# The internationalization of Danish furniture. A value chain perspective

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During the last four decades the Danish furniture industry has gone through a process of structural change. This is the outcome of a development where increasing international competition has shaped the industry, and from being characterized by small and medium sized companies, the industry is today dominated by few international players, making up for the majority of the industry turnover. This has happened gradually, first with a late deployment of outsourcing to Eastern Europe in the 1990s, and later by accelerating this trend in the post-2000 period. In sum, this has led to the development of a new type of furniture companies based on business models deviating significantly from the ones linked to the traditional notion of 'Danish furniture'.

# Introduction

Over the years, the Danish furniture industry has been object of attention in several occasions, not least due to the industry's competitive strength. A measure repeatedly used to indicate the significance of this strength is the export intensity of the industry.<sup>1</sup> Export intensity signifies the percentage of production accounted for by Exports, and in the case of the Danish furniture industry the export intensity has since 1990 permanently been above 70per cent.<sup>2</sup> When looking into the data it becomes clear that the development of the industry toward this exorbitant export level, in a low-tech industry located in a high labor cost country, is characterized by continuous restructurings and a process of structural change. From being an industry dominated by small and medium sized manufacturing companies, a low number of large international companies today dominate the industry. The focus of this article is on this development and the business strategies applied among the industry players in this quest for survival and growth in an industry that has become more and

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more global. In order to understand and describe this development the article is structured in the following fashion. First, the early internationalization of the industry is presented, with a retrospect to the 1950s where the first seeds enabling the early internationalization of the industry were sown. This is followed by a section describing how the application of different value chain strategies have allowed for the development of a very heterogeneous industry – but also how these strategies have been modified as the industry matured. This part is structured around a framework developed by Moeller and Pade in their analysis on value chain strategies in the Danish furniture industry in the 1980s.<sup>3</sup> The analysis presented in this section provides a contemporary update to the 1980s analysis. Finally, a discussion summarizes the most interesting observations made, and how these findings contribute to studies of the development in other Danish manufacturing industries. An important offset, in understanding the development of the Danish furniture industry is to acquaint with the nature of furniture. Historically, the products manufactured in the Danish furniture industry has been divided into three subcategories; Discount-, Basic- and Design Furniture.<sup>4</sup> For all three groups it applies that the product is characterized as being low-tech and relatively labor intensive. Further, furniture has been characterized as naturally lending itself to internationalization "in that it performs the same basic function across geographic areas and cultures such as seating, bedding, *dining, storage and display*".<sup>5</sup> However, as this article reveals the nature of furniture is today somewhat more nuanced, as furniture to many people have changed from considering furniture consumer durable goods, into perceiving furniture as a short lived consumable. This tendency was already observed in the late 1980s, and have increased in pace throughout the post-2000 period.<sup>6</sup> A feature facilitating this development is the introduction of new manufacturing technologies, which opens for a greater automation in the furniture manufacturing process, and this has paved the way for much cheaper furniture than it previously was the case. An example of such new manufacturing technology is the one used in producing flat packed furniture, which is a modern type of furniture, which allows for the production of highly standardized and low priced products.

Second, the impact of large international retail chains has increased significantly in recent years. This development is important to the manufacturing of furniture, as it implies that furniture manufactures lose their control of the distribution channel. More specifically, this means that most manufactures today acts as pure sub-supplier manufacturing pre-defined designs provided by the retail chains, in contrast to previously where furniture was developed and designed by the furniture manufactures themselves targeting more specific niche segments. The significance of this development is visible across the globe, for instance in Germany where five large retail chains controls the entire market, and in Denmark where 64per cent of the sale of furniture in 2005 happened via retail chains.<sup>7</sup> Over the last three-four decades global retail chains as IKEA or HABITAT continuously have expanded their global presence. Consequently this means that European furniture manufactures today face a much more fierce competition from low cost countries than previously and as the significance of global retail chains increases, competition

intensifies and the manufactures are forced to optimize in order to reduce costs. However, the history takes its starting point in the 1950s with the first steps of the internationalization<sup>8</sup> of Danish furniture.

# The internationalization of Danish furniture

In order to understand how the historical trade of furniture has influenced on the globalization of furniture, a prerequisite is to understand the nature of internationalization. A classic model in explaining the process of internationalization is the one of Johanson and Vahlne according to whom there are two directions, or steps of internationalization; 1) an increasing involvement of the firm in the individual foreign country via sales and 2) a successive establishment of operations in new countries.<sup>9</sup> In respect to the first direction, furniture in general proved a product category that exhibited strong export growth as international trade started to grow in the 1980s. However, the strong export focus of the industry dates back to the post-WW2 period, where a particular reputation originated around the industry which ended up developing into a strong international brand. The strong international reputation of Danish furniture is believed to be linked to two aspects; the foreign promotion of Danish furniture in the 1950s - and the consumption trends prevailing at this time. Both of these aspects are thoroughly analyzed in the work of the Danish historian, Per H. Hansen, who in his work describes how Danish furniture already at an early stage was intensely marketed abroad, and via a well-organized promotion tour in the US in the 1950s the notion of "Danish Modern" was established.<sup>10</sup> This notion of Danish furniture was closely related to several very influential Danish architects as Kaare Klint, Børge Mogensen, Hans Wegner and Arne Jacobsen. Hereby a conception of Danish furniture was established as a product of "high quality craftsmanship and design". Combined with the trend of consumption prevailing in the middle of the twentieth century where the social status related to furniture made up an important feature of competitiveness, the Danish brand in furniture became an important mediator in the foreign demand of Danish furniture - first in the US, later in other countries as well.<sup>11</sup> The significance of this trend is for instance demonstrated by the import of furniture to the US, in 1978 only made up for 6.6 per cent of US consumption of wood household furniture - in 1990 this had grown to nearly 25 per cent.<sup>12</sup> In the first half of the 1980s the export of Danish furniture boomed. In the journal "DMI – nu skal du bare høre" published by Foreningen Dansk Møbelindustri several articles explained this development. Especially the chairman, Wedell Pedersen, explained that the export boom was based on quality, design and functionality. In the journal his views repeatedly were supported by financing and manufacturing experts. However, an important part of the explanation behind the increasing export of furniture was that Danish furniture companies already in the 1970s invested in efficient production facilities, which made Denmark very cost competitive. That being said, the production of wooden and upholstery furniture falls under the category of labor intensive activities<sup>13</sup> and thus, it would seem obvious that the early involvement at foreign markets for the Danish furniture

industry would facilitate a "full internationalization" as Danish labor costs started to rise in comparison to other countries. In reality, the response proved to be an intensified focus on automation, e.g. demonstrated by Wedell Pedersen and others, who in the 1980s stressed that it was necessary to invest in automation of the production to improve competitiveness. In the 1980s focus was on production in Denmark, as the trade organization did not believe that production in low cost countries could provide high quality furniture. This meant that in the 1980s the Danish furniture industry did not pursue the second direction of internationalization; the successive establishment of operations in new countries. Instead, this did not happen before the mid-1990s, where some of the first Danish furniture companies, inspired by the textile industry, started to experiment with the use of manufacturing facilities located in Eastern Europe. For the majority of the Danish furniture companies making use of this option, this happened via outsourcing to foreign sub suppliers, but also a few Danish furniture companies established their own operation sites in Poland or the Baltic States in the latter part of the 1990s following an offshoring strategy.<sup>14</sup> During this decade the director of the Furniture Industry organization, Foreningen Dansk Møbelindustri, Keld Korsager, several times explained the reason behind this development being caused by the fact that the Danish furniture industry was characterized by very small producers, which did not have the financial power or the necessary international knowledge to establish their own operation sites in Polen or the Baltic states. An alternative explanation is offered by Maskell though, who suggests the reason why Danish furniture manufactures were not affected by strong global competition as it was the case in other industries, is to be found in the formation of the industry, which was located in regional clusters. In these years, this was especially prevalent in the Mid Jutland region, and it has been suggested that the geographical proximity among the furniture manufactures, created some fundamental extra-firm intra-industry capabilities, such as high trust and localized learning, which made it possible for the manufacturing firms to maintain their competitiveness despite the high Danish factor costs.<sup>15</sup>

Despite both arguments, things took off in the latter part of the 1990s where outsourcing of production to Eastern Europe boomed.<sup>16</sup> This development is illustrated in figure 1 below. When looking at the national statistics, it seems clear that the importance of foreign production was already intensifying in the late 1990s, and in the early 2000s the tendency started growing in a rapid pace. The countries explored in this process were primarily Poland, but also Estonia, Lithuania and Latvia followed as sourcing markets for the 'new' Danish furniture companies.<sup>17</sup>

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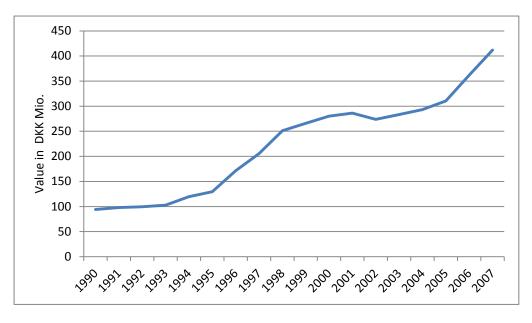


Figure 1: Historical development in the value of Danish furniture import in DKK Million, cleansed for inflation. Source: MIB Annual reports.

As figure 1 illustrates, the import of furniture to Denmark, including both part manufactured- and complete furniture, remained at a steady level around a value of DKK 100 million until 1995. Hereafter the value of furniture import started to rise continuously, and breaking down the statistics behind this development indicates that this is a sign of increased outsourcing of production. More specifically this is visible when looking at the five most significant nations in terms of Danish furniture import; Italy, Poland, Germany, Sweden and China. Of these five, the imports from Italy and Germany have remained on a relatively steady level throughout the post-2000 period, whereas the imports from Poland, Sweden and China have increased - for the latter two significantly, which is shown in figure 2. Whereas the rise in the case of Poland is steady throughout the period, the rise of Swedish furniture import is primarily taking place in the period 2004 to 2007. Finally, the growth of Chinese imports have ever since 2000 experienced a constant uninterrupted growth, from a value of DKK 208,3 million in 2000, to a value of DKK 2,1 Billion in 2007.

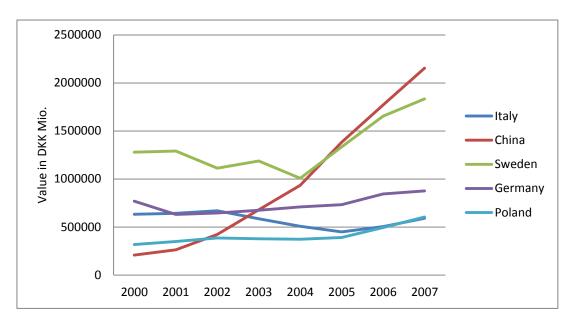


Figure 2: Historical development in the import of furniture import in DKK Mio. Source: Statistics Denmark.

Breaking down the import statistics behind figure 2 to a product level, it is clear that the five different countries represented, supplied Denmark in different ways; either via direct sale in, or reexport from Denmark – or alternatively via semi manufactures, for further processing or assembly in Danish furniture companies.

This analysis is further supported by Keld Korsager, director of Møbel+Interiør Brancheforeningen, who in a recent version of the Industry Associations journal stated that:<sup>18</sup>

In 2010 the Danish import of furniture had a value of DKK 8,2 Billions, which is 13 per cent more than in 2009. This growth is almost exclusively related to the import from China, Poland, the Baltic States and other Eastern European low cost countries, which in summary account for more than half of the furniture import. The import from these countries is predominantly made up by furniture and furniture parts, subsequently being re-sold by the Danish companies why this is a clear indication of outsourced production... and considering the aggregate import of furniture from low cost countries, correspond to the Danish furniture industry in 2010 having more or less half of its production made abroad.

In summary one overall thing stands out as particularly interesting from the historical overview of the internationalization of Danish furniture manufacturing; the Danish furniture industry was a late adapter in respect to the second step of internationalization, i.e. global manufacturing. This adaptation did not happen before the late 1990s and hereby the industry makes up an interesting example of a Danish industry, which managed to compete with foreign low cost production, for a much longer period than it has been the case in comparative industries, especially the textile industry. In order to gain an understanding of how this was possible, an important issue is the value

chain strategies followed by the companies of the industry, as these strategies made up an important lever behind the continuous Danish production of furniture.

# A historical reconfiguration of value chain strategies

# Pre-2000: Local manufacturing pushed to international markets

As already mentioned, several types of furniture companies exists within the furniture industry, serving different product niches and consequently several variations of business models and value chain strategies apply. In their work from the late 1980s, Pade *et. al* looked into this matter, and from their analysis of the industry five categories of business models emerged:

Business model	Value chain activity			
	Idea development	Manufacturing	Marketing	Sale
Integrated	Own development of	Own manufacturing of	Own marketing	Own sales and
companies	new products, for	parts + Own assembly	department	distribution
	instance in			organization on the
	collaboration with			largest markets
	international			
	distribution channel			
Disintegrated	Involved in the new	Parts are manufactured	Own marketing	Own sales and
companies	product development	by local	department	distribution
	process, but in	subcontractors, but		organization in
	collaboration with	assembled at the		Denmark, and typically
	external designers	premises of the		a sales agent on foreign
		company		markets
Design	Development of new			
consultancies	furniture designs for			
	several companies			
Manufactures		Manufacturing of		
and		complete furniture, or		
Subcontractors		semi-manufactures for		
		further processing or		
		assembly		
Export agents		Works for several companies as marketing and		
			distribution channel.	

Table 1: The five categories of Business models prevailing in the Danish furniture industry in the 1990s, and the related value chain activities. Source: The authors own contribution, after inspiration from Pade: *Vækst og dynamik i dansk erhvervsliv* and Pade et al. *Møbelindustrien*.

The five different categories of business models illustrated in table 1 can be separated into two overall categories; furniture companies and support functions. The furniture companies are made up by the integrated and disintegrated companies characterized by controlling the entire value chain from idea development to sales. The support functions are made up by the companies only serving a part of the furniture industry value chain.

#### **Integrated companies**

Among the furniture companies, the integrated companies made up for the majority of companies in this period, serving the discount, the basis and the design segment. Characteristic for this type of companies in this period was that they altered their relation to the upstream activities. These were in this period represented by suppliers of raw materials, technology and labor. The raw materials were primarily imported from Norway, Sweden, Finland and Asian countries, and the sourcing started in this period to be made by the companies themselves, whereby this demonstrates an integration of the specialized supplier function. Hereby the integrated companies got rid of the previous dependence of sourcing agents and gained a closer communication to their suppliers.<sup>19</sup> In respect to manufacturing, integrated companies remained competitive throughout the 1980s and most of the 1990s by using Danish production facilities, and despite the cost pressure starting to dominate in supplementing industries, this had so far not affected the competitiveness of the furniture industry.<sup>20</sup> This happened in parallel to the strong German interest in pine wood furniture from Denmark which meant that the integrated companies serving the basis furniture segment experienced a particular growth in this period.

However, this changed in the late 1990s, and as a result the first Danish furniture companies started to work with automation and optimization. This happened as the notion developed in the Danish furniture industry, that in order to fight foreign competition the share of product costs accounted for by labor costs should be kept low and productivity high.<sup>21</sup> An important means in this process was the introduction of automation, and the number of robots utilized in the Danish furniture industry grew from one to five per 1000 employees in only one year, from 1998 to 1999.<sup>22</sup> This happened as automaton was considered an obvious way of reducing labor costs, and was promoted as the alternative to manufacture abroad. Consequently, a great investment was made in automated production facilities, especially in the companies serving the basis and the design segment. Among the furniture companies serving the discount segment automated production had already gained acceptance at an earlier stage as furniture at a discount price level was only obtainable via automated production of flat packed particle board furniture.

#### **Disintegrated companies**

As described, the relation to the upstream activities of the integrated companies characterized the late-1980s and the early 1990s, but also the relation to the downstream activities were subject to changes. More specifically, two distribution channels evolved; sales directly to the wholesaler or

sale via a distributor, normally an export agent. The tendency with export agent was enforced by a Government initiative, financially supporting the remuneration of export specialists, with the consequence of an indirect disintegration of the distribution activities. Export associations were continuously established, and an example of a successful export association in the 1990s was FUMAC which still exists today, under a different concept though.<sup>23</sup>

As described by the overview in table 1, the use of export agents was primarily the choice of market oriented companies, which based their business on outsourced production by using the competencies of local sub suppliers. However, outsourcing via foreign manufacturing was also tried out by some Danish furniture companies in this period, but not to the same extent as it happened in the textile industry. Instead, the notion in the industry was that the best premise for the manufacturing of Danish furniture was Denmark and this opened up for the possibility for local sub suppliers to expand their business. Considering the present importance of offshoring and outsourcing, it is surprising how strong the belief was in the competitiveness of Danish manufacturing. But as late as in 1999 the director of the Danish furniture industry Association, Keld Korsager is quoted in the Danish business press, stating that; "the assumption that the furniture industry would move out of Denmark to Eastern Europe as it had happened in textiles in the early 1990s, can be put to rest." The argument behind this statement was that in 1999 only five Danish furniture companies had established their own factories in Poland or the Baltic States, and for the four of those they only had production of semi-manufactures, which was then assembled in Denmark.<sup>24</sup> At the same time Korsager pointed out that Danish furniture companies in the late 1990s accelerated outsourcing of production to companies especially in the Baltic countries, and that he forecasted this to grow in the coming years. On the other hand he did not expect many Danish furniture companies to establish their own factories, simply because most of them were too small.<sup>25</sup>

# Post-2000: Global manufacturing directed by international demand

The late 1990s and early 2000s was a turbulent period to Danish furniture manufactures. This was first of all the case since consumer taste changed, and within few years the demand for the previously popular pinewood furniture declined, and from making up for 50 per cent of the aggregate turnover of the Danish furniture industry in 1996, this had by 2007 declined to 10 per cent.<sup>26</sup> Hereby a lot of companies were forced to renew in order to remain profitable, a quest which to many Danish furniture companies failed. However, the activity previously accounted for by the deserted furniture manufactures were compensated for by new activity, either by existing companies in their process of renewal or new companies entering the industry: Characteristic to the companies succeeding in this period was outsourcing of production. As mentioned, some companies had started experimenting with foreign production in the late 1990s, but in the early 2000s this

tendency started growing in a rapid pace. As a consequence the nature of the industry altered significantly in just a few years.

First, this is the case in respect to the number of people employed in the furniture industry. The number of people employed in production has been under severe decline, and the number of people employed in furniture production declined from its peak of 22.140 in 2000 to 16.500 in 2007, and it is estimated that approximately 4.000 jobs has vanished since 2008.<sup>27</sup> Second, this change has also affected the geographical location of the furniture industry, as the requirements to the labor force altered. Historically, the furniture industry has had a tradition of clustering, a feature which still today characterize the industry. But the location of today's furniture clusters has altered. This is visible by comparing two maps, illustrating how new Danish furniture companies were located in the 1972-1992 period, and where the industry is located today.

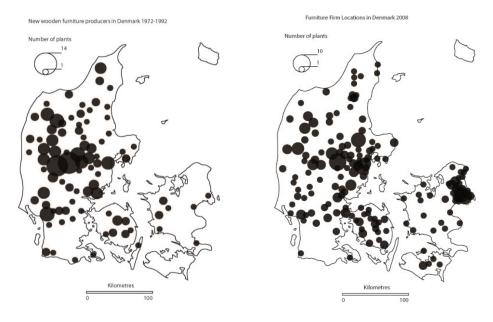


Figure 3: The geographical location of the Danish Furniture industry. Source; Map 1, to the left: Maskell: Low-Tech Competitive Advantages and the Role Of Proximity: The Danish Wooden Furniture Industry; Map 2, to the right: Howells and Hedemann: A Growth Path Dependent upon the Early Internationalisation of Entrepreneurial Behaviour or 'Clusters' as Explanations for the Exceptional Export Success of the Danish Furniture Industry?

What is interesting from these maps is that it illustrates how the altered workforce requirements, influence on the location of the industry, i.e. the hot-spot of wooden furniture manufactures in the 1990s was central Jutland, but in 2008 the Danish furniture companies instead started clustering around Denmark's principal cities, Copenhagen and Aarhus. In an analysis of this phenomenon, Howells and Hedemann demonstrated a close link to the type of employees needed by the companies. This is illustrated by one of the interviewees from their analysis, CEO at BoConcept, Viggo Mølholm, describing how BoConcepts historical roots and following choice of location in

Herning in Central Jutland, today makes up a challenge in recruiting new employees; "*No, this location is not something we benefit from, as a matter of fact in terms of the people (employees) we need to attract we would be better off located in Aarhus.*"<sup>28</sup>

Finally, the new structure of the Danish furniture industry is visible by comparing the size structure of Danish furniture companies. Buch illustrated this in an analysis of the Danish furniture industry. The study demonstrated that 45 per cent of the Danish furniture production in 1997 derived from companies with a turnover larger than DKK 100 Million, and furthermore these companies accounted for 41 per cent of Danish furniture export. By 2005, the significance of +100 Million turnover companies had grown to 78 per cent of production, and 65 per cent of export.<sup>29</sup> This is considered a clear indication that the conception of furniture manufactures being made up by SME' no longer holds true. In several articles Keld Korsager has underlined a close relation between this structural change and the increasing number of companies' offshoring production to Eastern Europe and Asia in the post-2000 period. As the companies became bigger they were financially stronger and better prepared to buy foreign production facilities, which has been the case during the last decade. A great number of Danish furniture companies have reacted proactively to the fierce international competition, and by rethinking their "make-buy" strategy a lot of pro- and re-active companies have come out successful of this intensification of competition.

#### **Integrated companies**

In Møller and Pades overview of business models prevailing in the Danish furniture industry in the 1980s – see table 1 – it was illustrated how integrated companies controlled all stages of the value chain, from idea development over manufacturing and marketing to sale. Given the increasing impact of foreign low cost production fewer Danish furniture companies today follow an integrated value chain strategy than it was the case in the 1980s, simply because integration has become a very vulnerable value chain strategy. This is the case since integration implies enormous requirements in terms of the skills required to succeed in all stages of the value chain. An example of such vulnerability is FLEXA, a Danish furniture company supplying children's furniture.

FLEXA was founded in 1972 by Henning Lykke Jensen, and at its heydays the company was among the largest Danish furniture companies in terms of turnover.<sup>30</sup> Being very entrepreneurial by nature, the founder was fascinated by establishing new ventures allowing him to gain a better control of all stages of the value chain, and as a response the strategic decision was made also to control the supply of raw materials by investing in forestry. This proved a successful value chain strategy for a long time, and especially in early 2000s FLEXA benefitted from the companies' control of raw material costs, as prices of raw materials increased in this period. However, as the global financial recession stroke in 2007 the advantages previously gained by controlling raw material costs turned into a disadvantage, as the prices on raw materials dropped significantly due to the decreasing demand. In summary this had a negative impact on the competitiveness of FLEXA and despite a replacement of the companies' top management in 2009 it was not possible to rescue

FLEXA and the company went into administration in 2010.<sup>31</sup> As illustrated in the example of FLEXA, pursuing an integrated value chain strategy can be a risky venture, but whereas FLEXA can be considered an extreme example of a company pursuing an integrated value chain strategy, several examples exists on Danish furniture companies having adopted a modified version of the integrated value chain strategy. In the following three examples of business models based on an integrated value chain strategy are illustrated; off shoring, automation and high quality niche production.

#### **Integrated companies: Offshoring**

Offshoring refers to the relocation of a business process from one country to another, and in relation to furniture the business process moved out is typically manufacturing, which is then kept in control of the company via ownership of the production facilities. This allows the company to reduce manufacturing costs by making use of employees accepting a lower unit labor cost than it is the case at the home country. Hereby the economic logic is the one of comparative advantage.

As described above, offshoring was relatively late at gaining foothold among Danish furniture manufactures in the 1990s. One of these was the Danish manufacturer Eilersen, which as a response to the high labor cost pressure started to search for a new location for their manufacturing process, at which the labor cost could be reduced. This search was initiated in 1995 and after two years of preparation the first test-production was running at a small factory in the outskirts of Beijing. Quality being a prime issue to Eilersen, the first furniture manufactured was shipped to Denmark for quality inspection and with the quality approval in place, a full scale production was established and in 2010 the fully owned factory in China employed 250 employees.<sup>32</sup>

#### **Integrated companies: Automation**

Due to the increasing Danish labor costs, the companies pursuing local production, already at an early stage were forced to identify how to make up for burden of high Danish labor costs, and one option was to reduce labor costs via automation. The first fully automated furniture manufacturing plants were established in Denmark in the 1960s and 1970s where the first companies started to experiment with automated production, for instance Tvilum Møbelfabrik and Scanbirk Møbler. For these companies automated production technology proved successful in making a new type of products, flat packed do-it-yourself' (DIY) furniture. Besides from being suitable for automated production, this type of furniture also proved very suitable for transportation, due to the reduced bulk density, and hence a perfect mean for exploiting export markets.

Among the companies operating fully automated production facilities in Denmark, two types of companies exist; kitchen manufactures and furniture subcontractors, supplying large international retail chains. In detail, the kitchen manufactures, process the kitchen carcass in Denmark, and import cabinet doors from abroad, especially Italy which has developed into a kitchen door supplier specialist.<sup>33</sup> On the contrary, the retail chain subcontractors manufacture the entire piece of furniture

in Denmark, and ship it off in packed boxes, ready for assembly at the customer's destination. An example of one such company is Tvilum, exporting 90 per cent of its production to large international retail chains, among others to JYSK, IKEA and Wall Mart.<sup>34</sup> The products sold to these customers are typically based on the design supplied by the clients, and the only input provided by the company is the manufacturing capacity. For both the kitchen manufactures as well as the large subcontractors, the competitiveness rests in an ability to manufacture at prices compatible to the ones from low cost countries and not least, well developed skills in terms of readjustments, according to customer needs.

Caused by the large volumes, taken by the large international retail chains, a great risk follows along with the strategy of supplying this type of global retail chains. This is for example visible by looking at the supply strategy of IKEA. Due to the significance of IKEA, the company have been able to enforce very high requirements on its suppliers, meaning that IKEA suppliers in some cases has ended up reconfiguring their business in meeting IKEA demands. Andersen *et al.* describes how this was the case for the Danish furniture company Bodilsen. In 2003 Bodilsen had a customer portfolio of 400, but based on a strategy of positioning the company as a specialist supplier for large customers, the portfolio was reduced to 12 customers by 2005, of which IKEA was central. Consequently, Bodilsen ended up dedicating an entire factory for IKEA production.<sup>35</sup> As a consequence, the company was left in severe trouble, when IKEA in 2008 decided to stop using Bodilsen as a supplier. Shortly after the company went bankrupt, and 430 employees lost their job.<sup>36</sup>

#### Integrated companies: High quality niche-production

An alternative to low cost automated production for integrated companies is high quality nicheproduction of products with a high margin. Hereby this type of furniture naturally lends itself to the international conception of Danish furniture, as a product of high quality, and design-wise developed in a close collaboration between furniture architect and craftsman.<sup>37</sup> The type of companies exploiting this niche is typically old companies having a long history of manufacturing in Denmark and possessing the design rights of some of the classic Danish furniture designs from golden age of the industry in the 1930-1950s.

An example of such a company is Rud Rasmussen/Denmark which was founded in 1869. Today the company is run by the fourth generation of the Rasmussen family. The genesis of Rud Rasmussen/Denmark is the continuous believe in the value of a close collaboration between furniture architect and craftsman, which was also one of the ethos promoted as characterizing Danish furniture in the 1950s, but whereas other Danish furniture companies started evading from this in the 1960s and 1970s, Rud Rasmussen/Denmark has maintained this tradition and the present collection sold by the company still rests on furniture designs from a wide range of internationally honored Danish furniture architects, such as Kaare Klint, Børge Mogensen, Poul Kjærholm, Finn Juhl and Nanna Ditzel.<sup>38</sup> Another example of a high quality niche manufacturer, which also is a

family company, is Carl Hansen and son. In contrast to Rud Rasmussen/Denmark, Carl Hansen and son has based its product range on the designs of one furniture architect, Hans J. Wegner. A collaboration initiated in 1949. This means that, just like in the case of Rud Rasmussen/Denmark, the backbone of the product range does not renew, instead, it's based on the manufacturing of relatively old designs, by craftsmen with decades of experience and thereby employees who are capable of delivering a superb quality and a result.

#### **Disintegrated companies**

Due to the high Danish labor costs, several Danish furniture companies have made the strategic decision to outsource manufacturing, as this part of the value chain typically is the one most vulnerable to competition. Hereby a lot of Danish furniture companies, previously thriving due to strong competencies in manufacturing, have been challenged to identify other key competences. This was for instance clear from a statement made in the business press by the Danish furniture industry Association in 1998 in which the director of the association, Keld Korsager. Here it was declared how Danish furniture companies in order to survive should learn from the textile and fashion industry, and be much better at marketing themselves and not only aim at being superb in respect to manufacturing. As an outcome of this development, especially three niches have develop; idea development specialization; production controller specialization and branding specialization.

#### Idea development specialization

The furniture companies specializing in idea development are typically small companies employing relatively few people who are specialized in design, and holds a formal education in design or architecture. The designs developed at these companies are then manufactured via outsourcing either locally or abroad. Hereby this strategy has similarities to what is known from the fashion industry where individual designers develop personal labels based on their own designs. To this type of companies design awards make up an important means of demonstrating their capabilities in developing novel and useful new furniture designs.

An example of an idea development specialist is the company GlobeZero4, referring to themselves as a "design and development" company. The business concept of GlobeZero4 is to develop high quality Danish/Scandinavian design furniture, for the corporate as well as the private market. This is done by collaborating with some of the most renowned and skilled new Scandinavian designers and by outsourcing the production to highly skilled and innovative sub-suppliers. According to the company this strategy provides a freedom to be both innovative and flexible when designing new furniture like it allows the company to focus on using the most advanced technology in the manufacturing process.<sup>39</sup>

#### Production controller specialization

The furniture companies applying a production controller specialization strategy bridge the gap between design and manufacturing, which has evolved as outsourcing have grown to dominate. To this type of companies their competencies are anchored in their connection to, and control of foreign sub-suppliers. An example of a company who at an early state saw this market opening up, due to the problems many companies faced in finding reliable manufacturing partners was the company ZanZ, which ended up representing around 30 furniture- and interior-manufactures located in The Baltic States, Poland and China.<sup>40</sup>

The business concept of this type of company is hereby to develop new products and collections in a close collaboration with the company's clients, typically large international retail chains, and via its sub-suppliers/manufacturing partners in low cost countries, ensure the manufacturing of trendy and modern products at a competitive price. Another interesting example of a company pursuing this strategy is Actona Company. Actona was founded under the name Marmorhuset in 1981 as a retailer of marble products and Italian furniture, but over the years the company has grown into a large international wholesaler of furniture. In an interview, the founder of Actona explains how the core of this, at that time, "new strategy" was to develop furniture designs which appeal to contemporary trends: <sup>41</sup> In interview, it is explained how:

We have our own designers and product managers, but we are not to invent anything new, our prime task is simply to locate the right materials and identify the right colors, and then make sure that the furniture arrives at the furniture outlets in the right quality at the right time... So, at the end of the day our job is to help our customers control the production, they provide us with the designs they want and then we make sure the quality meets their expectation, so you could say that we provide a type of controller service.<sup>42</sup>

Hereby the core business for companies following a production controller specialization strategy is to ensure a high degree of responsiveness to consumer trends and manufacturing methods.

#### **Branding specialization**

Of the three types of disintegrated value chain specialization strategies, the one sharing most similarities to what is happening in the furniture industry's classic source of inspiration, the textile and fashion industry, is the branding specialists. The main focus of companies following a "brand specialist" strategy is branding and sales, while idea development and manufacturing is outsourced. Branding proved an important driver of furniture company survival in the transformation of the industry, from local production into global sourcing. This was emphasized already in 1998 by the Danish furniture industry association, and as proven by history, this shift has been carried out more successful in some companies than others.<sup>43</sup>

An interesting example of a company which has succeeded in such transformation and today is considered a beacon of good taste via its high-end furniture range is Republic of Fritz Hansen. What is particularly interesting in this case is that Republic of Fritz Hansen is the fact that prior to its change into a branding specialist, the company was honored for its capabilities in high quality manufacturing, a tradition which roots back to the founding of the company in 1872. A significant

event in the development of the company was when collaboration was established, with the furniture architect Arne Jacobsen, whose designs have accounted for a significant share of the turnover of the company due to the international awareness of Arne Jacobsens furniture designs. Besides from Arne Jacobsen, collaboration was also established with other honored furniture architects, for instance Poul Kjærholm. Hereby it was a characteristic to the company that it was the products which drew the company. However, in 1998 it became clear that the company had to change strategy if they wanted to remain in business. Consequently, a new CEO was brought in and the decision was made to transform the company from a furniture manufacturer to an international brand, or a lifestyle provider as the CEO phrases it in an interview. In this process, it was also decided to start outsourcing production, and throughout the 1990s the company developed a subsupplier strategy, meaning that production was moved out to manufactures in Denmark, Sweden and Eastern Europe. In addition the ambition changed from being excellent in furniture manufacturing, into becoming the preferred brand within exclusive design furniture, and today the company stands out as part of a small exclusive array of luxury brands of world class design.

# **Discussion and conclusion**

During the last four decades the Danish furniture industry has gone through a process of structural change. This is clear by comparing to the Moeller and Pade study from the 1980es, referred to in the analysis, and by looking at the companies from this period still in operation. But also, this is underscored by comparing the size structure of the industry over time; In 1997 large companies with an annual turnover above DKK 100 million accounted for 45 per cent of the furniture industry turnover. In 2005, 8 years later, the equivalent numbers had risen to 78 per cent, or by 33 per centage points. In contrast to comparable industries where international trade barriers existed such as in the textile industry via import restrictions, no such protective barriers existed in terms of furniture.<sup>44</sup> As a result, passivism, in respect to company strategy has been equal to financial decline and bankruptcy, which ended up being the faith of many Danish furniture manufactures in the post-2000 period.

The spatial changes in the industry spilled over onto the composition of the industry workforce, which changed significantly during the same period. The number of employees engaged in bluecollar manufacturing activities was reduced from 22,000 to 16,500 from 2000 to 2007, and a further reduction of approximately 4,000 people has taken place since 2008. Specialization has also taken place, both in terms of product range and production processes. With regard to the product range, three groups have historically dominated the industry: Discount, basic and design furniture. In 1997 Kjeld Korsager, CEO of Danish Furniture Industry indicated that a contraction was taking place in the market for basic furniture, but in contrast, Danish production of discount and design furniture fared better.<sup>45</sup> This development has continued, and in 2010 Danish production of basic furniture has almost ceased. In terms of turnover, manufacturers of discount furniture, most notably flat packed furniture, has held a dominating position in Denmark. Value chain strategies have also evolved. From 1970 to the 1990s the Danish furniture industry was characterized by companies which held all the main activities in-house. Companies developed their own designs, manufactured the furniture and handled marketing. In some cases sales took place through agents or through joint sales agreements with other Danish companies. The main value chain activities were performed on Danish locations, which were often adjacent. From the mid-1990s, however, this structure was changed fundamentally. A fine slicing of the value chain has taken place, both in terms of ownership of production activities and production geography. Where some Danish furniture companies started outsourcing production to Poland and later also to the Baltic countries, only few companies offshored production as most companies lacked resources to acquire Eastern European production facilities and hence could not resort to this value chain strategy. After the year 2000 the fully integrated companies, which hold all value chain activities in-house, have more or less disappeared from Denmark. Since the 1990s, Danish furniture companies have resorted to a wide variety of value chain strategies and continue to do so at the time of writing; Companies choosing a branding specializing strategy have focused on branding and marketing. In this strategy production is outsourced to low-cost countries and mainly China. A second strategy concerns idea development specialist and in this case companies focus on the development of new furniture designs and outsource all remaining activities to low-cost countries. Several such companies were established after 2000 and as such they were "born global". A third strategy concerns the control and integration of sliced value chains. Here companies ensure that production is according to specified designs and quality requirements and ensure on-time delivery of furniture in the right place.

Danish furniture exports have played an important role in the development of the Danish furniture industry. Since the early 1980s the main part of the Danish furniture production has been exported. The Danish Furniture Industry Association has also defended a liberal trade regime, supporting the removal of international trade barriers. This sets the furniture industry apart from the textile and clothing industry, which defended trade restrictions for a long time. Outsourcing and offshoring of furniture production, however, happened later in the furniture industry than it did in the textile and clothing industry. In the furniture industry it only took place to a large extent after the year 2000. In comparison with the textile and clothing industry, the production of furniture was generally more capital intensive and involved more complicated production processes. Moreover, the majority of Danish furniture companies was small or medium-sized enterprises and did not have resources to set up their own foreign production sites. Finally, several Danish furniture companies held a skeptical perspective on the quality of furniture produced in Eastern Europe or Asia.

Changes in consumer habits have also played an important role in the development of the Danish furniture industry and Danish companies have been forced to act accordingly. At the start of the period consumers typically changed furniture only once in their life, but today consumers have developed a habit of change furniture more frequently. In part this is due to the general increase in wealth in Western Europe, North America and Japan. Similar developments have also taken place at a later time in Eastern Europe and now in China. Of course the tendency is also related to the relative lowering of the price of a piece of furniture. In relative terms, the price of furniture has decreased since the 1970s and therefore frequent changes of furniture are more feasible. Distribution and sales of furniture have also changed significantly in Europe and North America since the 1980s. Large furniture retail chains, like IKEA and Wall Mart and in a Danish context Jysk, have increased their market shares and today retail chains have a major influence on furniture production. The retail chains specify design and quality requirements for manufacturers and due to their strong bargaining power they have been forced to automate production in order to remain competitive in serving this market.

A large number of companies have left the business and others have entered it. A group of 'old' companies however have managed to remain in business despite the significant changes in the nature of the industry. Two such companies are Fritz Hansen and BoConcept which both have mastered the change from focusing on production activities, into excelling as branding specialists.

Regardless of strategy, the characteristic of the Danish furniture companies which have survived periods of change seems to be an ability to adapt to new situations, and in this process convert the basis of previous success into drivers of future growth.

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<sup>8</sup> Here internationalization refers to different company activities in different countries. Initially this was sales on export markets, but today it also refers to for instance production in foreign countries.

<sup>&</sup>lt;sup>1</sup> E.g. Bendtsen: *DesignDenmark*, and Hedemann: *The dubious role of 'Danish Design' in the international success of Danish furniture: An update on the favorability of the marketing match between Denmark and Furniture* and Pade et al. *Møbelindustrien*.

<sup>&</sup>lt;sup>2</sup> Based on analysis of annual reports published by the Danish furniture industry association; Møbel+Interiør Brancheforeningen.

<sup>&</sup>lt;sup>3</sup> Moeler and Pade: Industriel Success: Konkurrence faktorer i 9 danske brancher. p. 270-271

<sup>&</sup>lt;sup>4</sup> Pade: Væst og dynamik i dansk erhvervsliv, p. 153.

<sup>&</sup>lt;sup>5</sup> Smith et al.: *The globalization of furniture industries/markets*, p. 103.

<sup>&</sup>lt;sup>6</sup> Pade et al.: *Møbelindustrien*, p. 265

<sup>&</sup>lt;sup>7</sup> Buch et.al.: *Mod alle odds* – *E n analyse af de strukturelle udfordringer for træ- og møbelindustrien i Danmark,* p. 13

<sup>&</sup>lt;sup>9</sup> Johanson et. al.: *The internationalization process of the firm – a model of knowledge development and increasing foreign market commitment p. 29.* 

<sup>&</sup>lt;sup>10</sup> Hansen: Networks, Narratives, and New Markets: The Rise and Decline of Danish Modern Furniture Design, 1930-1970, p. 449

<sup>&</sup>lt;sup>11</sup> Hansen: Networks, Narratives, and New Markets: The Rise and Decline of Danish Modern Furniture Design, 1930-1970, p. 450.

<sup>&</sup>lt;sup>12</sup> Smith et al.: *The globalization of furniture industries/markets*, p. 103.

<sup>13</sup> Pade et al.: *Møbelindustrien*, p. 267.

<sup>14</sup> JyllandsPosten: "Møbelindustrien bliver (J. Aaes)" 30.08.1999.

<sup>15</sup> Maskell: Low-Tech Competitive Advantages and the Role Of Proximity: The Danish Wooden Furniture *Industry* p. 115

<sup>16</sup> For instance: *Danske Møbler nr.* 7: "Synspunkt – Under østeuropæisk bekvemmelighedsflag" 09.1998.

<sup>17</sup> JyllandsPosten: "Møbelindustri mister terræn (J. Olesen)" 04.05.2001 and JyllandsPosten: "Dansk produktion flytter til Ukraine (J. Olesen)" 04.10.2001.

<sup>3</sup> Møbel+Interiør Branchebladet: "Møbeltalmosaik (Keld Korsager)" 04.2011.

<sup>19</sup> Pade et al.: *Møbelindustrien*, p. 267-268.

<sup>20</sup> Maskell: Low-Tech Competitive Advantages and the Role Of Proximity: The Danish Wooden Furniture Industry, p. 101

<sup>21</sup> Berlingske Tidende: "Større volumen er opskrift på overlevelse (A. Estrup)" 28.04.1997.

<sup>22</sup> JyllandsPosten: "Robotter stormer ind på møbelfabrikkerne (U. Nørby)" 15.12.1999.

<sup>23</sup> Andersen et al.: Erhvervsklvnger under pres. globaliseringens indflvdelse på dvnamikken i udvalgte danske erhvervsklynger, p. 104 and www.fumac.dk (15.01.2013)

<sup>24</sup> JyllandsPosten: "Møbel-industrien bliver (J. Aas)" 30.8.1999.

<sup>25</sup> Danske Møbler – Brancheblad for dansk møbelindustri, nr. 7: "Under østeuropæisk bekvemmelighedsflag (Keld Korsager)" 09.1998. <sup>26</sup> Buch et al.: *Mod alle odds - En analyse af de strukturelle udfordringer for træ- og møbelindustrien i* 

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<sup>27</sup> Buch et al.: *Mod alle odds - En analyse af de strukturelle udfordringer for træ- og møbelindustrien i* Danmark, p. 6 and Erhvervsbladet: 19.05.2011

<sup>28</sup> Howells et al.: A Growth Path Dependent upon the Early Internationalisation of Entrepreneurial Behavior or 'Clusters' as Explanations for the Exceptional Export Success of the Danish Furniture Industry? p. 28

<sup>29</sup> Buch et al.: *Mod alle odds - En analyse af de strukturelle udfordringer for træ- og møbelindustrien i* Danmark, p. 11

<sup>30</sup> Howells et al.: A Growth Path Dependent upon the Early Internationalisation of Entrepreneurial Behavior or 'Clusters' as Explanations for the Exceptional Export Success of the Danish Furniture Industry? p. 26.

<sup>31</sup> www.wood-supply.dk: "Brancheforening klar til Rolleskift (R. Gregersen) 15.01.2013.

<sup>32</sup> *Børsen*: "Eilersen rykkede til Kina i tide (J. Bertelsen)" 19.01.2010.

<sup>33</sup> Revealed via interviews with HTH, KVIK and Designa.

<sup>34</sup> Andersen et al.: Erhvervsklynger under pres, globaliseringens indflydelse på dynamikken i udvalgte danske erhvervsklvnger, p. 47

<sup>35</sup> Andersen et al.: Erhvervsklvnger under pres, globaliseringens indflvdelse på dvnamikken i udvalgte danske erhvervsklynger, p. 109.

<sup>36</sup> www.epn.dk: "Bodilsen går konkurs - 430 fyres (H.H. Koszyczarek) 15.01.2013.

<sup>37</sup> Hansen: Networks, Narratives, and New Markets: The Rise and Decline of Danish Modern Furniture Design, 1930-1970, p. 453-458.

<sup>38</sup> www.rudrasmussen.dk (15.01.2013).

<sup>39</sup> www.globezero4.dk (15.01.2013).

<sup>40</sup> *JyllandsPosten*: "Dansk produktion flytter til Ukraine (J. Olesen)" 04.10.2001.

<sup>41</sup> Berlingske Tidende: "Møblernes nye superstjerne (E. Evert)" 12.05.2004.

<sup>42</sup> Revealed in Interview with Actona

<sup>43</sup> JyllandsPosten: "Møbel-industrien bliver (J. Aas)" 30.8.1999.

<sup>44</sup> Howells et al.: A Growth Path Dependent upon the Early Internationalisation of Entrepreneurial Behavior

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<sup>45</sup> Danske Møbler – Brancheblad for dansk møbelindustri, nr. 1: "Er møbelindustrien ved at knække over på midten? (Keld Korsager)" 02.1997.