



Paper to be presented at
the DRUID16 20th Anniversary Conference
Copenhagen, June 13-15, 2016

Late Globalization and Evolution and Metamorphoses of Industries: Evidence from Danish Textile and Fashion Industry

Behnam Boujarzadeh
Aalborg University
Theory Building Research Programme
realbehnam@gmail.com

Romeo V. Turcan
Aalborg University
Department of Business and Management
rvt@business.aau.dk

Nikhilesh Dholakia
University of Rhode Island
College of Business Administration
nikdholakia@gmail.com

Abstract

In this paper we explore the effect of late globalization on evolution of industries. Specifically we investigate the impact of late globalization on the evolution and metamorphoses of Danish Textile and Fashion Industry (DTFI). Using historical data, we survey the development of DTFI between 1945 and 2015. In this quest we pursue a number of issues. We explore critical events, impediments or pressures as well as turning points that shaped DTFI; identify main institutional players who enacted various changes in DTFI and how their decisions influenced the evolution of DTFI; and strive to understand the effects of late globalization on DTFI's size, mission, location, knowledge, growth and structure. With this paper we aim to generate fine-grained, substantive case details that would contribute towards the development of a theory (or theories) of late globalization.

Late Globalization and Evolution and Metamorphoses of Industries: Evidence from Danish Textile and Fashion Industry

1. Introduction

In this paper we explore the effect of late globalization on evolution of industries. Specifically we investigate the impact of late globalization on the evolution and metamorphoses of Danish Textile and Fashion Industry (DTFI). Using historical data, we survey the development of DTFI over the past 70 years, between 1945 and 2015. On this quest we pursue a number of questions. We aim to explore critical events, impediments or pressures as well as turning points that shaped DTFI; identify main institutional players who enacted various changes in DTFI and how their decisions influenced the evolution of DTFI; and understand the effects of late globalization on DTFI's size, mission, location, knowledge, growth and structure.

Late globalization is a relatively new phenomenon. While not using the term "late globalization" explicitly, Appadurai (1990) , recognizing the five cross-national interconnecting and intermingling "scapes", namely ethnoscaples, technoscapes, finanscapes, mediascapes, and ideoscapes, provided a first major window on what late globalization (in the "lifecycle of globalization" sense) looks and feels like. Literary theorist Moraru (2011) has gone a step beyond, and introduced the term "late globalization", in a lifecycle-of-globalization sense.

Au contraire, to culture theorists, "globalization" has been happening for a very long time, even a couple of millennia, if we take the early perilous journeys of Silk Road and similar merchant-adventurers, traveling long routes by long caravans or in very early sailing boats. Indeed, from the culture theory perspective, globalization has gone through a long life cycle – incipience in the early adventure-explorer days, growth in the long European phase of first merchant and later gunboat explorers, and a maturity phase that lasted through much of the 20th century, with American ascendancy contested to some extent by Japan and Germany. In this sense, globalization is now

likely in a late maturity phase, with the intensity of cultural traffic at an all-time high. However, this historical view is limited when nations, sectors, industries, companies, specific individual or institutional actors are grappling with practical aspects of late globalization affecting their situations, fortunes, and prospects.

There is clearly a need to push the cultural lifecycle-of-globalization concept(s) of late globalization in several other disciplinary dimensions – economic, political, sociological and more. With this paper we aim to develop fine-grained, substantive case details that would contribute towards the development of a theory (or theories) of late globalization. We proceed by exploring the concept(s) of late globalization and by reviewing the phenomenon of industry evolution. The research methodology and methods of data collection and analysis follow next. Thereafter we present and discuss our findings and conclude the paper by providing venues for future research.

2. Theoretical background

2.1. Late globalization: More questions than answers

The “late globalization” angle is new, but it has to be very carefully developed. The act of being late in whatever aspect of globalization – whether it is deliberate, serendipitous, or for other reasons – often means many opportunities were grabbed by the early globalizers and are thus scarce or closed for the late globalizer. There may be benefits to lateness also – the timing of a late globalizer may correspond so well with some external events that the late globalizer can grab a very large share of opportunities.

The qualifiers “early-late” could be applied to countries or nations, functions or aspects of industries or sectors, as well as companies. The “late” may refer to the timing of various steps/forms of internationalization and globalization. Overall, the notion “late” produces a number of issues or questions. “Late” by whose standard or definition? In the context of DTFI, e.g., (a) Danish firms in

general? (b) Danish firms in textiles? (c) Scandinavian firms in textiles? (d) British firms in textiles? or (e) American firms in textiles? “Late” on what dimension: (a) manufacturing? (b) supply chain development? (c) market- or resource-seeking? “Late”-“Early” combinations or intersections: (a) Denmark late globalizer but China early globalizer; (b) Denmark late globalizer in textiles and Belarus also late globalizer (as supply source); (c) USA early globalizer in textiles and also China early globalizer (as supply base). “Late” at what level of analysis: country (Denmark), industry (textiles), company (Kvadrat), process (manufacturing, R&D, marketing), strategic alliances (value chains, value locations, intellectual property issues).

From the above, there could be delineated several “stage-setting contexts” or levels of analysis which could shed light on the phenomenon of late globalization, including its causes and effects: meta-theoretical level, macro or nation-state level, meso level and micro level. As micro level is outside the scope of this study, we maintain that at micro level, the enduring question yet remains: how does late globalization affect massively complex human behavior? At meta-theoretical level, it is useful to understand the distinction between globalization and internationalization. Are they distinct, separate phenomena or two sides of the same coin (capitalism)? Globalization is often an outside-in process: strong external forces (generally a giant global corporation) motivate a supplier firm to go international to support the global giant’s operations and strategic goals. Internationalization, by contrast, is inside-out: forces inside the nation motivate (sometimes compel) a firm to go to foreign markets.

As Giddens (1991) maintains, globalization is “‘what is out there’, remote and far away”, but at the same time “‘in here’ phenomenon”, influencing all aspects of our lives. Giddens suggests that globalization ‘pushes downwards’, creating new pressures for local autonomy; ‘pulls away’ power or influence from local communities and nations into the global arena, and ‘squeezes sideways’, creating new economic and cultural zones within and across nations. In this, Giddens (2002) refers to

Daniel Bell who says that “the nation becomes not only too small to solve the big problems, but also too large to solve the small ones”.

At macro, nation-state level, the role of timing (being early or late) in terms of globalizing is an interesting area of inquiry. What are the benefits or downsides of late (early) globalizing? Nations like UK, France, USA and Japan globalized early, however, during the post-World War II period internationalization of firms from the nations in the Soviet bloc was slow, as import-substituting industrialization was a key goal of developing nations, and globalization practically non-existent for many decades. Comparing China and India, China started these processes in 1971 and was an ‘early globalizer’ compared to India, a ‘late globalizer’ that opened the doors to outside-in forces and processes only in 1991. In this context, it might not be so much about timing as about whether to globalize or not in the first place? Should nations oppose globalizing and opt for protectionism, or open up, embrace globalization and integrate fully into global economy? Partly, the answers to these questions would depend on whether globalization is or is perceived to be a negative or positive phenomenon. Or as Anthony Giddens warns that globalization “...is by no means wholly benign in its consequences”.

The above presupposes some sort of conscious (policy) decision about globalizing or not globalizing. What about being inadvertently or unintentionally late globalizer or not globalized at all (despite a policy discourse that states the opposite). It was interesting to observe the latter in late 2008, beginning of 2009, as financial crisis was unfolding. For example, the Republic of Moldova, which at the time of crisis was considered one of the poorest countries in the European Union, was ranked in early 2009 as the fifth most stable economy in the world (Piggott, 2009) , hence not affected (comparing to other nations) by global economic and financial crisis. Invulnerability to the global economic and financial crisis came from its non-globalized economy. Moldova’s primitive financial

system, low level of credit issuing, agricultural rather real based economy made Moldova less susceptible to the global financial and economic crisis.

At meso level, the impact of late globalization on industries and sectors is yet to be well understood. As an outside-in phenomenon, how has late globalization driven and still drives the fragmentation of value chains within national borders? What are the effects of globalization on organizations and industries value chains? This level also offers an opportunity to explore the interplay between globalization and internationalization. For example, local SMEs become captive to multinational enterprises and eventually follow these MNEs abroad, abandoning the national markets completely. Being constantly driven by economy of scale and scope, these MNEs reconfigure their own value chains, especially in times of crises. Some of the first victims of such reconfigurations are SMEs that de-internationalize as a result, going back home. Will their sectors be there and if yes, will there be room for them? Not only SMEs become victims of globalization, de-internationalization or withdrawal from international markets. In recent years, MNEs have been involved in back-shoring – reversing previous off-shoring by bringing manufacturing back home. Practitioners and policy makers acknowledge the relevance of back-shoring for MNEs and international trade policies as UNCTAD report (2013) states. Growing empirical data adds to the relevance of this phenomenon. For example, in Germany alone approximately 400 to 700 per year perform back-shoring activities (Bals 2015). Despite compelling empirical evidence of de-internationalization, including back-shoring, academic research lags behind.

Furthermore, at meso level - context indeed matters and here might be nothing new. Nonetheless, the role of context and institutions in globalization era needs more research by altering levels and units of analysis. For example, focusing solely on how MNEs adapt to or are affected by international or target country contexts limits our contemporary understanding of globalization and internationalization and their effects. Investigating different forms of organizing or different

organizations may generate interesting, sometime contradictory findings. For example, being late globalizers compared to MNEs, increasing number of internationally renowned universities has recently started to withdraw from emerging or developing international countries, the primary reason being the incompatibility between institutional university autonomy that defines a modern university and the context in the target. Unwillingness to compromise on university freedom and autonomy makes advanced – campus building, off-shoring – internationalization of universities to emerging or developing countries not only impossible, but also unethical. Such contradictory findings have an impact not only on internationalization and globalization policies and practices, but also question the explanatory power of extant organization and international business theories and models.

2.2. Industries emerging and evolving: a synergy is needed between the two

How do new industries emerge and evolve? This question is still valid and important today to policy makers, practitioners and researchers. It is a question that has received scant attention in academic research and needs to be further explored and studied. We underlined ‘and’ to emphasize the fact that traditionally these two phenomena – emergence of industries and evolution of industries – have been studied independently from one another.

One of the first attempts to conceptualize the emergence of new industries was made by Van de Ven and Garud (1989) and Aldrich and Fiol (1994). Van de Ven and Garud (1989) advocate studying the emergence of industries at two levels of analysis: individual firm or entrepreneur level, and aggregate, system level. At the former, Van de Ven and Garud (1989) suggest exploring the motivations, purposeful intentions and business ideas of entrepreneurs, maintaining that “...a totally new unit (be it a new technology, business venture, or program) is created through a stream of activities undertaken by entrepreneurs to accumulate the external resources, competence, and ingredients necessary to transform and construct the business ideas into a self-sustaining economic

enterprise” (p. 201). In other words, the initial catalyst is a new venture that is the seed for the birth of the new industry (Turcan and Fraser, 2015). At the latter level, according to Van de Ven and Garud (1989), the emergence of a new industry is the result of “...cumulative achievements of a new "community" of symbiotically related firms and actors who, through individual and collective action, invest resources in and transform a technological invention into a commercially viable business” (p. 200).

Aldrich and Fiol (1994) extend Van de Ven and Garud’s conceptual model of the emergence of new industries, maintaining that at the outset, both – new unit and new industry - lack cognitive legitimacy, defined as knowledge about the new activity and what is needed to succeed in an industry, and socio-political legitimacy, defined as the value placed on the new activity by cultural norms and political authorities. Aldrich and Fiol (1994) explore strategies of legitimation at four simultaneous levels: organizational, intra-industry, inter-industry, and institutional. However, their model does not capture the process of (co)-emergence and (co)-legitimation of new venture and new industry, and assumes the presence of emerging competition as well as of sophisticated institutional context – these gaps remain in the literature. (Turcan and Fraser, 2015).

Hannan and Freeman (1977) were among the first who pioneered the study of the evolution of industries from the population-ecology perspective advancing a population–ecology theory of birth, survival, and death of organizations. According to Hannan and Freeman (1977; 1993), a set of general processes affect the rate of organizational population: competition within and between population for capital, members, and other limited resources; legitimation; aging, in the case of mortality; and environmental abundance and constraints. Overall, ecologist scholars assume that the most important processes to study are population demographics, or what Carroll and Hannan (2000) call vital events: patterns of foundings, transformations, and disbandings – these constitute the dependent variables in most ecological analyses.

At this level – sectoral, regional, and national - the population and not the individual firm or individual entrepreneur is the unit of analysis. That is, the population–ecology theory treats organizations as black boxes, closed to inspection of their inner workings (Bygrave and Hofer, 1991). Moreover, its probabilistic predictive power for populations has never been proven (Bygrave, 1993). Attention instead switched to “industry life cycle” model to study how industries evolve over time (McGahan et al., 2004). Life cycle ‘interval’ could vary significantly across industries, and its precise temporal boundaries are a subject of some disagreement. For example, Low and Abrahamson (1997) mark the end of the emergent stage at the beginning of an industry's growth stage, but others extend the emergent stage past the growth stage to some later point, alternately characterized as “maturity”, “legitimation”, or “stability” (Aldrich and Ruef, 2006; Klepper and Graddy, 1990). According to Klepper and Graddy (1990), the evolution of a single industry may take as few as two years and as many as 50 years or more to achieve stability, which they define as the point at which the number of firms in the industry peaked.

The review of extant studies on the emergence and evolution of industries points to globalization as a catalyst of industry formation for example when MNEs introduce new products that represent new industries simultaneously in multiple countries (Agarwal and Bayus, 2002; Tellis et al., 2003).¹ At the same time, globalization may slow the formation of industries that require a critical mass of users or complementary products for growth to occur. The possible negative effects of globalization on industry formation may be strongest in complex network systems since the formation of these industries often requires new business models and government policies (Funk, 2010). The extant research and policy papers on the evolution of DTFI focus mainly on the impact of labor and employment (Olsen 2000), industrial relations (Christensen, 2013), location (EMCC, 2008), strategic

¹ Due to space limitation, the review tables that summarize selected, thematic literature on emergence and growth of industries and of DFTI respectively are not included in the paper, but could be made available upon request.

marketing and current trends (Pedersen, 2008) and value chain strategies (Jensen and Poulsen, 2013) on growth and changes, metamorphoses in DTFI as well as on key decisions related for example to shifting or relocating production or switching to mass-production of fashion cloths or enacting protectionism or de-regulation. In this paper we build on these studies by conducting a systematic, fine-grained analysis of emergence and evolution of DTFI.

3. Data collection and analysis

To explore the effect of late globalization on DTFI we used historical data between 1945 and 2015. We collected unobtrusive measures in the form of running records such as mass media and government records and episodic and private records such as sales, industrial and institutional records (Webb et al., 2000). Data were retrieved from multiple data sources such as Business History Yearbooks, Industry case studies, National statistics, Global Association databases, Institutional reports, Private company reports and industry online news, yielding approximately 450 pages of unobtrusive data. We used NVivo software package to code, memo, analyze, and interpret the data (Appendix 1).

In the data we looked for critical events, impediments or pressures as well as turning points that shaped the evolution of DTFI since 1945. We define an event as being critical when it deviates significantly, either positively or negatively, from what is normal or expected (Edvardsson, 1992). Following Abbott (2001), a turning point refers to two points in time, i.e., for a turning point to exist, there should be a passage of sufficient time between the two points, making sure that the direction of the course (trajectory) has been changed either in direction or in nature. According to Abbott (2001), a turning point is also a process that involves a course correction: it redirects the path, and requires certain strategies and choices. To the above, we searched for main institutional players who enacted various changes in DTFI, trying to learn how their decisions influenced the evolution of DTFI.

We were further interested in understanding the impact late globalization had on DTFI's size, mission, location, knowledge, growth and structure.

We identified several frames of reference to more accurately code and classify and analyze the data. One frame of reference relates to macro, meso and micro levels of the industry: global, country, industry, company, process and strategy; the other to DTFI's size, mission, location, knowledge, growth and structure; and the last one to time periods of DTFI evolution. We employed events listing, critical events, and case dynamics matrixes as well as causal mapping (Miles and Huberman, 1994) to explore the data, especially explore what led to what, when, and why. Using these tools helped us map the chronological flow of critical events and turning points, identify main institutional players who enacted various changes in DTFI and in the textile sector internationally, understand how the quality of their decisions impacted the evolution of the industry, and explore the consequences or effects on DTFI evolution and metamorphoses. Appendix 2 provides a summary of major critical events in the evolution of DTFI and Appendix 3 maps causal links between various frames of reference and levels of analysis across and within evolution periods. The emerging findings of the effects of late globalization on DTFI evolution and metamorphoses are summarized in Table 1 and discussed in the next section.

Table 1 about here

4. Findings and discussion

The analysis of the data revealed 6 distinct evolution periods of DTFI between 1945-2015 (Table 1): (1) the legacy of WWII and fashion; (2) survival by shrinkage and in-house design; (3) failure of protectionism and change from within; (4) accelerated globalization via production offshoring; (5) willful globalization via strategic outsourcing; and (6) acquisition of global R&Ds and e-shops. During each period we identified critical events and/or turning points at global level; singled out key strategic choices and policies for the sector development and growth; explored regulative, normative

and cognitive pillars that shapes respective strategic choices and policies; and assessed the impact of critical events and turning points as well as strategic choices and policies on the sector's size, mission, location, knowledge, economy, structure. Key findings are discussed next.

4.1. The legacy of WWII and fashion (re)emerging

The post-war economic optimism contributed to the transformation of textile and clothing industry worldwide. Fashion culture started to re-emerge in the form of a global demand for "ready-to-wear" clothing. To meet this demand for "ready-to-wear" clothing, textile and clothing companies had to rethink their ways of production and manufacturing, as well as acquire new knowledge of fashion design. Danish Government abolished any protectionism to encourage demand-driven production and exporting of clothing products. Abolishing protectionism had an adverse effect on DTFI and its companies. On one side, abolishing protectionism made local companies vulnerable to global free trade competition. On the other, local companies not only were not ready to cope with international and global competitors, they were inefficient and at time resistant or reluctant to respond to new fashion trends and new challenges and requirements of international markets.

Clearly there was disconnect or incongruity between governmental policies and sector companies' capabilities. This led to significant shrinkage of DTFI; those companies that continued their 'going concern' were preoccupied mainly with their survival trying to export on demand. Globalization trends indeed were forcing the sector to consider changing its mission from 'labor-intensive mass-production' to 'demand-driven production' and becoming more knowledge-intensive sector. Embracing 'demand-driven production' was a trade-off between sacrificing the size of the sector and staying flexible against global competitors. This shift in the mission of the sector also demanded new professions from a local labor market: not just production-line workers, but also design specialists. Towards the end of this period, DTFI could be characterized as downsized sector with demand-driven mission that was in need for fashion design knowledge.

4.2. Survival by shrinkage and in-house design

This period is characterized by continuous shrinkage of DTFI. The reason for this mainly is twofold. On one side, globalization trends such as low-cost-labor arbitrage, exposure to global free trade and global economic recession made textile and clothing sectors worldwide remarkably smaller. On the other, Danish Government enacted protectionism policy in an attempt to mitigate the trading threats from new, stronger competitor from Southern European countries, like Spain and Portugal. This protectionism policy was coupled with a sector-wide decision to keep the whole value-chain in-house, in the country, mainly to maintain the level of employment. The decision to keep companies' value-chains in-house was taken in spite of the fact that global economic recession changed public consumption toward cheaper clothing and that international competitors started relocating their production to low-cost countries. The intention was to balance this decision with manipulation of imports of clothing products from low-cost countries.

However, the protectionism policy and the 'advice' to keep the whole value-chain in-house created tensions among local companies and eventually led to the decrease of sector performance. Those companies that follow the policy and the advice had to downsize by laying off employees, whereas some even ceased trading – hence contributing further to the shrinkage of DTFI. Others decided to go against the established regulations and norms and commenced partial re-location of low-value parts of their value chains. In fact, this resistance sparked the emergence of Danish MNEs in DTFI along the emergence of MNEs (initially) from Southern Europe. Another outcome of these tensions was that Danish companies started appreciating the idea of breaking down own value chains and creating instead global value chains while keeping value-added activities such as design in-house. By the end of this period, design knowledge had become a truly global commodity.

4.3. Failure of protectionism and change from within

A number of major global trends characterize this period. Low-cost production centers mushroomed in Eastern Europe, Latin America and South East Asia. Labor-intensive industries, incl., textile and clothing, were going truly global giving rise to numerous MNEs, encouraging re-location of production to low-cost countries as well as giving birth to the notion of 'outsourcing'. 'Fast-fashion' culture was emerging challenging the way companies were organizing and managing their value chains. Fast-fashion put pressure on companies as lead-time from design to production to sales shortened and sector companies had to respond to constantly changing consumer demands. Growing demand for fast-fashion challenged old industrial centers in Western Europe and North America.

The Association of Danish Employers responded to these global trends by initiating a strategic development project called "change from within" targeting Danish manufacturers. Key idea of this project was to compete through "automation" as an alternative to low-cost global competition. This project – that in a way was a revised protectionism policy - however failed to deliver expected results, especially to decrease lead-time and prices. This led to further shrinkage of the sector: companies had to lay off employees and in the middle of 1980 the level of workforce started to decrease again. In the end this revision of protectionism policy failed to offer cheaper products compared to those offered by Asian and Southern European manufacturers and eventually led to a decline of exporting.

A byproduct of the revised protectionism policy was an increase of the level of outflow FDI that towards the end of the period exceeded dramatically the inflow of FDI. This tendency was caused by the decision of Danish textile and clothing companies to relocate their production the countries with location advantages and accessible global networks as well as to engage in subcontracting and outsourcing – phenomena that were just getting traction during this period. It was interesting to observe – interesting for that period dominated by MNEs – that smaller companies were

frontrunners in changing and adapting their business models and engaging way earlier than MNEs and without any regard for actual policies in relocation of production and outsourcing. The above movements prompted the Association of Danish Employers to reformulate the sector development policy in 1987 and to recommend relocating and engaging in outsourcing. Towards the end of the period, the value of Danish exports increased, especially to Norway, Sweden, Finland, Germany and Great Britain, demonstrating the potential advantages from international and global integration.

4.4. Accelerated globalization via production offshoring

End of the Cold War, fall of Berlin Wall, collapse of Soviet Union, radical reforms in China, Denmark joining EU and WTO are examples of major global trends that took place during this period. Opening up Eastern European market brought up numerous market opportunities as well as cheap labor arbitrage opportunities but also new competition. Radical reforms in China started making impact on its growth, witnessing an increase in exporting from China that threatened local clothing and textile companies. However, from the nation-state point of view, it could be argued that the most crucial event that happened during this period was that the Danish Government gave in resisting globalization. It finally embraced globalization, accepting 'anti-protectionism' policy for the sector. Full integration of the sector and its companies into global economy commenced and this process was supported by the Government that created a state owned investment organization 'Growth Fund'.

Danish companies started breaking up their value chain and actively seek cost-efficient relocation of production, while keeping design and branding in house. Yet lacking capacities and capabilities to shorten the time to market, Danish companies started acquiring companies internationally that had these capabilities. Some companies decided to quit any own production and instead started outsourcing this function. Overall, data suggest that Danish companies were successful in pursuing re-location and outsourcing strategies. At the same time, data point to a number of casualties:

companies with more than 600 employees were not able to adapt and reformulate their growth strategy – e.g., re-locate or outsource – and eventually ceased trading. Demand for knowledge in fashion design and shop in shop branding was increasing.

Embracing globalization and responding to global trends by splitting up companies' value chains, offshoring, acquisitions and outsourcing contributed towards the enhancement of sector competitiveness and development of sector core value adding activities, such as 'in-house design'. During this period, Danish companies initiated the restructuring of their value chain strategies from CMT (Cut, Make and Trim) and OPT (Outward Processing Traffic) in 1980s to SOD (Sourcing from Own Design), putting more emphasis on high value add activities such as design and branding. It is important to mention that these same strategic activities led to further shrinkage of the sector in number of employees and restructuring of the sector.

4.5. Willful globalization via strategic outsourcing

In this period the role of China in global trade continued increasing, including an attractive import policies that had a tremendous impact on manufacturing sectors worldwide. Toward the middle of this period Bulgaria, Romania and Croatia joined EU. This allowed Danish companies to access new trading and production partners as an alternative to South European expensive partners. Another global trend that had a negative impact not only on DTFI was the financial crisis in 2008. Danish companies took full advantage of these new offshoring and outsourcing opportunities. Such willful, determined strategic outlook towards outsourcing contributed to further shrinkage of the sector as many sector companies moved production abroad; some even change their business model from production just to design, sales and marketing. Also during this period consolidation of the sector took place: larger companies started acquiring smaller companies that had specific knowledge, high-tech or know-how capabilities.

Gradually the core mission of the sector moved towards 'intelligent textile' concept that included primarily wearable electronics as well as new materials, textures and surfaces. This change of sector identity to high-tech fabric required new knowledge in design, R&D, and production. This led to a launch of new study programs in Danish Higher Education sector that were training future employees for DTFI sector. This new mission contributed to a split between textile manufacturing that was concerned with production of high tech fabrics and selling it to B2B niche markets and clothing production that redirected clothing value chains toward fast fashion market trends. It could be argued that in this period DTFI became truly global.

4.6. Acquisition of global R&Ds and e-shops

Traditional global trends were present in this period as well, such as rise of labor and material costs in China and India which made DTFI companies to search for new low-cost locations to relocate or outsource such as Bangladesh, Vietnam, Cambodia, Egypt, and Myanmar. At the same time new global trends were emerging and getting traction quite rapidly, namely social media, e-commerce and on-line shopping. Thanks to these trends, the number of companies in the fashion-sector increased; however, an increase in costs of raw material had a negative impact on companies from the textile sub-sector – several manufacturers ceased their trading due to this trend. SMEs from the fashion sub-sector were quicker in adopting e-commerce compared to their counterparts from the textile sub-sector. To keep up with global trends, policy makers changed the name of the sector from 'Textile and Clothing' to 'Textile and Fashion'. New education programs were launched to support this new identity of the sector.

Given the new identity or mission of the sector, i.e., intelligent textile or high-tech fabric, textile companies were searching globally for companies that possessed respective knowledge and capabilities, especially knowledge in latest R&D, sales and marketing for the purpose of acquiring such companies or entering strategic alliances. This strategy was also aimed at ensuring quality

control and production costs at the foreign partner premises. At the same time fashion companies during this period pursued aggressively acquisition strategy in Europe by acquiring European fashion brands and e-shops. These acquisition strategies inter alia were aimed to deter entry of competitors from Asian on-line shops. DTFI witnessed slow but steady increase in size during this period and was becoming a e-sector taking advantage of digitalization trend as well as new modern infrastructure and knowledge built and created.

5. Conclusion

The data suggest that DTFI is a late globalizer. It emerges that government policies were instrumental in shaping the development and growth of the sector. Especially protectionist policies held back DTFI from globalizing earlier. DTFI started to globalize in early 1990s by relocation and offshoring of production and in early 2000s actively pursued strategic outsourcing. While this is just a longitudinal one-country-and-industry case study of late globalization, it already points to a number of key factors that influence the lateness (or earliness) of globalization: government policies toward domestic and foreign players in an industry, global competition that shapes and continually reshapes (cost as well as quality-driven) location of key value chain activities (and the concomitant global distribution of core competencies and skills), and the growing role of information technologies that enable globally-dispersed value chains to function in cohesive and unified ways. Of course, these are just some of the major factors, and myriad specific factors were at work in the DTFI case. As we continue our research exploration of late globalization through other countries and industries, we hope to uncover and conceptually reinforce these and other building blocks for a theory of late globalization.

References

- Abbott, A., 2006. *Time matters: On the concept of turning point*. Chicago : University of Chicago Press.
- Aldrich, H. E. & Fiol, C. M., 1994. Fools Rush in? The Institutional Context of Industry Creation. *The Academy of Management Review*, 19(4), pp. 645-670.
- Aldrich, H. E. & Ruef, M., 1999. *Organizations Evolving*. s.l.:SAGE Publications Ltd.
- Appadurai, A., 1990. Disjuncture and Difference in the Global Cultural Economy. *Theory Culture Society*, 7, pp. 295-310.
- Bals, L., 2015. From Offshoring to Rightshoring: Focus on the Backshoring Phenomenon. *AIB Insights*, 15(4).
- Bayus, B. L. & Agarwal, R., 2007. The Role of Pre-Entry Experience, Entry Timing, and Product Technology Strategies in Explaining Firm Survival. *MANAGEMENT SCIENCE*.
- Bygrave, W. D., 1993. Theory building in the entrepreneurship paradigm. *Journal of Business Venturing*, 8(3), pp. 255-280.
- Bygrave, W. D. & Hofer, C. W., 1991. Theorizing about entrepreneurship. *Entrepreneurship theory and Practice*, 16(2), pp. 13-22.
- Edvardsson, B., 1992. Service Breakdowns, A Study of Critical Incidents in an Airline,. *International Journal of Service Industry Management*, , 3(4), pp. 17-29.
- EMCC, 2008. EU textiles and clothing sector: Location decisions. *European Monitoring Centre on Change (EMCC)*.
- EMCC, 2008. *Textiles and clothing sector in Denmark*, s.l.: European Monitoring Centre on Change (EMCC).
- EMCC, 2008. Trends and drivers of change in the European textiles and clothing sector: Mapping report. *European Monitoring Centre on Change*.
- EMCC, 2010. *Textiles and clothing sector:Kvadrat, Denmark*, s.l.: European Monitoring Centre on Change (EMCC).
- Euratex Bulletin, 2008. *Changes and challenges in the textile & clothing industry - Selected snapshots*, s.l.: s.n.
- Eurofound- EMCC, 2008. *EMCC dossier on the European textiles and clothing sectors*, s.l.: EMCC.
- Funk, J. L., 2010. Complexity, Critical Mass and Industry Formation: A Comparison of Selected Industries', *Industry & Innovation. National University of Singapore, Singapore*, 17(5), pp. 511-530.
- Giddens, A., 1991. *The Consequences of Modernity*. s.l.:Polity Press. Cambridge.
- Giddens, A., 2002. *Runaway World..* London: Profile Books Ltd.,(p.14).
- Hannan, M. T. & Freeman, J., 1993. *Organizational ecology*. Cambridge: Harward University Press.
- Jensen, K. & Poulsen, R. T., 2013. *Changing value chain strategies of Danish clothing and fashion companies, 1970-2013*, s.l.: Erhvervshistorisk Årbog.
- Klepper, S. & Graddy, E., 1990. The Evolution of New Industries and the Determinants of Market Structure. *The RAND Journal of Economics*, 21(1), pp. 27-44.
- Lars K. Christensen, 2013. *DENMARK: THE TEXTILE INDUSTRY AND THE FORMATION OF MODERN INDUSTRIAL RELATIONS*, s.l.: <http://creativecommons.org/licenses/by-nc-nd/3.0/>,

- Low, M. & Abrahamson, E., 1997. Movements, Bandwagons and Ventures: Density Dependence and the Entrepreneurial Process.. *Journal of Business Venturing*, Volume 12, pp. 435-457.
- McGahan, A. M., 2004. *How Industries Evolve, Principles for Achieving and Sustaining Superior Performance*. Boston : Harvard Business School .
- Miles, M. B. & Huberman, . M., 1994. *Qualitative data analysis: an expanded sourcebook*. London: Sage.
- Moraru, C., 2011. *Cosmodernism: American Narrative, Late Globalization and the New Cultural Imagery*. University of Michigan Press.
- Olsen, K. B. e. a., 2000. *Does Outsourcing Create Unemployment? The Case of the Danish Textile and Clothing Industry*, Aarhus: Department of Economics, Aarhus School of Business.
- Pedersen, B. L., 2008. *When clothes create people. The Federation of Danish Textile and Clothing: Industries and the marketing of the Danish clothing industry from 1955 to*, s.l.: Centre for Business History, Copenhagen Business School.
- Piggott, C., 2009. Financial Health: Risers and fallers. *The Banker* (www.thebanker.com, accessed Dec 2015).
- Rajshree, A. & Barry L, B., 2002. The Market Evolution and Sales Takeoff of Product Innovations. *Management Science*, 53(12), pp. 1887-1902.
- Tellis et al., 2003. A Review and Agenda for "Marketing Science". *Marketing Science*, , 25(25), p. 687.
- Turcan, R. V. & Fraser, N., 2016. An Ethnographic Study of New Venture and New Sector Legitimation: Evidence from Moldova. *International Journal of Emerging Markets*, 11(1).
- United Nations , 2013. *World Investment Report*. New York, United Nations .
- Ven, A. H. V. d. & Garud, R., 1993. *Innovation and industry development: the case of Cochlear implants*, s.l.: JAI press Inc..
- Webb, E. J., Campbell, D. T., Schwartz, R. D. & Sechrest, L., 2000. *Unobtrusive Measures*. London: Sage Publications,Inc..

Table 1: Effects of late globalization on evolution and metamorphoses of DTFI

		1945-70 The legacy of WWII and fashion (re)emerging	1971-80 Survival by shrinkage and in-house design	1981-90 Failure of protectionism and change from within	1991-2000 Accelerated globalization via production offshoring	2001-2010 Willful globalization via strategic outsourcing	2011-2015 Acquisition of global R&Ds and e-shops	
Critical events/ Turning points	Global trends	Economic optimism after the end of WW II	Denmark joins EEC	Emergence of low-cost Eastern Europe and Asian products worldwide	Denmark joins WTO and GATT	China joins WTO	Price increase for textile and clothing raw material	E-commerce on WTO development agenda
		Emergence of fashion trend in clothing industry (ready to wear)	European Economic recession Emergence of low-cost manufactures worldwide	Quick trend of fast-fashion culture	Denmark joins EU Opening up Eastern Europe	2008 world economic recession	Emergence of e-commerce worldwide	Increase of wages in China
Strategies and choices		Demand-driven Production	In-house design	Change from within	Production offshoring	Strategic outsourcing	Acquisition of global R&D and e-shops	
HOW/WHO? Institutional level	Government and Textile institutions (Regulative)	Abolish protectionism	Protectionism	Revised protectionism	Anti-Protectionism	Relationship with China	Fashion life education	Online shopping policies
		Free trade regulations	MFA regulation- trade restriction	Change from within	Policy to invest in Eastern Europe	Enhance education system in design and branding	Change sector name to "Textile and Fashion"	Acquisition of e-shops
	TEX anti-relocation advice		Automation	Policy for alternative Asian low-cost economies for production			Acquisition of global high-tech suppliers in textile sector	
	Companies (Normative)	Export of clothing products	Fully-fledge value chain strategy at home in MNEs	Growing number of MNEs in Sothern Europe	Growing number of MNEs in Eastern EU	Growing number of MNEs in China	FDIs in acquisition of European shops & brands	Global CRM and e-marketing functions
Process and Strategy (Cognitive)	Demand-driven production	In-house design & relocation of low-stream production in mid-70s	Danish design approach	Offshoring production	Intelligent textile as value added activity at home	Partnership with high-tech suppliers in textile sector	Replacement for Chinese's production sites in Asia	
			Relocation to Sothern EU production sites in late 80s	Acquisition of low-cost production sites				Outsourcing labor-intensive processes
Key Development Policy		Change in type of production	Resistance to re-locate	Delay in re-location of production	Relocation of production	Breaking-up the value chains globally	Focusing on European sales and marketing developments and adoption of e-commerce	
WHAT?	Effects on the sector							
	Size	Downsizing	Remarkable Downsizing	Growth	Downsizing	Downsizing	Growth by the number of SMEs in fashion business	
	Mission	Demand driven	N.A	Cheap export	Cheap export -branding	Design as value - B2B era	Branding of e-shops	
	Location	N.A	Somewhat relocation	Re-location by offshoring	Re-location by outsourcing	Re-location by partnership	Re-location by Asian alternatives	
	Knowledge	Increase	Increase	N.A	Design knowledge increase	Hi-tech knowledge/design increase	Hi-tech knowledge/design increase; knowledge compromised in partnerships	
	Economy	Growth	Decline	Remarkable Growth	Steady growth	Unsteady growth	Stability and steady Growth	
Structure (Subsectors)	No change	No change	Fashion	Fast fashion	New, B2B niche in hi-tech fabric	Clothing sector replaced by fashion and embraced e-commerce		

Appendix 1: A screenshot of data analysis in NVivo

The screenshot displays the NVivo software interface for data analysis. The main window shows a list of nodes organized into a hierarchical tree structure. The nodes are categorized into 'Level of Analysis', 'Industry (Textile Sector)', 'Process', and 'Time Periods'. Each node is associated with a specific number of sources and references, and a creation date and time.

Name	Sources	References	Created On
Level of Analysis	9	105	3/9/2015 7:23 PM
Companies	3	15	3/9/2015 7:25 PM
Country (Denmark)	6	24	3/9/2015 7:24 PM
Global	7	30	3/9/2015 7:24 PM
China in 2010s	2	3	3/15/2015 3:02 PM
CSR	1	2	3/12/2015 9:38 AM
Growth of E-Commerce	3	4	3/19/2015 9:12 AM
increasingly fast and reliable container transport.11	1	1	3/10/2015 2:36 PM
Lead times	1	1	3/10/2015 2:37 PM
Multi Fibre Agreement (MFA)	1	1	3/10/2015 2:41 PM
new information technologies	1	1	3/10/2015 2:36 PM
Potential Textile and Fashion Market	1	1	3/15/2015 11:44 AM
Raw Material	1	1	3/15/2015 3:05 PM
Recession in the international building and construction industr	1	1	3/12/2015 11:00 AM
the new electronic tracking of stocks in widespread systems h	1	1	3/10/2015 2:37 PM
The opening up of Eastern Europe at the end of the Cold War f	3	7	3/10/2015 3:37 PM
Industry (Textile Sector)	3	26	3/9/2015 7:25 PM
Companies disappearance	1	2	3/10/2015 4:00 PM
CSR	1	1	3/12/2015 9:54 AM
Export Increase	2	2	3/12/2015 11:58 AM
Institutions	1	2	3/15/2015 2:32 PM
Joining GATT and WTO	1	1	3/10/2015 3:56 PM
new entrants with new value chain strategies.	1	1	3/10/2015 2:18 PM
Problem of Know-how	2	2	3/12/2015 10:15 AM
protectionist schemes	1	1	3/10/2015 2:20 PM
Recession in 2002	0	0	3/12/2015 10:44 AM
Relocating problem	1	1	3/12/2015 12:04 PM
Transformation	2	3	3/12/2015 9:06 AM
Process	2	7	3/9/2015 7:25 PM
Strategy	1	3	3/9/2015 7:26 PM
Time Periods	14	103	3/10/2015 10:13 AM
1945-1970	1	3	3/15/2015 12:01 PM
1970-1990	3	7	3/10/2015 2:34 PM
1973	1	2	3/10/2015 2:52 PM
1974	1	1	3/10/2015 2:42 PM
1980s	4	17	3/10/2015 3:11 PM
1987	2	3	3/10/2015 3:08 PM
1990s	3	14	3/10/2015 3:35 PM
1994	2	2	3/10/2015 3:50 PM

Appendix 2: Major critical event matrix

	Global	Country/Industry	Company/Process/Strategy
1945-1970	Post WWII economic optimism/boom Emergence of “Fashion Culture” followed by “ready to wear” trend	Protectionism in Denmark abolished Emergence of Danish welfare state Emergence of free trade agreements Publication of DFTI sector journal Price competition rises	Large and oldest Danish manufacturers with single production line closed down Decline of traditional production of fabrics Demand-driven production emerges Propensity toward export on demand
1971-1980	Global free trade regulations established Western economic recession unfolds South Europe, Latin America and South East Asia join clothing market Low- cost labor arbitrage emerges Lead-time from design to production shortened Multi-Fiber Arrangement sets boundaries for global textile exports	Demand for consumer goods declines Denmark joins ECC ECC members and Multi-Fiber Arrangement imposed import quotas Change in public consumption toward synthetic fabrics Relocation of labor- intensive industries to low-cost countries takes place Increased demand for design knowledge in production Danish “In-House” manufacturing policy implemented Textile and clothing industry shrinks Danish Clothing Association and Danish technological textile institute fight for protectionism Emergence of low-cost production opportunities in Southern Europe	Investing in computer-controlled dyeing technology (first in Europe by Egetæpper A/S) Switching from production of textile for clothing toward high quality furniture fabrics (Gabriel) Danish MNEs emerge Beginning to relocate low-stream value chain activities to Southern Europe and keep value added activities like design in Denmark
1981-1990	Price liberalization as part of European integration Regulations set to support free flow of capital in ECC Trend of “fast- fashion” culture accelerates Collapse of Berlin Wall Increased demand for moving production and outsourcing to Eastern Europe, Latin America and South East Asia	Customer demand for design increases Emergence of relocation of mid-stream production to low cost countries Outsourcing trend gets traction Fashion cloths became available in supermarkets “Change from within” policy initiated by Association of Danish Employers Automation introduced to fight low-cost global competition Danish Clothing Association revised protectionism policy Moving most of sewing abroad	Brandtex started offshoring to Poland Vanggard (>600 employees) ceased trading Growing number of Danish MNEs offshore to Southern and Central Europe Setting High expectations for lead-time from design to production Rise of OPT (Outward Processing Traffic) strategy Adopting innovation-driven branding strategies and individual design
1991-2000	European Union established; launch of euro Denmark joined EU and WTO Cold War ends	Anti-protectionism sentiments rise Outsourcing takes traction and reshapes sector Integration of Denmark clothing into GATT/WTP	Axcel, newly founded company, started investing in fashion brands Emergence of shop-in-shop opportunities

	Global	Country/Industry	Company/Process/Strategy
	Soviet Union collapses; opening of Eastern Europe Dot-com Bubble Chain's rapid economic growth began Trade liberalization in India	Increased pressure from fast fashion Globalizing value chain activities became main stream Growth Fund created Danish companies preferred free trade	'Cut, Make and Trim' and 'Sourcing form Own Design' shaped offshoring and value chain globalization Fully-integrated value chain strategy failed
2001-2010	Financial crisis; EU recession China joined WTO/Trade liberalization in China Emergence of Internationalization of design education Eastern European countries join EU Multi Fibre Arrangements expired	Increased demand for fashion apparels such as shoes and jewelry Growing Danish production in China Emergence of new material such as intelligent textiles Copenhagen becomes capital of innovation-driven fashion Increased concerns about losing production know-how due to outsourcing Rise of equity funds in DTFI Initial wave of Danish e-commerce DTFI shifted focus away from production towards high-value adding and knowledge intensive activities, such as design and branding	Increased success in subcontracting production Outsourcing of production becomes part of growth strategies Continued focus on high-value adding activities Partnership strategy Acquiring new non-Danish brands Main internationalization destinations were China, South East Asia, US, Vietnam, South Africa SMEs were contributing more than 30% in exports
2011-2015	Recovery of German, Swedish and Norwegian economies Chinese companies move toward value-added products charging premium prices India increased price pressure on cotton Global increase of price for raw materials Manufacturing base in China reduced following global recession; Increased competition within China E-commerce in WTO spotlight Asia's e-commerce growth rates were in double digits Opportunities open up in a number of developing economies E-commerce becomes mainstream	Women's clothing was on top in online shopping New record in online spending: 55 billion DKK Higher education institutions offer a range of short-cycle study programs in design DTFI reached 30 billion DKK annual turnover becoming the 4th largest exporter Industry changes its name to 'Textile and Fashion' Government recommendations to outsource to Bangladesh, Vietnam, Cambodia, Egypt, and Myanmar Developing online shopping regulations Increased demand for high-tech products	Globalization via acquisitions accelerates aiming to develop architecture & design brands in Europe and Asia in fabric and textile sector Acquisitions of high-tech suppliers in textile sector Acquisition of e-shops Clothing companies focus at home on sales and marketing

Appendix 3: Casual mapping

