-64
[275] See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83

enormously successful that Peek & Cloppenburg decided to additionally sell parts of their own brands to third parties, other fashion apparel retailers.[276] Further, the German wholesalers Baur, a subsidiary company of the Quelle Group, and the Hamm Reno Group have also chosen for the operation of own brands in order to differentiate to other competitive companies, especially to those online pure players.[277] But other fashion apparel retail companies that have been interviewed during this research mentioned the operation of own brands as being highly complicated and less cost-effective. One company owns a relatively small brand for several basic items, like shirts and caps.[278] Another company even stopped the operation of own brands, because of the low margin associated with the high costs and the low quality level of their products – their brands were not able to compete with already established brands while looking at aspects as marketing, quality and profits.[279] In most cases, companies that are operating own brands are either collaborating with purchasing associations in order to achieve a sufficient price-quality ratio or outsourcing their production to third parties, as they lack the competences and the volumes to operate the factory at full capacity.[280]

Further, professionals recognize a growing importance in the operation of a sustainable supply chain even for fashion apparel retailers. On the one hand, retailers are not paying special attention to sustainable articles and the sustainable aspects within earlier supply chain processes, due to their dependency on the fashion industry. Professionals also mention a difficulty while combining collections with sustainable backgrounds and those lacking such an aspect.[281] On the other hand, fashion apparel retails with own brands were paying more attention to this topic, while being aware of more supply chain processes that were usually performed by companies in the fashion apparel industry.

"Our own collections are produced under fair conditions. We are paying attention to the quality of the items because people should be able to wear them more than one season. (…) But we have no impact on the conditions of the production of other brands that we get from companies of the fashion apparel industry. We are not testing them once again, that

[276] See interview no. 9, Appendix IV pages 69-79
[277] See interview no. 3, Appendix IV pages 19-30; interview no. 11, Appendix IV pages 84-94
[278] See interview no. 10, Appendix IV pages 80-83
[279] See interview no. 7, Appendix IV pages 56-64
[280] See interview no. 9, Appendix IV pages 69-79
[281] See interview no. 7, Appendix IV pages 56-64; interview no. 12, Appendix IV pages 95-100

would be too time-intensive and the supply chain processes are not that transparent to make it possible."[282]

Additionally, the growing possibilities of the internet have been considered as an important trend especially in the fashion apparel retail sector. Professionals mention great opportunities offered by the internet, such as e-commerce and the operation of online shops. Nevertheless, also this trend has to match the company structure, its overall business strategy and its cost structure.[283]

"Social Media is a very important aspect for us. We are available on Facebook, Twitter, Instagram and Google +, with Facebook being the most important source where we can reach more than 33.000 people."[284]

3.2.2.3 Trends in the category of the "Fashion apparel industry: Companies outsourcing their production"

This section incorporates the point of view and evaluations of professionals concerning SCM trends in the fashion apparel industry, being active in companies outsourcing their products to third parties.

Three key motives for outsourcing the production or only parts of it were mentioned by professionals. While operating own manufacturing facilities, companies are forced to use their full capacity in order to produce cost-efficient. In most cases, producing cost-efficient is not feasible for fashion apparel companies due to their companies' size and/or the limited volumes of each product type in the several collections. Thus, the product diversity of their collections makes the operation of own manufacturing facilities almost impossible, while their product portfolio incorporates a relatively huge amount of different, varying products. For instance, complicated embroidered jackets require other production standards than a basic white t-shirt, involving different specialized suppliers.[285] Additionally, due to possible risks associated with global crises, price calculations and lead-time reductions, companies are forced to outsource their production to diverse manufacturing facilities located in different countries, both at near-shore and off-shore locations.[286]

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[282] Interview no. 10, Appendix IV pages 80-83
[283] See interview no. 3, Appendix IV pages 19-30; interview no. 7, Appendix IV pages 56-64; interview no. 10, Appendix IV pages 80-83; interview no. 11, Appendix IV pages 84-94
[284] Interview no. 10, Appendix IV pages 80-83
[285] See interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 12, Appendix IV pages 95-100; interview no. 13, Appendix IV pages 101-104
[286] See interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48

"(...) We once produced in Germany, but relocated our production to the southern European countries. We developed such a high product variety which would make the full operation of own manufacturing facilities nearly impossible. Additionally, we would be relatively inflexible, which would be a huge disadvantage nowadays while taking into account quickly changing fashion trends, designs, materials, washing methods and so on. We are now looking for the specialists all over the world for each product separately."[287]

Quickly responding to changing customer demands emerged as a major challenge for supply chain professionals outsourcing their production, while not owning and fully controlling the production process. In order to quickly introduce collections as demanded by the marketplace, those fashion apparel companies prefer working with so called flash or fast programmes. In most cases, these relatively small and fashionable collections are produced in near-shore production locations in order to reduce the lead-times.[288] As already mentioned before, being quickly is prioritized, but not at the expense of the quality of the product. While outsourcing products, the continuous quality assurance during all supply chain processes is becoming a great challenge. In order to assure a quality standard as requested, fashion apparel companies prefer working with trusted and trained suppliers. That is why the relationship with the suppliers has been recognized as being highly important. Professionals prefer close and long-term relationships with a few selected suppliers to ensure a high quality standard and flexibility. Continuous communication has also been mentioned as an important aspect.[289]

"And what's really important for us is the consistent quality standard we require and we cannot achieve this quality standard by switching from one supplier to another all the time."[290]

"We are now working with about 10-12 suppliers for about five to six years. For us, it is important to have a long-term collaboration, instead of looking for a low priced production location or the shortest lead-times. For each product the best supplier will be

[287] Interview no. 5, Appendix IV pages 41-48
[288] See interview no. 5, Appendix IV pages 41-48
[289] See interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 8, Appendix IV pages 65-68; interview no. 13, Appendix IV pages 101-104
[290] Interview no. 5, Appendix IV pages 41-48

chosen. The best production location for a complicated woven coat might be China because of their variety of fabrics, buttons and zippers."[291]

"We visit our factories three times a year and we are trying to build up a friendly relationship within a good atmosphere. Our producers trust us and we trust them, which is really important, especially while being such a small company as we are. We stick to our producers and try to educate them as well. So when something goes wrong, we do not cancel the relationship, but we are discussing it. What went wrong and why and what can we do to prevent these mistakes in the future. That way we created long lasting relationships with our producers.[292] *"*

While not operating all stages of the supply chain, a limited transparency is given, which in turn influences the degree of guaranteeing sustainably and other social aspects connected to the production of the articles.

"Of course, sustainability, honesty and fairness to all members of the supply chain is mandatory, but I cannot guarantee that every member of the supply chain is meeting those standards accordingly while some processes are sourced out."[293]

Next to that, forward integration has been mentioned as a key trend that emerged the last several years and is gaining increasing attention. Companies are operating more and more own sales areas, such as shop-in-shop concepts or mono-brand stores.

"If you want to develop further and grow, then you try to realize that with integrative, vertical aspects. We decided to forward integrate by operating own retail sales areas. In order to successfully operate those sales areas, a development from a company specialized in pants to a company proving whole outfits was needed. Mono-brand stores selling only pants are very rare and less promising. Additionally, we wanted to reduce the dependency on the fashion apparel retail trade."[294]

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[291] Interview no. 4, Appendix IV pages 31-40
[292] Interview no. 13, Appendix IV pages 101-104
[293] Interview no. 11, Appendix IV pages 84-94
[294] Interview no. 5, Appendix IV pages 41-48

3.2.2.4 Trends in the category of the "Fashion apparel industry: Companies with self-owned facilities for manufacturing"

Supply Chain professionals being active in companies producing the majority of their products or even all their articles in self-owned facilities for manufacturing, using strategic in-house production were interviewed concerning their point of view and evaluations of SCM trends in the fashion apparel industry.

As mentioned within all previous purchasing and production categories, the proximity of the production facility to the company's home country has been recognized as being highly important. According to professionals, the physical proximity is increasing the company's response time to trends appearing quickly on the market, which in turn influences their flexibility. Especially a vertically integrated supply chain, including in-house production, offers a quick response to those changing demands and trends.[295]

"Being flexible is one of our major strengths. We are able to produce a product from yarn to final product in only 48 hours. The Chinese manufacturer is not capable of doing so, while being located too far away."[296]

"Our future goal is to be the quickest supplier. In order to do so, we need the right supply structure that is able to fulfil exactly these requirements."[297]

Furthermore, the high quality level has been mentioned as a key aspect. In this case, the visibility of the entire supply chain by a vertical integration is supporting the required quality standards. Companies mention that own production facilities located in close proximities are offering higher quality standards than those facilities located in the Far East. Next to those aspects, all respondents estimate a growing importance of the incorporation of sustainable aspects. The availability of control instances along the whole supply chain has been mentioned as another major strength associated with self-owned facilities for manufacturing. [298]

"Sustainability is no longer a unique selling proposition, but a must-have."[299]

[295] See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 6, Appendix IV pages 49-55
[296] Interview no. 6, Appendix IV pages 49-55
[297] Interview no. 1, Appendix IV pages 1-11
[298] See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 6, Appendix IV pages 49-55
[299] Interview no. 2, Appendix IV pages 12-18

As already mentioned in the analysis of companies in the fashion apparel industry using strategic outsourcing, forward integration is a key trend that gained great importance the last several years. While not every professional referred to the operation of own retail shops, a growing importance of establishing own online shops or shop-in-shop concepts was mentioned. But professionals also described that the degree of forward integration is also depending on the variety of a company's collection. For companies operating in niche markets of the fashion apparel sector, for instance by selling pants only, the operation of mono-brand stores appeared to be almost impossible.[300]

Despite all those mentioned strengths and opportunities which in-house production delivers, the strategic choice of operating self-owned facilities for manufacturing is not suitable and feasible for every companies. Next to the aspect of costs, the dependency on own manufacturing facilities is restraining other companies from applying this strategy. Relatively small companies or companies concentrating on niches might not operate the volume and the capacity needed to run own manufacturing facilities. Additionally, the risk of catastrophes or other disasters that could influence the operation of the production, might be another argument to choose for outsourcing.[301]

But, by being aware of all processes in the whole supply chain, high standards of almost all required aspects, such as flexibility, high quality standards, sustainability and control instances can be achieved.[302]

"We know who is producing when and where for us, (…) because we know the processes. That is exactly the point that is distinguishing us from competitive companies. There is no anonymous supplier located somewhere in the world, where we could buy on good terms. We know everything and that's an important key aspect for guaranteeing our high quality standards."[303]

[300] See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 6, Appendix IV pages 49-55
[301] See interview no. 8, Appendix IV pages 65-68
[302] See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 6, Appendix IV pages 49-55
[303] Interview no. 1, Appendix IV pages 1-11

4. Critical Assessment: Comparison theoretical and empirical analysis

4.1 Finalizing the conceptual model and summarizing the overall SCM trends

According to the conceptual model developed from the theoretical analysis, there are seven motives influencing the choice for a certain sourcing strategy, the make-or-buy decision and the locational strategy, either domestic of off-shore production, which in turn influence the SCM trends within the different purchasing and retail channel strategies. Seven key aspects are mentioned by theory: (1) the cost advantages associated with the sourcing and locational strategy,[304] (2) the shifting of risk,[305] (3) being demand-driven to quickly respond to customer demands, (4) the length and importance dedicated to forecast horizons,[306] (5) the company's financial possibilities,[307] (6) the transparency of the supply chain to guarantee sustainability[308] and (7) other aspects.

These other aspects should be completed by additional aspects that were mentioned by supply chain professionals during the interviews. Experts paid great attention to the quality of the product. Although, being market sensitive by quickly responding to market demands is becoming increasingly important for almost all fashion apparel companies, the quality level of the product has been mentioned as an aspect that is gaining even more attention. In general, being quick as a fashion apparel company is a significant trend, but not at the expense of the quality of the product.[309] Next to that, the variety of products and the overall business strategy should be mentioned as additional important influencing factors. The variety of products in their collections might force fashion apparel companies to use different suppliers for several product groups. For instance, the production of a basic white cotton shirt requires different skills and knowledge propositions than the production of a

[304] See Adler (2002), p. 32; Graafland (2002), p. 282; See Matthes (2002), p. 12; Dunford (2004), p. 14; Choi (2007), p. 521
[305] See Abernathy (2000), p. 5; Abernathy et al. (2006), p. 2228-2229; Lane and Probert (2006), p. 64; Masson et al. (2007), p. 238; Vedel (2013), p. 518; Rinnebach (2014), p. 3
[306] See Forney, Rosen and Orzechowski (1990), p. 39; Christopher et al. (2004), p. 4; Sen (2008), p. 583; Christopher (2011), p. 101
[307] See Tayles and Drury (2001), p. 605
[308] See Brito et al. (2008), p. 550 ; Seuring and Müller (2008), p. 1699; Kahn (2009); Pookulangara et al. (2011), p. 480-481; Nagurney and Yu (2012), p. 532, 539
[309] See interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 3, Appendix IV pages 19-30; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 6, Appendix IV pages 49-55; interview no 8, Appendix IV pages 65-68; interview no. 10, Appendix IV pages 80-83; interview no. 11, Appendix IV pages 84-94

complicated woollen jacket.[310] Next to that, the overall business strategy is an additional influencing factor. While vertically integrated companies are operating the majority of supply chain processes on their own, others might work as a wholesale company taking into account the views of other parties.[311]

"Being fast is important, but then in the usual high quality standard, which is highly important for us. Being quickly is an aspect we are working on, we want to be quicker, but we are not jeopardizing our quality - that would not match our overall strategy."[312]

While taking into account the theoretical and empirical analysis, several key trends can be identified that are influencing for all mentioned categories of production and retailing companies.

1) The accuracy of traditional forecast methods decreased due to quickly changing trends on the market and unpredictable weather conditions. As a result, the flexibility of fashion apparel companies in order to quickly respond to those customer demands is required.[313] In this case, the flexibility is highly dependent on the kind of company, i.e. a vertically integrated company might be more flexible than a company acting as a wholesaler.
2) The amount of fashion apparel companies operating in specialized markets or niches is increasing. In general, especially large organizations might specialize by product (e.g. product group or segment) and/or by price (e.g. luxury segment or discounter).[314]
3) The internationalization of fashion apparel companies is becoming a necessary condition in order to sustain in the highly competitive marketplace.[315] According to supply chain professionals, companies need to be available in the majority of the European countries. This could be done by opening a mono-brand store, but also by shop-in-shops, franchise concepts or an online shop.

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310 See interview no. 3, Appendix IV pages 19-30; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 9, Appendix IV pages 69-79; interview no. 11, Appendix IV pages 84-94; interview no. 12, Appendix IV pages 95-100
311 See interview no. 9, Appendix IV pages 69-79
312 Interview no. 1, Appendix IV pages 1-11
313 See Lane and Probert (2004), p. 256; Focus medialine (2006), p. 22; Abecassis-Moedas (2007), p. 298; Deutsche Post DHL and Buck Consultants International (2012), p. 4; Kromer et al. (2013), p. 3-4
314 See Lane and Probert (2004), p. 256; Abecassis-Moedas (2007), p. 298
315 See Matthes (2002), p. 5-6, 12; Lane and Probert (2004), p. 256; Commerzbank – Group Risk Management (2011), p. 20; Deutsche Post DHL and Buck Consultants International (2012), p. 4; Kromer et al. (2013), p. 4-5

4) Sustainable aspects along all supply chain activities are gaining increasing importance. In order to guarantee the correct implementation of sustainable aspects, the degree of transparency and control of the supply chain activities is a highly important element.[316]
5) The cooperation with import and export agencies, as well as the incorporation of sourcing agents has been recognized as a frequently used practice, mainly executed by companies outsourcing their production.[317]
6) In order to control more stages of the supply chain, fashion apparel companies are increasingly choosing for forward or backward integration, by opening own retail shops or creating own collections or brands.[318] In this case, the correct integration of all retail channels needs to be assured, i.e. connecting online and offline sales channels, but also matching own brands with other collections from the fashion apparel industry.

New technological opportunities might be significant tools supporting the processes and improvements of these SCM trends.[319] For instance, technologies such as ID tagging and RFID possibilities might support the transparency of outsourced supply chain processes in order to guarantee high quality levels and required sustainability aspects.

4.2 Differences recognized while comparing the theoretical and practical analysis

Comparing the theoretical analysis concerning SCM trends in the fashion apparel industry and the results the empirical analysis pointed out, several main differences were recognized that might be considerable for further research.

In both, the theoretical and the empirical analysis, the importance of quickly responding to customer demands by applying flexible production processes and the importance of a sustainable supply chain has been recognized. But current theory is missing the inter-connectivity of those two aspects considered being important in supply chain management of fashion apparel companies. While the quick response requires flexibility and fast replenishments of products, in most cases the transportation of air freight is used in order to meet the deadlines. Thus, while achieving the trend of quickly responding to the market needs, parts of the sustainability aspect are neglected.

[316] See Brito et al. (2008), p. 550 ; Seuring and Müller (2008), p. 1699; Kahn (2009); Pookulangara et al. (2011), p. 480-481; Nagurney and Yu (2012), p. 532, 539
[317] See Abernathy et al. (2006), p. 2228-2229; Lane and Probert (2006), p. 64; Masson et al. (2007), p. 238; Vedel (2013), p. 518
[318] See Loock (2008), p. 41-44; Sen (2008), p. 582
[319] See Kurt Salmon (2013), p. 6; Rinnebach (2013), p. 3

"And then the only option to get those clothes on time is the option of air freight in order to catch the delivery terms. (...) Only that is a tremendous expensive way of transporting clothes (...) and, of course, that's not a suitable option to care for our environment."[320]

Additionally, the forward and backward integration of fashion apparel companies has been recognized as a key trend by both theory and practice. While theory is not providing a detailed assessment of both types of integrations, the empirical analysis recognized a difference in their implementation. In general, forward integration is an increasingly popular technique of companies in the fashion apparel industry in order to offer their collections directly to the final customer by using concepts as mono-brand stores. This strategic choice is widely accepted through companies in the international fashion apparel industry. In comparison, backward integration is hard to achieve for companies in the fashion apparel retail trade. In many cases, companies lack the financial instruments to bring an own brand to the market including supporting activities as marketing. Another aspect connected to the creation of an own brand is the degree of quality. In case the quality is not sufficient, the image of the whole company might be influenced negatively. As a result, backward integration might only by feasible for large and financially strong companies in the fashion apparel retail trade.[321]

"That's the trend that emerged the last 20 years. Fashion apparel manufacturers are opening own stores in order to sell directly to their final customers. (...) Companies in the fashion apparel retail trade, on the other hand, would like to backward integrate. But the creation of own brands is very difficult and there are only a few companies that are doing really well. (...) Creating an own brand is even more complex. You have to create marketing and other advertising tools."[322]

Next to that, the effects of the dependency of the fashion apparel retail companies on the industry have not been mentioned by literature in detail. Professionals mentioned the dependency on the industry as a factor that is highly influencing their response time and the possibilities of incorporating quality and sustainability aspects in their supply chain activities. Although, being fast has been recognized as a key trend of the current fashion apparel industry, it appears to be a great challenge for fashion apparel retailers, due to their

[320] Interview no. 2, Appendix IV pages 12-18
[321] See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83
[322] Interview no. 9, Appendix IV pages 69-79

dependency. The incorporation of quality and sustainable aspects is another factor that is influenced by their dependency on the fashion apparel industry. While sustainable and quality aspects can be easier guaranteed within own collections, the fashion apparel retail trade is dependent on the products offered by the industry.[323]

5. Main Conclusions

5.1 Conclusions according to each production and purchasing strategy

5.1.1 Main conclusions about SCM trends for fashion apparel retailers

Due to the increasing internationalization, fashion apparel companies recognize a threat coming from new entrants of foreign retail chains which are increasingly verticalizing.[324] Especially for fashion apparel retailers, this development is forming a great challenge while being dependent on the fashion apparel industry.[325] In order to compete with fast fashion companies, retail trade companies are trying to increase their speed by close and long-term collaborations with the fashion apparel industry. Additionally, a relatively small amount of retail trade companies is using backward integration to speed up their response time and strengthen their own market position.[326] In general, the advantages of creating own brands by a backward integration are only feasible for relatively large and financially strong fashion apparel retail trade companies. Moreover, the incorporation of sustainable aspects within almost all supply chain activities has also been mentioned as being significantly important. As mentioned before, while being dependent on the fashion apparel retail trade, this aspect is hard to achieve for retail trade companies. While using backward integration, parts of the supply chain activities would be more transparent, which in turn influences the degree of sustainable supply chain activities. Furthermore, the increasing possibilities of the internet create great opportunities for fashion apparel retail trade companies.[327] In order to compete in this challenging marketplace, retailers recognize an increasing demand of omnichannel fulfilments.[328] Omnichanneling, the cross-channel shopping and fulfilment, will continue to accelerate significantly within the next few years.

[323] See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83
[324] See Commerzbank – Group Risk Management (2011), p. 1; KPMG (2012), p. 46
[325] See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83
[326] See Gereffi (1999), p. 45; Hines and McGowan (2002), p. 80; Sen (2008), p. 582; Commerzbank – Group Risk Management (2011), p. 18; See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79; interview no. 10, Appendix IV pages 80-83
[327] See Schwarzl and Wünnenberg (2014), p. 2-3
[328] See Kurt Salmon (2013), p. 6; Schwarzl and Wünnenberg (2014), p. 4; Tailorit (y.u.), p. 3

According to that, the customer satisfaction is highly influenced by their perception of an integration between both, online and offline channels.[329] Additional innovative technologies at the POS might support purchasing decisions. [330] Within large organizations experts recognize a greater specialization by product (e.g. specialty stores selling only one product group such as clothes or office supplies) and price (e.g. high volume, low cost discount stores).[331]

5.1.2 Main conclusions about SCM trends for companies in the fashion apparel industry with outsourced production

In general, companies in the fashion apparel industry are choosing for strategic outsourcing in order to reduce costs and increase their flexibility. Outsourcing enables companies to produce cost-efficiently while not being dependent on producing in their own manufacturing facilities on full capacity. In most cases, collections are incorporating high product varieties, a high diversity of products, which makes the full operation of own manufacturing facilities almost impossible. According to that, companies are searching for the best suppliers which can deliver the best price-quality ratio for each product. Thus, outsourcing offers both, a high degree of flexibility while being able to quickly switch from one supplier to another and low capital investments to realize the production.[332]

In order to realize a quick response to changing market demands, outsourcing companies prefer production location in close proximities for market sensitive products. So-called fast or flash programmes are produced in near-shore production locations to make a quick response possible.[333] Other, more basic items are outsourced to low labour countries in off-shore locations to gain financial advantages. In most cases, working with third party manufacturers forces companies outsourcing their production to incorporate relatively long forecast horizons.[334] While quickly responding to customer demands has been identified as an important aspect, the quality of the articles has been rated as being even more important. Companies prefer long and close relationships with a few suppliers to ensure high quality standards and flexibility.

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[329] See Schwarzl and Wünnenberg (2013), p. 13; Tailorit (y.u.), p. 7; interview no. 11, Appendix IV pages 84-94
[330] See Schwarzl and Wünnenberg (2013), p. 17
[331] See Gereffi (1999), p. 44-45; interview no. 2, Appendix IV pages 12-18
[332] See Lane and Probert (2006), p. 56; interview no. 3, Appendix IV pages 19-30; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48
[333] See Guericini and Rundola (2010), p. 12
[334] See Christopher and Peck (1997), p. 63; Abernathy et al. (2000), p. 12-13; Christopher and Towill (2000), p. 208; Lowson (2001), p. 550-551; Christopher et al. (2004), p. 1-3; Cachon and Swinney (2011), p. 781

Especially for companies outsourcing their production, the incorporation of sustainable aspects along all supply chain activities is forming a great challenge. While products are outsourced to different suppliers, a limited transparency of the entire supply chain is given.[335] Thus, this sourcing strategy requires a proper management of sourcing locations to assure a high degree of control within all parts of the supply chain.

In most cases, these companies are making use of sourcing agents to manage their production in the several production locations.[336]

5.1.3 Main conclusions about SCM trends for companies in the fashion apparel industry with in-house production

In the majority of cases, companies in the fashion apparel industry are choosing for the operation of own manufacturing facilities due to control reasons. While operating own production facilities, proprietary knowledge is protected.[337] Moreover, own manufacturing facilities increase the transparency of supply chain activities, making more control instances possible, which in turn positively influence the degree of quality and sustainability aspects.[338] While being increasingly vertically integrated, companies are able to quickly respond to customer demands by decreasing their response time. Thus, while being aware of almost all supply chain activities, high standards of flexibility, quality, sustainability and control instances can be achieved.

Disadvantages and risks associated with in-house production are the relatively high investments and the dependency on own facilities. In order to run at full capacity all the time, companies need to operate a certain volume per article.[339] Additionally, own manufacturing facilities might restrict a company's flexibility. Being highly flexible by geographical movements or quick responses to production trends that are not available in own production plants is almost impossible.

In order to increase the verticalization of the company, just as companies in the fashion apparel industry using strategic outsourcing, these companies are making increasing use of forward integration. By operating and expanding own and independent retail channels,

[335] See Sheu et al. (2005), p. 288; KPMG (2012), p. 46
[336] See Masson et al. (2007), p. 247, 251; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48
[337] See Murray and Kotabe (1999), p. 805; Lane and Probert (2006), p. 52; See Kim (2013), p. 226-227
[338] See Kurt Salmon (2013), p. 6; interview no. 1, Appendix IV pages 1-11; interview no. 2, Appendix IV pages 12-18; interview no. 6, Appendix IV pages 49-55
[339] See Lane and Probert (2006), p. 52, 56

companies are directly communicating with the final customer and strengthening their brand image.[340]

5.2 General conclusions

The purpose of this study was to initiate exploratory research in the area of SCM trends for different categories of fashion apparel companies: fashion apparel companies in the retail trade, companies in the fashion apparel industry using outsourcing and companies in the fashion apparel industry using in-house production facilities. While connecting the results of the theoretical and the empirical analysis, core strategic decisions can be outlined that determine a firm's strategic choice.

In order to be able to compete with new entrants of foreign retail chains that are increasingly verticalizing, being demand-driven and able to quickly respond is becoming increasingly important for all categories discussed.[341] While trying to achieve a quick response to customer demands, fashion apparel companies are experiencing a strategic dilemma. In order to achieve cost advantages, companies are forced to source or produce in low-wage countries, located in off-shore locations, resulting in longer lead times, which in turn increase a company's total response time.[342] The reduction of the lead times, in order to quickly respond to customer demands, requires a shift to near-shore production locations, which in turn increase the overall costs.[343] As a result, companies are performing a mixture of strategies, as well in their choice for a certain sourcing strategy, the make-or-buy decision, as the locational strategy, either domestic or off-shore production. In general, fashion apparel companies are working with several suppliers located all over the world, in close and off-shore locations. According to the product and the necessity of being quick, the article will be produced in a certain production location that matches the requirements of the product and the market.[344] Thus, for each product an assessment between price and location is carried out.

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[340] See Loock (2008), p. 41-44; Sen (2008), p. 582; Commerzbank – Group Risk Management (2011), p. 17; Deutsche Post DHL and Buck Consultants International (2012), p. 6; interview no. 6, Appendix IV pages 49-55

[341] See Fashionunited (2011); all interviews

[342] See Christopher and Peck (1997), p. 63; Abernathy et al. (2000), p. 12-13; Christopher and Towill (2000), p. 208; Christopher et al. (2004), p. 1-3; interview no. 9, Appendix IV pages 69-79

[343] See Christopher et al. (2004), p. 4; Christopher (2011), p. 101

[344] See Abernathy and Volpe (2006), p. 2218; interview no. 3, Appendix IV pages 19-30; interview no. 4, Appendix IV pages 31-40; interview no. 5, Appendix IV pages 41-48; interview no. 9, Appendix IV pages 69-79; interview no. 12, Appendix IV pages 95-100

„(...) Being quick always correlates with being expensive. While being a supplier or a fashion manufacturer, I have to choose between producing for a reasonable price which takes longer (...) – that's not problematic for a basic, timeless items– or producing in a near-shore location – but the closer we get to Europe, the more expensive it gets. There is the simple correlation between the aspects quick and expensive. I have to decide for each item, is it worth it. More complex pieces might require a production in Turkey or Bulgaria. And shipping from Bulgaria to Germany only takes about 48 hours. Thus, it is the correlation between being closer to the production location which is more expensive or the production far away for a reasonable price."[345]

"In economics, nobody is pursuing one strategy. Companies have to protect themselves, which means they are producing in China and Bangladesh, but also in production facilities located in Eastern Europe, in order to quickly react on market trends."[346]

Supporting elements that increase the flexibility, which in turn positively influence the response time might be a reliable and well-organized supplier network that allows the company to be flexible.[347] "(…) It was observed that the industry will learn more and learn quicker through greater collaboration, identifying common challenges and better sharing of best practices to overcome these."[348] Especially the collaboration between companies in the fashion apparel retail trade and those companies in the fashion apparel industry has been mentioned as an important aspect. Both parties need to change their attitudes and work together accordingly in order to be able to compete in the highly competitive marketplace – individual goals need to be replaced by common goals.[349]

Additionally, companies experience an increased flexibility by forward or backward integrating, i.e. opening own retail stores or creating own brands and/or collections.

Next to that, a fraction of fashion apparel companies is increasingly verticalizing to reduce the time to market. While almost all supply chain activities are executed by the company itself, verticalization is also increasing the transparency of quality and sustainability within supply chain processes.[350]

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[345] Interview no. 9, Appendix IV pages 69-79
[346] Interview no. 9, Appendix IV pages 69-79
[347] See Masson et al. (2007), p. 251
[348] Deutsche Post DHL and Buck Consultant International (2012), p. 5
[349] See interview no. 7, Appendix IV pages 56-64; interview no. 9, Appendix IV pages 69-79
[350] See Deutsche Post DHL and Buck Consultants International (2012), p. 22-23

Of course, strategic choices are highly dependent on the company's business strategy, the market it operates in, the products the company offers and the company's overall market power. "When a firm targets a specific market segment like a high-end, premium market, its primary competitive priorities are comparable with excellence in quality, perceived quality, and the like. On the other hand, when a firm tries to reach a wide range of market, not confined to a small, specific market segment, it focuses on market responsiveness, low cost, functionality or performance."[351]

Concluding, top performing fashion apparel companies "(…) shifted their focus from an internal towards an external orientation. Furthermore, they have shifted from a purely cost centric approach towards creating value to grow their business and building a value driven network."[352] In order to create value, three main supporting aspects are mentioned in both, theory and practice. Firstly, a product needs to be created with a relatively high price-quality ratio. Secondly, the product needs to incorporate sustainable aspects along almost all supply chain activities. Thirdly, the use of the online market is mentioned as an important aspect. "The online market has a large growth potential and yet many well-known brands still only have a relatively low market share in online retailing. This means that both business executives and the supply chain executives within fashion and lifestyle brands need to address robust solutions to embrace the online channel and grow the company's business in a profitable way."[353] Of course, all the degrees of this value-adding aspects need to be targeted according to their individual segments.

[351] Kim (2013), p. 225
[352] See Deutsche Post DHL and Buck Consultants International (2012), p. 13
[353] Deutsche Post DHL and Buck Consultant International (2012), p. 6

6. Limitations and further research

Both practitioners in companies and academics might find this research useful, as it outlines the major lines of SCM trends in the field of fashion apparel companies operating in the apparel industry and the apparel retail trade. But there might also be some limitations connected to this research.

The main limitation of this paper is connected to the explorative nature of this study, which is not avoidable as this topic has not been studies in detail so far. The amount of 13 extensive interviews with representatives of German mass-fashion apparel companies in combination with a case study is suitable to verify the conceptual model proposed by literature, but not enough to assure a wide-ranging external validity.[354] In order to achieve a complete generalization, future research needs to incorporate a larger amount of cases from the fashion apparel industry for each of the three groups, the fashion apparel retail trade, the fashion apparel industry using outsourcing and the fashion apparel industry using in-house production. A further step of analysis would be the extension of the conceptual model by taking into consideration other market segments of the fashion industry. For instance, the segment of luxury fashion apparels could be investigated accordingly. Additionally, special attention should be paid to different product groups like men, women, kids or sportswear and the SCM trends within these categories.

"Fast fashion is not influencing our supply chain that much, since we found a niche market for us. We only produce little girl's dresses and I think that children's wear in general is not as much involved in fast fashion than women's wear. Also trends in festive dresses, which is our main business, do not move on as quickly as in the casual women's wear. That leaves us more time for design and the high quality production."[355]

Next to that, this research is concentrating on those three mentioned categories only, while some of them might include other sub-categories that might be important for further investigation. For instance, the group of internet-pure-players or those companies that are selling their items while using catalogues only should be taken into consideration. Especially e-commerce has become an important channel for the fashion apparel industry. According to the German Business Portal IXPOS, "almost 42% of all online shoppers ordered apparel online. That makes clothes and shoes the most attractive product group for

[354] See Brun and Castelli (2008), p. 180
[355] Interview no. 13, Appendix IV pages 101-104

online shopping."[356] Future research should also incorporate organizations and suppliers with different sizes, located in different countries in order to improve the generalizability of the study. Additionally, the group of companies coming from outside the fashion apparel industry, like supermarkets and chemist's shops is gaining increasing importance.[357] Future research should consider the influence of these groups of companies while looking at their SCM trends.

While concentrating on the German fashion apparel industry, another limitation might occur. Being embedded into national structures, companies might "(…) pursue different sourcing strategies and make different locational choices."[358] Lane and Probert (2006) recognize that "UK and German firms and their networks differ not only from each other but also from the US case which is often taken as representative of the industry."[359] In order to improve the lack of generalization outside the specific context of this study, other countries should also be investigated concerning this research question.

As already mentioned before, literature has not investigated the inter-connectivity of several SCM trends yet. For instance, both aspects, sustainability in all supply chain activities and being able to quickly respond to market demands have been recognized as significant trends for fashion apparel companies. But in order to quickly respond to customer needs, companies might choose for special transportation methods, such as air freight, which in turn negatively influences aspects of sustainability while polluting the environment.[360] As a result, future research might develop a score card describing the different weightings of each SCM trend. According to this score card, the importance of each factor and the degree of influence on one another could be pointed out.

Next to these aspects, a supply chain professional that has been interviewed during this research expects the disappearance of the middle segment. In the future, companies in the middle segment might reorganize their strategies by either decrease their prices to a lower segment and compete with classical fast fashion companies or position their brands in the

[356] IXPOS (2014), p. 1
[357] See Focus medialine (2006), p. 21; Commerzbank – Group Risk Management (2011), p. 16
[358] Lane and Probert (2006), p. 35
[359] Lane and Probert (2006), p. 35
[360] See interview no. 2, Appendix IV pages 12-18

higher, more luxury segment and stick to the traditional delivery system.[361] Future research could further investigate this argument.

"Then we recognize a shift. Those three traditional segments, low, middle and high are disappearing because the middle segment is getting into trouble while trying to participate with the fast fashion system. The middle segment has either the possibility to upgrade to the premium, higher segment or compete with fast fashion retailers."[362]

[361] See interview no. 2, Appendix IV pages 12-18
[362] Interview no. 2, Appendix IV pages 12-18

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APPENDIX A: Figures and Tables

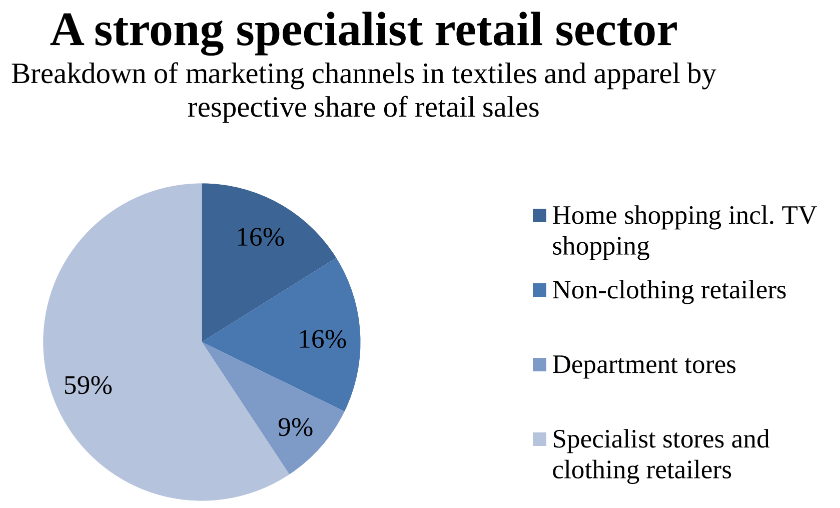

Figure 5: A strong specialist retail sector – Breakdown of marketing channels in textiles and apparel by respective share of retail sales

Source: Textilwirtschaft Media Kit (2014), p. 9

	BUY (outsourcing)		**MAKE** (in-house production)	
	Domestic	**Off-shore**	**Domestic**	**Off-shore**
a) Cost advantage	Low/Average	High	Low	Average/High
b) Risk shifting	High	High	Low	Low
c) Demand-driven	Average	Low	High	Average
d) Forecast driven	Average	High	Low	Low
e) Financial possibilities	Low	Low	High	High
f) Sustainability	Lower	Lower	Higher	Higher
g) Others	-	-	-	-

Table 9: The score of influencing factors for different strategies

Source: Own evaluation

APPENDIX B: Interview questions with the motivations coming from literature

General Information	Motivation
General information about the supply chain professional(s) being interviewed: *Could you please shortly explain* ** your main functions?* **since when are you working for the company?*	-
Could you please give me some general information about your company such as ** the products in your portfolio?* ** the market share in Germany?* ** the importance of the German marketplace?*	-
Buying activities	**Motivation**
(1) In how many seasons/collections do you deliver in a year? *(2) What is your forecast horizon?*	(1) "Fashion retailers exploit this market [European market] by bringing new products to their stores as frequently as possible. Typical activity for a retailer might be a few hundred different fashion products a year (…).Customers visit the stores on average about 35 times a year, 15 per cent of the items in a store are "new" every week, and product life cycles – from first offering in a store to discounting – average 6 weeks but were sometimes as short as 3 weeks."[363] (2) Long forecast horizons increase the probability of sourced-out production to Far-East countries (allow enough time for production, transportation and quality control → low flexibility, e.g. limited possibilities of replenishments during the season)[364]; * "Traditional ways of responding to customer demand have been forecast-based, with the resultant risk of over-stocked or understocked situations."[365] → source off-shore has led to longer lead-times

[363] Masson, Iosif, MacKerron and Fernie (2007), p. 239
[364] See Richardson (1996), p. 400; Perry, Sohal and Rumpf (1999), p. 119
[365] Christopher, Lowson and Peck (2004), p. 3

Outsourcing versus own production	**Motivation**
Outsourcing (or not): *Why did you chose for outsourcing (or not)? What were the motives?* *Which SC functions are outsourced?* *How much of your production is outsourced to third parties (percentage)?*	Possible motives: * Decision on outsourcing or in-house production dependent on control over quality and time; fewer communication problems with in-house production, less capital investment and more flexibility with outsourcing[366] * Increased imports from low-wage countries with similar quality and performance standards forced fashion apparel companies to come up with alternative strategies in order to stay competitive[367] * Low costs (TCE)[368] * Add value to non-core activities of the company (RBV)[369] * Knowledge gaps (KBV)[370] * Management of risk[371]
How much of your production is sourced from Far East suppliers and how much from local suppliers?	* Supplier selection: off-shore versus domestic sourcing[372]; * Sourcing mostly in the Far East "(…) where close proximity among garment manufacturers, fabric suppliers and logistics centres was preferred."[373]
Do you own any apparel or textile manufacturing facilities?	* In most cases "None of the retailers owned any apparel or textile manufacturing facilities and they focused on the design, planning and marketing functions of the supply chain."[374]
Where are your main suppliers located and where does the production take place? *How important is the location of the supplier for your company (especially while looking at the aspect of*	* In the last two decades, many western European textiles and clothing companies have moved manufacturing activities to low-cost countries in Eastern Europe or to non-European."[375] * The demand driven approach makes use of manufacturing facilities with

[366] See Sen (2008), p. 575
[367] See Adler (2002), p. 31; Matthes (2002), p. 1; Sen (2008), p. 590
[368] See Klein and Shelanski (1995), p. 337; Klein and Shelanski (1996), p. 282-283; Grossman and Helpman (2002), p. 86, 118
[369] See Lin et al. (2013), p. 296; Kim (2013), p. 216
[370] See Grant (1996), p. 110; Cabrera-Suárez, De Saá-Pérez and García-Almeida (2001), p. 39; Ketchen and Hult (2007), p. 575-576;
[371] See Abernathy, Volpe and Weile (2006), p. 2228-2229; Lane and Probert (2006), p. 64; Masson et al. (2007), p. 238; Vedel (2013), p. 518
[372] See Forney, Rosen and Orzechowski (1990), p. 39; Christopher and Peck (1997), p. 63; Lowson (2001), p. 550-551; Abernathy et al. (2006), p. 2217
[373] Masson, Iosif, MAcKerron and Fernie (2007), p. 244
[374] Masson, Iosif, MAcKerron and Fernie (2007), p. 244
[375] Sorensen (2008), p. 1

distance)?	physical proximities to the customers, in order to quickly respond to their demands.[376] * Off-shore production might also incorporate potential risks due to the long distance transportation, such as "(…) exchange rate volatility, risks to duty preferences, social and environmental risks, and also political risks which became specifically evident in the protests in Bangladesh and Cambodia during the last year."[377]
Is there an import/export agency acting as a significant figure within the chain? *Do you make frequent use of sourcing agencies?*	***** "Some large retailers have established their own buying offices overseas to administer the outsourcing of their private-label products. Others work with large and sophisticated independent sourcing agents to handle this intricate task."[378] * "(…) third party indirect sourcing import/export agencies or what many choose to call intermediaries (…) taking responsibility for the whole process of sourcing product from low-cost countries, and subsequently managing the logistics of delivery to the retailers' European distribution centres"[379]; → their access to the large supplier network enabled almost limitless flexibility in terms of product capability, and coupled with the industry overcapacity, the rapid identification and utilisation of spare finishing manufacturing capacity to enable rapid lead times[380] * "(…) often an import or export agency, acting as a significant figure within the chain. The addition of the intermediary has come about as a result of increasing globalisation within the industry."[381]
Do you recognize strengths & weaknesses of your current sourcing strategy?	e.g. Managing the supplier network effectively might of course also include process integration where there exists collaboration and integrated processes and systems across the supply chain. This might be best achieved through the notion

[376] See Sen (2008), p. 583
[377] Rinnebach (2014), p. 2
[378] Abernathy, Volpe and Weil (2006), p. 2211-2212
[379] Masson, Iosif, MacKerron and Fernie (2007), p. 247
[380] See Masson, Iosif, MacKerron and Fernie (2007), p. 251
[381] Bruce, Daly and Towers (2004), p. 155

	of a virtual supply network, where collaborative planning, sharing of information and visibility across the supply pipeline is apparent.[382]
Did you consider the possibility to make use of own manufacturing possibilities/ sourcing out instead of sourcing out/ own manufacturing possibilities?	***** Nowadays, the majority of fashion apparel companies are making use of the strategic option of outsourcing.[383]
Supply Chain Strategies	**Motivation**
Would you consider your company to be more cost or location oriented? Why?	* <u>Cost oriented:</u> sourcing off-shore while seeking for low cost manufacturing solutions, but increased the lead times → inflexibility and hidden costs (quality control, training costs, transportation costs) * <u>Location oriented:</u> lead time reduction → shorter forecast horizon[384]; can be achieved with concepts like agile SCs and QR systems * Strategic dilemma: On the one hand, companies are forced to source or produce in low-wage countries to achieve cost advantages, on the other hand, the strategy of outsourcing and the production in off-shore locations is resulting in longer lead times, increasing the total response time.[385]
Apart from your current supply chain management strategy, do you recognize important trends coming from competitive companies? *Which ones do you consider to be long-lasting and successful? Why?*	***** Information technologies are becoming increasingly important for the demand-driven strategic approach, providing tools that allow people to accomplish their work more effectively.[386]
<u>Fast Fashion:</u> *What do you think about the phenomenon of fast fashion? Is this a trend that is actually influencing your SCM strategy?* *Compare your current SCM strategy to the one of fast*	* Fast Fashion: a consumer driven approach to supply chain management; improve responsiveness of supply chains in the fashion industry have been made with introduction of concepts such as just-in-time, agile supply chains and quick response systems[387]

[382] See Masson, Iosif, MacKerron and Fernie (2007), p. 240
[383] See Masson et al. (2007), p. 244
[384] See Richardson (1996), p. 400; Perry, Sohal and Rumpf (1999), p. 119
[385] See Christopher and Peck (1997), p. 63; Abernathy et al. (2000), p. 12-13; Christopher and Towill (2000), p. 208; Christopher, Lowson and Peck (2004), p. 1-3
[386] See Swartz (2000), p. 124
[387] See Barnes and Lea-Greenwood (2006), p. 262

fashion – are there similar ways of purchasing, producing/manufacturing or distributing?	
How do you consider the importance of other supply chain trends for your company: *a) Quick response systems and just-in-time* *b) Short lifecycles* *c) Risk Management*	The nature of SCs in the fashion markets is often characterized by those trends: a) fast fashion trends, including QR, JIT, but also the agile, lean and leagile SC; QR: "(…) speed-to-market of products which move rapidly through the production and delivery cycle, from raw materials and component suppliers, to manufacturer, to retailer and finally to end consumers[388]; Agile: "A manufacturing system with extraordinary capability to meet the rapidly changing needs of the marketplace. A system that can shift rapidly amongst product models or between product lines, ideally in real-time response to customer demands."[389]; While considering the need of reducing lead times and accomplishing a QR system, the use of lean, agile and "leagile" approached should be emphasised.[390] b) characteristic of the fashion industry, next to high volatility, low predictability and high impulse purchase[391]; "Customers visit the stores on average about 35 times a year, 15 per cent of the items in a store are "new" every week, and product life cycles – from first offering in a store to discounting – average 6 weeks but were sometimes as short as 3 weeks."[392] c) Risk Management: Buying companies wishing to source globally often suffer from severe information asymmetries as their knowledge of and experience with purchasing from new suppliers in global supply markets are limited. Eliminating these information asymmetries has been one of the most critical roles for trading intermediaries historically[393]; `lean retailers' owning just the products on the selling floor AND risk; risk related to changing customer tastes and needs from retailer to supplier. This

[388] See Perry, Sohal and Rumpf (1999), p. 119
[389] See Perry, Sohal and Rumpf (1999), p. 120
[390] See Bruce, Daly and Towers (2004), p. 155-156
[391] See Christopher, Lowson and Peck (2004), p. 2
[392] See See Masson, Iosif, MacKerron and Fernie (2007), p. 239
[393] See Vedel and Ellagaard (2013), p. 511

	reallocation of risk onto the supplier forces manufacturers to adjust their strategies associated with costs, planning, inventory, production and sourcing.[394] → risk shifting/risk management will play an even larger role[395]
What are the unique characteristics of your chain making it competitive? *What are the disadvantages and why?* *How do your try to improve/avoid them?*	For example: + Quick response + Green production/social responsibility - supply chain complexity (e.g. huge supplier network) - collaboration and communication between company and supplier might be an issue ("(…)studies reported that collaboration and communication was already a major issue in the industry."(p.242)[396]
What were the motives for choosing the retail format of multi-branded store? *Could you imagine to make use of additional retail formats you did not use yet (e.g. mono-branded stores)?*	* In order to target different customer segments accordingly, different kinds of formats are used, ranging from mono-brand stores, to department stores, to flagship-stores, to specialist stores, to online shops.[397] * Two different strategies in the sector of the fashion apparel, the fashion apparel industry and the fashion apparel retail trade.[398]
How important are the possibilities of the internet for your company (e.g. Online shop, Social Media)?	* The growing digitalization and new mobile devices capable of connecting to the internet changed customers' buying patterns and purchasing behaviours. An increasing amount of customers prefers online shopping instead of going to physical stores located in shopping centres.[399]
How important is the topic Corporate Social Responsibility and being 'green' for your company?	* The aspect of sustainability is becoming increasingly important, influencing the strategic choices of fashion apparel companies. A growing amount of social-conscious consumers is demanding and also willing to pay more for green products that are ethical and environmental friendly along the whole SC of fashion apparel products.[400]

[394] See Abernathy (2000), p. 5
[395] See Abernathy, Volpe and Weil (2006), p. 2216, 2228-2229
[396] See Masson, Iosif, MAcKerron and Fernie (2007), p. 242
[397] See Guy (1998), p. 255-256; Moore et al. (2000), p. 919
[398] See See Loock (2008), p. 41-44; Sen (2008), p. 582
[399] See Schwarzl and Wünnenberg (2014), p. 2-3
[400] See Brito et al. (2008), p. 550 ; Seuring and Müller (2008), p. 1699; Kahn (2009); Pookulangara et al. (2011), p. 480-481; Nagurney and Yu (2012), p. 532, 539

Future perspectives	**Motivation**
How do you estimate the future customers' expending for the German fashion apparel industry? (Decline, stagnation, incline)	* Research and Markets (2013) forecasts an increasing demand in fashion, encouraging customers' spending. Between 2013 and 2018, a growth of 9.4 percent is expected due to a more frequent purchasing behaviour, caused by increased competition and the availability of fashionable products.[401] * Germany can be characterized as the most interesting sales market in Europe. Compared to other European countries, Germany has the highest turnover and market share.[402]
How do you see the future of SCM in the mass-market fashion apparel industry in Germany (and worldwide)?	* Scholar see a development towards fast fashioning (i.e. quick response systems, JIT, agile, leagile production, etc.)
Are you intending to further internationalize?	* While internationalization is gaining great importance, companies are opening new retail shops mainly in developed countries. In order to provide sufficient and proximate customer service, companies tend to locate additional offices and shops in importing countries.[403]
Is (are) there any other specific characteristic(s) in the fashion industry that affects(s) the design of your supply chain, which are not mentioned during this interview?	-

[401] See Research and Markets (2013); as well as Bundesministerium für Wirtschaft und Energie (2014)
[402] See Research and Markets (2013); Textilwirtschaft (2013), p.8
[403] See Matthes (2002), p. 5-6, 12; Lane and Probert (2004), p. 256; Commerzbank – Group Risk Management (2011), p. 20; Kromer et al. (2013), p. 4-5

APPENDIX C: Guidelines for coding

Category	**1st Sub-Category**	**2nd Sub-Category**	**Coding Rule** Categorize all text passages that refer to …	**Example**
Supplier Location	Near-shoring		… the production or outsourcing of a product or parts of it in a nearby country.	*We make use of European suppliers only. Thus, we do not have one single supplier in Asia.*
	Off-shoring		… the production or outsourcing of a product or parts of it in a country located far away from the home country of the company.	*Shirts, jackets and especially blouses are produced in the Far East.*
	Mixture of near-shoring and off-shoring		… the production or outsourcing of a product or parts of it in both locations, a nearby country and a country located far away from the home country of the company.	*That's dependent on the product. Some parts of the production are located in Eastern Europe, others in Germany. But the majority is produced in China.*
Motivations for locational and make-or-buy decisions	Focus on company's core business (RBV)		… companies using outsourcing to add value to non-core activities of the company. While those non-core activities are outsourced to specialists, the company can concentrate on its core internal activities and can gain access to expertise outside of the organization.	*We developed such a high product variety which would make the full operation of own manufacturing facilities nearly impossible. Additionally, we would be relatively inflexible, which would be a huge disadvantage nowadays while taking into account quickly changing fashion trends, designs, materials, washing methods and so on. We are now looking for the specialists all over the world for each product separately.*

	Supplier-Relationship		… the quality or length of the relationship/partnership between buyer and seller.	*And what's really important for us is the consistent quality standard we require and we cannot achieve this quality standard by switching from one supplier to another all the time.*
	Quality		… to the quality of the whole production process, including the materials, fabrics and the final product, but also the quality control.	*We clearly prefer high standards in quality and fit. That are actually the most important aspects for us.*
	Cost advantages		… companies searching for the lowest total costs of ownership.	*Of course, with in-house production you have to operate at full capacity, in order to work efficiently the whole year. Additionally, you have to keep in mind the cost aspect. While working with PLV suppliers, thus outsourcing the production, this could be easier achieved.*
	Demand-driven	Quick Response	… quick responses to customers' and retailers' demands.	*Quick Response is getting increasingly important. Especially in the case of the pre-order when the products are produced according to the order of the client.*
		Information technologies	… the importance of technological innovations in information technology to support being demand-driven.	*RFID and tagging articles will gain increasing attention. Of course, RFID has major advantages. At this point of time, the RFID tags are relatively expensive, but as soon as they get more affordable, the use will drastically increase.*

		Number of collections	… the number of collections or seasons a company works with each year.	*We are working with three collections for each season and additional Fast programmes, such in-between collections. In total, we count eight collections a year.*
		Lead time reduction/ physical proximity to supplier	… the reduction of lead time in order to quickly respond to customer demands, while local suppliers are preferred offering an increasing responsiveness due to distance advantages.	*In the first collections we prefer Turkish suppliers because we know, in case of tight time schedules, the lead-time with the truck will take about a week, while shipping from the Far East with sea freight takes about 6-8 weeks.*
	Forecast-driven	Forecast horizon	… to the time-to-market of a company, the lead time on the order, sales forecasts and other aspects that might influence the forecast horizon.	*The time from the design and development to the final presentation in the shops will take about six to eight months. Yes, it could take that long.*
		Other forecast-driven aspects	… other aspects that refer to the forecast-driven approach.	*With the NOS sales we are able to plan the process relatively certain. The NOS business is about 80 percent of our products. The other 20 percent require flexible production in order to react on the short term.*
	Sustainability		… environmental and social initiatives, just as green production and social corporate responsibility.	*Sustainability is no longer a unique selling proposition, but a must-have.*
	Other motives		… other motives that have not been listed so far.	*Not every fashion apparel company is able to do so. It is to a greater extent*

				the market power that influences such strategic decisions.
Sourcing agents			.. sourcing agencies handling companies' import and export activities.	*Yes, we are working with import- and export agents in the several countries we are producing and selling our articles.*
New Verticals/ Extreme Fast Fashion			… companies which bring their products quickly to the market and whose production is largely vertically integrated.	*The main difference is the fact that Zara is a fully integrated company while other companies, such as Esprit, are generating approximately the half of their sales with wholesale businesses.*
Retail format	Fashion apparel industry	Outsourcing	… fashion apparel companies with their own buying department responsible for the purchase of fabrics, materials or garments, but whose production is contracted out to third parties and whose products are sold to the group of fashion apparel retail trade companies.	*All products are outsourced. We have no own facilities for manufacturing.*
		In-house production	… fashion apparel companies with both their own buying department responsible for the purchase and production of all materials and products and their own facilities for manufacturing and whose products are sold to the group of fashion apparel retail trade companies.	*We are operating two own manufacturing facilities for producing our collections in Tunisia with about 1.600 employees.*

	Fashion apparel retail trade		… companies that are selling products directly to the final customer, having an intermediary function between the fashion apparel industry and the final customer.	*Companies in the fashion apparel retail trade would like to create own brands. But that's more a question whether they are able to do so.*
	Hybrid version		… to companies applying a mixed format combining the fashion apparel industry and the fashion apparel retail trade.	*If you want to develop further and grow, then you try to realize that with integrative, vertical aspects. We decided to forward integrate by operating own retail sales areas. In order to successfully operate those sales areas, a development from a company specialized in pants to a company proving whole outfits was needed. Additionally, we wanted to reduce the dependency on the fashion apparel retail trade.*
Future/other trends	Internationalization		… companies that are opening new retail shops or offices in new international markets.	*Austria, Switzerland and the Benelux are not considered to be foreign countries any more, just as the Scandinavian countries. I need to operate international, otherwise I will remain a small, unknown label.*
	Importance of the internet		… the growing digitalization and new mobile devices capable of connecting to the internet that changed customers' buying patterns and purchasing behaviours	*E-commerce will gain increasing importance in the next serval years.*

	Other trends		… other trends that might occur in the future and that have not been listed so far.	*Another important trend will be the transparency, the controllability and the stability of the supply chain.*

APPENDIX E: Case study of the Spanish retailer Zara

Today, Zara operates about 650 retail stores in more than 50 countries worldwide,[404] making Senor Ortega the richest man of Spain. The success of his company Inditex, the company he founded in 1985, is based on a simple principle: "To be successful, 'you need to have five fingers touching the factory and five touching the customer.'"[405] As a result, a highly market sensitive supply chain has been developed. While being compared to other, traditional clothing manufacturers operate long forecast horizons for the production of their products, Zara passes their products through the supply chain from design to the final product in store in about 15 days.[406] Zara spends money on every activity that increases the responsiveness and flexibility of the supply chain.[407]

Next to this aspect, several other points are creating a very different supply chain of the company Zara different while being compared to other clothing companies. Firstly, Zara is producing more than the half of its product in own manufacturing facilities located in close proximities to Spain, while the majority of fashion apparel companies has outsourced its production to low-wage countries in off-shore locations. In general, Zara produces more complicated items in own manufacturing facilities, while simple products are sourced out to third parties.[408] According to that, Zara manages almost all its supply chain activities on their own, rather than relying on external partners for designing, warehousing, distributing or other logistical functions.[409] This is also the case while looking at the amount of directly owned retail shops. "Fast fashion requires that, first, the retailers have rapidly increasing numbers of stores worldwide—preferably directly owned and operated outlets in secure countries and franchised outlets in risky ones—so that they can reach more and more customers around the globe."[410] Thirdly, the factories of Zara are not operating at full capacity in order to incorporate extra capacity for items that require a quick replenishment or response. Peer companies, on the other hand, are trying to maximize their outputs by running at full capacity all the time.[411] Next to that, Zara has a high variety of products

[404] See Inditex (y.u.)
[405] Ferdows et al. (2004), p. 1
[406] See Ferdows et al. (2004), p. 1; Osterwalder (2005)
[407] See Ferdows et al. (2004), p. 2
[408] See Ferdows et al. (2004), p. 2; Osterwalder (2005), Tokatli (2007), p. 1; Cachon and Swinney (2009), p. 498
[409] See Ferdows et al. (2004), p. 2
[410] Tokatli (2007), p. 3
[411] See Ferdows et al. (2004), p. 2

which are produced in small batches, instead of chasing economies of scale.[412] "Zara's system has to deal with something in the realm of 300,000 new stock-keeping units (SKUs), on average, every year."[413] Additionally, the collections of Zara can be characterized as being highly fashion-sensitive while being offered for a reasonable price.[414]

According to these aspects, Zara is able to stock their stores with new products twice a week, while recognizing the importance of quickly responding to customer demands. While reducing the time-to-market, Zara creates a new store arrangement almost every week, which attracts the customer to come back to the store on a frequently basis. Highly important supporting elements are information systems that are connecting all members and activities associated with its supply chain management.[415]

Each mentioned aspect of supply chain management alone could positively influence the responsiveness of a company. While combining these aspects reinforcing one another, Zara is able to create a highly powerful supply chain system.[416] Thus, Zara developed an innovative supply chain model that "(...) disrupted the traditional way of doing business not through introduction of new technology, creation of new products, or finding new market niches, but by identifying novel ways of delivering existing products based on existing technology to existing markets".[417]

That is why "Zara defines most of the current conventional wisdom about how supply chains should be run."[418] The developments around the supply chain management of Zara forced other companies in the fashion apparel industry to redesign their strategies and come up with innovative models. The whole industry experiences a development from a product-driven market to a more customer-oriented one. According to the strategy of Zara, other companies need to ensure speed to market in order to compete on the market, a phenomenon, which is called 'fast fashion'.[419]

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[412] See Ferdows et al. (2004), p. 2; Tokatli (2007), p. 3
[413] Ferdows et al. (2004), p. 2
[414] See Osterwalder (2005); Walters (2006), p. 86
[415] See Walters (2006), p. 86; Tokatli (2007), p. 3; Sorescu et al. (2011), p. 8; Tokatli (2014), p. 6
[416] See Ferdows et al. (2004), p. 6
[417] Girotra and Netessine (2013), p. 538
[418] Ferdows et al. (2004), p. 2
[419] See Bhardwaj and Fairhurst (2010), p. 165