Enterprise & Society (2024), 25: 4, 1160–1189
doi:10.1017/eso.2023.30

ARTICLE

Knowledge upgrade in the Chinese apparel industry, 1980–2020

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This article investigates how Chinese apparel companies have been able to acquire and upgrade knowledge over the last four decades. Based on a broad range of published sources and official data, it identifies the dominant firms that enabled the industry's dramatic expansion during two distinct phases: export oriented in 1980–2005 and domestic market oriented in 2005–2020. Using the global value chains model, we analyze the varieties of knowledge needed during these two periods and how firms acquired it to boost their competitiveness.

Keywords: China, apparel industry, knowledge transfer

Introduction

While the Chinese apparel industry was elementary in terms of size, product variety, and production technologies during the Maoist era, by 1994, China had become the world's largest clothing producer.[1] It has experienced an impressive development, from an output value of CNY 13.5 billion in 1980 to CNY 229 billion in 2000, and CNY 2.366 trillion in 2016. This growth relied mostly on foreign markets. The share of production exported grew dramatically from 17 percent in 1981 to 66 percent in 1990 and more than 90 percent in 1992–2006, making China the world's largest apparel exporter (see Figure 1). Scholars in economics, management, and business history have explained this impressive development

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1. World Trade Organization, "International Trade Statistics."

Published online October 02, 2023

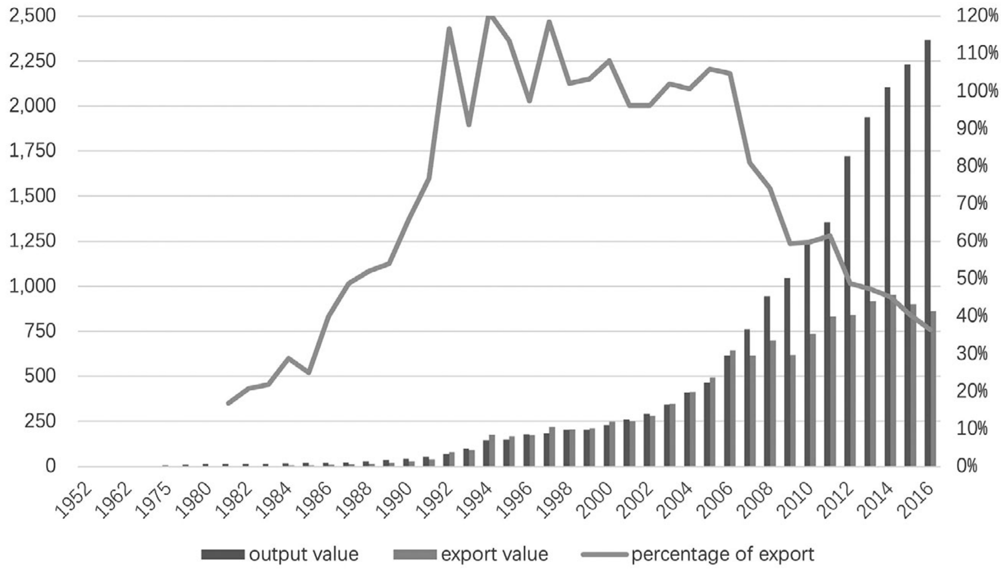

Figure 1. Output and export of Chinese apparel industry (CNY billion).

Total industrial output value was no longer censused after 2011. Thus, the data after 2011 are replaced by industrial sales output value, which is slightly lower than total industrial output value. There are no data of apparel output value after 2016. The output value is calculated in Chinese yuan (CNY) by the Industrial and Transportation Statistics Department of the National Bureau of Statistics, while the export value is calculated in U.S. dollars (USD) by the General Administration of Customs. The authors adjusted the export value into CNY units using the average exchange rate for the year provided by the State Administration of Foreign Exchange. The combination of these two factors has resulted in the export value of some years being higher than the output value in results.

Sources: *China Industry Statistical Yearbook*, 1985–2020; *China Statistical Yearbook*, 1982–2020.

as the consequence of inward foreign direct investment (FDI) by foreign companies looking for cheap labor[2] and institutional change that allowed the formation of private companies.[3]

However, production and export statistics also emphasize a major shift after 2005: While production continued its fast expansion, the export share started to decline. It amounted to only 60 percent of production in 2010 and decreased to less than 40 percent in 2016, returning to 1980s' levels. Although China continued to be a major apparel exporter with a world's share of 30.7 percent in 2019, the new growth of its apparel industry was in the domestic market.[4] This shift occurred in a highly competitive environment as foreign companies entered the Chinese market en masse—first with luxury fashion brands in the late 1990s and then with fast fashion brands after 2000.[5] Despite these conditions, Chinese companies have built a strong competitive advantage against foreign brands in the domestic market, with half of the top ten apparel brands

2. Gereffi, "Development Models," 40; Alam et al., "The Apparel Industry," 458–466.

3. Zhao, *The Chinese Fashion Industry*, 17–39; Shi, "Loss of Department Stores'," 122–125.

4. World Trade Organization, "International Trade Statistics."

5. Bai, McColl, and Moore, "Motives Behind Retailers' Post-entry Expansion," 13; Shi, "Loss of Department Stores'," 122–125; Bonetti, "Italian Luxury Fashion Brands," 463–467.

in the Chinese market in 2019.[6] This is an impressive proportion in comparison with other countries. According to the consulting firm GlobalData, in 2023, the top ten largest apparel companies included only four domestic firms in Germany, three in Australia, and three in South Korea. China had a share of domestic companies similar to nations with a large and competitive apparel industry, such as France, Italy, and Japan (all with five domestic firms).[7]

This successful development has attracted the attention of scholars in sociology and cultural studies, who have documented the slow emergence of a fashion system in China since 2000,[8] with a special focus on the actions developed by a new generation of Chinese designers trained abroad.[9] Simona Segre Reinach analyzed the relationships between Chinese apparel makers and foreign brands through joint ventures (JVs), stressing a gradual decline of cooperation due to frictions between foreign entrepreneurs' fast-track mentality and Chinese enterprises' bureaucratic operational systems.[10] Business historian Rui Shi's article on the transformation of Chinese department stores since the 1980s suggested the new Chinese apparel brands needed new retail channels to build their expansion after 2005.[11] Meanwhile, Chinese economists have demonstrated that Chinese apparel companies began to undergo industrial upgrading after the 2000s under pressure from rising costs and labor shortages. They typically elect to move up to become branded retailers, transition to an intermediate position that undertakes original design manufacturing (ODM), or engage in vertical integrations of the production value chain.[12] Despite the emergence of some designer brands in recent years, many scholars believe the most important barriers to the transformation of Chinese apparel companies are still the shortage of competitive brands, design and marketing expertise, and technology innovation capabilities.[13] Institutional support and the rapid development of e-commerce, in particular, have helped the industry upgrade and integrate into the global value chain.[14] In this process, domestic apparel companies have witnessed the trend of regionalization and delocalization, relocating their production to inland cities or Southeast Asia.[15]

How Chinese apparel companies were able to build competitive advantages to dominate their domestic market is still unclear. Literature in economics about the growth of apparel production has demonstrated that electronic-based technical innovations led to the automatization of production and computerization of design and management processes, which

6. China Apparel Market Series, "Fung Business Intelligence, 2020," 8.

7. GlobalData, "Reports, Reports by Sector, Apparel, Key Players."

8. Zhao, "Local Productions," 46–66; Jin, "A Mechanism," 607–616.

9. Zhao, *The Chinese Fashion Industry*, 153–159; Clark, "Chinese Fashion Designers," 213–216; Wu et al., "Designed in China," 69; Ferrero-Regis and Lindgren, "Branding 'Created in China'," 82–92.

10. Reinach, "China and Italy," 45; Reinach, "The Identity of Fashion," 64.

11. Shi, "Loss of Department Stores'," 134–149.

12. Huang, He, and Nie, "Quanqiu Jiazhilian," 60–62; Zhu et al., "The Upgrading Framework in the Apparel Industry Literature," 232.

13. Li and Cheng, "Qiantan Fuzhuang Pinpai Yingxiao," 93; Wang and Shen, "Sheji Zhizao Beijing Xia," 89–90; Li, "Lun Zhongguo Fuzhuang Chanye," 12; Shen et al., "Jiyu Xin Jingji Shidai," 88; Xu, Wu, and Ge, "Orientation of Chinese Fashion Designer Brands"; Wu and Zhan, "Guangdong Sheng Fuzhuang Qiye," 30.

14. Zhang, Kong, and Ramu, "The Transformation," 116; Zhang and Yang, "Kuajing Dianzi Shangwu," 604; Liu, Jiang, and Wu, "Kuajing Dianshang," 73; Fan, Chen, and Chen, "Zhongxiao Fuzhuang Qiye," 148.

15. Zhu and Pickles, "Bring In," 44–59; Ruan et al., "Chengben Shangsheng," 124–126; Ruan and Zhang, "'Flying Geese' in China," 84–90.

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

drastically increased productivity in the 1980s and 1990s, especially in Asia.[16] Technology transfer was a critical factor for Chinese apparel companies to raise productivity and enhance exports. However, fashion, which is rooted in design, global value chain (GVC) management, and marketing expertise, has been explained by scholars as the core competitiveness creating entry barriers for apparel companies.[17] Thus, the companies required knowledge upgrades in the domestic-oriented period. However, the way these firms have accessed and used different knowledge remains largely unexplored.

A second major issue is understanding the relationships between the apparel companies that dominated the domestic market after 2005 and the Chinese apparel manufacturers that dominated world exports in the 1980s and 1990s. Are they similar firms that shifted their market from global to local? If not, where did these new firms come from and how did they acquire the knowledge necessary for their growth?

Hence, the Chinese apparel industry experienced the emergence of original equipment manufacturers (OEMs) in the 1980s, followed by domestic retailers after 2005. Both kinds of companies differ regarding their markets and the knowledge needed to build competitive advantages. To analyze their expansion, we use the GVC model developed by Gary Gereffi. This model highlights the different ways companies can upgrade their position in the chain and grow through value acquisition. This model is discussed in the next section.

The GVC in the Apparel Industry

The organizational model of the GVC developed by Gary Gereffi represents an appropriate analytical tool to discuss the issue of knowledge upgrades in the Chinese apparel industry.[18] Since its formation in the 1980s, this industry has not been composed of fully vertically integrated firms, which would internally control all activities related to the apparel business, from design and marketing to production, distribution, and retail. Rather, firms have focused on specific parts of the chain, mostly production, and depended on other companies, mostly foreign, for other activities.

Gereffi has argued that the governance of the chain, and consequently the opportunities and the conditions to improve one's position within it, took various forms. In some industries, like the automobile industry, companies with the ability to design and manufacture a technically complex product dominate the GVC (producer-driven GVC). In other industries, like branded consumer goods, marketing and retail are the key determinants of competitiveness (buyer-driven GVC). The apparel industry belongs to the latter group. Taking the example of the U.S. apparel industry, Gereffi demonstrated that department stores and fashion retailers controlled this business because they had been able to develop brands and build networks

16. Camagnp and Rabellotti, "Technology and Organization," 272–275, Kapelko and Lansink, "An International Comparison," 1514–1517.

17. Mytelka, "Technological Change," 110; Godley, "The Development," 7.

18. Gereffi first used the concept of "global commodity chain" (GCC) before shifting to GVC after having started working with Timothy Sturgeon, but both concepts share a similar perspective. Gereffi and Korzeniewicz, *Commodity Chains and Global Capitalism*; Fernandez-Stark and Gereffi, "Global Value Chain Analysis: A Primer," 54.

of stores throughout the country since the 1960s. The added value of apparel came from these marketing activities, while production was outsourced to hundreds of independent manufacturing companies through various intermediaries, including trading companies, overseas buyers, and factories.[19] The formation of GVC in the apparel industry was accompanied by a geographic expansion. Production has become more and more focused in mainland China and other Asian countries, while retailers are centered in the United States, western Europe, and Japan, with Hong Kong playing a new role as an intermediary.[20] For example, although apparel production has declined drastically in Germany since the 1950s, German companies are still competitive in the apparel industry, particularly in sportswear, due to their ability to control marketing and retail.[21] The U.S. luxury fashion company Ralph Lauren Corporation, founded in 1967, had no production facilities at the time of its initial public offering in 1997 but outsourced production to about 180 manufacturers around the world, especially in Asia.[22]

However, the companies that occupy a lower position in the GVC can change their position in the chain and add more value. Research in the electronics and automotive industries in East Asia has shown that technological development was how some subcontractors were able to innovate, offer new components to their partners, and consequently increase their share of the value-added of the end product.[23] Moreover, modularization of product architecture and digitalization allowed new companies in emerging countries to access these modules and assemble them in an end product without becoming the supplier of a multinational enterprise. For example, this is the case in the Chinese mobile phone industry.[24] Indirect technology transfer from Apple's suppliers enabled domestic firms like Huawei and Xiaomi to experience fast growth.[25]

Gereffi argued that the associations with leading international firms were major knowledge and technology transfer sources for local companies undertaking OEM production in the buyer-driven apparel commodity chain.[26] Scholars in economics have econometrically demonstrated the positive effect of foreign trade and FDI on technological spillovers in the Chinese apparel industry from the 1980s to the early 2000s.[27] Import of advanced technology, OEM linkages with Western companies, mergers and acquisitions (M&As), and employment of foreign experts have been referred to briefly in some studies on the Chinese fashion system and its approach to industrial upgrading through knowledge acquisition.[28] For example, the back-and-forth discussions on the samples based on the designs provided by Western buyers enabled the transfer of design knowledge to Chinese manufacturers. Yet some scholars noted

19. Gereffi, "The Organization of Buyer-Driven Global Commodity Chains," 95.
20. Lane and Probert, *National Capitalisms, Global Production Networks.*
21. Hesse, "The German Textile Puzzle," 221.
22. Donzé, *Selling Europe to the World*, 133.
23. Kawakami and Sturgeon, *The Dynamics of Local Learning in Global Value Chains.*
24. Imai and Shiu. "Value Chain Creation and Reorganization," 43.
25. "What It Would Take for Apple to Disentangle Itself from China?," *Financial Times*, January 18, 2023.
26. Gereffi, "International Trade," 38; Gereffi and Memedovic, "The Global Apparel Value Chain," 38.
27. Buckley, Clegg, and Wang, "Is the Relationship," 192; Li and Zhu, "Guoji Maoyi," 31; Guo and Fang, "Guowai Yanjiu," 91; Xu and Sheng, "Productivity Spillovers," 63–72.
28. Huang, He, and Nie, "Quanqiu Jiazhilian," 61–62; Zhao, "Local Productions," 46–66; Ruan et al., "Chengben Shangsheng," 124–126; Sun and Wu, "Zhongguo Fuzhuang Pinpai," 78–79.

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

that this knowledge transfer effect was not always evident, as exemplified in Nike's outsourcing networks in mainland China, Hong Kong, and Taiwan. Basically, none of these large suppliers has been able to move up to become a branded manufacturer.[29] However, the extant literature is mainly concentrated on the outcomes of industrial upgrading of the Chinese apparel firms rather than how the specific technologies and knowledge are acquired. Additionally, most of the papers are case studies, which limits their generalizability.

Consequently, although China's apparel companies became the world's largest exporters in the 1980s and were established as dominant players in their domestic market after 2005, it is necessary to examine the role of knowledge upgrading, that is, the acquisition of technology and knowledge to achieve a higher position in the GVC in order to capture more value, in this two-phase process. Figures 2 and 3 present simplified overviews of the GVC in the apparel industry and the place of Chinese companies within it during these two periods. First, between 1980 and 2005, Chinese apparel firms were the suppliers of clothing to worldwide retailers through intermediaries, usually based in Hong Kong. However, this industrial growth was not a natural consequence of low wages and institutional change in China. Competition between Chinese apparel firms was tough; some used foreign knowledge to establish themselves as the leading firms in this industry. One must consecutively discuss the nature (machinery, equipment, patents, technical guidance, etc.) and sources (global retailers, overseas buyers, etc.) of this knowledge transfer (see Figure 2). This can explain the successful rise of export-oriented Chinese apparel producers.

Second, for the period following 2005, a different kind of knowledge became necessary for Chinese apparel retailers to establish them as dominant players in their domestic market in the context of a competitive environment, as global retailers were also engaged in this market. A new kind of knowledge was necessary to design clothing, build brands, and create a retail network. It enabled some companies to upgrade their position in the value chain. The source of

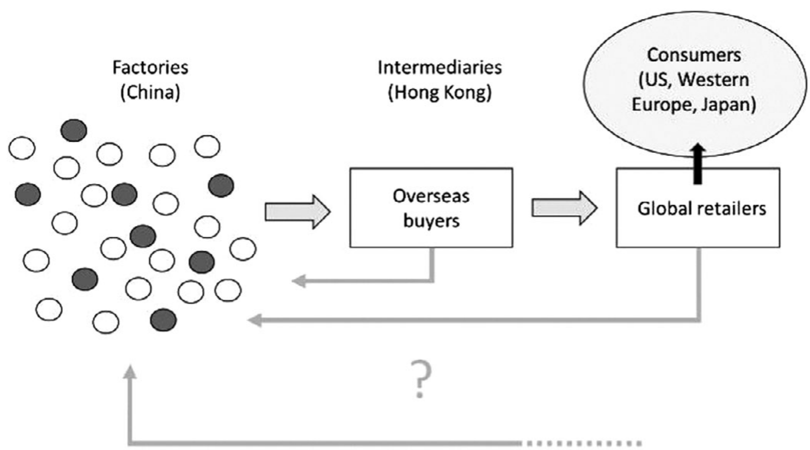

Figure 2 Knowledge upgrade in the Chinese apparel industry, phase I (1980–2005). Gray lines represent knowledge flow.

29. Tan, Ma, and Liu, "Fuzhuang Chanye Guoji Jingzhengli," 70–72.

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

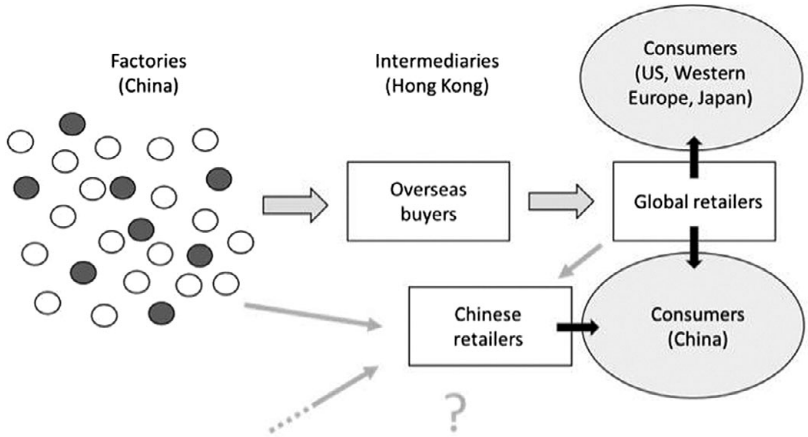

Figure 3. Knowledge upgrade in the Chinese apparel industry, phase II (2005–2020). Gray lines represent knowledge flow.

this knowledge transfer must be explored, particularly the relation with Chinese apparel manufacturers (see Figure 3). Were retailers former producers who improved their position in the chain or new companies that used manufacturers as suppliers ?

To answer these questions, we used multiple published Chinese sources from the 1980s to the present to gather information on the evolution of the largest apparel firms. Unfortunately, archival materials on the Chinese apparel industry are unavailable, and companies rejected our requests for interviews. However, the broad range and wide variety of our sources made it possible to engage in an analysis based on a "triangulation of source materials" to avoid misunderstanding and correct biases and a "hermeneutic interpretation" to understand the sources in the context they were produced.[30] The corpus of our printed sources includes a total of two hundred articles that were published in 103 Chinese business magazines and newspapers. We obtained them by searching keywords from the largest academic database in China, CNKI (Chinese National Knowledge Internet). We also obtained articles from *China Textile* published before 1994 by consulting the hard-copy collections of the National Library of China. Details regarding these sources are presented in the bibliography at the end of this paper. These sources were complemented with official data. We draw on statistics and reports from eleven different yearbooks, mainly national yearbooks such as the *Almanac of China's Textile Industry* and *China Textile Industry Development Report*, supplemented by a small number of provincial and municipal yearbooks, such as the *Chengdu Yearbook* and *Jilin Yearbook*. Hence, the extent of sources gathered from newspapers and official publications makes it possible to overcome the "silence of the archives" and carry out relevant business history research on knowledge upgrades in the Chinese apparel industry.[31]

The rest of this paper is organized as follows. First, we offer a general analysis of the long-term transformation of the Chinese apparel industry and the formation of a domestic market in the

30. Kipping, Wadhwani, and Bucheli, "Analyzing and Interpreting," 305.
31. Decker, "The Silence of the Archives," 155.

next two sections. This provides the reader with an overview of the evolution of this business. We then focus on the issue of knowledge upgrading, with both a macroeconomic perspective and case studies of relevant firms. Finally, we discuss our results in the conclusion.

The Transformation of the Chinese Apparel Industry

Before 1949, clothing in China was mostly handcrafted at home or by individual tailors. The latter generally manufactured clothes according to customers' orders and only occasionally offered ready-made items.[32] After the foundation of the People's Republic of China, the new communist government focused on agricultural growth and the restoration of industrial output. In 1953, the government started a socialist transformation (*san da gai zao*) and implemented a highly centralized planned economy that lasted between 1956 and 1978. In this period, public sectors—including state-owned (SOEs) and collective enterprises (owned by local governments)—made up the entirety of business ownership. Private and foreign-invested enterprises were nonexistent in the economy until 1978.[33] Apparel production was regulated from both the demand and supply sides. Due to the scarcity of resources, the government implemented a cloth coupon policy in 1953. As a result, each person had only a fixed number of coupons per year to purchase apparel products from state-owned stores. Meanwhile, the authorities controlled and rationed the production of apparel. The situation was even worse during the Cultural Revolution (1966–1976), when the diversification of apparel reached its lowest point, and people were forced to wear uniforms. Briefly, apparel production did not need to meet market demand in a planned economy; instead, it had to conform to state directives. As a result, apparel production remained low throughout the period, increasing barely ninefold over twenty-six years, from CNY 1.02 billion in 1952 to CNY 9.1 billion in 1978 (see Figure 1).

The turning point came in 1978, when the reform and opening up policy led to a gradual shift from a planned economy to a market economy. In 1984, the Ministry of Textile Industry formulated a strategy to prioritize the development of the apparel industry.[34] The abolishment of the cloth coupon policy in the same year marked the transition of apparel production to market demand. In 1986, the central government established export as the initial strategic goal of the apparel industry's development in the twentieth century.[35] Thereafter, the Chinese apparel industry experienced impressive development, reaching an output value of CNY 615.9 billion by 2006, sixty-eight times that of 1978. This dramatic expansion was driven by fast export growth, which represented 16 percent of domestic output in 1981 and remained at an average of greater than 95 percent since the 1990s (see Figure 1).

32. Zhao, *The Chinese Fashion Industry*, 20.

33. *China Industry Statistical Yearbook*, 1985: 98.

34. "Yikao Jishu Jinbu, Nuli Kaichuang Fangzhi Gongye Xinjumian" [Rely on technological progress and strive to create a new situation in the textile industry], *China Textile*, no. 11 (1984): 1–4.

35. "Fangzhi Gongye Sanzi Qiye Gaikuang" [Overview of the foreign-invested companies in the textile industry], *Almanac of China's Textile Industry*, 1986–1987: 2; "Zhuazhu Youli Shiji, Fazhan Fangzhipin Chukou" [Seize the opportunity to develop textile exports], *China Textile*, no. 12 (1986): 2–4.

A major characteristic accompanying the industry's rapid expansion was the diversification of apparel companies. In the early 1980s, large numbers of rural laborers were freed and shifted to nonagricultural sectors, especially township-village enterprises (TVEs) with higher marginal returns and an unlimited supply of labor, due to agricultural production system reforms.[36] In 1987, TVEs accounted for more than 88 percent of total apparel enterprises and employed more than 76 percent of the industry's workforce.[37] Meanwhile, after the legitimization of FDI in 1979, the central government began to further liberalize FDI and encourage foreign-invested enterprises (in the form of Sino-foreign JVs) in the late 1980s.[38] By the end of the twentieth century, foreign-invested companies and TVEs accounted for 43 percent and 26 percent of all apparel enterprises, respectively, and thus became the driving force in the apparel industry in the 1990s.[39]

The second inflection point started in the mid-2000s. While export was the driving force of the fast expansion of the Chinese apparel industry in the 1980s and 1990s, the domestic market played a growing role after 2000. The share of export of the national apparel production started to decline after 2005 and has dropped below 50 percent since 2012 (see Figure 1). Simultaneously, TVEs and foreign-invested enterprises gradually lost their dominance in the industry with a series of regulation-related changes. These included the advent of the market economy and the complete liberalization of enterprise privatization in 1992, the new revision of the Foreign Trade Law in 2004, and the official abolishment of the Multi-fiber Arrangement in 2005.[40] The explosion of private enterprises has made them the absolute dominant player since 2006, accounting for more than 68 percent of all apparel enterprises in 2019.[41]

In short, the Chinese apparel industry experienced tremendous growth by being export oriented from the early 1980s to the mid-2000s, whereas it became increasingly domestic oriented after 2005. The dominant firms and their main markets largely varied in the two periods: township and foreign-invested companies in the 1980s with foreign buyers as the target market, and private firms in the 1990s with domestic consumers as the target market. Accordingly, the knowledge required in these two periods should be different. Hence the knowledge upgrading accompanying this industrial transformation is the issue to be explored in the rest of the paper.

36. "Dangqian Nongcun Jingji Zhengce De Ruogan Wenti" [Several problems of current economic policies of rural areas], *China Agriculture Yearbook*, 1983: 1–5; "Nongcun Jiating Lianchan Chengbao Zerenzhi Fazhan Qingkuang" [The development of the household contract responsibility system in rural areas], *China Rural Statistical Yearbook,* 1989: 33; Chang, "The Peasant Family," 241.

37. "Guanyu Fuzhuang Gongye De Diaocha Baogao" [Report of apparel industry], *Almanac of China's Textile Industry*, 1988–1989: 285–288.

38. "Fangzhi Gongye Sanzi Qiye Gaikuang" [Overview of the foreign-invested companies in the textile industry], *Almanac of China's Textile Industry*, 1986–1987: 26–27; "Guowuyuan Guanyu Guli Waishang Touzi De Guiding" [Provisions of the State Council on encouraging foreign investment], *Almanac of China's Textile Industry*, 1986–1987: 113–114; "Zhongguo De Xiangzhen Fangzhi Gongye" [China's township textile industry], *Almanac of China's Textile Industry*, 1988–1989: 33–35.

39. *China Statistical Yearbook*, 2000.

40. "Xin 'Duiwai Maoyi Fa' Dui Woguo Minying Waimao De Yingxiang" [The impact of the new "Foreign Trade Law" on China's private foreign trade], *China High-tech Industry Herald*, July 28, 2004.

41. *China Statistical Yearbook*, 2020.

The Growth of the Domestic Apparel Market

The fairly low demand for apparel in the domestic market was a key contributor to the Chinese apparel industry's export orientation between the early 1980s and the mid-2000s, in addition to the central government's supportive regulations. Zhao stated that despite the termination of the cloth coupon policy in 1984, the pace of domestic demand growth lagged behind that of productivity growth.[42] However, after 2000, the domestic market volume expanded quickly in the context of increasing purchasing power and the development of a middle class. In 2017, apparel sales in the domestic market reached CNY 1.455 trillion, more than thirteen times the CNY 106 billion in 2001. Moreover, the annual growth rate of apparel sales remained mostly above 20 percent over the course of the ten years after 2003 (see Figure 4). The vast market potential has gradually prompted apparel companies to become increasingly domestic oriented.

The growth of domestic demand largely facilitated the entry of foreign brands into China. Luxury fashion companies like Ermenegildo Zegna (1991) and Louis Vuitton (1992) were the first to invest in China.[43] China is now the largest market in terms of sales for many of these companies, including Prada, Gucci, and Zegna, to mention a few.[44] They were followed in the 2000s by fast fashion brands, including Mango (2002), Uniqlo (2002), Zara (2006), and H&M (2007). In 2019, half of the top ten apparel brands in the Chinese market were foreign, including Nike, Adidas, Uniqlo, Skechers, and Fila.[45] In the meantime, most of the products

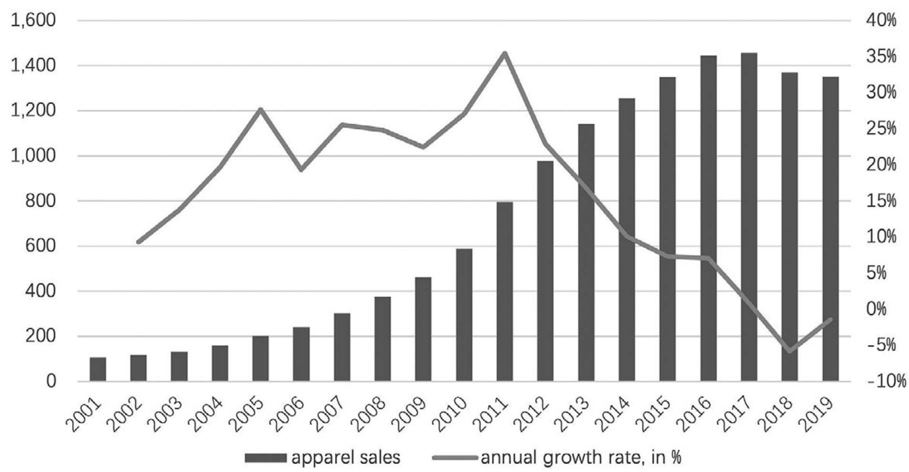

Figure 4. Apparel sales in Chinese market (CNY billion), 2001–2019.

Source: National Bureau of Statistics.

42. Zhao, *The Chinese Fashion Industry*, 33.
43. Bonetti, "Italian Luxury Fashion Brands," 463–467.
44. Ibid.
45. China Apparel Market Series, "Fung Business Intelligence, 2020," 8.

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

from these foreign brands that dominated the Chinese market were manufactured in China.[46] For instance, more than 90 percent of Uniqlo's products were produced in China in the early 2000s; today, that figure has dropped to 70 percent due to the company's strategic transfers to countries with lower labor costs, such as Vietnam and Cambodia after 2008.[47]

Meanwhile, the domestic companies that dominated the market have undergone tremendous transformation over time (see Table 1). As firms with diversified ownership were still in their infancy in the 1980s, all of the key players were SOEs. In the 1990s, the market was dominated by TVEs that were in the process of privatization. Private companies then assumed control after the 2000s. As illustrated in Table 1, the majority of these private companies were not newcomers but came from the privatization of the former leading TVEs or SOEs, such as Youngor, Hongdou, and Heilan, to name a few. Some of the companies established as privately owned enterprises in the 1990s, like Peacebird and Semir, demonstrated vigorous growth in the domestic market as well.

These data show that the shift in orientation from export to domestic did not come from a whole new group of private companies but mostly from the former leading companies' changing strategies. Thus, the next section will examine how these firms transitioned from the export to the domestic market and how they were able to acquire the knowledge needed in each period.

Knowledge Acquisition and Upgrade of Domestic Apparel Companies

The core knowledge required at the two developmental stages of the Chinese apparel industry took on different forms. Although the apparel industry is generally considered relatively labor-intensive, Chinese apparel production lagged far behind the leading exporters in terms of electronic-based technologies in the early 1980s after three decades of rationed production. Therefore, in addition to labor costs, technology was of great importance for Chinese OEMs to raise productivity, satisfy the requirements of foreign buyers, and enhance exports from the early 1980s to the mid-2000s.

However, soft knowledge is weighed more heavily to upgrade the GVC in the apparel industry. When Chinese apparel firms adopted the strategy of refocusing on the growing domestic market and competing with highly branded foreign firms, acquiring expertise in design, marketing, and branding was critical.

As previously mentioned, the leading companies in the domestic market after 2005 basically established supremacy during the export-oriented period and maintained their dominance through changing strategies. Therefore, it is necessary to explore this transition, from how they acquired knowledge as export-oriented firms to how they upgraded their knowledge when shifting to the domestic market, and to understand further how they were able to change their position in the GVC during the transition.

46. "Fuzhuang Ye" [Apparel industry], *China Textile Industry Development Report*, 2003–2004: 67.
47. *Fast Retailing Annual Report*, 2008, 2017.

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

Table 1 The ten largest apparel companies in term of total sales in 1988, 1996, 2006, and 2016

	Enterprise	Ownership in statistical year	Year of establishment	Ownership at establishment
1988				
1	Jiangxi Gongqing Down Factory	SOE	1970	SOE
2	Shanghai Down Factory	SOE	1950	SOE
3	3502 Factory	SOE	1928	SOE
4	3506 Factory	SOE	1949	SOE
5	3503 Factory	SOE	1940	SOE
6	Great Wall Company	SOE	1952	SOE
7	3507 Factory	SOE	1951	SOE
8	3501 Factory	SOE	1912	SOE
9	3508 Factory	SOE	1937	SOE
10	3504 Factory	SOE	1951	SOE
1996				
1	Shanghai Garment Group	SOE	1950	Local government
2	Mozhihua Industry Group	Sino-foreign JV	1979	TVE
3	Shanshan Group	Mixed	1989	SOE
4	Hongdou Group	Mixed	1982	TVE
5	Youngor Group	Mixed	1979	TVE
6	Shengle Group	Mixed	1953	TVE
7	Shanghai Conch Group	SOE	1970s	SOE
8	Mailyard Group	Sino-foreign JV	1985	Sino-foreign JV
9	Dayang Group	Mixed	1979	TVE
10	Shanghai Kaikai	SOE	1936	Private
2006				
1	Youngor Group	Private	1979	TVE
2	Hongdou Group	Private	1982	TVE
3	Heilan Group	Private	1988	TVE
4	Bosideng	Private	1976	TVE
5	Shanshan Group	Private	1989	SOE
6	Jifa Group	Private	1955	TVE
7	Red Collar Group	Private	1995	Private
8	Judger Group	Private	1996	Private
9	Xinlang Sinoer Group	Private	1993	Private
10	Seven Brand Group	Private	1979	Individual
2016				
1	Heilan Group	Private	1988	TVE
2	Youngor Group	Private	1979	TVE
3	Hongdou Group	Private	1982	TVE
4	Shanshan Group	Sino-foreign JV	1989	SOE
5	Bosideng	Private	1976	TVE
6	Shandong Ruyi	Sino-foreign JV	1972	SOE
7	Peacebird Group	Private	1989	Individual
8	Weixing Group	Private	1976	TVE
9	Ballon Group	Private	1991	Private
10	Semir	Private	1996	Private

Sources: *Management World*, 1989(06); *Beijing Textile*, 1997 (03): 57–59; China National Garment Association published statistics, accessed October 14, 2021, http://www.cnga.org.cn/html/zx/hyxx/2007/0426/1685.html (2006); http://www.cnga.org.cn/html/xiehuigonggao/2017/0718/44756.html (2016). Ownership was established by the authors on the basis of yearbooks, newspapers, and magazines listed in the bibliography.

Note: Data before 1988 are not available. Total sales include export and domestic market sales. JV, joint venture; SOE, state-owned enterprise; TVE, township-village enterprise.

Technology Transfer in the Export-oriented Apparel Industry

In the early 1980s, the government encouraged bringing in foreign technology and equipment to speed up the technological upgrade of domestic apparel enterprises.[48] Later, in 1986, it implemented policies to stimulate and assist inward FDI, particularly in export-oriented (products were mainly used for export) and technology-importing (foreign investors provided advanced technologies) enterprises. During this period, most Sino-foreign JVs were rebuilt and transformed from former domestic firms. Typically, the Chinese side made relatively low-cost investments in factories, land, and original equipment, while foreign partners invested in technology, equipment, and high-quality raw materials.[49]

As shown in Table 2, in the 1980s, some of the major SOEs began to import equipment from industrialized countries such as Germany, Japan, and the United States, but very few established Sino-foreign JVs. The reason was twofold. First, foreign-invested enterprises were still in their infancy in China in 1988, accounting for less than 2 percent of total apparel companies.[50] Second, SOEs had enough financial resources to purchase foreign equipment without the assistance of foreign investment.

In the 1990s, TVEs became the dominant force in the industry, but their situation differed from that of the SOEs. They achieved rapid technological progress from a low starting point. Mario Biggeri, Danilo Gambelli, and Christine Phillips demonstrated that cooperation with SOEs was a critical source of technology upgrading for TVEs.[51] Nonetheless, this was not a mainstream approach among Chinese TVEs. As seen in Table 2, practically all the largest companies formed Sino-foreign JVs during this period. One reason was that TVEs were usually small and lacked appropriate funding. In the early 1980s, they generally acquired equipment through cooperative operations, such as compensation trade. For example, Jifa Group introduced eighty-four sets of equipment through a knitted underwear compensation trade contract with Japanese Hyogo Trading Company in 1984.[52]

Sino-foreign JVs only became a viable way of obtaining technology and capital after encouraging FDI regulations were enacted in 1986, as evident in the Youngor case. In 1990, this firm established a JV with Macau Nanguang Trading Company, which invested USD 280,000 and acquired 25 percent of the new company. Specifically, Nanguang was established in Macau by the Chinese Ministry of Foreign Trade and Economic Cooperation, which made the JV a round-trip investment in practice. The new JV purchased more than three hundred sets of manufacturing equipment from Japan, Germany, and the United States.[53] Similarly, the Japanese Matsuoka Corporation supplied capital for the establishment of Mozhihua in 1990,

48. "1983–1984 Fangzhi Gongye Gaikuang" [Overview of textile industry of 1983–1984], *Almanac of China's Textile Industry*, 1984–1985: 1–6

49. "Fangzhi Gongye Sanzi Qiye Gaikuang" [Overview of the foreign-invested companies in the textile industry], *Almanac of China's Textile Industry*, 1986–1987: 26–27

50. "Zhongguo De Xiangzhen Fangzhi Gongye" [China's township textile industry], *Almanac of China's Textile Industry*, 1988–1989: 33–35

51. Biggeri, Gambelli, and Phillips, "Small and Medium Enterprise Theory," 208.

52. "Jifa Zhihun Chen Yula" ["The Soul of Jifa" Chen Yulan], *China Township Enterprise*, no. 1 (2000): 30–32

53. "Yageer, Qingchun De Shiye" [Youngor, the career of youth], *Foreign Investment in China*, no. 4 (1995): 45–46; Su, *Yageer: Feifan Jueqi*, 26–28; 45.

Table 2 Technology transfer data for the ten largest apparel companies in 1988, 1996, 2006, 2016

	Enterprise	Equipment imports	Joint venture with FDI
1988			
1	Jiangxi Gongqing Down Factory	N	N
2	Shanghai Down Factory	N/A	N/A
3	3502 Factory	N/A	N/A
4	3506 Factory	Y (unspecified)	N
5	3503 Factory	N/A	N/A
6	Great Wall Company	Germany, Japan, United States	N
7	3507 Factory	Y (unspecified)	Hong Kong, Mauritius
8	3501 Factory	N/A	N/A
9	3508 Factory	N/A	N/A
10	3504 Factory	Japan	N
1996			
1	Shanghai Garment Group	N/A	N/A
2	Mozhihua Industry Group	Y (unspecified)	Japan, South Korea
3	Shanshan Group	Germany, Italy, Japan	Hong Kong, Japan, South Korea
4	Hongdou Group	Italy, Japan	Hong Kong
5	Youngor Group	Germany, Italy, Japan, United States	Hong Kong, Japan, Macau
6	Shengle Group	Germany, Hong Kong, Italy, Japan, South Korea, Taiwan	Italy
7	Shanghai Conch Group	Japan, United States	Y (unspecified)
8	Mailyard Group	Germany, Japan, United States	Japan
9	Dayang Group	Y (unspecified)	Japan
10	Shanghai Kaikai	Japan, Switzerland	Hong Kong
2006			
1	Youngor Group	Germany, Italy, Japan, United States	Hong Kong, Italy, Japan, Macau
2	Hongdou Group	Italy, Japan	Hong Kong, United States
3	Heilan Group	France, German, Italy, Switzerland	N
4	Bosideng	Germany, Italy, Japan, United States	N
5	Shanshan Group	Germany, Italy, Japan	France, Hong Kong, Italy, Japan, South Korea, United States
6	Jifa Group	Germany, Italy, Japan, Hong Kong, Switzerland, United States	Japan
7	RED Collar Group	Germany, Italy, Japan, Spain	Germany, Hong Kong
8	Judger Group	Germany, Italy, Japan, United States	N
9	Xinlang Sinoer Group	France, Germany, Italy, Japan, Spain	United Kingdom
10	Seven Brand Group	France, Germany, Italy, Japan	N
2016			
1	Heilan Group	France, German, Italy, Switzerland	N
2	Youngor Group	Germany, Italy, Japan, United States	Hong Kong, Italy, Japan, Macau, United States
3	Hongdou Group	Italy, Japan	Hong Kong, United States
4	Shanshan Group	Germany, Italy, Japan	France, Hong Kong, Italy, Japan, South Korea, United States
5	Bosideng	Germany, Italy, Japan, United States	N
6	Shandong Ruyi	Germany, Italy, Switzerland	Australia, France, Germany, Japan, United Kingdom
7	Peacebird Group	Germany, Japan	N

(*Continued*)

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Table 2 (Continued)

	Enterprise	Equipment imports	Joint venture with FDI
8	Weixing Group	Italy	Hong Kong, Taiwan
9	Ballon Group	Germany, Italy, Japan, United States	N
10	Semir	N	N

Source: *Management World*, no. 6 (1989); *Beijing Textile*, no. 3 (1997): 57–59; China National Garment Association published statistics, accessed October 14, 2021, http://www.cnga.org.cn/html/zx/hyxx/2007/0426/1685.html (2006); http://www.cnga.org.cn/html/xiehuigonggao/2017/0718/44756.html (2016). Information on technology transfer was established by the authors on the basis of yearbooks, newspapers, and magazines mentioned in the bibliography.
Note: Data before 1988 are not available. N, no; Y, yes but more explicit information not available; N/A, no data found.

while the Chinese side, township Pinghu Xincang No. 1 Garment Factory, provided land, the plant, and labor, and ultimately controlled the new company. In this way, Mozhihua purchased thousands of sets of advanced equipment in four years without applying for any state funds or bank loans.[54] Moreover, Dayang Group established twenty-eight Sino-foreign JVs between 1989 and 1995, with investors from Hong Kong, Japan, South Korea, and the United States. Not only had the company raised capital and brought in automation equipment and multiple production lines, but it also expanded exports, with more than 90 percent of its products sent off to more than twenty-five countries.[55]

In addition to capital and technology, some companies began to employ foreign technical experts in the early 1990s. For example, Hongdou engaged Xiao Wenfeng, a technical expert from Taiwan, as general manager of its shirt department in 1993, and Kato Atsushi, a Japanese engineer, as general manager of its suit department the following year.[56] In an industrial park constructed by Shanshan in 1998, the production lines of suits were directly managed by experts from the Japanese company Daito Textile and the Italian company Gruppo Forall, according to the companies' cooperation agreements.[57]

To sum up, the domestic apparel companies mainly obtained advanced technology by directly importing foreign equipment and establishing JVs with foreign capital. Moreover, some enterprises began to import technical experts and managerial personnel from abroad in the early 1990s. However, the technology transfer during this period did not change the position of domestic companies in the GVC, as the objective was still to expand exports as OEMs.

Searching for Added Value to Upgrade in the GVC

The knowledge needed to build a competitive advantage in the domestic market was different. Design, branding, and retail became the target of transfers, whereas apparel manufacturers

54. "Mozhihua Industry Group Co., Ltd.," *Almanac of China's Textile Industry*, 1996: 119–121; "Li Qinfu: 'Buwuzhengye' De Shenmi Fuhao" [Li Qinfu: the mysterious rich people who don't do their jobs], *Money*, no. 9 (2008): 46–48.

55. "Kao Keji Kaipi Dayang Zhilu—Tan Qiyejia Li Guilian" [Relying on science and technology to open up the road to the great Yang—On Li Guilian, an entrepreneur], *Journal of Dalian Official*, no. 4 (1995): 31–32; "Kan Dayang Ruhe Cantian" [See how "Dayang" towers to the sky], *Reporters' Notes*, no. 2 (1999): 14–16.

56. Yi, *Cunxin Rudan*, 58–59.

57. "Shanshan Gongyecheng Luocheng Touchan" [Shanshan Industrial City was completed], *Almanac of China's Textile Industry*, 1997–1999: 114; "Shanshan Jituan Yinjin Guoji Guanli Rencai" [Shanshan Group introduces international management talents], *Sichuan Textile Science and Technology*, no. 1 (1998): 53–54.

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

focused more on production technology before 2006. The government supported this change. For example, in 2005, the Ministry of Commerce adopted a policy to support independent brand building and allocated CNY 700 million to private companies for developing their marketing and distribution channel activities in the following year.[58] However, the activities of private firms were much more important in acquiring this new type of knowledge.

Figure 5 shows the annual number of new trademark registrations by domestic apparel companies. In the early 2000s, it maintained a steady pace before accelerating abruptly in 2007. While data for the apparel industry before 2000 are unavailable, trademark data for Chinese industry across the board remained low in the 1980s and only started to grow slowly in the 1990s, until surging after 2007, suggesting the apparel industry fits the general trend.[59] Until 2019, each apparel enterprise had an average of 1.6 registered trademarks in China.[60] This demonstrates that apparel enterprises have placed a higher premium on brand building.

Taking the companies in Table 1 as examples, most of the largest companies in 1996 were export-oriented OEMs. Although some had established independent brands in the domestic market—typically bearing the company's name, such as Shanshan, Youngor, Hongdou, and Kaikai—OEM and export remained their core businesses. However, between 2006 and 2016, all the largest companies, with the exception of Jifa, shifted their focus to domestic sales of self-owned brands and thus upgraded to become brand retailers. In addition, most adopted a multiple-brand strategy. For instance, in 2004, Youngor's OEM income accounted for approximately 42 percent of total revenue, while the domestic income came from its sole brand, Youngor. By 2014, OEM income had dropped to only 4 percent, and domestic sales accounted

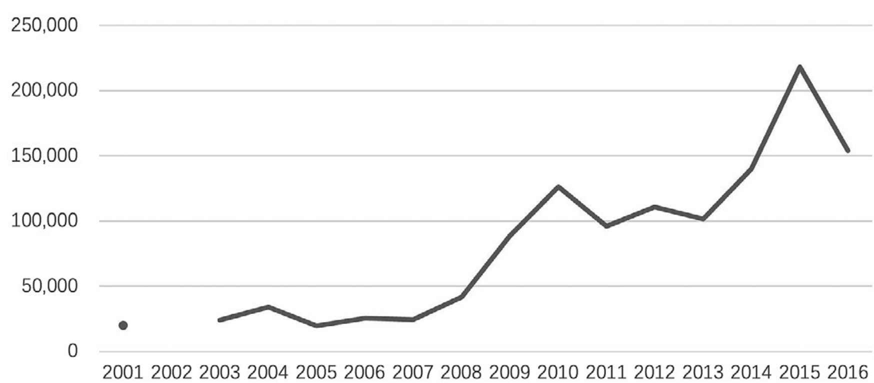

Figure 5 Annual increase of trademark registrations in the Chinese apparel industry. Trademark registration data by industry before 2000 are not available.

Source: *China Intellectual Property Yearbook*, 2000–2017.

58. "Fuzhuang Ye" [Apparel industry], *China Textile Industry Development Report*, 2005–2006: 87–96.
59. "Trademarks," *China Intellectual Property Yearbook*, 2001–2002: 256.
60. "Trademarks and Standards of Enterprises by Industry in 2019," *Statistical Monitoring Report on Innovation Capability of Chinese Enterprises*, 2020: 138–139

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for the remainder. The company was managing five self-owned brands in the domestic market, although the pillar brand Youngor accounted for 92 percent of domestic sales.[61]

As shown in Table 2, all the largest apparel enterprises founded before the mid-1990s were manufacturers and had already established a competitive advantage in apparel production in the 1990s. However, many have outsourced part or the entirety of their production to OEMs since the 2000s instead of upgrading as fully vertically integrated companies. For instance, Hongdou has remained a manufacturer while outsourcing all its jacket production to domestic OEMs since the early 2000s.[62] In contrast, Shanshan began progressively selling its factories in the early 2000s.[63] This company completely divested itself of OEM manufacturing and had outsourced all its apparel production by 2014.[64] Heilan and Peacebird followed a similar development to Shanshan.

On the other side, newcomers, like those companies in Western countries that do not own any production facilities, emerged in the late 1990s, such as Semir. This company was established in 1996 without any factories due to a lack of capital, and production was outsourced to OEMs. The company primarily focused on high value-added activities, including design, branding, and retailing.[65]

In addition to upgrading endogenously, domestic apparel companies have increasingly turned to the licensing, acquisition, or joint operations of foreign brands to directly engage in high value-added activities like marketing and retailing. As early as 1999, Youngor secured a five-year licensing agreement with Pierre Cardin's brand Maxim's de Paris, taking charge of its production and sales in China and Southeast Asia.[66] Similarly, the company obtained a twenty-year license of the American brand Hart Schaffner Marx in 2007 and acquired its trademark right in China in 2014.[67] This portfolio has been further expanded to the Norwegian brand Helly Hansen (joint operation) and the American brand Undefeated (40 percent equity acquisition) in 2021.[68] Shandong Ruyi is a typical example of upgrading the GVC through acquisitions instead of building its own brands. Starting from 2010, it successively acquired a series of foreign fashion companies with more than forty brands, including the Japanese company Renown (with brands Arnold Palmer, Hiroko Koshino, etc.), the French company

61. *Youngor Annual Report*, 2004, 2014.

62. Yi, *Cunxin Rudan*, 324–325.

63. "Shanshan: Zhisheng Yikuai Paizi?" [Shanshan: only a brand left?], *Business Watch Magazine*, no. 18 (2002): 52–54, 56–58.

64. *Shanshan Annual Report*, 2014.

65. "Qiu Guanghe: Lizhi Zuo Shijie Zuihao De Xiuxianfu – Ji Wuyi Laodong Jiangzhang Huodezhe, Senma Dongshizhang Qiu Guanghe" [Qiu Guanghe: Determined to be the best casual wear in the world——Qiu Guanghe, winner of the May 1st Labor Medal and Chairman of Semir], *Yangtze Delta*, no. 5 (2006): 70–72; "Dazao Baiyi Qiye Chuangzao Bainian Pinpai—Tanfang Senma Zhongguo Mingpai Fazhan Zhi Lu" [Building a 10-billion-dollar enterprise and creating a century-old brand—exploring the development of Semir's famous brand in China], *Yangtze Delta*, no. 10 (2006): 65–67; "Chuangzao Xuni Jingying Zhong De Senma Moshi" [Creating the "Semir model" in virtual operation], *Wenzhou Daily*, March 11, 2011, sect. 006.

66. Su, *Yageer: Feifan Jueqi*, 49.

67. "Yageer Kaishi Daili Waizi Pinpai" [Youngor began to license foreign brands], *International Business Daily*, August 11, 2008, sect. A03; "Meiguo Shenshi Fengdu Laixi Hart Schaffner Marx Dailai Shangwu Xiuxian Xin Gainian" [American gentleman style comes, Hart Schaffner Marx brings new concept of business leisure], *Textile & Apparel Weekly*, no. 16 (2007): 41; Youngor Annual Report, 2020.

68. Youngor Annual Report, 2021.

SMCP (with brands Maje, Sandro, and Claudie Pierlot), and the Hong Kong company Trinity Group (with brands CERRUTI 1881, Kent & Curwen, etc.).[69] The CEO of the company, Zhou Yafu, has expressed his ambition to build "the LVMH in China." However, it failed due to the debt pressure caused by excessive expansion and high leverage and has now lost control of most of its acquired firms.[70] In another case, Shanshan has been operating dozens of foreign brands in the Chinese market through joint operations since the early 2000s. For instance, it established a JV with the Japanese company Itochu and the Italian company Gruppo Forall to operate the latter's brand Marco Azzali in 2001, and another JV with Japanese firms Itochu and Descente for the latter's brand Le Coq Sportif in 2004.[71]

Knowledge Acquisition for the Domestic Market

Leading enterprises started attempting to acquire soft knowledge as early as the mid-1990s to enhance design expertise and gain marketing experience. Here, we provide detailed analyses of three companies that appeared repeatedly in the ranking, namely Hongdou, Youngor, and Shanshan.

First, Hongdou is characterized by its special attention to cultivating design competence through various collaborations since the mid-1990s. The company was founded as a knitwear manufacturer in the 1980s and stepped into producing shirts and men's suits in the early 1990s.[72] In 1995, Hongdou chairman Zhou Yaoting became acquainted with Xiong Youwen, a female French-Chinese designer and teacher, during a visit to ESMOD, a private fashion school in Paris. One year later, he appointed Xiong the chief designer of Hongdou. Further, Hongdou and ESMOD established a joint international training center in Jiangsu Province in 1997; thus, Hongdou became the first firm in China to collaborate with foreign fashion schools. In 1999, a French professor of ESMOD serving as the chief designer, together with fifteen designers who graduated from the training center, launched Hongdou's first casual apparel brand that catered to young people, IDF.[73] In 2009, Japanese designer Minoru Adachi, who

69. "Ruyi Jingwai Shougou SMCP Shifou Ruyi" [Is Ruyi's offshore acquisition of SMCP as intended], *China Textile News*, April 11, 2016, sect. 001; "Cong 'Zhongguo LV' Dao Qianzhai 400 Yi—Shandong Ruyi Zouxia Shentan" [From "China's LV" to 40 billion in debt—Shandong Ruyi, going down], *China State-owned Enterprise Management* 17 (2022): 105–106+3; "Shandong Ruyi 'Shinian Moyijian' Zaoyu Chanyelian 'Kuayue Zhi Shang'" [Shandong Ruyi's "ten years of sharpening a sword" encounters the "death of the industrial chain"], *China Family Business Review*, no. 61 (2020): 63–67.

70. "Ruyi Jituan De Shishang Diguo Weihe Mengsui" [Why Ruyi Group's fashion empire dreams are shattered], *China Business Daily*, November 21, 2022, A09.

71. "Shanshan Jituan: Guoji Pinpai Bentu Konggu" [Shanshan Group: international brand with local holdings], *Business (Review)*, no. 7 (2006): 76–79; "Guoji Hezuo Qianyin Zizhu Pinpai" [International cooperation leads independent brands], *Business Watch Magazine*, no. 6 (2006): 30–33; "Shanshan Xiang Guoji Pinpai Tingjin" [Shanshan is trying to be international brand], *China Textile*, no. 12 (2008): 116–117.

72. "Danshi Pujiu Chenggong Lu—Ji Hongdou Jituan Nanguo Qiye Gongsi Zongjingli Zhou Mingjiang" [Boldness paves the way to success—Journal of Zhou Mingjiang, general manager of South China Enterprise Company of Hongdou Group], *Jiangsu Textile*, no. 6 (1999): 42–43.

73. Yi, *Cunxin Rudan*, 60–62; "Shijimo Dansheng Zai 'Fuzhuang Wangguo' De Xinpinpai Yidifei—Xianqi Dushi Qingchun Xiuxian Shizhuangchao" [A new brand born in the "apparel kingdom" at the end of the century, IDF—set off a tide of urban youth and casual fashion], *Jiangsu Textile*, no. 4 (2000): 45–46.

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graduated from the Japanese branch of ESMOD, was appointed the new creative director of IDF.[74]

Closer partnerships have been forged progressively with more institutions and designers, both domestic and foreign, to introduce new product lines in recent years. For instance, Hongdou entered into agreements of cooperation with the Massachusetts Institute of Technology and the Beijing Institute of Fashion Technology in 2010 and 2016, respectively, covering collaborations in research, training, design, and recruitment.[75] In 2005, the company appointed domestic designer Wang Hongying as design director to launch its new women's wear brand HOdo. Graduating from Wuhan Textile University, Wang was named one of the top ten fashion designers in China in 1999 and was one of the six designers who presented their works at the Louvre in Paris in 2003 on behalf of the China Fashion Association.[76] In 2019, Hongdou contracted with Fabio Del Bianco, the former chief designer of Moncler menswear, to develop a new collection of men's down jackets.[77] With Patrick Grandin, the former vice president of Armani Exchange menswear, the company debuted a new line of shirts for men in 2022.[78]

Youngor, our second example, has expanded into knowledge acquisition through licensing and M&As. Youngor was initially a shirt manufacturer in the 1980s. When it entered the market for men's suits in 1994, the company imported production equipment from Italy and Germany and sent personnel to Italy to receive training in the suit-cutting process due to a lack of expertise.[79] In the aforementioned five-year licensing agreement with the brand Maxim's de Paris in 1999, Pierre Cardin provided Youngor with design knowledge and technical support for menswear.[80] In 2007, Youngor entered into a twenty-year licensing agreement with Hart Schaffner Marx, one of the largest American suit manufacturers, for its marketing and retailing in China, with a design center in Shanghai. Hart Schaffner Marx's designs were incorporated and localized to fit Chinese body shapes.[81] One year later, Youngor paid USD 120 million to purchase two companies, Xin Ma and Smart, from the American

74. "Yidifei Qianshou Xin Shejishi" [IDF appointed a new designer], Fashion Network, https://cn.fashionnetwork.com/news/yi-di-fei-qian-shou-xin-she-ji-shi,118771.html.

75. "Ba Chuangxin Jishu He Yiliu Rencai Lanruhuai" [Incorporating innovative technology and first-class talents], *China Quality News*, July 12, 2010, sect. 006; "Hongdou Gufen 'Qianshou' Beijing Fuzhuang Xueyuan Jinxing Quanmian Zhanlve Hezuo" [Hongdou enters into strategic cooperation with Beijing Institute of Fashion Technology], official website of Hongdou, http://www.hongdou.com/news/hongdou/details/560.html.

76. "Gei Yige Kongjian Chengjiu Yiqie Keneng" [Give a space to make everything possible], *Fashion Beijing*, no. 7 (2006): 34–35.

77. "Hongdou Qianshou Ouzhou Zhuming Shejishi, Lianmei Gongxian 'Dengfeng' Liliang" [Hongdou cooperates with famous European designers and contributes to the power of "ascent"], *Textile & Apparel Weekly*, no. 27 (2019): 33.

78. "Armani Qian Sheji Fuzongcai Lianming, Ruishi HeiQ Keji Kongwen, Hongdou Gufen Yinling Shushi Xin Saidao" [Co-branding with Armani former vice president of design, HeiQ technology of temperature control from Switzerland, Hongdou leads the new track of comfort], official website of Hongdou, http://www.hongdou.com/news/hongdou/details/2355.html.

79. Su, *Yageer: Feifan Jueqi*, 39.

80. Youngor Group, "Announcement on the Licensing Agreement Between Youngor and Pierre Cardin, 1999."

81. "Yageer Kaishi Daili Waizi Pinpai" [Youngor began to license foreign brands], *International Business Daily*, August 11, 2008, sect. A03; "Shougou Hate Makesi Yageer De Chongsu Yu Tansuo" [The acquisition of Hart Marx Youngor's exploration and reinvention], *China Textile*, no. 11 (2017): 131.

company Kellwood. The companies' main business involved the design, production, and sales of menswear, with fourteen production bases in Sri Lanka, Philippines, and mainland China; ODM businesses with more than twenty global brands, such as Polo and Calvin Klein; and five licensed brands, including Nautica and Perry Ellis. Through the acquisition, Youngor absorbed design, managerial, and marketing competence, along with global distribution networks, to aid in its own brand building and advance into internationalization.[82] Youngor has recently diversified its portfolio beyond menswear. In 2021, the company partnered with Norwegian company Helly Hansen through a JV to promote its outdoor brand in China, with a localized design center to respond to the Chinese market.[83] Recently, Youngor has further acquired 40 percent of American streetwear brand Undefeated and made a minority investment in American fashion brand Alexander Wang.[84]

Besides that, similar actions as those used in Hongdou were applied in Youngor. In 2000, the company and Zhejiang Business Technology Institute collaborated to establish a training facility to cultivate marketing personnel. The two-year session included a wide range of courses, covering marketing, accounting, and clothing design.[85] Foreign marketing professionals and designers were employed to bridge the gap in expertise. In 2001, the company signed Aubry Marty as its marketing consultant on a three-year contract. Marty was a French creative consultant who had previously worked for several luxury brands, including Chloé and Dior. He designed new mono-brand stores to enhance the brand identity of the menswear brand Youngor, which was linked to masculinity and environmental protection.[86] This was one of the earliest marketing attempts by Chinese apparel companies in terms of store design. In another, Youngor cooperated with Japanese designers to launch its new menswear brand GY in 2009, targeting the younger market.[87]

Shanshan, the third company we examine in depth, focuses on joint operations with foreign companies through Sino-foreign JVs. The company had achieved dominance in the 1980s as a men's suit manufacturer and once reached a market share of 37 percent in the 1990s.[88] Beginning in the late 1990s, Shanshan started to actively implement a multi-brand strategy and pursue collaboration with foreign companies through JVs in the Chinese market while changing the business model of its own brands from direct-owned stores to franchised outlets and outsourcing its production to domestic OEMs. To get in touch with foreign companies, Shanshan chose to cooperate with the Japanese trading company Itochu, which licensed more

82. "Yageer Ni 1.2 Yi Meiyuan Gou Liang Guoji Gongsi" [Youngor plans to buy two international companies with USD 120 million], *Securities Times*, November 24, 2007, sect. A03; "Yageer Chuixiang Kuaguo Binggou Jijiehao" [Youngor blows the rallying cry for cross-border M&A], *China Textile*, no. 3 (2008): 32–37; "Yageer Binggou Xinma: Gonglve Xiangjie" [Younger's M&A of Xin MA: A Strategy Explained], *China Fashion*, no. 8 (2009): 38–39.

83. *Youngor Annual Report*, 2021; "Zhongguo Shishang Qiye Haiwai Binggou Zouxiang Xin Jieduan" [Chinese fashion companies' overseas M&As has entered a new stage], *China Fashion News*, October 7, 2022, sect. 004.

84. Ibid.

85. Su, *Yageer: Feifan Jueqi*, 71.

86. Su, *Yageer: Feifan Jueqi*, 86–92.

87. *Youngor Annual Report*, 2010; "Yageer Zuo Zizhu Pinpai: Chufei Li Rucheng Shuo Bu" [Yagor develops its own international brand: unless Li Rucheng says no], *China Textile News*, April 8, 2011, sect. 004.

88. "Shanshan Jiazhi Chongsu" [Value reinvention of Shanshan], *Textile Science Research*, no. 8 (2018): 70–71.

than 150 international brands. Itochu held a stake in these JVs, and Shanshan obtained managerial expertise from Itochu in return.[89] Specifically, Shanshan, Itochu, and the brand owner jointly established a JV, with Shanshan taking a controlling stake and Itochu taking a minority stake. Further, in 2009, Itochu acquired 28 percent of Shanshan and dispatched four executives to work directly on the company's operations.[90]

Between 2000 and 2010, Shanshan introduced numerous foreign brands through this tripartite cooperation, including Marco Azzali, Le Coq Sportif, Callaway, Pinky & Dianne, Renoma, Lubiam, IORI, and Smalto.[91] In the operation of the brand Le Coq Sportif undertaken with Descente and Itochu, the Japanese chief designers visited China twice a year to guide the design works, and bilaterally, the Chinese designers traveled to Japan twice a year to participate in training and design. Products for the Chinese market were selected from existing goods in Japan and then tailored to local tastes by Japanese and Chinese designers. In 2006, 20 percent of the products sold in the Chinese market were completed independently by Chinese designers.[92] "Our objective is not to undertake OEM for international brands, but to incorporate and nurture managerial and design competency through operating these international brands," claimed Zheng Yonggang, the CEO of Shanshan.[93]

The company's multi-brand strategy also targeted domestic designer brands in addition to foreign brands. For example, in 2002, Shanshan took a controlling stake in the brand Firs & Designer, which was founded by three French designers (one of whom was French-Chinese), and the brand Rosew, which was founded by Chinese designer Liu Wei.[94] Shanshan employed top designers to promote their own brands as well. In 1996, Shanshan signed two of China's most renowned designers at the time, Wang Xinyuan and Zhang Zhaoda, as chief designers to launch the women's wear brand Lefancy. The company opened a studio in France for them as a source of design inspiration.[95] However, due to continued profit losses of the multi-brand business, the company sold most of its stakes in JVs and self-owned brands as of 2016, retaining operation of only four brands.[96]

In addition to the companies analyzed here, Table 3 shows that collaborating with foreign brands through licensing, acquisition, or joint operation provided domestic apparel companies with a direct route to acquire soft knowledge and move up the GVC in the domestic-oriented period. Employing professionals and cooperating with institutions, both domestic

89. "Shanshan Xiang Guoji Pinpai Tingjin" [Shanshan advances to the international brands], *China Textile*, no. 12 (2008): 116–117; "Shanshan: Zonghe Shangshe Yangchengji" [Shanshan: the upbringing of a comprehensive trading company], *Business (Review)*, no. 8 (2013): 76–77.

90. "Zhongri hunxue Xin Shanshan" [New "Sino-Japanese mixed blood" Shanshan], *China Fashion News*, February 27, 2009, sect. A06; "Shanshan & Yitengzhong: Jiemeng Bannianhou" [Shanshan & Itochu: six months after the alliance], *China Fashion News*, November 20, 2009, sect. A07.

91. "Shanshan Jituan: Guoji Pinpai Bentu Konggu" [Shanshan Group: international brand with local holdings], *Business (Review)*, no. 7 (2006): 76–79; "Shanshan Dazao Quanqiu Pinpai Zonghe Yunyingshang" [Shanshan to build a global brand integrated operator], *Textile & Apparel Weekly*, no. 1 (2011): 51.

92. "Guoji Hezuo Qianyin Zizhu Pinpai" [International cooperation leads independent brands], *Business Watch Magazine*, no. 6 (2006): 30–33.

93. "Shanshan Jituan: Guoji Pinpai Bentu Konggu" [Shanshan Group: international brand with local holdings], *Business (Review)*, no. 7 (2006): 76–79.

94. Shanshan, "Keywords, 44–45."

95. Zhong, *Yu "Shayu" Tongyou*, 48, 295–301.

96. *Shanshan Annual Report*, 2015–2017.

Table 3 Knowledge acquisition data for the ten largest apparel companies in 2006 and 2016

	Enterprise	Collaboration with foreign brands	Employment of foreign professionals	Linkage with fashion/ academic institutions
2006				
1	Youngor Group	Maxim's de Paris; Hart Schaffner Marx; Helly Hansen; S+G	French marketing consultant Aubry Marty	Zhejiang Business Technology Institute
2	Hongdou Group	N	French chief designer; designers from Armani and Moncler	ESMOD
3	Heilan Group	Sean John; Head	Design offices in France and Spain	Beijing Institute of Fashion Technology; Donghua University
4	Bosideng	Rocawear; Greenwoods; Smart F&D; Bugun Fnc	French designer Jean Paul Gaultier; Italian designer Pietro Ferragina	Chinese Academy of Science; Jiangxi Institute of Fashion Technology; Changshu Institute of Technology
5	Shanshan Group	Marco Azzali; Le Coq Sportif; Callaway; Pinky & Dianne; Renoma; Lubiam	Italian designer Ferri, design office in France	N
6	Jifa Group	N	N	N
7	RED Collar Group	Calamar	Y (unspecified)	Beijing Institute of Fashion Technology; Qingdao University
8	Judger Group	Zanetti	Italian chief designer Maurizio Baldassari; Italian craftsman; design office in Milan	N
9	Xinlang Sinoer Group	N	Designers from Italy, France, Spain, and the United Kingdom	Qingdao University
10	Seven Brand Group	N	Italian craftsmen; designers from France, Italy, and South Korea	Tsinghua University
2016				
1	Heilan Group	Sean John; Head	Design offices in France and Spain	Beijing Institute of Fashion Technology; Donghua University
2	Youngor Group	Maxim's de Paris; Hart Schaffner Marx; Helly Hansen; S+G	French marketing consultant Aubry Marty	Zhejiang Business Technology Institute
3	Hongdou Group	N	French chief designer; designers from Armani and Moncler	ESMOD
4	Shanshan Group	Marco Azzali; Le Coq Sportif; Callaway; Pinky & Dianne; Renoma; Lubiam	Italian designer Ferri, design office in France	N
5	Bosideng	Rocawear; Greenwoods; Smart F&D; BUGUN.FNC	French designer Jean-Paul Gaultier; Italian designer Pietro Ferragina	Chinese Academy of Science; Jiangxi Institute of Fashion Technology; Changshu Institute of Technology
6	Shandong Ruyi	Renown; Peine Gruppo; SMCP; Trinity Group; Aquascutum; Bagir; Invista	N	Chinese Academy of Engineering

(*Continued*)

https://doi.org/10.1017/eso.2023.30 Published online by Cambridge University Press

Table 3 (Continued)

	Enterprise	Collaboration with foreign brands	Employment of foreign professionals	Linkage with fashion/ academic institutions
7	Peacebird Group	Alexis Mabille; 8on8; Material Girl; Ground Zero	Dutch designer Mikey Wormack; French designer Coralie Marabelle; Taiwanese designer Angus Chiang	Donghua University
8	Weixing Group	N	N	N
9	Ballon Group	N	N	N
10	Semir	Kidiliz; Sarabanda; Minibanda; Marc O'Polo; Sisun; Jason Wu; Juicy Couture; ASICS Kids; The Children's Place	N	Zhejiang Financial College

Source: *Management World*, no. 6 (1989); *Beijing Textile*, no. 3 (1997): 57–59; China National Garment Association published statistics, accessed October 14, 2021, http://www.cnga.org.cn/html/zx/hyxx/2007/0426/1685.html (2006); http://www.cnga.org.cn/html/xiehuigonggao/2017/0718/44756.html (2016). Information of knowledge acquisition was established by the authors on the basis of yearbooks, newspapers, and magazines listed in the bibliography.
Note: Data before 1988 are not available. N, no; Y, yes but more explicit information not available.

and foreign, enabled the companies to enhance their own competency in design, marketing, and management, hence pursuing high added value in the GVC. It is worth noting that some companies do not need to adopt these strategies. For example, Jifa Group remains an OEM manufacturer without its own brand; Weixing Group is a garment accessory supplier; and Ballon Group mainly manufactures uniforms for the government and SOEs, occupying a relatively stable niche market (see Table 3).

Conclusion

After the reform and opening up to trade in 1978, the Chinese apparel industry grew from a weak base to being today's largest supplier of clothing exports in the world. It developed in two distinct phases: the export-oriented period from the 1980s to the mid-2000s, and the domestic-oriented period after 2005. Specifically, most of the major players in the domestic market resulted from the privatization of the former leading export-oriented firms and their changing strategies, while some newcomers also demonstrated vigorous growth.

The knowledge acquired during the two periods took different forms to answer specific needs. Companies in the export-oriented period were mainly OEMs that needed to upgrade technology. Direct equipment imports and establishing Sino-foreign JVs were two popular methods to obtain technology. However, the technology acquisition during this period was meant to bridge the technological gap between the leading foreign exporters at the time and the Chinese manufacturing companies to gain an advantage in global apparel exports. Consequently, it had no effect on these companies' position in the GVC. They remained mostly outsourcers.

However, during the domestic-oriented period, knowledge related to branding, design, and marketing became the new emphasis in the face of fierce competition from foreign brands in the domestic market. The largest companies basically obtained this expertise through collaboration with foreign brands, employment of foreign professionals, and linkages with fashion and academic institutions. The knowledge transfer during this period facilitated the Chinese apparel companies' transition from OEM manufacturers to independent brand retailers that focused on the sales of branded products, thus ultimately helping to gain added value and upgrade their position in the GVC.

Beyond the specific case of the apparel industry, this paper contributes to demonstrating the way Chinese firms were able to acquire soft knowledge to improve their position in the GVC, as most of the research on the growing competitiveness of Chinese firms has focused on companies in the high-tech industries, like automobiles or information technology, where technology is the key issue for growth.[97] However, a remaining issue for analysis is whether the soft knowledge that enabled Chinese firms to gain competitiveness in their domestic market was used to foster their international expansion.

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Textile Science Research
Theory Journal
Water & Wastewater Engineering
Wenhuibao
Wenzhou Daily
Xinhua Daily
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Zhejiang Economy
Ziguangge

Cite this article: Zhang, Juxuan and Pierre-Yves Donzé. "Knowledge upgrade in the Chinese apparel industry, 1980–2020." *Enterprise & Society* 25, no. 4 (2024): 1160–1189.