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Industrial Development and Tajikistan' s Apparel Industry: Upgrading, Challenges and Covid-19

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Abstract

By using the survey of 25 apparel firms, this study examines how apparel firms in Tajikistan conduct industrial upgrading. The apparel industry in Tajikistan can be classified into export and domestic sectors. Export-oriented firms have been evolving in association with foreign buyers. Although process and product upgrading are conducted to meet foreign buyers' requirements, functional upgrading is absent in large export-oriented firms in Tajikistan, but conducted by smaller firms through specializing in niche products and markets. Whereas most domestic-oriented apparel firms have either downgraded from export to domestic operations or evolved around the local uniform segment that requires a simple specification with low production technology. Accordingly, industrial upgrading in the domestic sector is rather limited. Tajikistan's government policy seems to have a dilemma between export competitiveness and domestic production. On the one hand, the government aims to create export competitiveness of the industry. On the other hand, targeting the uniform segment under indirect protection certainly discourages industrial upgrading and competitiveness for domestic-oriented firms. Consequently, a dual structure of the industry has become more prominent. This study also explores the impact of covid-19 on Tajikistan's apparel industry.

Keywords:

Tajikistan, apparel industry, GVC, industrial upgrading, covid-19

1. Introduction

The textile and apparel industry in Tajikistan was originally developed under the Soviet Union (USSR) as a primary driver for industrialization. During this time, like other Central Asian countries, the textile and apparel industry enjoyed support from the USSR and grew as one of the main exporting sectors. After the collapse of the USSR, the textile and apparel industry in Tajikistan declined dramatically due to a chaotic disintegration process of the USSR and its subsequent civil war (Makhkamov 2016, Strokova & Ajwad 2017). Despite upheavals of the country, the textile and apparel industry in Tajikistan has been growing gradually since 2000, deemed as one of the prioritized sectors in recent years (Avezov 2019, Makhmadshoev et al. 2015, Coulibaly 2012, ITC 2014, Makhkamov 2018). Availability of high-quality cotton and low labor costs have provided opportunities for the local textile and apparel industry in Tajikistan. As a result, many firms have diversified their production process from upstream operation of the ginning process in the textile industry to downstream operation of readymade apparel production. In 2020, the textile and apparel industry accounts for approximately 21% of employment in a whole industry and 12.3% of the export share of the country (International Trade Centre: ITC website database).¹ The number of textile firms and apparel firms also increased by 3-fold and 3.4-fold, respectively between 2000 and 2020. In particular, the apparel production in value increased by 2.8-fold from US\$12.4 million in 2014 to US\$34.5 million in 2020² and its export grew by 3.3-fold from US\$5.5 million in 2001 to US\$18.5 million in 2020 (ITC website database). In the development of the apparel industry, a dual structure between export and domestic-oriented apparel sectors has been more prominent in Tajikistan as a result of the government's policy. In fact, a small number of apparel firms have established successful export operations, while most apparel firms have either downgraded from export to domestic operations or evolved around the lowest segment of the domestic market. Even though the government aims to enhance export, the local uniform promotion strategy leads many local firms to depend on the lowest segment that fails to stimulate industrial upgrading.

Although there are some studies on Tajikistan's textile and apparel industry (see ITC 2015, 2016, Makhkamov 2018, 2020, Avezov 2019), no research has been conducted to examine industrial upgrading and the impacts of covid-19 in Tajikistan's apparel industry. The first aim of this study is to document how Tajikistan's apparel industry has developed

¹ ITC website: <https://www.trademap.org> [accessed on 6 September 2021].

² Data supplied by the Ministry of Industry and New Technology of the Republic of Tajikistan (MINT). US\$1 is equivalent to approximately 10 somoni (TJS) in February 2021.

after the collapse of the USSR and subsequent civil war. Secondly, this study examines how apparel firms in Tajikistan conduct industrial upgrading by paying attention to market orientations, firm sizes and production contracts. Thirdly, this study tries to find out challenges to the industry and how the apparel industry in Tajikistan is adjusting to the outbreak of covid-19. We conducted a questionnaire survey and in-depth interviews in Tajikistan between March 2019 and January 2020 and between January and October 2021 (particularly for covid-19), supplemented by the drawing together with a wide range of secondly and survey resources including Tajik and Russian languages. This study is organized as follows. The next section presents the methodology. The third section set out the theoretical approach of industrial upgrading in the global value chain (GVC) concept. The fourth section overviews Tajikistan's apparel industry in global and policy contexts. The fifth section analyzes the survey on 25 apparel firms. The sixth section discusses industrial upgrading and challenges in the industry. The seventh section explores the impact of covid-19, followed by the conclusion.

2. Methodology

The study employs qualitative methods, based on a questionnaire survey on 25 apparel firms, and in-depth interviews with 12 (out of 25) apparel firms, 6 government agencies, 2 international organizations, and 6 industrial experts in Tajikistan between March 2019 and January 2020. Furthermore, following up telephone interviews on covid-19 were conducted with 11 apparel firms, 3 government agencies, and an international organization and industrial expert in January - October 2021.

Our questionnaire consists of two types of questions: (1) dichotomous format questions - simple questions by responding with "Yes" or "No" and (2) closed format questions - a multiple-choice option. The questionnaire was distributed to all apparel firms (84 firms) in Tajikistan under the cooperation with the Ministry of Economic Development and Trade of the Republic of Tajikistan (MEDT) in March 2019. Of 84 firms, 25 questionnaires were collected, accounting for a 27.8% response rate. Most respondents were the top managers (CEOs, COOs, chairmen, and chief accouters). The surveyed firms are located in almost all regions of Tajikistan including Dushanbe (5 firms), Sogd (8 firms), Khatlon (10 firms), and Mountain Badakhshan Autonomous Province (2 firms). The surveyed firms account for 75.5% of the total apparel production and 76.4% of the total employment in the apparel sector in Tajikistan in 2019.

3. Apparel industry in Global Value Chains (GVCs)

The textile and apparel industry has been one of the main export industries in many developing countries, contributing to foreign currencies earning and creation of employment (typically domestic migrants of uneducated young women from rural areas), and hence leading to economic growth and poverty reduction (see Alam & Natsuda 2016, Goto et al. 2011, Keane 2012, Natsuda et al. 2010, Lopez-Acevedo & Robertson 2016, Savchenko & Lopez-Acevedo 2012, Staritz 2010). Although the textile and apparel industry can be considered as an integrated industry, it can be separated into two sectors: textile and apparel, based on the production process. The former is characterized by the final production of fabrics. Fabrics such as woven or knit are made from thread and yarn that are sourced from natural (e.g. cotton) or artificial (e.g. polyester) materials. Hence, the textile industry consists of spinning, weaving, and knitting. The latter includes the final production of clothing by using fabrics (Fukunishi & Yamagata 2014, Kunz & Garner 2011). Even though the textile and apparel sectors are interconnected, this study emphasizes the apparel industry as a typical example of the labor-intensive buyer-driven network under the GVC concept.

GVC literature views the successive links of economic activities of a product from the sourcing, production and finally to distribution, by emphasizing the input-output relations of the chain with the recognition of the asymmetric power structure among its actors within the chain (Gereffi 1999, Gereffi and Memedovic 2003, Kaplinsky and Morris 2001). The GVC concept asserts that participation in GVC enables local firms (suppliers) in developing countries to access global markets and enhance profitability by pursuing higher value-added activities through the chain (Gereffi 1999, Giuliani et al. 2005, Kaplinsky & Morris 2001, Humphrey & Schmitz 2002). In the buyer-driven chain such as the apparel industry, power (governance) is excised at the retail end. Thus, lead firms include global retailers, traders and brand owners that control the chain by forming five types of governance structures: market, modular, relational captive and hierarchy linkages (Gereffi 2005, Schmitz 2006).

One of the most important aspects of the GVC concept is industrial upgrading. Four trajectories: (1) *process*, (2) *product*, (3) *functional*, and (4) *inter-sectional upgrading* can be identified (Humphrey & Schmitz 2002, Kaplinsky & Morris 2001, Schmitz 2006). First, *process upgrading* includes an improvement in the production and technological process through the innovation or introducing new technology. Second, *product upgrading* is moving toward the production of a more sophisticated product or introducing a new product. However, it is sometimes difficult to distinguish process and

product upgrading, because new processes create new products (Ponte & Ewaert 2009). Third, *functional upgrading* indicates acquiring a new function in the chain. It is important to address four types of production arrangements in *functional upgrading*. The first type includes OEA (Original Equipment Assembly) or so-called CMT (Cut, Make and Trim) in the apparel industry. The second one is OEM (Original Equipment Manufacturing) or FOB (Free on Board)-1 in the apparel industry. The third is ODM (Original Design Manufacturing) or FOB-2. The fourth is OBM (Original Brand Manufacturing) or FOB-3. In this context, functional upgrading is taken place from OEA/CMT, to OEM, to ODM and finally to OBM (see Goto 2007, Frederick & Gereffi 2011). Moreover, Blažek (2016) articulates typologies of functional upgrading and downgrading, importantly by identifying three types of functional downgrading: *passive downgrading* (an involuntary move by a firm towards the production of simple goods as a decision by a higher tier buyer), *adaptive downgrading* (a firm's own decision towards lower or smaller markets due to the competitive pressure), and *strategic downgrading* (as a result of a change in business strategy). Fourth, *inter-sectional upgrading* includes using the knowledge acquired in a particular chain to shift to different sectors. There are two types of inter-sectional upgrading. The first type is simply moving up towards a more advanced sector along the value chain, while the second type is deepening the specific capabilities required to explore new opportunities in the chain³ (Pietrobelli & Rabellotti 2011).

Although GVC literature generally views that insertion into GVCs enables local firms to gradually upgrade their technological and management capabilities and enhance industrial upgrading, some studies are rather critical, claiming the process is not so simple. This view applies not only to capital-intensive, producer-driven chains such as the automotive industry (see Rugraff 2010, Oztagan 2011, Pavlínek & Ženka 2011, Natsuda et al. forthcoming), but also to a labor-intensive apparel industry (Bair & Gereffi 2001, Pickles et al. 2006, Smith et al. 2002, Smith et al. 2014, Tokatli & Eldner 2004, Tokatli 2013). In their perspective, lower-value activities are easily transferrable from a lead firm to local firms, while knowledge-intensive high-value activities such as design, marketing and brand ownership tend to remain in the hands of lead firms. For instance, Bair and Gereffi (2001) claimed that US apparel lead firms control design, product development, marketing and retailing in Mexico, making it difficult for Mexican suppliers to develop their sales offices in the United States and their own brand. Similar, studies on the apparel industry in Central and Eastern Europe (CEE), conducted by Smith

³ See two type of inter-sectional upgrading in Thai apparel firms (Goto & Natsuda 2021).

et al. (2002, 2014) reveal key functions including design and fabric sourcing remain in buyers. Transferring such high-value activities to CEE has been extremely limited, which resulted in CEE as a simple low-cost production base. Likewise, Tokatli (2013: 1008) asserts that local firms can upgrade within production (quality, flexibility, and productivity) by learning from buyers, while they face difficulty in functional upgrading such as design, branding, marketing and retailing. In short, functional upgrading is the most important driver for enhancing a firm's competitiveness in the global market (Tokatli & Eldner 2004). We now explore the apparel industry in Tajikistan.

4. Development of the Apparel Industry in Tajikistan

During the 1980s, Tajikistan achieved high cotton productivity and supplied textile and apparel products to the USSR (ITC 2015). However, the textile and apparel industry in Tajikistan faced two challenges after the collapse of the USSR. First, Tajikistan lost its economic cooperation linkages with the neighboring countries. Second and more significantly, Tajikistan experienced a civil war in the 1990s. These two incidents seriously damaged Tajikistan's domestic economy. Table 1 shows the number of factories and employment in the textile and apparel industries between 2000 and 2020. During this time, the number of factories (firms) in both textile and apparel industries increased by about 3-fold, while employment in the textile industry decreased by 44.4%. This happened because large integrated firms with typically 10,000 employees (diversified from textile to apparel production during the USSR) were restructured and split up into several firms. However, such firms could not retain employment. Indeed, after the split-up, the employment in some firms decreased by 90% in comparison with the 1990s.⁴ Consequently, the number of employments in both textile and apparel sectors continued to decrease after 2000. Nonetheless, in contrast to the textile sector (which faced a harsh restructuring), many new apparel firms were established from a scratch (especially after 2018) and generated new employment in the sector. Consequently, the number of employments of the apparel sector in 2020 recovered the same standard as 2000.

Of 84 apparel firms in 2019, 20 firms (24%) can be classified as a large firm and the rest is SMEs.⁵ Surprisingly, 14 firms were established under the covid-19 pandemic in 2020. Of 14 firms, two firms were created as the result of the disintegration of a large firm and

⁴ Interviews with industrial experts at Union of Private Sector Development of Tajikistan (UPSDT) and at MEDT in January 2020.

⁵ According to Tajikistan's legislation, a small enterprise is defined as no more than 30 employees, a medium-sized enterprise as from 30 to 100 employees, and a large enterprise as over 100 employees (TajStat 2019: 219).

12 firms were newly established.⁶ These new establishments under the covid-19 pandemic can be explained by two reasons. First, they were planned between 2017 and 2018 and the construction activities started the years before the covid-19 pandemic. Second, the government of Tajikistan did not declare a state of emergency and restrictions due to covid-19, and strongly recommended finalizing the establishments. Indeed, the construction of these factories was dedicated to the 30th anniversary of the Independence Day of the Republic of Tajikistan in 2021.

Table 1. The number of factories and employment in the textile and apparel industry, 1991-2020

	2000	2005	2010	2015	2016	2017	2018	2019	2020	2020/2000
Factories										
Total of Industry	1,329	1,130	1,386	2,310	2,043	1,999	2,161	2,164	2,319	174.5%
Textile Industry	101	115	117	285	284	293	320	303	299	296.0%
(Share of the total industry)	7.6%	10.2%	8.4%	12.3%	13.9%	14.7%	14.8%	14.0%	12.9%	-
Apparel Industry	29	52	52	67	68	68	70	84	98	337.9%
(Share)	2.2%	4.6%	3.8%	2.9%	3.3%	3.4%	3.2%	3.9%	4.2%	-
Total of Textile and Apparel Industry	130	167	169	352	352	361	390	387	397	305.4%
(Share)	9.8%	14.8%	12.2%	15.2%	17.2%	18.1%	18.0%	17.9%	17.1%	-
Employment (thousand personnel)										
Total of Industry	90.1	85.1	69.5	83.9	85.9	86.8	85.6	81.8	77.3	85.8%
Textile Industry	23.4	23.6	14.5	13.2	13.8	14.4	14.1	13.0	13.0	55.6%
(Share of the total industry)	26.0%	27.7%	20.9%	15.7%	16.1%	16.6%	16.5%	15.9%	16.8%	-
Apparel Industry	3.5	3.1	2.6	2.4	2.6	2.8	3.0	3.4	3.5	100.0%
(Share)	3.9%	3.6%	3.7%	2.9%	3.0%	3.2%	3.5%	4.2%	4.5%	-
Total of Textile and Apparel Industry	26.9	26.7	17.1	15.6	16.4	17.2	17.1	16.4	16.5	61.3%
(Share)	29.9%	31.4%	24.6%	18.6%	19.1%	19.8%	20.0%	20.0%	21.3%	-

Source: (MEDT 2021, TajStat 2019 and data supplied by MINT)

Apparel Production

Data on apparel production in Tajikistan is hardly available before 2014. The production of apparel products in value increased by about 2.8-fold from 124 million TJS in 2014 to 345 million TJS in 2020 (see Table 2). Despite the covid-19 pandemic, apparel production increased in 2020 due to the following two reasons. First, the establishment of new firms simply enhanced production capacity in the country. Second, many apparel firms have started producing personal protective equipment (PPE) including masks and medical uniforms (see later sections for more details).

Table 2. Apparel Production in Tajikistan, 2014-2020

⁶ Data supplied by MINT in October 2021.

Item	Unit	Year							
		2014	2015	2016	2017	2018	2019	2020	2020/2014(2015)*
Garment / Apparel	Million TJS	124.3	121.2	142.8	231.1	269.4	260.6	345.5	278.0%
[Product types]									
Knitwear	Thousand TJS	28.4	44.3	487.4	950.0	1006.0	1054.0	2859.2	10067.6%
Socks and hosiery	Million pairs	1.7	1.6	2.8	3.7	4.1	4.1	7.8	458.8%
School uniform	Thousand pieces	-	526	1,007	1,081	1,128	1,121	927	176.2%

Source: Agency on Statistics under the President of the Republic of Tajikistan; Department of Textile and Clothing Industry of the Union of Private Sector Development of Tajikistan (UPSDT)

Note: TJS: Tajikistan national currency of Somoni. *School uniform is 2015.

Export

In 2020, apparel exports accounted for US\$18.5 million (and 1.3% of the total export) in Tajikistan. Table 3 shows the export destinations of apparel products between 2001 and 2020. During this period, the apparel exports grew by 3.3-fold. Italy is the largest export destination for Tajikistan, accounting for 56.4%, followed by Croatia (23.7%) and Russia (14.9%) in 2020. Before 2014, export destinations were limited. After 2014, small export diversifications can be observed. In the Italian market, two large apparel firms (see Firm 1&2 on Table 5), owned by an Italian branded company, ‘Carrera’, are main exporters. Furthermore, Firm 1&2 also started exporting to Croatia in 2019.⁷ In the Russian market, Tajik apparel firms export socks, sportswear, and *dogi* (martial arts uniforms such as judo and karate).⁸ It is important to note that Tajikistan’s membership of the WTO (World Trade Organization) in 2012 and a membership of Commonwealth Independence Countries (CIS) in 1991 are facilitating its export diversifications.

Table 3. Apparel Export of Tajikistan in value, (US\$ thousand)

	2001	2005	2010	2011	2014	2015	2016	2017	2018	2019	2020	2020 (share)	2020/2001
Italy	5,063	13,912	13,064	18,113	16,673	10,914	12,042	16,192	15,741	10,656	10,461	56.4%	206.6%
Russia	485	1,270	5,264	5,991	2,047	1,004	1,502	2,626	2,943	3,520	2,758	14.9%	568.7%
Kazakhstan	26	0	69	91	119	75	49	67	137	1	41	0.2%	157.7%
Kyrgyzstan	0	0	0	0	0	0	7	114	299	434	178	1.0%	-
Belarus	0	0	0	0	0	86	78	148	7	116	63	0.3%	-
Croatia	0	0	0	0	0	0	0	0	0	1,656	4,404	23.7%	-
Others	0	0	0	0	29	14	37	7	235	13	649	3.5%	-
Total	5,574	15,182	18,397	24,195	18,868	12,093	13,715	19,154	19,362	16,396	18,554	100.0%	332.9%

Source: Author's compilation based on ITC Trade Map (website)

Note: The export data for 2001-2013 represents partners' imports. Apparel represents HS92 61+62.

Competitive Factors for the Apparel Industry in Tajikistan

⁷ Interview with industry expert at Executive Office of Sogd province in January 2020.

⁸ Interview with industry expert at MINT in January 2020.

Two important competitive factors: backward linkages and labor costs can be addressed in Tajikistan's apparel industry. Firstly, Tajikistan provides an advantage of backward linkages to the apparel industry. Raw cotton production, originally developed during the USSR era, remains until today. The ginning enterprises produce more than 120 thousand tons of high-quality cotton fiber. Of these, about 20-25 thousand tons are annually processed within the country and used for the domestic textile industry. The rest is exported, though the spinning factories' capacity accounts for more than 80 thousand tons of cotton fiber per year (UPSDT 2020). It is apparent that locally made fabrics are used for local apparel firms as a low-cost input. While it is important to address the problem of the industry. Limited product types of locally made fabrics force local apparel firms to use imported fabrics (ITC 2016). Secondly, Tajikistan offers the lowest labor cost in the region. The average wage per month in Tajikistan accounts for US\$134.8 (TajStat 2019: 11-12) in comparison with Uzbekistan (US\$249), Kazakhstan (US\$493), and Kyrgyzstan (US\$226) in Central Asia.⁹ In the apparel sector, the wage level is even lower than the country's average in Tajikistan (see Table 5).

Tajikistan's Industrial Policy in the Textile and Apparel Sectors

In 2007, the Tajik government acknowledged the importance of the cotton value chains under the National Development Strategy (2007-2015) for the first time, with a special emphasis on the development of the full cotton value chains, rather than exporting as raw materials (GoT 2007). In parallel with this, the Tajik government introduced a sectoral policy, so-called "the Complete Processing of Cotton Fiber Produced in the Republic of Tajikistan for the Period up to 2015" in 2007. Under the program, several enterprises and factories including Nikoo Khujand, Navruz, and Olim Textile were established. Likewise, the government also implemented "the Program for the Development of the Cotton Industry for 2010-2014" in 2010. During this time, new cotton ginning plants were built with the latest technology. Furthermore, international cotton standards have been also introduced into Tajikistan (GoT 2015).

More recently, as a horizontal industrial policy, the Tajik government introduced "the State Program for the Export Promotion and Import Substitution for 2016–2020 (SPEPI)" in 2016. SPEPI aimed (1) to develop local industries by replacing imported products with locally made products through targeting industries such as mining, metal, food-processing, textile, and apparel sectors, and (2) to enhance export activities of the above

⁹ Central Asian Bureau for Analytical Reporting: <https://cabar.asia/ru/tsentralnaya-aziya-10-let-nazad-i-sejchas> [accessed on 14 June 2021].

sectors by removing export obstacles such as complexed administrative procedures and also facilitating institutional capacity with the establishment of Export Promotion Agency. This policy was supported not only by Tajikistan's government, but also by international organizations such as World Bank, Asia Development Bank, ITC and UNIDO through their projects (e.g. Global Textiles and Clothing Program: GTEX under ITC). Similarly, Tajikistan's "National Development Strategy toward 2030" aims to develop the textile and apparel industry (GoT 2016). These government policies are supported in the form of various tax concession schemes including duty-free import of machinery, VAT tax refund for exported products, corporate tax exemption, etc.

As a sector-specific industrial policy, "the Program for the Development of Light Industry (PDLI)" was introduced in 2018 by the Ministry of Industry and New Technology (MINT) to facilitate the development of the textile and apparel industry until 2022. The program aims to encourage textile and apparel producers by developing the processing of raw materials including cotton fiber, hides, and wool within the country. Under the PDLI, the production outputs of apparel products are targeted by 1.5-fold growth for sewing products, 1.3-fold for socks, and 1.7-fold for knitwear products between 2017 and 2022.¹⁰ This program is also supported by the above tax concession schemes. The most controversial policy under the PDLI is related to local uniform production. The policy is based on indirect protection and facilitation for local uniform producers. In the school uniform market, by providing recommendations, local authorities in association with the Ministry of Education and Science manipulate schools and parents to order a school uniform from a recommended company (usually the nearest company from a school). Likewise, in the work uniform market, local authorities in association with MINT provide recommendations to local firms by coercing them to source uniforms from local producers. Furthermore, military uniforms are procured from only local firms under the state tenders. In this way, the Tajik government tactically controls local demand in the uniform segment. Consequently, local uniform production is the most rapidly growing apparel segment in Tajikistan.¹¹ For instance, school uniform production in value has increased rapidly by over 3.3-fold, accounting for 33 million TJS in 2016 to 103.4 million TJS in 2021.¹² In fact, school uniform production in value accounts for about 40% of the

¹⁰ Data supplied by MINT.

¹¹ Interview with Deputy Minister at MEDT in March 2019.

¹² Figure in 2021 includes only from January to September. Data was supplied by MINT in October 2021.

total apparel production (259.5 million TJS) in the country between January and September 2021.

5. Survey on Apparel Firms in Tajikistan

Table 4 shows the overview of 25 surveyed firms in Tajikistan. Of 25 firms, 15 firms (60%) were established in the last two decades, while 7 firms (28%) were established during the USSR era. 8 firms (32%) are classified as large-sized firms, while 17 firms are small and medium-sized enterprises (SMEs). Table 5 outlines details of the surveyed firms. Based on market orientation and firm size, 25 firms can be categorized into four types: (1) *large export-oriented firms*; (2) *export-oriented SMEs*; (3) *large domestic-oriented firms*; and (4) *domestic-oriented SMEs*. Most of the large firms (export and domestic-oriented) are former SOEs or integrated firms. After the independence, these firms were privatized, and modernized their production facilities and introduced new technology. Of 8 firms, two firms are owned by foreign capital, one firm is JV, and 5 firms are owned by local capital. These firms constitute a large proportion of the employment, productions and exports in the apparel sector of Tajikistan, accounting for approximately 61%, 87% and over 90%, respectively in 2019.¹³ While all SMEs are owned by only local capital. Many SMEs are newly established with a little share in total apparel production or export.

¹³ Authors' calculation based on the survey.

Table 4. Overview of Surveyed Apparel Firms

	Frequency	Percentage
Year of establishment		
Before 1990	7	28%
1991-2000	3	12%
2001-2020	15	60%
Type of ownership - property		
Private (single owner - mainly local)	17	68%
Partnership (two or more owners)	4	16%
Completely foreign owned	2	8%
Joint venture	1	4%
State owned enterprise (SOE)	1	4%
Company Capital Investment in TJS*		
Less than 5 million TJS (US\$0.5 million)	16	64%
From 5 million to less than 10 million TJS (US\$0.5 million - 1 million)	2	8%
From 10 million to less than 20 Million TJS (US\$1 million - 2 million)	1	4%
More than 20 million TJS (US\$2 million)	6	24%
Employees at the time of the survey (person)		
Small firms: 1-30	8	32%
Medium firms: 31-100	9	36%
Large firms: >=100	8	32%
The average age of employees (years old)		
25-29	3	12%
30-39	17	68%
More than 40	5	20%
The share of imported raw materials		
Do not use imported raw materials	3	12%
Use: from 1%-40%	6	24%
Use: from 41%-60%	4	16%
Use: >=60%	12	48%

Source: Field survey, December 2019 – January 2020

Note: * US\$ 1 = 10 TJS according to the National Bank of Tajikistan on January 13, 2020.

Table 5. Detailed information on 25 Surveyed Apparel Firms

Firm No.	Type	Year of Establishment	Number of Employees	Market-orientation	Production Contract	Ownership	Wage (US\$)	Main Apparel Products
Firm 1	LE	1995	690/99	Export (98%)	Int' CMT	Foreign	151-200	Denim products: jeans, trousers, shorts
Firm 2	LE	1942/2002	200/71	Export(100%)	Int' CMT	*Foreign	101-150	Denim products: jackets, pants, shorts, shirts
Firm 3	LE	2010	220	Export (99%)	Int' OBM	Local	101-150	Socks
Firm 4	LE	1933	160	Export (60%)	Int' CMT	Local/SOE	101-150	Denim products (trousers, jackets, shirts) for men, women and children, shirts, uniforms and work clothes
Firm 5	SE	2013	42	Export (100%)	Int' OBM (Int' OEM)	Local	76-100	Martial arts uniforms (for judo, karate, sambo), men's trousers, etc.
Firm 6	SE	1995	17	Export (100%)	Int' OEM	Local	76-100	Martial arts uniforms (for judo, karate, sambo), etc.
Firm 7	LD	1942/2000	250/380	Domestic (100%)	OEM	*Local	76-100	Uniforms, men's shirts, shorts, trousers, women's blouses, baby clothes
Firm 8	LD	1932/2004	180/41	Domestic (70%)	OBM (Int' OEM)	*Local	76-100	Uniforms, shirts, shorts, trousers, women's blouses, children clothes
Firm 9	LD	1989/2002	360/140	Domestic (80%)	OBM (Int' OEM)	*JV: 75% local	50-75	Uniforms, shirts, shorts, trousers, women's blouses, baby clothes, hosiery and socks
Firm 10	LD	2000	380	Domestic (100%)	CMT (OEM)	Local	76-100	Uniforms, casual wear, outerwear
Firm 11	SD	2010	35	Domestic (100%)	OBM	Local	101-150	Jackets, windbreakers, shirts, pants, shorts and uniforms
Firm 12	SD	1929/1995	60	Domestic (100%)	OBM	*Local	76-100	Jackets, windbreakers, shirts, pants, shorts and uniforms
Firm 13	SD	2007	67	Domestic (100%)	OBM	Local	76-100	Uniforms, national clothes
Firm 14	SD	2013	16	Domestic (100%)	ODM	Local	50-75	Uniforms, national clothes
Firm 15	SD	2016	12	Domestic (100%)	OEM	Local	50-75	Uniforms, national clothes
Firm 16	SD	2013	34	Domestic (100%)	OEM	Local	50-75	Uniforms, national clothes
Firm 17	SD	2013	16	Domestic (100%)	OEM	Local	50-75	Uniforms, national clothes
Firm 18	SD	1976/1999	30	Domestic (100%)	CMT	*Local	76-100	Folk art craft, workwear and sweaters, bed linen, towel, uniforms
Firm 19	SD	2014	48	Domestic (100%)	CMT	Local	50-75	Uniforms, national clothes
Firm 20	SD	2015	30	Domestic (100%)	CMT	Local	76-100	Uniforms, national clothes
Firm 21	SD	2015	29	Domestic (100%)	CMT	Local	50-75	Uniforms, national clothes
Firm 22	SD	2014	17	Domestic (100%)	CMT	Local	50-75	Uniforms, national clothes
Firm 23	SD	2007	10	Domestic (100%)	CMT	Local	50-75	Uniforms, national clothes
Firm 24	SD	1968/1992	35	Domestic (100%)	CMT	*Local	76-100	Embroideries, home textiles and uniforms
Firm 25	SD	2012	50	Domestic (100%)	CMT	Local	76-100	Knitted garment (t-shirts, underwear, sweater)

Source: Field survey, December 2019 – January 2020

Notes: (1) Type, LE: Large Export-oriented Firms, LD: Large Domestic-oriented Firms, SE: Export-oriented SMEs, SD: Domestic-oriented SMEs; (2) Year of establishment: established/privatized years; (3) Number of employees: apparel/textile divisions; (4) Production arrangement, (minor arrangement), Int': International; and (5) Ownership: *former SOE.

(1) Large Export-oriented Firms (Firm1-4)

Firm 1-4 export over 60% of the total apparel products in Tajikistan in 2019. In addition, these firms account for about 27% of the total apparel employment in Tajikistan.¹⁴ They produce mainly denim products such as jeans, trousers, jackets, pants, shorts, shirts, and as well as socks, uniforms, work clothes, etc. All of them extensively rely on international buyers for their business. Most large export-oriented firms are international CMT suppliers (except for Firm 3). The wage level in these firms is classified as the highest category of over US\$100 (including Firm 1 with over US\$150) in Table 5.

¹⁴ Authors' calculation based on the survey.

Firm 1 is the largest export-oriented apparel firm in Tajikistan. It was established in 1994 as a Tajik JV limited liability company in Khujand (Tajikistan) for processing locally produced cotton. The firm started diversifying its activities from textile to apparel production by upgrading from local cotton fiber production to the final product through acquiring spinning, weaving, sewing, and dyeing processes. In this context, inter-sectional upgrading has been successfully conducted in Firm 1. According to an interview with Firm 1, existing of high-quality cotton, investment and tax policies, and low labor costs can be addressed as the main reasons.¹⁵ Among all, local high-quality cotton was the most significant driver for inter-sectional upgrading in Firm 1. Indeed, local cotton is suitable for making denim products, particularly jeans. In 2020, the number of employees accounts for 789 people, of whom 620 are women. The textile division hires 99 employees and the apparel division 690 employees. The textile division produces fabrics for its own products (particularly jeans) and the apparel division makes the final products. Firm 1 also sources locally unavailable products from outside of Tajikistan, including accessories for garments, chemicals, and dyes, and spare parts for production equipment.¹⁶

In inter-sectional upgrading, the Italian buyer played the most significant role. The Italian global brand firm began to source textiles and fabrics from Firm 1 in 1995 and later apparel products (jeans). Indeed, the apparel division of Firm 1 was established as export-oriented operations under the international CMT arrangement of the Italian buyer in 1996. This relation became tight and eventually, the Italian buyer took over 51.2% of the total equity of Firm 1 in 2000 and increased to 97% in 2006.¹⁷ In 2020, 98% of the products were exported to three countries (Italy, Russia and Croatia) under the Italian buyer's brand name and the rest was sold in the domestic market. Since the production contract is based on CMT, design and some inputs in Firm 1 are supplied by the Italian buyer. With regards to process and product upgrading, the Italian buyer provides several technical assistances such as the introduction of new production methods, and how to use a new technology after receiving a new design in Tajikistan, as well as training programs for Tajik managers in the Italian headquarter and its affiliates in other countries.

¹⁵ Interview with COO at Firm 1 in December 2019.

¹⁶ Interview with COO at Firm 1 in March 2021.

¹⁷ 3% is owned by International Finance Corporation (IFC)

Firm 2, originally established in 1942 as a part of the large integrated firm, was privatized in 2002. Currently, it is also owned by the same Italian buyer as Firm 1. Firm 2 conducts only export-oriented operations under the international CMT contract. Likewise, Firm 4 is an international CMT supplier, established in 1933 as the first sewing factory in Tajikistan. Firm 4 conducted process upgrading with more advanced technology in 2004, and successfully obtained a contract with Umbro brand.¹⁸ Under the CMT contract, higher-value functions (such as fabric management, design, branding, marketing and distribution) are conducted by the buyers. Hence Firm 1, 2 & 4 are engaged in production-related operations only. By contrast, Firm 3 is a newly established international OBM producer, making various types of socks. Inter-sectional upgrading was made from spinning and threads production to socks production. Firm 3 has its own design center and export products under its own brand. In this context, Firm 3 is an exceptional case in large export-oriented firms in Tajikistan. A local entrepreneur with extensive business experiences in the Russian market established his business with relatively large capital investments in 2010. Later, he developed the design capacity of the firm and targeted the middle-end market segment in the Russian and CIS markets. In the perspective of CEO at Firm 3, the success of international OBM firms depends on managerial skills and business networks.¹⁹

(2) Export-oriented SMEs (Firm 5 and 6)

Firm 5 and 6 are SMEs with a family business. Their wage level is categorized into the second-highest category (US\$76-100). Like Firm 3, both Firm 5 and 6 successfully created export-oriented operations in niche production. Their export success derives from well-established business networks with the Russian market. In this context, cultural, historical and geographical proximities with Russia play an important role in the development of business in Tajikistan. In Firm 5&6, an agreement with the Russian Judo Federation allows them to use an official supplier status. Indeed, *dogi* (martial arts uniforms) made by Firm 5&6 are in great demand for the Russian and CIS markets. Firm 5 is established in 2013 by a local entrepreneur with cotton trade experiences with the Russian market. It produces judogi, sportswear and jeans by employing two types of production contracts: as an international OEM supplier for the Decathlon (Russian brand) and selling its own brand (as international OBM producer) through Russian distributors.²⁰ In the OBM operation, the firm developed well-established networks with leading online

¹⁸ Interview with CEO at Firm 4 in December 2019

¹⁹ Interview with CEO at Firm 3 in March 2019

²⁰ Interview with COO at Firm 5 in December 2019.

shops and retail outlets in the Russian market. Similarly, Firm 6, established in 1995 conducts export operations only. One of the family members in Firm 6 lives in Russia and coordinates the sales operations with Russian retailers. The firm receives orders from Russian retailers as an international OEM supplier.

(3) Large Domestic-oriented Firms (Firm 7-10)

Firm 7-10 owned by local capital. These firms include three former SOEs (Firm 7-9) that were privatized after the independence era and one new firm (Firm 10). Their apparel division (1,170 people) accounts for 34.4% of the total apparel employment, while the textile division (561 people) accounts for 4.3% of the total textile employment of Tajikistan in 2019.²¹ Firm 7-9 are integrated with a full cycle of cotton processing up to the final apparel products. They conducted inter-sectional upgrading from textile to apparel sector during the USSR era, and later modernized their production facilities and technologies after the independence era. Having capability in the full cotton value chain (particularly strong textile production capacity), these firms produce general apparel products such as trousers, blouses, baby clothes, casual wear, outerwear, and most recently uniforms by using their own fabrics from the textile division. Their wage level is classified into the second-highest category (except for Firm 9 with the lowest).

Even though their textile division is based on export-oriented operations (approximately 80% of the production),²² the apparel export is limited. Firm 7-9 used to export their apparel products through international buyers under CMT or OEM contracts,²³ but later downgraded by catering to the domestic market under their own brands.²⁴ This happened because they could not satisfy the buyers with their product quality and eventually lost many international contracts. Indeed, lead firm's dissatisfaction with existing suppliers is one of the typical exist dynamics for suppliers in GVCs (see Blažek et al. 2018). Firm 8 & 9 are still exporting general apparel products including shirts, trousers, children's clothes, and hosiery to the CIS markets under foreign brand names. In terms of quality of products, these firms manufacture simple design products for the domestic market (as OBM producers) and higher quality products for export (as OEM producers).²⁵ While

²¹ Authors' calculation based on the survey.

²² Interview with industrial expert at UPCDT in January 2020.

²³ Their contracts depended on product types.

²⁴ Firm 7 uses its firm name in the label of the products. However, it has a simple and low branding capacity. Hence, the firm considers the operation as a rather OEM contract. The case of Firm 10 is the same as Firm 7.

²⁵ Interview with industrial expert at MINT in January 2020.

Firm 7 & 10 entirely depend on the local market (as OEM or CMT producer). It is important to note that most of the domestic-oriented firms have been shifting to the uniform segment in recent years. For example, the production of uniforms in Firm 9 increased sharply from 29 million TJS (or 9.8% of the total production) in 2016 to 202.5 million TJS (44.8%) in 2020.²⁶ Nevertheless, it might be a risk in terms of product upgrading. Uniforms are generally considered the lowest apparel product segment.²⁷

(4) Domestic-oriented SMEs (Firm 11-25)

Domestic-oriented SMEs are relatively new firms. Of 15 firms, 11 firms were established after 2007. In general, these firms entirely depend on the domestic market, located in the lowest segment of Tajikistan's apparel market. They produce primarily uniforms and traditional clothes with no contact with foreign buyers. Domestic-oriented SMEs can be categorized into the following two types. The first type of local CMT and OEM firms produces low-quality uniforms and traditional clothes with simple specifications for the low-end market. Their wage level can be categorized as the lowest, except for Firm 18 & 24 (former SOEs) and Firm 25 (knitted garment producer). Firm 15-17 are engaged in the OEM operation, entirely depending on the local uniform segment. Due to a lack of designing capacity and weak production (quality) and financial capabilities, these firms are facing harsh competition with imported products (particularly from China). Similarly, Firm 19-25 under the CMT contract, produce classic uniforms, embroideries, souvenirs, and national clothes. Generally speaking, product quality under CMT firms is even lower than that of OEM firms.²⁸ The second type is characterized by local OBM and ODM firms with their own brand or design capacity. These firms own an explicit strategy to differentiate themselves from others. Successful firms do not produce uniforms, but apparel products such as jackets, windbreakers, shirts, pants, etc. For instance, Firm 11 (OBM), established in 2010, has developed its own brand by conducting effective marketing and distribution operations in the local market. Moreover, Firm 11 has just entered the Russian market with its own brand in 2018-2019.²⁹ In the wage level, Firm 11 can be classified as the highest. Similarly, Firm 12 (OBM) produces its own branded general apparel products including jackets, shirts, and windbreakers. Firm 11&12 can be considered as exceptional SMEs and their product quality is generally higher than that of large domestic-oriented firms.³⁰ In contrast, Firm 13 (OBM) and Firm 14 (ODM) depend

²⁶ Data was supplied by Firm 9 in October 2021.

²⁷ Interview with industrial expert at ITC in January 2020.

²⁸ Interview with industrial expert at ITC in January 2020.

²⁹ Interview with industrial expert at Business Consulting Group (BCG) in January 2020.

³⁰ Interview with industrial expert at BCG in January 2020.

on the uniform segment, though they are trying to conduct designing and distribution operations by themselves. Firm 14, established in 2013, produces mainly uniforms with ODM. Even though Firm 14 successfully developed its own design capacity, the firm failed in moving up to OBM production, due to two reasons: harsh competition with imported products and lack of finance for marketing activities. Firm 14 currently depends on simple design uniform orders from local firms and schools. However, according to the CEO of Firm 14, a dependency on low-quality orders makes it difficult for upgrading into OBM production.³¹ Firm 13 that produces uniforms under the OBM contract, faces challenges in terms of product quality and sophisticated designing (but branding for the low-end uniform market is manageable for Firm 13). According to an industrial expert, products (uniforms) of Firm 13 and 14 are lower than those of large domestic-oriented firms.³²

6. Discussions

Inter-sectional upgrading

Inter-sectional upgrading from the textile industry to apparel industry can be observed in the large apparel firms during two periods: the USSR and independence eras. However, inter-sectional upgrading between the two periods seems to be slightly different. During the USSR era, the central government controlled in both the textile and apparel sectors in Tajikistan and inter-sectional upgrading was strongly pushed by the government through direct financing. By contrast, after the independence, a strict government's control in the sectors was removed. In fact, many firms were privatized and the government's strong financial controls were replaced with banking loans, foreign investment and private finances. These factors have facilitated textile firms to upgrade into the apparel sector, which is deemed as a more profitable operation. Since 2007, the Tajik government has introduced several policies to develop the cotton value chain from raw cottons, to textiles, onto apparel products. Such inter-sectional upgrading is characterized by moving up towards a more advanced sector along the value chain, rather than deepening the specific capabilities required to explore new opportunities in the chain (see Pietrobelli & Rabellotti 2011).

Process upgrading

In our survey, 18 out of 25 apparel firms (72%) have introduced new and modern technology to upgrade the production line in the last three years. Some features can be

³¹ Interview with CEO of Firm 14 in February 2021.

³² Interview with industrial expert at BCG in January 2020.

addressed. Process upgrading in large export-oriented firms is conducted by global buyers' support in the form of technology transfer and staff training. Similarly, export-oriented SMEs conduct process upgrading to meet export quality. Even though large domestic-oriented firms responded "Yes" in our survey, process upgrading is conducted by the textile division, rather than the apparel division, because such firms have greater competitive advantages in their textile production. Moreover, domestic-oriented SMEs seem to face difficulty in conducting process upgrading due to weak financial capacity. Indeed, all firms that responded "No" in our survey are domestic-oriented firms. As above, process upgrading in domestic-oriented apparel firms seems to be relatively limited.

Product upgrading.

In our survey, 16 out of 25 apparel firms (64%) have introduced new products in the last 3 years. Like process upgrading, export-oriented firms conduct product upgrading in response to foreign buyers' requests. Most of the firms that responded "No" are domestic-oriented SMEs with the CMT contract. Since large domestic-oriented firms have been shifting their production from general apparel to uniforms by introducing new products in the local uniform segment, they responded "Yes" in our survey. Nonetheless, this shift should be interpreted as *product downgrading*, rather than product upgrading, due to its lower production and design technology. Hence it can be classified into *adaptive or strategic product downgrading*.³³ Moreover, many domestic-oriented apparel firms conduct product upgrading only in the uniform segment. In short, product upgrading in domestic-oriented firms seems to be limited.

Functional upgrading.

With regards to production arrangement, large export-oriented firms under the international CMT contract, can be categorized as the lowest production arrangement (except for Firm 3 with Int'OBM). Unsurprisingly, 80-90% of apparel export in value in Tajikistan is estimated under international CMT contract with low-added value activities in 2019.³⁴ As GVC literature identified, the most valuable activities such as design, marketing, and distribution remain in the international buyer's hands in the case of Firm 1, 2&4. In this context, it seems to be difficult for them to conduct functional upgrading. CEO at Firm 4 commented that product and process upgrading are much easier to

³³ Blažek (2016) originally uses the terms of passive, adaptive and strategic in functional upgrading, however we expand the concept in product downgrading.

³⁴ Authors' calculation based on the survey.

conduct, but functional upgrading requires higher expenditure for new technologies and managerial skills, hence it is difficult to conduct.³⁵ While Firm 3 (Int'OBM) and two export-oriented SMEs of Firm 5 (Int'OBM/OEM) & Firm 6 (Int'OEM) achieved higher production arrangements, because these firms, established by local entrepreneurs, specialize in niche products and markets by utilizing their own know-how and business networks. In this context, entrepreneurship and managerial skills, and business networks including cultural, historical and geographical proximities can be addressed as important factors in functional upgrading.

More interestingly, in large domestic-oriented firms, both product downgrading and functional upgrading can be observed simultaneously in Tajikistan. Due to the low product quality under CMT contract (that dissatisfied with international buyer's requirements), they were forced to move out from export to domestic operations. Namely, *passive product downgrading* occurred in these firms. Meanwhile, Firm 8&9 started to develop its own brand (OBM) for the local market. In short, their production arrangement shifted from an international CMT supplier to a domestic OBM producer. Firm 7&10 entirely depend on the domestic market (though Firm 7 was an international CMT firm in the past). Both firms seem to own less branding capacity than Firm 8&9, acting as OEM or CMT producers for local buyers. Lastly, many domestic-oriented SMEs face difficulty in conducting functional upgrading, simply due to weak financial and managerial capacities. Even some firms produce clothes imitated from well-established brands and sell the products in the local market.³⁶

Challenges

There are three major challenges in Tajikistan's apparel industry besides the geographical disadvantages of a landlocked country and underdeveloped infrastructure. The first challenge is harsh competition with imported apparel products. Particularly, unfair competition with illegally imported apparel products can be addressed as the largest problem in the sector (ITC 2018). Our survey also reveals that competition with imported products is the most critical challenge for Tajik apparel firms (particularly the domestic-oriented firms). Indeed, 21 out of 25 surveyed firms (84%) faced higher competition in the last 2-3 years. The main competitors for Tajikistan's apparel industry are China and Uzbekistan. Particularly, the share of China in the import of apparel products in Tajikistan accounted for 67.9% in 2018 (TajStat 2018).

³⁵ Interview with CEO at Firm 4 in January 2020.

³⁶ Interview with industrial expert at UPCDT in January 2020.

Second, the availability of raw materials (and intermediate inputs), particularly artificial (non-natural) materials including accessories, lycra, nylon with appropriate quality and volumes can be addressed as a challenge for both textile and apparel industries in Tajikistan (ITC 2018). According to our survey, 21 out of 25 firms import raw materials. Furthermore, of 21 firms, 12 firms depend on more than 60% of raw materials from import (see Table 4). In this context, Tajikistan remains vulnerable to supply a variety type of raw materials except for locally produced cotton fibers.

Third, it is apparent that the government's industrial policies enhance the establishment of new apparel firms and production capacity in Tajikistan. Since Tajikistan accounts for a low GDP per capita of US\$859 in 2020,³⁷ the upper-middle class is still limited and the local apparel retailing market is immature. In this regard, the government's strategy to stimulate the uniform segment might be appropriate. Consequently, large domestic-oriented firms have been shifting from general apparel to uniform production and many SMEs have also been evolving around the local uniform market. Nonetheless, targeting a uniform segment does not seem to contribute to enhancing product upgrading capacity for the firms. It has created a heavy dependence on the local uniform market and failed to upgrade product sophistication and quality due to simple specifications. In the perspective of Porter (1990), local demand (quality and quantity) is one of the four determinants in the creation of competitive advantage of nations. Tajikistan's government policy seems to be designed for quantity rather than quality. Quality of demand is important for upgrading into more advanced segments. In this context, the current policy disregards product upgrading strategy in the apparel sector.

7. Impact of Covid-19

Covid-19 has been influencing the global apparel industry negatively (e.g. see Pasquali and Godfrey 2021 for the case of Eswatini). To be surprised, in the case of Tajikistan's apparel industry, both production and export volume of apparel products increased in 2020 in comparison with the previous year of 2019 (see Table 2&3). In our interview, 8 out of 11 firms viewed business situation under the covid-19 pandemic rather positive, by increasing their sales output and export in 2020,³⁸ despite they faced a negative impact on business due to the cancellation of the order in early 2020. Indeed, only two domestic-

³⁷ <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=TJ> [accessed on 16 September 2021].

³⁸ Additional telephone interviews with Firm 1-8, 12, 16, and 18 on Table 5.

oriented SMEs reduced their employment slightly in our interviews. To maintain the business, export is still one of the most important drivers during the pandemic. At the same time, demand in the personal protective equipment (PPE) segment increased rapidly in both domestic and export markets and many apparel firms have shifted their production to masks and medical uniforms by using locally available cotton fabrics,³⁹ which is certainly one of the competitive advantages in Tajikistan's apparel industry.

Our interviewed firms employed the following three strategies: product development in the PPE segment, development of new marketing channels, and a shift to the textile division in the case of integrated firms. Firstly, large export-oriented firms (Firm 1&2) experienced a cancelation of all orders from their Italian buyer in early 2020, but instead, they received a large volume of mask orders (2.9 million units) from the buyer. Firm 1&2 coordinated the mask production in cooperation with Firm 4, 8, 10 & 12. In addition, after the end of the lockdown in Italy in 2020, previous canceled orders came back. Hence, both production and export in these firms increased in 2020 in comparison with the previous year. Second, Firm 3 established a new factory with 350 employees during the pandemic in response to a new contract with NIKE (before the pandemic). Due to a suspension of the new contract, Firm 3 (Int'OBM) developed new marketing channels with its own brand name through its extensive business networks with shops, distributors (sales point) and also online sales in Russia.⁴⁰ It also started to produce masks for the domestic market. Likewise, export-oriented SMEs of Firm 5 (Int'OBM/OEM) & 6(Int'OEM) pursued the same approach by developing their marketing channels, because their production technology cannot be convertible to the PPE production. In particular, Firm 6 conducted process upgrading by reducing the lead time and satisfied the buyers. Thirdly, domestic-oriented firms took a slightly different approach. Large integrated firms such as Firm 7 (OEM) & 8 (OBM/Int'OEM) expanded their textile division by shifting their staff from the apparel division. They increased textile export to Poland, Russia and Turkey and also the production of medical uniforms and masks⁴¹ for the domestic market (and export in the case of Firm 8). In domestic-oriented SMEs, Firm 12 (OBM), 16(OEM) & 18(CMT) shifted to the PPE segment. By increasing sales as well as employees, Firm 12 has been managing the pandemic well through exporting masks in association with Firm 1, while Firm 16 and 18 lost their sales dramatically, negatively

³⁹ https://central.asia-news.com/en_GB/articles/cnmi_ca/features/2020/06/01/feature-01 [accessed on 4 October 2021].

⁴⁰ Interviews with CEO of Firm 3 and industrial expert at ITC in May 2021

⁴¹ Firm 5 produces medical bandages and gauzes, too.

influenced by the pandemic. In this context, SMEs with the OEM and CMT contracts seem to be more vulnerable under the pandemic. In addition, our interview indicates that export is an important driver for a survival firm.

8. Conclusion

Despite the collapse of the USSR and subsequent civil war, the textile and apparel industry in Tajikistan has been growing gradually since 2000. In Tajikistan's apparel industry, a dual structure between export and domestic sectors has been prominent in recent years. Export-oriented firms can be classified into two types: international CMT firms and others (international OBM/OEM firms). International CMT firms, engaged in only production-related operations for general apparel products, have developed in association with foreign buyers (including foreign ownership, too). While others have evolved by extensive business networks of local entrepreneurs and niche products. In domestic-oriented apparel firms, on the other hand, their products cannot meet export standards and most firms have either downgraded from export to domestic operations or evolved around the lowest segment of the domestic uniform market in recent years.

With regards to industrial upgrading, inter-sectional upgrading from the textile sector to apparel sector was successfully conducted in Tajikistan. In relation to product and process upgrading, the upgrading in export-oriented firms is made to meet export requirements by foreign buyers. By contrast, fewer product and process upgrading can be observed in domestic-oriented firms. Notably, product downgrading from general apparel to uniform production in large domestic-oriented firms is virtually identified. Moreover, in the lowest segment of the firm category, SMEs are excluded from the upgrading. In functional upgrading, international CMT firms lack, because of strict foreign buyers' control in value-added operations. In short, knowledge-intensive operations including fabric management, design, branding, marketing, and distribution are under international buyer's control. However, other export-oriented firms achieved higher production arrangements by specializing in niche products and markets through utilizing their own know-how and business networks. It is important to note that even though these firms can control knowledge-intensive operations by themselves, the wage level is not higher than that of international CMT firms, because International CMT firms own well-trained employees (productivity), stable orders from international buyers (sales volume), and financial capability (capital).⁴² In this regard, supplying a large volume of high-quality

⁴² Interviews with industrial expert in Sogd province and chief accountant at Firm 1 in September 2021.

general apparel products to well-established international buyers is still prevailing over smaller knowledge-intensive operations in Tajikistan. Notably, functional upgrading in domestic-oriented firms is more controversial. In large firms, functional upgrading and product downgrading occurred simultaneously. Knowledge-intensive functions of these firms in the local market were strengthened, while quality and sophistication of products in these firms were downgraded, due to a termination of export contracts (passive product downgrading) or a production shift from general apparel products to simple uniforms (adaptive or strategic product downgrading). Furthermore, most SMEs are unable to conduct functional upgrading, because of weak financial and managerial capacity.

A harsh competition with imported apparel products, unavailability of raw materials (besides cotton), and government's policy can be addressed as challenges to the apparel industry in Tajikistan. Among all, the government policy seems to have a dilemma between export competitiveness and domestic production. On the one hand, the Tajik government aims to create export competitiveness of the industry. On the other hand, targeting the uniform segment under indirect protection certainly discourages industrial upgrading and competitiveness. What the most concern in the industry is that domestic-oriented firms (including large firms) have been evolving around the uniform segment with a simple specification, rather than creating export competitiveness. Consequently, a dual structure of the industry has become more prominent.

Last and surprisingly, the outbreak of covid-19 positively influenced many apparel firms in Tajikistan, due to 1) newly created demand in the PPE segment, and 2) the development of new marketing channels abroad. Under the covid-19, export seems to be an important driver for a survival firm. In this context, domestic-oriented firms are still very vulnerable in Tajikistan.

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