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International Labour Organization

Skills for Trade and Economic Diversification (STED) in the

Garment & Leather Manufacturing Sector

In Jordan

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Foreword

This report comes as one of the most prominent outputs of the Sector Skills Council for the Garment and Leather sector, which was established during 2019. The report seeks to study and analyze labor skills in the sector, allowing to understand and determine the level of skills and technical capabilities of skilled and semi-skilled labor needed by factories, and to design a map of the needs and training programs that can be linked with vocational training centers, forming the nucleus of future visions of national employment strategies and policies.

The preparation of this report comes with the direct support of the ILO and funded by the Russian Government as part of the implementation of the G-20 training strategy with the aim of forecasting the operational needs of the Garment and Leather industries sector in Jordan, to contribute in increasing the competitiveness of its facilities locally and internationally, and the sustainability of the Jordanian labor in it. This is carried out by evaluating their skills and laying the foundations for their development along with providing all forms of technical and methodological support, in order to reach the highest standards of professional efficiency and effectiveness; to ensure the achievement of the success and progress of the sector›s establishments and the development of their manufacturing processes for all branches of the sector including (natural textile fibers, yarns, fabrics, ready-made textile items other than clothing, carpets, rugs, knitwear products, garments, fur, accessories and what is needed for garments, natural and industrial leather, bags, shoes, shoe accessories, as well as any other similar industries within this sector) without exception. The study was prepared in accordance with the methodology of Skills for Trade & Economic Diversification (STED) of the International Labor Organization.

All of this is the result of the joint work between the Sector Skills Council and the ILO over the past year, and the workshops and meetings that have been conducted, that aimed at identifying priority occupations for the sector, and studying the factors of their development from various relevant entities. This is carried out to contribute to providing the skilled labor needed by the sector, especially small and medium-sized enterprises. In conclusion, I thank all the contributors to the preparation of this study, and all the supporters of the Garment and Leather industries, especially the members of the Sector Skills Council, hoping that we will continue to provide all that is new and useful to support the sector and its facilities and employees.

Chairman of the Garment & Leather National Sector Skills Council

Eng. Ihab Al Qadri

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The research work was led by the Garment and Leather National Sector Skills Council (G&L NSSC), under the leadership of Mr. Ehab Al Qadiri, chairman of the council. The report was prepared by Leaders International ABSL and led by Ms. Jansette Quandour (Team Leader), Ms. Dina Zabaneh (Projects Manager) and Mr. Hamzeh Shamaileh (Country Manager), in close coordination with Ms. Eman Al'araj (ILO Project Coordinator).

The work would not have been possible without the support of Ms. Farah Baddar (Project Assistant), Mr. Cornelius Gregg (ILO Senior Skills & Employability Specialist), Ms. Bolormaa Tumurchudur-Klok (ILO Skills Technical Specialist) and Ms. Olga Strietska-Ilina (ILO Senior Skills & Employability Specialist) and Mr. Patrick Daru (ILO Senior Skills Specialist for the Arab States). Special gratitude is also extended to the Jordan Chamber of Industry (JCI) for providing access to their facilities and database and for supporting the field research.

Executive summary

The report on the skills needs of the garment and leather sector in Jordan was prepared under the Applying the G20 Training Strategy Project: A Partnership of the ILO and the Russian Federation, and in close coordination with the Garment and Leather National Sector Skills Council (G&L NSSC), a tripartite governance body responsible for improving linkages between the skills needs in the garment and leather sector and what is offered by public and private education and training providers. The Council includes representatives of employers, workers and sectoral associations, in addition to government representatives at the national level.

The findings of this report are based on the ILO Skills for Trade and Economic Diversification (STED) methodology. STED is a technical assistance tool that supports growth and decent job creation in sectors that have the potential to expand their exports and contribute to economic diversification. It does so by identifying the skills development strategies needed to promote international trade and spur economic growth by adopting a forward-looking approach.

The garment and leather sector was chosen for this analysis as it is one of the most promising industrial sectors in Jordan, accounting for over 28 per cent of total national exports, and because it is labour-intensive, currently employing more than 70,000 workers. Garment and leather production has witnessed remarkable growth in recent years and has attracted foreign investment as a result of the United States-Jordan Free Trade Agreement (JUSFTA) and the endorsement of the Qualifying Industrial Zones Agreement. According to a study prepared by the ILO and the International Trade Centre (ITC), the garment industry has the potential to increase its exports by another US$550 million, generating an additional 34,000 jobs, if it reaches its full potential. The sector could thus help to resolve high unemployment rates in Jordan, which were more than 18 per cent in 2018.

This report looks at the positioning of the garment and leather sector in the Jordanian economy from a skills and labour market perspective. It examines the sector's export potential and the challenges that hinder its competitiveness in international markets. It also identifies the skills needed to promote exports and overall growth of the sector.

The methodology used for this report combines sector-level technical research with an enterprise skills survey, a survey of training providers and consultations with stakeholders in the sector. A thorough desk review was conducted covering key indicators in order to profile the sector, including employment, value added, trade patterns and positioning within the global value chain. The enterprise skills survey covered a representative sample of enterprises operating in the sector as per the database of the Jordan Chamber of Industry. Similarly, a selected sample of training providers was interviewed in order to analyse the gaps between the supply and demand for skills in the sector. The findings of the primary and secondary research activities were validated by the G&L NSSC and other sector stakeholders, who also made recommendations and proposals for the future.

The garment and leather sector is one of two sectors studied under the Applying the G20 Training Strategy Project, the other being chemicals and cosmetics. The two sectors were chosen following extensive technical analysis to identify their export and employment potential. This work is intended to support the work of the Technical and Vocational Skills Development Commission, a new umbrella for technical and vocational education and training (TVET) in Jordan, established under the Technical and Vocational Skills Development Law No. 19 of 2019. In essence, the Commission aims to contribute to the enhanced participation of the private sector in skills development in order to bridge the gap between educational outcomes and labour market skills needs.

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List of Abbreviations

ASCO	Arab Standard Occupational Classification
BWJ	Better Work Jordan
CAQA	Centre of Accreditation and Quality Assurance
CBI	Centre for the Promotion of Imports from Developing Countries
CBJ	Central Bank of Jordan
CMT	Cut, Make, and Trim
CMP	Cut, Make, and Pack
DoS	Department of Statistics
ERP	Enterprise Resource Planning
EPI	Export Potential Indicator
FDI	Foreign Direct Investment
FOB	Free on Board
GDP	Gross Domestic Product
G&L	Garment and Leather
GoJ	Government of Jordan
GVC	Global Value Chain
HS	Harmonized System
IHR	International Health Requirements
ISCO	International Standard Occupational Classification
ISIC	International Standard Industry Classification
ITC	International Trade Centre
JCI	Jordan Chamber of Industry
JGATE	The Jordan Garments, Accessories & Textiles Exporter's Association
JUSFTA	Jordan US Free Trade Agreement
MENA	Middle East & North Africa
MoH	Ministry of Health
MoL	Ministry of Labour

NSSC	National Sector Skills Council
OBM	Original Brand Manufacturer
ODM	Original Design Manufacturer
QIZ	Qualifying Industrial Zone
R&D	Research and Development
RoO	Relaxed Rules of Origin
SME	Small & Medium Enterprise
SOP	Standard Operational Procedures
SPSS	Statistical Package for the Social Sciences
STED	Skills for Trade and Economic Diversification
POL	Point of Entry
TVSDC	Technical and Vocational Skills Development Commission
VTC	Vocation Training Centre
ASOC	Arab Standard Occupational Classification
CAGR	Compound annual growth rate
GFCF	Gross fixed capital formation

1 Introduction

The ILO's Skills for Trade and Economic Diversification (STED) study on the G&L sector identifies skills needed for promoting international trade and spurring economic growth in the sector. The report reflects on the positioning of the G&L sector in the Jordanian economy from a skills and labour market perspective. It further examines the sector's employment, export potential and challenges that hinder its competitive position.

The G&L is one of the leading economic sectors in Jordan; it accounts for nearly 28 percent of total domestic exports[1] that reached US$ 6.6 billion in 2018, 84 percent of total exports to the USA, 28.7[2] percent of total workforce and 6.9 percent of establishments in the manufacturing sector for the same year.[3]

The G&L sector is mainly driven by the manufacturing of wearing apparel, except fur apparel (ISIC 1410). As per the data reported by the Department of Statistics (DoS) industrial survey for 2017, this sub-sector (ISIC 1410) has the highest gross output (82.7 percent) and gross value added (84 percent) within the total Garment and Leather sector, the highest gross fixed capital formation (54 percent), highest intermediate consumption (81 percent), the highest tax contribution on production (50 percent)[4] and the highest workers compensation (89 percent).

Based on the UN Comtrade database, the manufacturing of garments (HS 61 apparel knit or crocheted and HS 62 apparel and clothing not knit or crocheted) account for 96 percent of the G&L exports in 2018. The remaining subsectors (fabrics, leather manufacturing, bed linens and blankets, carpets and rugs) are much smaller and make a lower contribution to exports.[5]

The G&L sector is highly dependent on foreign workers. Better Work Jordan (BWJ)[6] estimates that the exporting garment industry alone employs 51,500 migrant workers, accounting for 75 percent of total employment in the garment industry that reached 68,300 workers in January 2019.

The industrial survey results undertaken on a representative sample of 229 firms (27 percent of population[7]) in the G&L sector demonstrates that all the large firms in the surveyed sample are exporters, owned mostly by foreign investors. These firms are located in Irbid, Amman and Zarqa. Large firms operate in the manufacturing of apparel, manufacturing of other textiles, spinning and weaving, and the manufacturing of crocheted fabrics. SMEs are mostly owned by Jordanians and operate across all subsectors and located mainly in Amman. Micro firms are mostly owned by Jordanians and operate across all subsectors and located mainly in Amman.

1 Domestic exports means total exports excluding re-export of imported goods without further processing.
2 Calculated using JCI (2019)
3 ibid
4 The manufacturing of wearing apparel, except fur apparel (ISIC 1410) is a leading export-oriented sector that benefited from the 100 percent income tax exemption on export profits. Though the production output of this sub-sector is high, but due to the export tax exemption, the sector pays lower taxes measured against gross-output. The export tax exemption was cancelled with the introduction of the new tax law No 38/2018 effective tax year 2019.
5 The manufacturing of wearing apparel, except fur apparel (ISIC 1410) is a leading export-oriented sector that benefits from the 100 percent income tax exemption on export profits.
6 BWJ (2019a, p. 10)
7 Total population of the G&L sector reached 856 firms based on JCI data

Large firms in the G&L surveyed sample export to North America, mainly the United States and GCC countries, while SMEs and micro firms export primarily to the Gulf Cooperation Council (GCC) and the Middle East and North Africa (MENA) region. Exports to the European Union (EU) market accounts for only 4 percent of exports in the surveyed firms and thus have not reached its full potential.

The priority occupations in the sector (total of 39 occupations) (Annex I) were identified in collaboration with the G&L NSSCs, prior to launching the industrial survey and in-depth interviews with training/education providers. The surveyed firms, according to their records, employ 42,233 workers in the priority occupations, representing over 61 percent of total workers in the sector as per the 2018 official data[8]. Migrant workers account for 66 percent of the workforce in these priority occupations, Syrians account for 4% of workers, and Jordanians account for 30 percent of workers, of which 20 percent are female Jordanian workers. **The majority of workers in the surveyed sample (36,568 workers) are employed as "Multi-Skilled Sewers", 68 percent of these workers are foreign migrant workers, and 4 percent are Syrian workers**. The other 12 occupations employ 24 percent of these workers, and the last 20 occupations employ the remaining 1 percent of workers. It was observed from the survey data that the G&L sector has the potential to hire people with disabilities mainly those with hearing disability, impaired mobility, deaf and speechless.

The G&L sector based on the surveyed sample is anticipating a total of 9,216 job vacancies by 2020. Though "Multi-Skilled Sewers" occupation has the highest demand for current and future employment and the ability to employ female workers, yet this occupation lacks adequate occupational standards and dedicated training programs. Moreover, the surveyed firms confirmed that one of the top recruitment challenges they face is the absence of required skills in experienced job applicants and fresh graduates. The skill gaps identified by these firms were mainly technical skills (60 percent) associated with the occupation itself, the use of equipment, technology, understanding and writing documents clearly, and the ability to conform to quality standards, and soft skills (33 percent), relating to team work and leadership skills, ability to calculate and interpret graphs, IT skills, and comprehension skills (access, understand and communicate information).

There are more than 10 training/educational institutions that provide programs and trainings related to the G&L sector (priority occupations). The Vocational Training Center (VTC) is the main training provider; other training providers include the Garment Design and Training Center (GSC)/JMODA) and Luminus Technical University College. An annual number of graduates from these training/educational institutions that have taken courses related to the priority occupations in the G&L sector is estimated to be 4,233 (2,133 from universities and 2,100 from training centres). However, due to ad hoc job placement measures adopted by training/education providers, graduates transition to work in the G&L sector is not clearly known. Nonetheless, given that migrant workers makeup 70 percent of the labour force in the G&L sector partially due to their relatively high skill levels, fresh graduates would have a lower chance to enter the workforce in the sector. **In this context, the education and training providers should review whether the programs they offer match the needs of industry, and collaborate with the private sector to ensure that graduates from these institutions have the necessary skills demanded by the industry in terms of technical skills and employability life skills**.

8 Data on employment was obtained from DoS for total Jordanian Workers and Better Work Jordan for total foreign workers.

Based on the above, the sector is anticipated to grow at a similar pace (business-as-usual); exports are anticipated to grow from US$ 1.82 billion in 2018 to US$ 2.74 by 2025, while employment is anticipated to grow from 71,533 in 2019 to 94,164 by 2025.

The report is divided into 9 sections: **The 1st"Country Background"** presents a summary on the Jordanian economy and the Jordanian labour market. **The 2nd "Research Methodology"** presents a summary on the methodology adopted for the research, the industrial survey, and the training/education providers' in-depth structured interview. **The 3rd "Sector Background"** presents a background on the overall sector based on the literature review. **The 4th "Sector Characterization"** presents the structure of the G&L sector classified according to the harmonized system (HS Code) and the International Standard Industry Classification (ISIC) 4.0. This section also presents the results of the secondary data analysis related to sector employment and Industrial Survey indicators using DoS database. **The 5th"G&L Trade Patterns"** presents the results of the secondary data analysis conducted on the sector using UN Comtrade database. **The 6th "Industrial Survey Results (Demand Side)"** presents the findings of the industrial in terms of structure of surveyed firms, trade patterns, skill gaps, as well as a review of current and future demand for priority occupations. **The 7th "Training Providers Survey (Supply Side)** provide the findings of the structured in-depth interview results conducted on training and education providers. **The 8th "COVID-19 impact survey"** assess the effect of COVID-19 on the sector, and how future strategies and indicators, especially those of exports and employment will change. **The 9th "STED Validation of results and Scenario Planning"** presents results of the validation sessions conducted with the G&L NSSC in relation to the findings of this study and presents the forecasted growth for the sector in terms of exports and employment based on a "Business-as-usual" scenario. **The final 9th section "Conclusion"** provides a summary conclusion and presents next steps of action.

2 Country Background

2.1 Economic context

Over the past decade, protracted regional instability has exerted mounting economic pressure on key economic sectors in Jordan. In 2018, economic growth settled at a modest 2 per cent, compared with 5.6 per cent in 2008 prior to the global economic crisis of 2009 and the regional uprisings in 2011 (known as the Arab Spring).

Sluggish economic performance has been common around the MENA region, where GDP growth also averaged 2 per cent in 2018. According to the World Bank, Jordan's economic growth is expected to pick up, but only slightly, in the coming years, reaching 2.6 per cent in 2021, an annual increase of 0.2 per cent increments

Table 1: Key economic indicators, 2018	
Population	9.9 million
GDP	US$42.4 billions
GDP per capita	US$4 278
Unemployment	18.6 per cent

Table 2: Relative importance of economic sectors to GDP at constant basic prices, 2015-2018 (percentage)

Product label	2015	2016	2017	2018
Agriculture, hunting, forestry and fishing	5.8	5.9	6.1	6.1
Mining and quarrying	2.6	2.3	2.5	2.5
Manufacturing	21.8	21.6	21.3	21.2
Electricity and water	3.5	3.9	3.9	3.9
Construction	3.5	3.5	3.5	3.3
Total commodity-producing sectors	**37.2**	**37.2**	**37.1**	**37.0**
Trade, restaurants and hotels	11.2	11.1	11.0	10.9
Transport, storage and communications	9.4	9.5	9.5	9.6
Finance, insurance, real estate and business services	24.8	25.1	25.3	25.5
Producers of government services	15.3	15.2	15.0	14.9
Other services	2.1	1.9	2.1	2.1
Total service-producing sectors	**62.7**	**62.8**	**62.9**	**63.0**
GDP at constant basic prices	**100**	**100**	**100**	**100**

In 2019, Jordan's population is estimated to have exceeded 10 million, 30 per cent of it comprised of migrants and refugees.[9] The influx of refugees, mostly from Syria, has put pressure on the country's limited resources, already suffering from a large budget deficit that was 1.6 billion Jordanian dinars (JD) in 2018,[10] a 60 per cent increase on the previous year. This has contributed to a negative trickle-down effect on the economy causing a deceleration in economic growth.

Moreover, as Jordan is excessively reliant on imports, there has been a direct effect on the trade balance, especially for commodities such as fuel, energy, machinery and equipment. Exports, on the other hand, are mainly composed of chemical products and ready-made garments. This has led to an increase in the trade deficit in favour of imports, which reached JD9 billion in 2018,[11] an increase of 50 per cent in less than a decade. Consequently, investments suffered as gross fixed capital formation fell as a percentage of GDP from 28 per cent in 2008 to 22 per cent in 2016,[12] and foreign direct investment (FDI) decreased from US$2.8 billion in 2008 to US$2 billion in 2017.[13]

As part of its National Strategy for Human Resource Development, Jordan has committed to turning the refugee crisis into a "development opportunity" for donor countries by giving Syrian refugees access to formal employment and education, in return for facilitated export access to the EU market and preferential access. This was effected through the mechanism of the Relaxed Rule of Origin Agreement, signed between the European Union and the Government of Jordan.[14] Since then, the Ministry of Labour has provided around 64,000 work permits to Syrian refugees and introduced a number of reforms to facilitate the employment of both Syrians and Jordanians, especially in the manufacturing sector.[15]

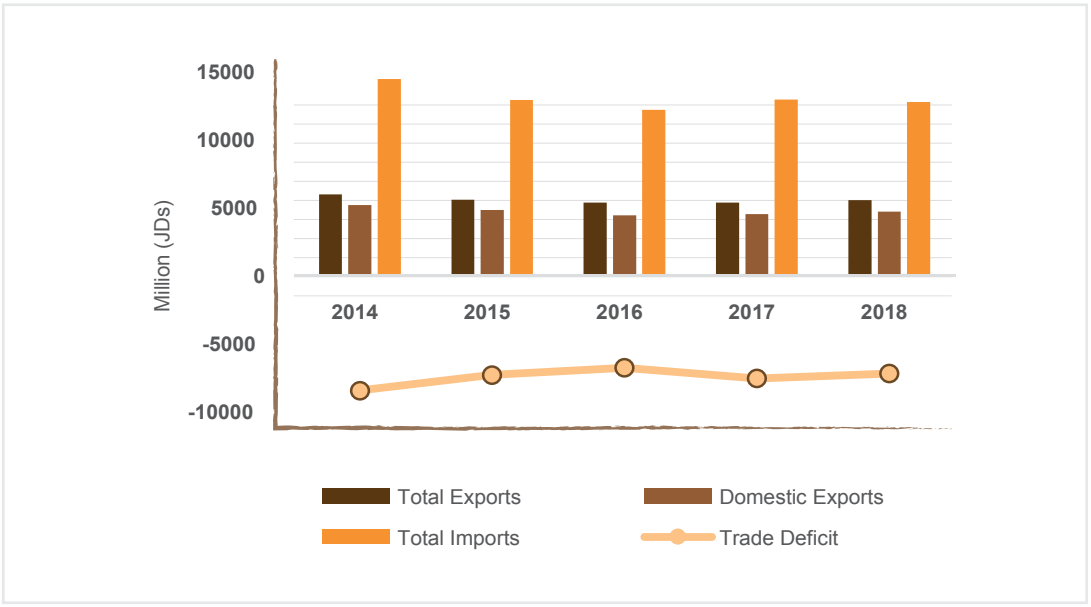
As a response to its vulnerability to endogenous and exogenous shocks, the Government of Jordan is implementing various reforms to spur economic growth and create jobs, especially in view of the country's young population.

9 The Department of Statistics, Population Watch 2019.
10 Jordan Ministry of Finance, Annual Financial Bulletin, 2018.
11 Central Bank of Jordan, Monthly Bulletin, 2019.
12 Central Bank of Jordan, Monthly Bulletin, 2019.
13 World Bank, Development Indicators, 2019.
14 European Commission, 2016.
15 The National Strategy for Human Resource Development, Government of Jordan (2015-2020).

2.2 Foreign trade

The decline in domestic exports was mainly a result of disruptions in trade routes with neighbouring countries, specifically the closure of the borders of Syria and Iraq. Overall, there was an improvement in trade indices in the early years of the decade; nonetheless, exports decreased by 7 per cent between 2014 and 2018, when they were JD5.52 billion. Between 2008 and 2016, exports to Syria and Iraq decreased drastically, with a slight pick-up when borders reopened. In 2018, exports to Syria stood at JD33 million, down 77 per cent from levels before the civil war. Exports to Iraq, previously a major trade partner, experienced a similar trend, falling by 22 per cent in 2018 to JD446 million.[16]

Figure 1: Trade balance 2014 - 2018, JD millions



Source: CBJ Yearly Statistical Series , 2018

Fortunately, the effects of regional turmoil on domestic exports was somewhat offset by increased exports to the United States, which accounted for 26 per cent of all exports in 2018. In addition, exports to Arab countries, though smaller in volume, also increased in 2018. Exports to the United States are mainly comprised of garments and textiles, produced in qualifying industrial zones (QIZs). The establishment of the Qualifying Industrial Zone Agreement in 1996, which allows products with a specified amount of Israeli content to enter the United States duty-free if manufactured in the West Bank and Gaza, and qualifying industrial zones in Jordan and Egypt, played a major role in boosting Jordanian exports. Today, there are over 18 QIZs in Jordan that export products duty-free to the US market and enjoy a number of incentives and exemptions.

16 Central Bank of Jordan, Annual Report 2018, pp. 248 – 252.

Table,3: List of top importing countries from Jordan 2017-2018 (JD thousands) [17]				
Importers	**Exported value in 2017**	**Exported value in 2018**	**% change**	**% of total**
United States of America	1,112,561.7	1,228,544.0	10.42	26.28
Saudi Arabia	571,509.7	503,712.2	-11.86	10.78
India	382,748.9	485,694.7	26.90	10.39
Iraq	367,776.2	469,426.7	27.64	10.04
United Arab Emirates	203,512.7	184,318.4	-9.43	3.94
Kuwait	239,753.5	171,274.0	-28.56	3.66
Palestine	99,037.8	112,398.7	13.49	2.40
Qatar	114,584.3	98,407.6	-14.12	2.11
Indonesia	106,861.0	94,241.3	-11.81	2.02
Egypt	62,869.2	78,529.6	24.91	1.68
Lebanon	84,490.8	76,006.3	-10.04	1.63
China	97,318.2	74,289.2	-23.66	1.59
Algeria	65,317.7	65,351.4	0.05	1.40
Sudan	67,007.5	59,586.2	-11.08	1.27
Turkey	73,702.2	57,744.1	-21.65	1.24
Oman	52,068.6	49,660.9	-4.62	1.06
Bahrain	43,338.5	49,551.2	14.34	1.06
Israel	44,052.9	45,798.3	3.96	0.98
Yemen	36,476.1	34,288.6	-6.00	0.73
Top importers from Jordan	**4,504,224.0**	**4,674,706.3**	**3.78**	**84.96**

Jordan's imports have increased significantly as a result of disruptions to the flow of natural gas from Egypt to Jordan, forcing the Government to import more expensive fuel products for electricity generation. Imports from and exports to Egypt were both affected by this.

Moreover, higher electricity and other utility bills have adversely affected the competitiveness of domestic products, as most producers now face higher costs, which translate into higher prices. This has led to tougher import competition and lower demand for Jordanian goods in export markets, that in turn contribute to lower economies of scale.

In terms of commodities,[18] eleven product categories accounted for more than 80 per cent of overall exports in 2016 as shown in the table below. Apparel and textiles are Jordan›s number one export commodity, followed by chemical products and pharmaceuticals, together contributing almost 30 per cent of goods exports. Other sectors that contribute significantly to exports include mining and quarrying, and food and vegetables.

17 Central Bank of Jordan, Annual Report 2018, pp. 248 – 252.
18 International Trade Centre calculations based on UN COMTRADE statistics, accessed 27 April 2017.

Table 4: Top exports by HS Code, 2015-2016, US$ thousands					
Code	**Product label**	**Exported value in 2015**	**Exported value in 2016**	**% change**	**% of total (2016)**
'61	Articles of apparel and clothing accessories, knitted or crocheted	1,317,613	1,128,058	-14.4	21.5
'28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, etc.	331,944	594,849	79.2	11.3
'31	Fertilizers	825,634	546,712	-33.8	10.4
'25	Salt; sulphur; earths and stone; plastering materials, lime and cement	601,600	521,485	-13.3	9.9
'30	Pharmaceutical products	635,011	393,047	-38.1	7.5
'62	Articles of apparel and clothing accessories, not knitted or crocheted	68,118	366,615	438.2	7.0
'71	Natural or cultured pearls, precious or semi-precious stones, precious metals, clad metals	142,867	217,596	52.3	4.1
'07	Edible vegetables and certain roots and tubers	526,336	146,670	-72.1	2.8
'29	Organic chemicals	13,374	143,951	976.3	2.7
'84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	297,284	129,186	-56.5	2.5
'48	Paper and paperboard; articles of paper pulp, paper or paperboard	163,993	89,892	-45.2	1.7
TOTAL – Highest exporting items		**4,923,774**	**4,278,061**	**-13.1**	**81.5**
TOTAL EXPORTS		**7,832,977**	**5,251,635**	**-33.0**	**100.0**

The spiral of economic turmoil springing from the COVID-19 pandemic in early March, 2020 has affected all aspects of the economy, with the private sector being hit the hardest. Sectors that present a cornerstone for the Jordanian private sector, such as tourism, mining, and manufacturing ceased operations for over a month from March of 2020. The industrial sector, has witnessed a sharp decline in production and operations, except for factories that were working on “pandemic-related activities”, in other words, manufactures of sanitizers, masks, medical equipment…etc. These factories, nonetheless, compose a small proportion of the manufacturing sector in the country.

Over 90 percent of the Jordanian industrial sector is comprised of small and medium enterprises (SMEs), that account for a large portion of employment in the sector. These SMEs along with the micro-firms have been affected the most by the corona-crisis for several reasons. First and foremost, firms of that size operate at short-turnaround operations and short revenue cycles, with monthly revenue streams re-injected the following month to continue operations. The pandemic has caused a considerable and immediate effect on income and expenses, leading to delays and immediate losses. Additionally, the support injected by the government for these businesses in accordance to Defence Order (9)[19] is conditional to their registration

19 Defense Order (9) for the year 2020, issued on April 16th, 2020 under provisions of Defence Law no. 13 of 1992 to ensure livelihood and job stability for our workers, to sustain work of the private sector for protection of the national economy, to enhance the concept of solidarity, partnership and joint liability among public and private sectors› institutions and persons, and to support the private sector in carrying over its obligations as stipulated in Defence Order number (6) of 2020

in the Jordanian Social Security Corporations (SSC) for at least one year to be able to reap its full benefits. Although the law itself has offered alternatives for non-registered entities, and provided them a gap period to register, the immediate effects of this restriction were heavy on these firms, as many of them are not registered in the social security system, and the ones that are, do so for full-time employees only. This is a hurdle for the manufacturing sector, as it accounts of a large portion of part-time workers, daily-wage workers, and foreign labour, which have not been registered in the system. This has caused firms to be unable to cover their wages, and made it difficult for them to resume their full-time jobs. This means that even though these SMEs have been allowed to operate at a maximum of 50 percent capacity depending on their size, they were unable to do so.

Industrial sector SMEs are important to the ability of the Jordanian economy to recover in the medium-run. Realizing their importance, on April 11, 2020, the Central Bank of Jordan (CBJ) issued regulations to support small and medium enterprise with an amount of 500 million Dinar from the bank in partnership with the Jordanian loan guarantee company.[20] This is meant to inject liquidity into the SMEs, and by extension the industrial sector to enable reestablishment of operations and sustainability in the long-term.

2.3 The labour market

In Jordan, most formal employment has been in the public sector. Public employment offers better job security and working conditions and is therefore the preferred by workers. This situation has, however, changed in recent years as employment has shifted towards the private sector, especially services and the financial industry. Even so, employment in the private sector, and specifically the manufacturing sector, remains dominated by refugee and migrant workers. The challenges created by the influx of political and economic refugees in the past decade have had a negative effect on the labour market. The unemployment rate increased by 5.9 per cent, reaching 18.6 per cent in 2018,[21] while net job creation dropped from 66,400 in 2016 to 54,000 in 2017, a 23 per cent decrease.[22]

Unemployment is concentrated among the young, who account for 40 per cent of total unemployment in Jordan, and is particularly high among those with higher education qualifications (bachelor's degree and above). In 2018, the youth unemployment rate reached 39 per cent and was ranked twelfth highest in the world. Job seekers find it difficult to penetrate the market upon completing their education. The transition period between school and work is long: it takes an average of three years to find a stable job in Jordan. According to a survey conducted by ILO in 2014, there is a high mismatch of skills between labour demand and supply in the country.[23] The Jordanian education system therefore needs to adapt in order to give students the knowledge and skills they require to join the labour market soon after graduation.

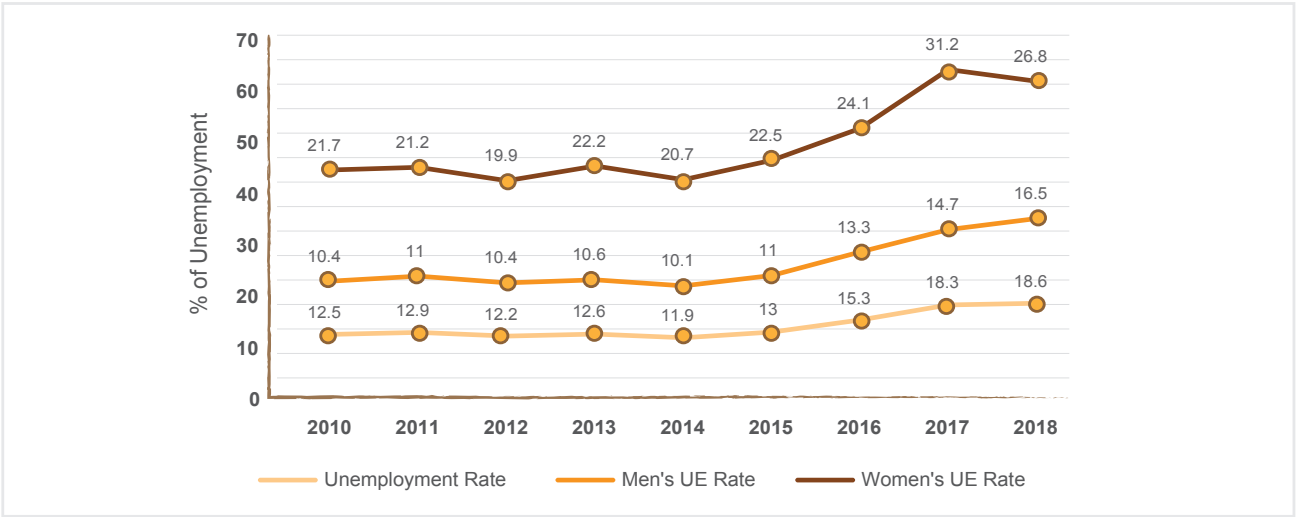
The strong preference for university education and the high participation of young Jordanians in the informal economy is reflected in low rates of enrolment in technical and vocational education and training. Culturally, great prestige is attached to higher education, especially in the medical and engineering fields but, because

20 The Central Bank of Jordan announces a set of procedures aimed to contain the repercussions of the emerging Corona virus impact on the national economy, Central Bank of Jordan, 2020
21 The Department of Statistics, Employment and Unemployment Survey 2018.
22 UNHCR, Fact Sheet, Jordan April 2019,
23 Work4Youth Project, 2014.

of the lack of job opportunities in these fields, young Jordanians often accept jobs below their qualifications, with lower wages, long working hours and generally non-decent working conditions. This indicates that an increased level of educational attainment has not translated into better employment opportunities in Jordan. The International Monetary Fund (IMF) estimates the size of the informal economy in the country at around 26 per cent of GDP.[24] Informal employment accounts for a large segment of Jordan's labour market, particularly in agriculture and construction. A study conducted by the United Nations Development Programme (UNDP), the Economic and Social Council and the Ministry of Planning and International Cooperation estimates that at least 44 per cent of the workforce in Jordan is informal and not officially registered.[25] A large segment of the unregistered workforce is composed of refugees; according to the Office of the United Nations High Commissioner for Refugees (UNHCR), only 36 per cent of Syrian refugees of legal working age have been able to acquire work permits. This does not take into account the new influx of refugees from Iraq, Yemen, Sudan and Somalia in 2019, who make up about 12 per cent of the refugees in Jordan.[26]

Focusing on gender in the labour market, female unemployment is particularly high at 26.8 per cent in 2018, while male unemployment has also increased but remains lower at 18.6 per cent. Women's participation in the workforce is very low: in 2017, only 16.9 per cent of Jordanian women participated in the labour force, compared with 62.7 per cent of men.[27] According to the World Bank, unemployment among women in Jordan ranks eleventh in the world, despite the minimal gender gap in terms of higher education attainment.

Figure 2: Unemployment by gender



In 2018, employment was highly concentrated in the public administration and defence sector (26.4 per cent), followed by wholesale and retail (15.3 per cent) and education (13.3 per cent). Manufacturing employed 9.6 per cent of the workforce; transportation, storage, and communication 7 per cent.[28] In the industrial sector, the highest contributors to employment were: textiles and readymade garments (50,484); food, agricultural and animal stock industries (39,383); and engineering, electrical and information technology (30,268).

As a response to the high unemployment rate, the Government of Jordan launched Vision 2025 in 2015,

24 The International Monetary Fund, Jordan Selected Issues, 2017.
25 UNDP, Ministry of Planning and International Cooperation and Economic and Social Council, The Informal Economy in Jordan, 2013.
26 UNHCR, Fact Sheet, Jordan April 2019.
27 [27] Central Bank of Jordan, Annual Report 2018.
28 Central Bank of Jordan, Annual Report 2018.

the goals of which include reducing the unemployment rate to 8 per cent by 2025. To reach this target, an average of 66,000 jobs will have to be created every year. The total number of jobs that need to be created today, however, is estimated to be much higher, if Syrian refugees are to be integrated in the labour market.[29]

The COVID-19 pandemic has initiated a labour market crisis; it is expected to affect both the quantity or rates of unemployed and underemployment[30], and the quality of work available (e.g. wages, income, social protection). The crisis is especially affecting more vulnerable labour groups (i.e. migrants, refugees, women, persons with disability…etc.)[31], while increasing the wage gap, and by extension the social gaps within the economy.

Although the effects of underemployment and working poverty are expected to affect the country as a whole, a much greater effect will be exerted on vulnerable communities, including refugees and migrant workers, especially within the informal sector. Underemployment is directly affected by the lockdown; working hours and thereby wages slashed lead to diminished incomes and thus purchasing power.[32] This threatens to result in more working poverty as wages are reduced below the level required to meet the standards of decent living conditions.[33]

An assessment conducted by the ILO, covering approximately 1,600 households including vulnerable Jordanian families and Syrian refugees, has indicated that only 6 percent of them have been working as they did before the crisis. From the remaining households only 2 percent were working from home, and 61 percent were either laid-off or temporarily laid-off, while the remaining 31 percent have received paid leave.[34] In accordance with that same assessment, the 'manufacturing sector' has performed a bit better than other sectors. It has been able to preserve the rights of its labour force more, as almost 60 percent of the workers in the sector have been granted paid leave, and 10 percent have been permanently laid-off.[35]

The majority of workers that have been laid-off permanently were within the 'informal market', with either verbal contracts or no contracts between employers and their employees. This was a pattern to be expected due to lack of legal consequence of laying-off these employees. Formalization of the labour market becomes much more essential at this time, specifically, when it comes to drafting contracts for migrant workers and Syrian refugees working within Jordan.[36]

Migrant workers in the informal economy[37] are losing their jobs, and thus their means of livelihood, as the system in most cases is either unwilling or unable to support them in time of crisis. In many cases, the situation is exacerbated, as they are unable to leave to their home countries, due to travel restrictions imposed to curb the spread of the pandemic.[38] The ones in the formal economy, on the other hand, still face the risk of contract termination, or wage retention, less pay, and late pay, as they lack in many cases the means for the preservations of employees' rights.

Even when migrant workers and refugees are meant to receive their full wages, they may be unable to do so, as they often lack access to digital platforms, at a time where cash payments have stopped. In parallel,

29 Department of Statistics (Jordan), Jordanian Economy in Numbers 2017.
30 Underemployment is particularly important because of growing casual and informal employment
31 COVID-19: Labour Market Impact and Policy Response in Arab States, International Labour Organization
32 COVID-19: Labour Market Impact and Policy Response in Arab States, International Labour Organization
33 COVID-19: Labour Market Impact and Policy Response in Arab States, International Labour Organization
34 Rapid assessment of the impact of COVID -19 on vulnerable workers in Jordan, International Labour Organization
35 Rapid assessment of the impact of COVID -19 on vulnerable workers in Jordan, International Labour Organization
36 Rapid assessment of the impact of COVID -19 on vulnerable workers in Jordan, International Labour Organization
37 Migrant day/casual labourers, freelance workers, such as live-out migrant domestic workers and cleaners
38 COVID-19: Labour Market Impact and Policy Response in Arab States, International Labour Organization

due to the crisis' socio-economic pressures, migrant workers, may face higher risk of violence, xenophobia, discrimination, stigmatization and further marginalization.[39]

In terms of Syrian refugees specifically, approximately 300,000 have not received cash assistance, due to their previous access to the formal and informal market, that in most cases is no longer available. Palestinian refugees, especially those originating from Gaza-strip and Syria have faced similar challenges, particularly as some of them still do not possess documentation, and it is very difficult to reach them, either by UN organization – specifically UNCHR – to offer support, or by government support agencies, mainly vulnerable communities' support funds (ex: Himmit Watan)[40].

A recent survey by UNCHR has reflected that refugees, along with vulnerable Jordanian families in the informal market, reflected major implications on livelihoods. The survey included over 1,000 households, from which 54 percent of Jordanians, and 65 percent of refugees reported that they became unemployed due to the COVID-19 crisis, and are not expecting to find work beyond the crisis, as the main source of income for over 40 percent was in the informal market (daily-paid workers). From the refugees surveyed only 5 percent stated that they received salaried work with regular income, as the rest rely on family or aid support for survival.[41]

Even with the extra pressures faced by these groups as an outcome of the crisis, refugees and migrant workers are not covered to a large extent by the official government regulations to assist vulnerable communities. The Jordan Compact was meant to integrate Syrian refugees into the crisis, however, its regulations were not amended to fit the current circumstances.[43]

The pandemic has also widened the gap of gender inequalities, even within the formal market that is relatively more stable. The closure of schools and care facilities has forced many women to work from home when possible, or put their careers on hold altogether, due to inability to conduct both without child care support. Again, this problem is worse among refugees, as only 8 percent of women were reported to be employed before the crisis.[43] Specifically, in relation to the Garment and Leather Sector; according to the Jordan Garments, Textiles and Accessories Exporters Association (JGATE), "30 percent of their employees – mainly women – are expected to lose their jobs in May and June."[44]

2.4 An overview of Jordan's education sector (with a focus on TVET)

In recent years and in accordance with the Government's National Strategy for Human Resource Development, Jordan's education indicators have improved in comparison to those of neighbouring countries.[45] The Government has implemented an education-intensive policy under which around 12.5 per cent of current and capital expenditures have gone towards providing education for all.[46] and enabled over 74 per cent of Jordanian students to attend public schools.[47] This has boosted adult literacy rates to 98 per cent,[48] a very high rate compared to the world average of 86.2 per cent and the MENA region average of 80 per cent.

39 COVID-19: Labour Market Impact and Policy Response in Arab States, International Labour Organization
40 UNRWA, Agency Inputs, 18 April 2020
41 Multi-Sectoral Rapid Needs Assessment –COVID19, UNCHR
42 Informal economy, refugees, and vulnerable workers, ILO-COVID 10 vulnerable labour survey, International labour organization
43 COVID-19: Labour Market Impact and Policy Response in Arab States, International Labour Organization
44 COVID 19 socio-economic framework "working draft for technical review", ILO, 2020
45 The National Strategy for Human Resource Development, Government of Jordan (2015-2020).
46 Jordan, Ministry of Finance, Annual Financial Bulletin, 2018.
47 Department of Statistics, Jordan in Figures, 2018.
48 World Bank Development Indicators, 2019.

Unfortunately, improvements in inclusion in education in Jordan have not always been matched by high quality of education. This is apparent when Jordanian students take international standardized tests such as the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS), as the majority perform far below the world average.[49] Two factors contribute to this. First, the academic approach in the primary and higher education systems is still very traditional; in other words, most courses and programmes are purely academic, and do not integrate core skills such as learning to learn, communication, critical thinking, problem-solving, teamwork and language skills. Second, education institutions are not capable of keeping up with the changing demands of the labour market and still use outdated curricula.[50] The National Human Resource Development Strategy 2016-2025 acknowledged that the skills of young Jordanian graduates were failing to meet the needs of the economy.

The education system in Jordan comprises two years of (optional) pre-school education, ten years of basic education and two years of either academic secondary or vocational secondary education. The ten years of basic education are compulsory for children aged 6 to 16.[51] Students who pursue academic secondary schooling receive the Tawjihi, or secondary education certificate after two years, which allows them to proceed to tertiary education offered at either universities or community colleges.[52] The latter – technical and vocational education and training – is far less popular than the former. It is mainly offered by Ministry of Education training centres and vocational training Institutes supervised by the Vocational Training Corporation, which comes under the Jordan Ministry of Labour. Although the demand for vocational secondary education is on the rise, specifically in the manufacturing sector, student enrolments remain low; as a result of the cultural aspects referred to earlier, it is the least favourite option among Jordanians and attracts only 3.6 per cent of students.[53]

The Jordanian Government is aware of the need for technical and vocational education and training and is working on policies under the umbrella of the National Human Resource Development Strategy (2016) to bridge the gap between higher education and private sector demands, to equip young Jordanians with the skills needed on the labour market that will give them a better chance of employment, and to give the private sector the skills required to operate at higher capacity.[54] It is hoped that implementation of the policy will increase the number of students enrolled in technical and vocational education and training to 15 per cent by 2025 through enhancing access, quality, and governance in the sector.[55]

In order to reform the governance structure of the technical and vocational education and training sector, the Technical and Vocational Skills Development Law (No. 19) was passed in April 2019. It established the Technical and Vocational Skills Development Commission, a new umbrella entity for this sector of education in Jordan, which includes a majority of private sector members, while some are nominated by the Government. Unfortunately, the absence of trade union representatives on the Commission undermines the contribution of the workers to the system and the system's capacity to improve its inclusiveness. The Commission has a very broad mandate that includes overseeing sector skills councils, unified skills standards and accreditation of training providers through the Centre for Accreditation and Quality Assurance, the national apprenticeship framework, functional occupational licensing, skills anticipation, standardized testing and recognition of prior learning.

49 K.A. Tayeh and others, "The reasons for the decline of the results of Jordanian students in TIMSS 2015", International Journal of Instruction, 11 (2), pp. 325-338, April 2018.
50 The Jordan STEM Education Landscape, The British Council, 2017.
51 The National Strategy for Human Resource Development, Government of Jordan (2015-2020).
52 Nuffic, The Jordanian education system described and compared with the Dutch system, 2017.
53 The National Strategy for Human Resource Development, Government of Jordan (2015-2020).
54 Jordan TVET Country Profile, UNESCO, 2019.
55 The National Strategy for Human Resource Development, Government of Jordan (2015-2020).

3 Research methodology

The research methodology is based on the ILO Skills for Trade and Economic Diversification. STED is a sector-level study that aims to align skills policies with sectoral strategies that contribute to export growth, economic diversification and employment creation.

The garment and leather STED research methodology aims to answer the following questions:

- What are the major characteristics of the sector and of the enterprises in the sector? What is the regulatory framework affecting the sector?
- What is the structure of the workforce in the sector? What are the current skills needs of industrial firms in the sector?
- What are the skills needs and other employment characteristics of microenterprises[56] in the sector? How do they compare with the needs of industrial firms?
- What do training providers offer? What skills do they typically train graduates and job seekers in?
- What are the possible growth scenarios for the sector?
- What are the skills gaps in the sector?

The STED-plus research was implemented in five main phases:

Desk review: Quantitative and qualitative analysis of the garment and leather sector was undertaken using secondary data from, for example, the UN Comtrade database, an industrial survey and the Jordan Chamber of Industry. The desk review also included a review of recent literature published on the sector.

A field survey: A quantitative and qualitative analysis of the sector was undertaken using primary data collected from the field. The survey covered both the demand side (enterprises working in the garment and leather sector) and the supply side (education and training providers).

Validation of findings: The findings of the first two phases were discussed and validated with the G&L NSSC and industry representatives covering:

- Economic, trade and employment data reported on the sector.
- General outcomes of the field survey in relation to the labour demand and supply side of the industry
- Detailed outcomes of the field survey covering occupations demanded by the subsector.
- Detailed outcomes of the field survey covering challenges facing the garment and leather sector.

Scenario planning: Based on the outcomes of the study, a scenario planning session was organized with the G&L NSSC to discuss the growth prospects of the industry until 2025 in terms of export values and job prospects.

Report writing: The final report was drafted based on the outcomes of the study and the validated data. It was then reviewed and approved by G&L NSSC and ILO.

56 According to the Jordan Chamber of Industry classification, microenterprises employ fewer than 10 workers and have a registered capital of less than JD30,000, whereas industrial firms employ more than 10 workers and have a registered capital of more than JD30,000

3.1 Survey methodology

To better understand the occupations of the garment sector in terms of demand and supply, the primary field data were collected at the level of enterprises through an industrial survey and training providers/educators through structured in-depth interviews.

3.2 Preparatory work

3.2.1 Industrial survey database, population and sample population

Data on officially registered enterprises operating in the garment and leather sector were collected from the Jordan Chamber of Industry database. The total population of the garment and leather enterprises reviewed and approved by the G&L NSSC numbered 856 firms (table 5).

Table 5: Total survey population

Garment and leather enterprises	# of firms
Verified firms and contacts	384
Did not cooperate	35
Did not answer	67
Wrong numbers	337
Mobile turned off	33
Total population	**856**
Closed	79
Not yet operating	**1**
Not related to garment and leather	**97**
Total other	**177**

Another phase of data clean-up was undertaken to verify numbers and contacts using the KINZ database. A total of 454 companies (53 per cent) from the original population were contacted, of which 229 were actually surveyed.

3.2.2 List of training/education providers:

Data on officially registered training providers for the garment and leather sector were collected from the Centre of Accreditation and Quality Assurance database. Additional internet research was undertaken to collect and fine-tune the data. A list of a total of 25 training/education providers was compiled, from which ten institutions were selected by the G&L NSSC as the sample for the in-depth structured interviews.

3.2.3 Questionnaire design

The garment and leather sector was classified into three main subsectors using ISIC 4.0: manufacture of textiles, manufacture of wearing apparel, and manufacture of leather and related products. Priority occupations by subsector were identified in collaboration with G&L NSSC and industrialists operating in each subsector. A total of 39 occupations were prioritized by subsector representatives. These are listed later in the report (section 6.2). The main duties per occupation were identified and coded using the International Standard Classification of Occupations (ISCO) and the Arab Standard Occupational Classification (ASOC) (Annex I).
The questionnaires for the industry and the training/education providers were drafted in English and translated into Arabic. Both questionnaires were approved by the G&L NSCC and ILO. Training sessions were delivered to enumerators to familiarize them with the technical questions on the sectors/subsectors and the priority occupations for both questionnaires.
The in-depth questionnaire for training providers contained six main categories, with a total of 59 questions, while the industrial survey questionnaire contained five main categories with a total of 39 questions (table 6 and Annexes II and III).

Table 6: Questionnaire categories

In-depth questionnaire for training providers	# of Questions	Industrial survey questionnaire	# of Questions
Firmographics	17	**Firmographics**	11
Training/educational programmes	10	**Production and business**	10
Employability life skills	5	**Structure of workforce**	2
Collaboration with employers	20	**Current workforce skills**	7
Educational/training standards and trainers	7	**Workforce development**	9
Total	**59**		**39**

3.2.4 Piloting

Industrial survey: The questionnaire was programmed on a tablet to facilitate data collection and secure data transfer to Statistical Package for the Social Sciences (SPSS) statistics on a daily basis. Survey validity was established using a pilot conducted on a randomly selected 10 per cent of the population to time the survey interview and resolve problems relating to interviews and questions. The pilot was also used to test data entry, data analysis, coding, data cleaning and data consistency using Cronbach's alpha method.

Once the questionnaire was programmed, the enumerators received a third training session to test the programmed questionnaire.

Structured in-depth interviews of training/education providers: The questionnaire was completed manually. The pilot was carried out with two training/education providers. The data from the structured in-depth interviews was tabulated and analysed using Microsoft Excel.

The pilot data collection results were seen as credible when verified with the G&L NSSC. Nonetheless some questions required rearrangement to enhance the flow of questions.

3.3 Data collection

3.3.1 Industrial survey

The industrial survey was conducted on a representative sample of 229 firms in three phases:

- Field survey from August 2019 to December 2019
- Field survey from early to mid-January 2020
- Focus group organized end of January 2020 to facilitate the collection of additional enterprise data.

The industrial survey was completed in a face-to-face interview using a mixed approach of scheduled appointments and random visits to guarantee a higher response rate. All interviews were conducted by one lead interviewer and two enumerators. The enumerators reported daily on field visits describing the successes and/or obstacles they faced. An assessment and re-evaluation of the data collection process was performed weekly. To further guarantee accuracy, the data on the system was reviewed again section by section and refined to eliminate any possible errors or miscommunication.

3.3.2 In-depth structured interviews with training providers

In-depth structured interviews were conducted with a sample of 10 training institutions. The face-to-face interviews were held by one lead interviewer and two enumerators.

The enumerators reported on the interviews daily, describing the successes and/or obstacles they faced. An assessment and re-evaluation of the interview process was performed on a daily basis. Interview outputs were tabulated into Excel daily and the results were reviewed weekly.

3.4 Research limitations

3.4.1 Sample size

Sample size was influenced by several variables:

Database accuracy: Despite several attempts to fine-tune the database, the researchers were unable to contact the total population (only 454 of 856 were contacted) due to non-responsive telephone numbers, inaccuracy of telephone numbers, permanent and/or temporary closure of some factories due to the seasonality of their business (for example, manufacturing of uniforms). An additional 50 firms from the survey population (in addition to the 79 already noted) were identified as closed.

Refusal of firms to hold interviews: Several firms were contacted but refused to schedule interviews with enumerators because senior management was not available to give approval, or simply because they did not wish to cooperate.

Refusal of firms to hold interviews after scheduling meetings: Some firms with which appointments had been scheduled did not hold the interview on-site either because they forgot the appointment or were too busy to spend time with the enumerators.

Duplicated names: Some firms appear in the database twice with different names.

3.4.2 Incomplete /inaccurate data provided:

Some firms did not want to provide data on specific questions because of time limitations or unavailability of data. Others provided estimates, while some provided answers to only half the questions.

4 The garment and leather sector: background

The garment and leather industry is a dynamic economic sector that has the potential to generate additional exports, jobs and foreign direct investment for Jordan. An ILO study[57] estimated that the untapped export potential[58] of the sector could be as much as US$562 million[59] and anticipates that a total of 33,713 jobs (19,659 direct jobs, 5,643 indirect jobs and 8,411 induced jobs)[60] would be created if the export potential was reached.[61] In the study, the ILO relied on the ITC Export Potential Indicators (EPI), a methodology based on the assumption that factors of production related to skilled labour and value chains are readily available.[62]

The Jordanian garment and leather sector, involving mainly the manufacture of wearing apparel, entered the global value chain (GVC) when it signed the Qualifying Industrial Zone Agreement (QIZ) in1996.[63] The Agreement provided Jordanian manufacturers with tariff- and quota-free access to the US market, while leveraging production inputs from Israel, the USA and other countries that are parties to the Agreement. The QIZ initially helped boost Jordanian exports of garments to the United States. In addition, with the dismantling of the Multifibre Arrangement[64] and the coming into effect of the Jordan-United States Free Trade Agreement (JUSFTA) in 2001, the majority of garment production is now exported to the United States under the JUSFTA.[65] Since the EU-Jordan Relaxed Rules of Origin (RoO) Agreement came into force in 2016,[66] Jordan has also had an opportunity to benefit from facilitated entry to the European market. It is yet to reap the benefits of the latter agreement, however, since exports to the EU remain well below their potential.[67]

The garment and leather sector in Jordan comprises textiles, wearing apparel and leather. In 2018, it accounted for nearly 28 per cent[68] of total domestic exports, excluding re-exports, and 84 per cent[69] of total exports to the United States. The sector employs around 28.7 per cent[70] of the total manufacturing workforce and accounts for 6.9 per cent of total establishments in the manufacturing sector.[71] The Centre for the Promotion of Imports from Developing Countries (CBI) estimates that the garment industry alone employs 77,000 workers distributed among 1,300 garment manufacturing enterprises of which: 85 are large factories,[72] 150 are SMEs,[73] and 1,000[74] are microenterprises.

57 ILO. 2019.
58 The “untapped” or “unused” export potential is the difference between how much of a certain product a country already exports and its EPI value for that product.
59 ILO. 2019, p. 17.
60 Induced jobs are created through the associated value chain, ILO 2019, p. 16.
61 ILO. 2019, p. 36.
62 ILO. 2019, p. 16.
63 Office of the United States Trade Representative. 2019.
64 The Multifibre Arrangement (MFA) was an international trade agreement on textiles and clothing in place from 1974 until 2004. It imposed quotas on the amount of clothing and textile exports from developing countries to developed countries.
65 Office of the United States Trade Representative 2019.
66 The RoO agreement is part of the EU’s support for Jordan in the context of the ongoing Syrian refugee crisis and aims to make it easier for Jordan to export to the EU, encourage investment and create jobs both for Jordanians and Syrian refugees. The Agreement underwent several reviews, the last of which was in 2018 requiring production to involve at least 15 per cent of Syrian refugee labour in the production facilities working on a full-time basis. Once Jordan grants 60,000 active work permits to Syrian refugees, all Jordanian manufactures of goods covered by the scheme will be free to benefit from the RoO without requiring minimum employment of Syrian refugees. European Commission. 2019.
67 EU imports of textiles and textile articles from Jordan did not exceed €53 million in 2018. European Commission. 2019.
68 Calculated using Central Bank of Jordan (2019) for domestic exports for 2018 and ITC (2019) export data for 2018.
69 Calculated using ITC Trade Map (2019).
70 Calculated using Jordan Chamber of Industry (2019).
71 Calculated using Jordan Chamber of Industry 2019.
72 Large factories are mostly foreign-owned joint ventures or subsidiaries of a parent company abroad. These factories employ 500-2,500 workers, account for 95 per cent of garment exports and employment and are focused mainly on exporting to the US market (CBI 2019, p. 13).
73 SMEs employ 10-500 workers and are mainly oriented to local or regional markets (CBI 2019, p.13)
74 Microenterprises have fewer than 10 employees; they sometimes operate in the informal market while selling locally (CBI, 2019, p.13).

The garment and leather sector is highly dependent on foreign workers. Better Work Jordan[75] estimates there to be a total of 51,500 migrant workers in the exporting garment industry alone,[76] accounting for 75 per cent of total employment, which was 68,300 workers in January 2019.[77] This percentage is within the allowed threshold set by the Ministry of Labour of 40 per cent for migrant workers in the apparel industry[78] for factories outside the QIZ, and 80 per cent[79] for those inside the QIZ. The majority of factories employing foreign workers are exporting companies located in the economic zones in Dulayl, Irbid and Sahab.[80] To further encourage employment of Jordanians in the sector and promote rural development, the Government launched the concept of "satellite units"[81] in 2010. Satellite units provide various incentives to investors depending on the type of agreement signed with the Ministry of Labour.[82] Incentives may include free rent, subsidy of workers' salaries, social security contributions and transportation costs. Today there are around 16 satellite units employing over 5,500 Jordanians, with an average of 90 per cent female workers.[83]

Although the sector has flourished in recent years, Jordan still competes mainly in lower margin activities in global garment value chains. Manufactured products from Jordan primarily focus on the production of garments using the cut, make and trim (CMT), cut, make and pack (CMP) and free on board (FOB) production models. The CMT and CMP models have low profit margins and their competitiveness relies mainly on low labour costs, while the FOB model has higher profit margins since factories take on the responsibility of sourcing and financing the purchase of raw materials.[84] Jordanian manufacturers have adopted the original design manufacturer (ODM) and original brand manufacturer (OBM) models to only a very limited extent as these models require higher skills in product design,[85] development and marketing skills. Some Jordanian factories produce Islamic clothing[86] using their own brand name or a private label to be retailed mainly in local and regional markets.

Furthermore, the industry faces competitiveness challenges in terms of shipping costs[87],[88] and production lead time.[89] Production lead time in Jordan requires an average of 100-120 days because most production inputs (textiles, yarns, accessories) are imported from abroad, increasing production lead time by an additional 30 to 60 days for Jordanian manufacturers.[90] The production lead time in a competitor country for CMT/CMP production such as Bangladesh is as low as 45 days.[91]

Labour costs[92] in Jordan are also relatively high compared to both regional competitors (Morocco, Egypt and Turkey), and mass-producing countries (Bangladesh, Pakistan and Viet Nam),[93] which, like Jordan, mainly use CMT/CMP production models.

75 Better Work Jordan 2019a, p. 10)
76 As of December 2018, Better Work Jordan has 86 garment factories enrolled in its labour compliance programme comprising 50 direct exporters, 21 subcontractors and 15 satellite factories (Better Work Jordan, 2019a).
77 Better Work Jordan 2019a.
78 Ministry of Labour 2019a.
79 Ministry of Labour 2019b.
80 Ministry of Labour 2019b.
81 A satellite unit is a garment manufacturing factory, usually of smaller scale, located outside the QIZ or the Special Economic Zone (SEZ) and wholly owned and managed by existing garment manufacturers (Better Work Jordan 2019b, p. 4)
82 Ministry of Labour
83 Better Work Jordan (2019b).
84 CBI (2019).
85 CBI (2019).
86 CBI (2019).
87 Jordan mainly exports garments through the ports of Aqaba and Haifa to the United States. Regional instability has halted land transport via Syria and Iraq, thereby increasing shipping lead time and costs to Europe and the Gulf (CBI, 2019).
88 "It is estimated by manufacturers that transporting goods by road can be about three times cheaper than exporting through the Gulf of Aqaba" (CBI 2019, p. 16).
89 Production lead time is long because of a lack of readily available fabrics and trims, which are usually imported from abroad (CBI, 2019).
90 CBI (2019, p. 25).
91 CBI (2019, p. 10).
92 At the time of writing, the Government of Jordan was considering increasing the minimum wage to JD260. It is not clear whether this increase will affect the garment and leather sector.
93 It is worth mentioning that the mass-producing countries compete mostly in the CMT/CMP service models where the average wage is much lower than in Jordan (CBI, 2019,p. 19).

5 Description of the garment and leather sector

The garment and leather sector, as classified by the Jordan Chamber of Industry includes companies that manufacture garments (knits and woven), fabrics (knits and woven) leather products (shoes, belts and purses), bed linens and blankets, and carpets and rugs. In terms of cross-border trade in goods, the exports of the sector are classified under the two-digit Harmonized System (HS)[94] codes: HS 41-43 and 64 for leather and footwear and HS 50-63 for yarns, textiles, apparel, carpets, rugs and accessories (table 7).

Table 7: Garment and leather sector HS codes

Code	Product label
HS Chapter	Description
41	Raw hides and skins (other than furskins) and leather
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silk-worm gut)
43	Furskins and artificial fur; manufactures thereof
50	Silk
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric
52	Cotton
53	Vegetable textile fibres; paper yarn and woven fabrics of paper yarn
54	Man-made filaments; strip and the like of man-made textile materials
55	Man-made staple fibres
56	Wadding, felt and nonwovens, special yarns; twine, cordage, ropes and cables and articles thereof
57	Carpets and other textile floor coverings
58	Fabrics; special woven fabrics, tufted textile fabrics, lace, tapestries, trimmings, embroidery
59	Textile fabrics; impregnated, coated, covered or laminated; textile articles of a kind suitable for industrial use
60	Fabrics; knitted or crocheted
61	Apparel and clothing accessories; knitted or crocheted
62	Apparel and clothing accessories; not knitted or crocheted
63	Textiles made up articles; sets; worn clothing and worn textile articles; rags
64	Footwear; gaiters and the like; parts of such articles

ISIC Revision 4, which classifies businesses according to the types of goods and services they produce, categorizes the garment and leather industry in divisions 13, 14 and 15 (manufacture of textiles, manufacture of wearing apparel, and manufacture of leather and related products) of Section C (manufacturing) (table 8)

94 The Harmonized System is an international nomenclature for the classification of products. It allows participating countries to classify traded goods on a common basis for customs purposes. At the international level, the Harmonized System for classifying goods is a six-digit code system.

Table 8: Manufacture of textiles, ISIC Rev.4			
Division 13	**Manufacture of textiles**		
Group	**Description of group**	**Class**	**Description of class**
131	Spinning, weaving and finishing of textiles.	1311	Preparation and spinning of textile fibres.
		1312	Weaving of textiles.
		1313	Finishing of textiles.
139	Manufacture of other textiles.	1391	Manufacture of knitted and crocheted fabrics.
		1392	Manufacture of made-up textile articles, except apparel.
		1393	Manufacture of carpets and rugs.
		1394	Manufacture of cordage, rope, twine and netting.
		1399	Manufacture of other textiles n.e.c.
Division 14	**Manufacture of wearing apparel**		
Group	**Description of group**	**Class**	**Description of class**
141	Manufacture of wearing apparel, except fur apparel.	1410	Manufacture of wearing apparel, except fur apparel.
142	Manufacture of articles of fur.	1420	Manufacture of articles of fur.
143	Manufacture of knitted and crocheted apparel.	1430	Manufacture of knitted and crocheted apparel.
Division 15	**Manufacture of leather and related products.**		
Group	**Description of group**	**Class**	**Description of class**
151	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur.	1511	Tanning and dressing of leather; dressing and dyeing of fur.
		1512	Manufacture of luggage, handbags and the like, saddlery and harness.
152	Manufacture of footwear.	1520	Manufacture of footwear.

5.1 Sector employment and gender distribution

Despite rising unemployment among Jordanians, which reached 18.6 per cent in 2018,[95] the majority of workers in the garment and leather sector (75 per cent) are foreign migrant workers. A recent analysis of the garment value chain attributes this to their relatively high skill levels, ability to work overtime and very low absenteeism,[96] according to the CBI[97] report published in 2019.

According to the Jordanian Chamber of Industry,[98] total employment in the sector was 73,148 in 2018.[99] According to the Department of Statistics,[100] total employment of Jordanian workers in the garment and leather sector was 21,986 in 2017. According to Better Work Jordan,[101] total employment in the exporting garment industry alone stood at 68,300 in January 2019, of whom 51,500 were migrants. Better Work Jordan data excludes non-exporting companies and other subsectors in the garment and leather industry. CBI estimates total employment in the garment industry alone at 77,000 workers[102] (table 9).

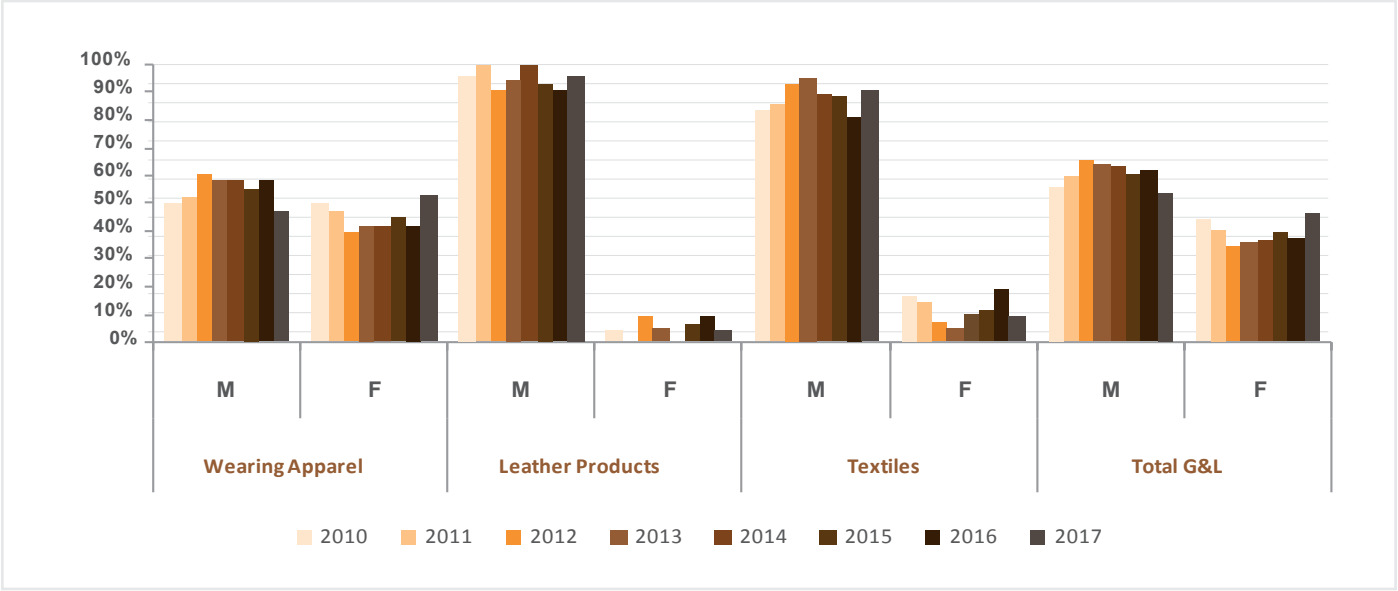
Table 9: Garment and leather employment: summary and estimated total employment

Employment by sector and category	DoS (2017)[103]	BWJ (Jan 2019)[104]	JCI (2018)[105]	CBI[106]
Garment industry Jordanians	18,719	n/a	n/a	
Total exporting garment industry	n/a	68,300	n/a	
Total garment industry				77,000
Exporting garment industry foreign workers only	n/a	51,500	n/a	
Leather industry Jordanians	760	**n/a**	n/a	
Manufacturing of textiles Jordanians	2,507	n/a	n/a	
Total			**73,148**	

Department of Statistics data (2010-2017)[107] provide the gender distribution of Jordanian workers by subsector. Of the three subsectors, only the manufacture of wearing apparel has a roughly balanced Jordanian male to female employment ratio, the other subsectors being dominated by male employment (figure 3). In 2016, Better Work Jordan[108] reported that women represented 69 per cent of the garment sector labour force.

95 Department of Statistics (2019a).
96 CBI (2019, p. 47).
97 CBI (2019).
98 Jordan Chamber of Industry (2019).
99 It is not clear whether JCI includes foreign workers in their statistics.
100 Department of Statistics 2018.
101 According to Better Work Jordan, the source of this data is the Ministry of Labour.
102 CBI (2019, p.13).
103 Department of Statistics (2018).
104 Better Work Jordan (2019a).
105 JCI (2019).
106 CBI (2019, p.13).
107 Department of Statistics (2018).
108 Better Work Jordan (2016), p.7.

Figure 3: Jordanian employment in the garment and leather sector (2010-2017) by gender



Source: Department of Statistics (2019b)

5.2 Garment and leather sector profile

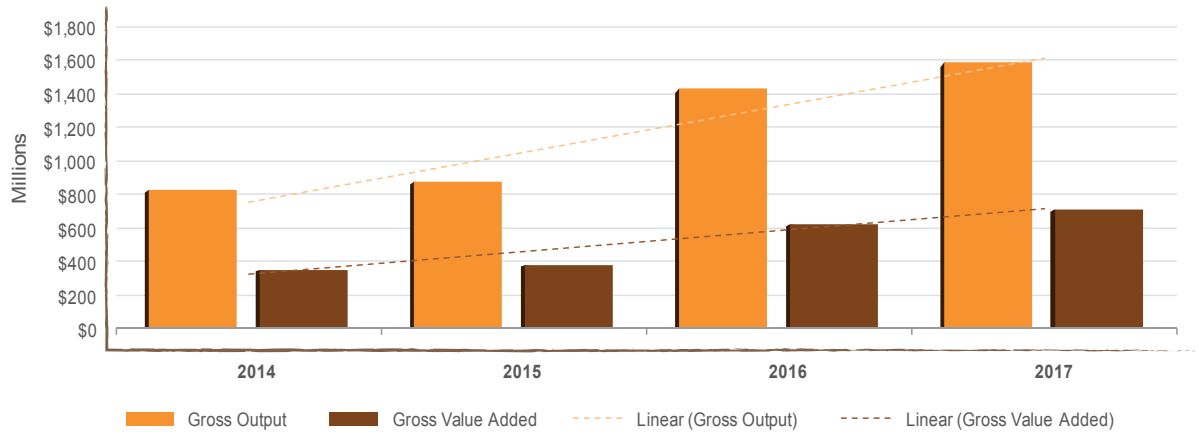
This section presents an overview of the garment and leather sector in Jordan and its relative importance to the Jordanian economy. The analysis relies on data obtained from the Jordan Department of Statistics industrial survey[109] which provides several indicators, including gross output and gross value added, gross fixed capital formation, intermediate consumption, worker compensation and taxes on production.

5.2.1 Gross output and gross value added

The garment and leather sector accounts for nearly 6.8 per cent of the gross output of all industrial activities in Jordan, which totalled US$23.6 billion in 2017.[110] In 2017, the gross output of the sector was US$1.6 billion with a compound annual growth rate (CAGR) of 24 per cent for the period 2014-2017.[111] Value added grew at a higher rate by CAGR 26 per cent for the same period, indicating a higher contribution to gross domestic product (GDP)[112],[113] (figure 4).

109 Department of Statistics (2019c).
110 Department of Statistics (2019c).
111 Department of Statistics (2019c).
112 Gross Value Added (GVA) = GDP + subsidies on products – taxes on products
113 Taxes on production compared to gross output for manufacturing of wearing apparel, except fur (ISIC 1410) are the lowest tax contribution since this is the primary exporting subsector in this in the garment and leather sector, accounting for nearly 90.8 of total exports in this industry.

Figure 4: Garment and leather sector gross output and gross value added (2014-2017), in US$M



(Dos – Jordan 2019e) Conversion JD/$=0.708

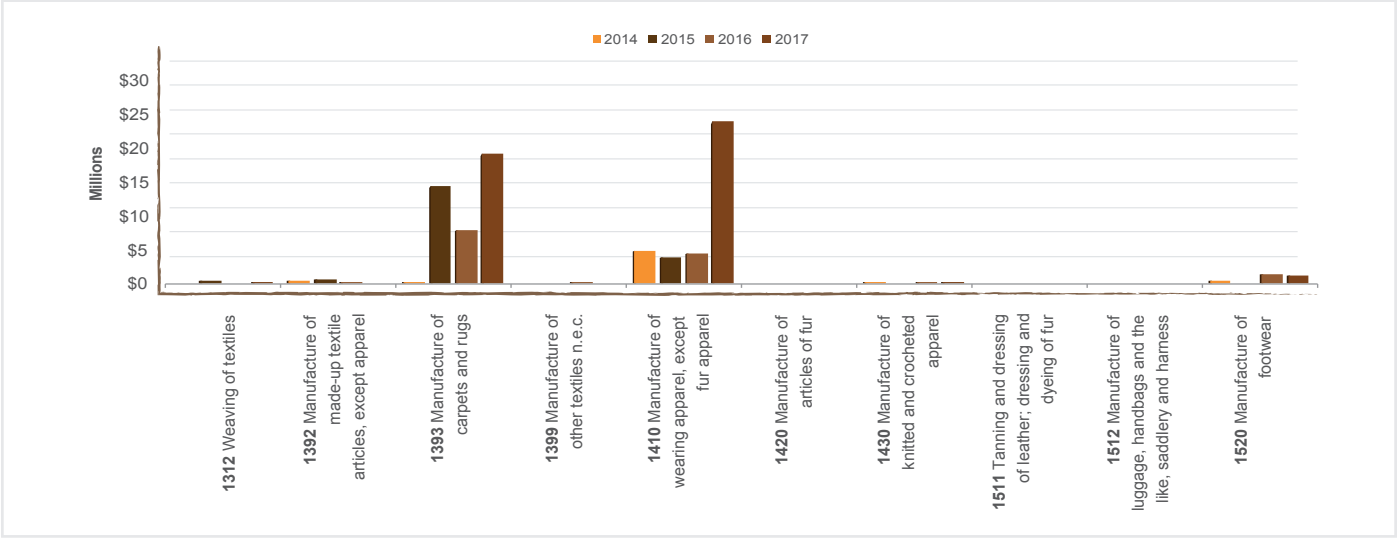
The manufacture of wearing apparel, except fur apparel (ISIC 1410) recorded the highest value in gross output, reaching US$1.3 billion in 2017. The manufacture of carpets and rugs (ISIC 1393) and the manufacture of other textiles (ISIC 1399) recorded the highest annual growth (CAGR of 47 per cent and 41 per cent, respectively) for the period 2014-2017, and the weaving of textiles (ISIC 1312) recorded the highest decline in annual growth for the same period (CAGR -6 per cent).

5.2.2 Gross fixed capital formation

The garment and leather sector accounts for 4.4 per cent of total gross fixed capital formation in industrial activities in Jordan, which totalled US$1.02 billion[114] invested in 2017, a large increase in the rate of investment in capital equipment and facilities compared to earlier years.[115] In 2017, investments in capital equipment for the manufacture of wearing apparel except fur apparel (ISIC 1410) were a substantial US$24 million. In the same year, there was significant investment in the manufacture of carpets and rugs (ISIC 1393) amounting to US$19.3 million (figure 5). This may indicate that investors see these sectors as having growth potential. This investment has itself boosted potential, consistent with the garment and leather trade patterns and trends analysis discussed later in this report.

114 Department of Statistics (2019c).
115 Department of Statistics (2019c).

Figure 5: Garment and leather sector gross fixed capital formation (2014-2017), in US$M

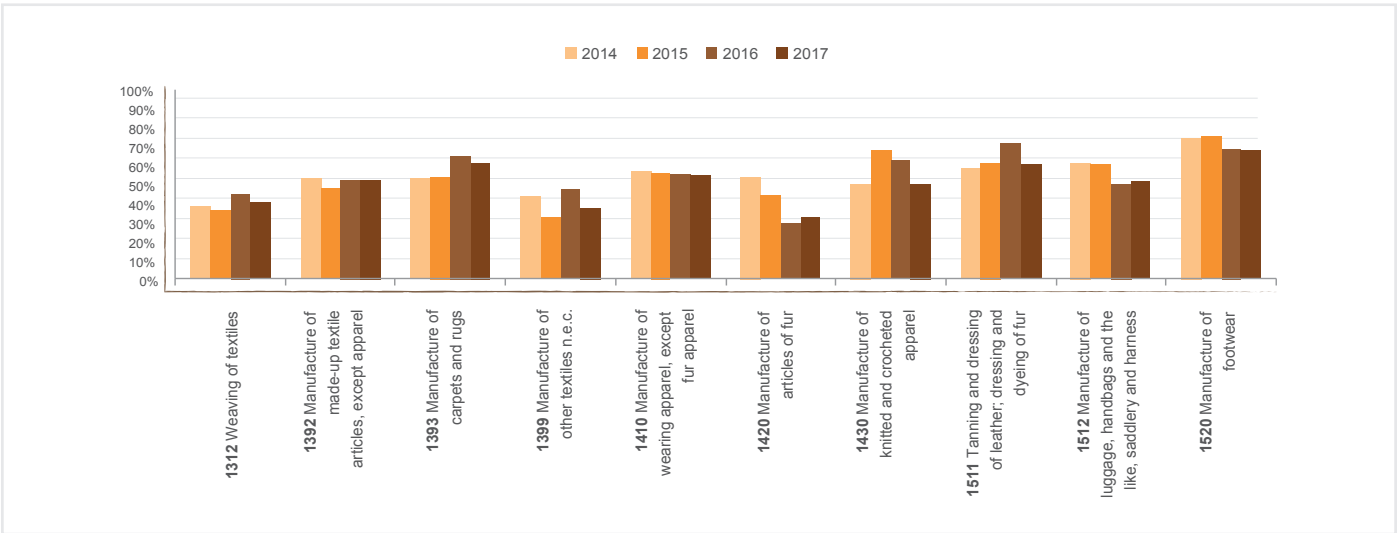


Department of Statistics (2019e) Conversion JD/US$=0.708

5.2.3 Intermediate consumption

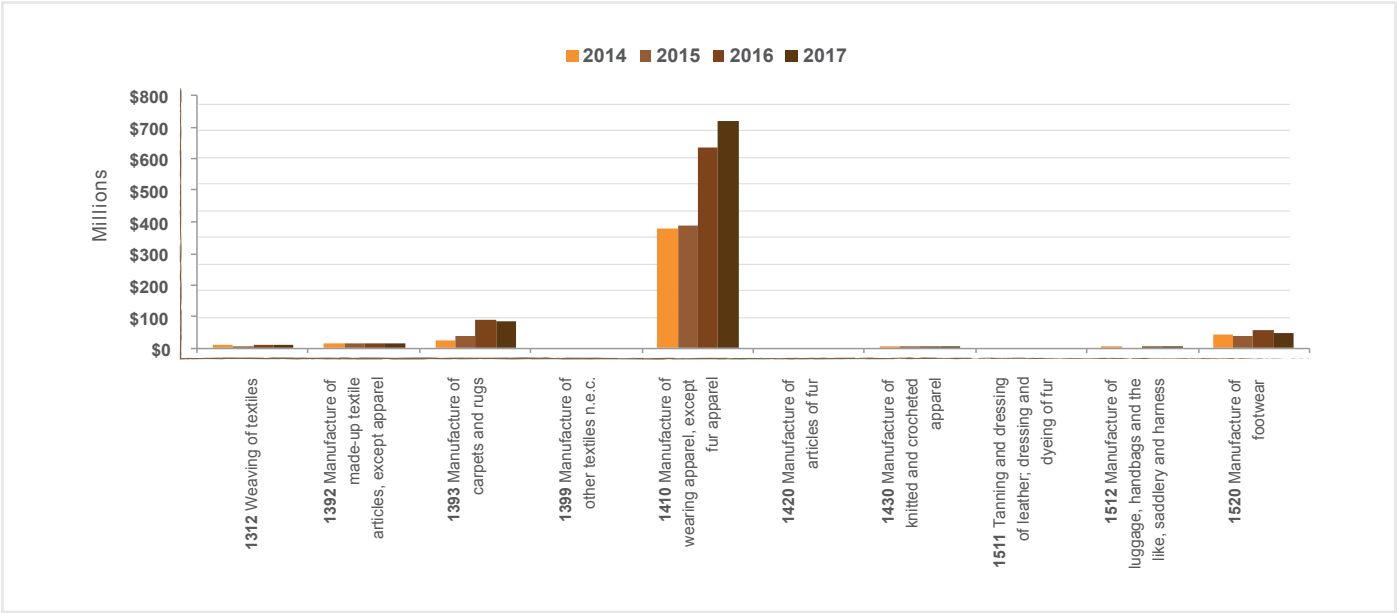
The garment and leather sector accounts for 6.9 per cent[116] of total intermediate consumption[117] of all industrial activities in Jordan, which was US$12.85 billion[118] in 2017. The intermediate consumption of garment and leather was US$886 million in 2017, with a compound annual growth rate of 23 per cent for the period 2014-2017.[119] When intermediate consumption is measured as a percentage of gross output [120] (figure 6), a general trend of reduction in intermediate consumption in favour of an increase in gross output is observed for 2017. This may imply that the industry is adding more value than in the past. This finding may apply to almost all subsectors except the manufacture of articles of fur (ISIC 1420) and luggage, handbags and the like (ISIC 1512). It is worth noting that the manufacture of luggage and handbags (ISIC 1512) and the manufacture of articles of fur (ISIC 1420) experienced the largest decline in intermediate consumption of CAGR -6 per cent, followed by the manufacture of made-up textile articles, except apparel (ISIC 1392) in the period (2014-2017) (figure 7).

Figure 6: Garment and leather sector intermediate consumption as a percentage of gross output (2014-2017)



116 Calculated using Department of Statistics (2019c) data.
117 Intermediate consumption measures goods and services consumed as inputs during production, excluding fixed assets. In the carpet industry this could be yarns and, in relation to garments, it could be fabrics, trims and accessories, and packaging material.
118 Department of Statistics (2019c).
119 Department of Statistics (2019c).
120 Calculated using Department of Statistics (2019c) data.

Figure 7: Garment and leather sector intermediate consumption (2014-2017), in US$M



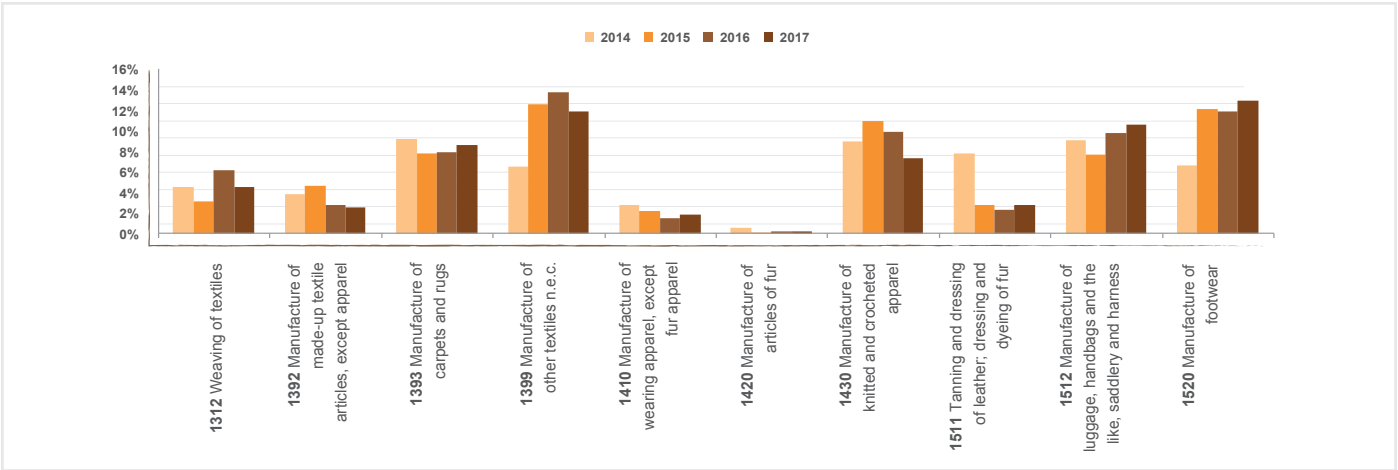
Department of Statistics (2019e) Conversion JD/$=0.708

5.2.4 Taxes on production

The garment and leather sector accounts for 2.4 per cent[121] of total taxes on production for industrial activities in Jordan, which amounted to US$2.1 billion[122] in 2017. Taxes on production in the sector were US$48.9 million in 2017, with a compound annual growth rate of 28 per cent for the period 2014-2017.[123]

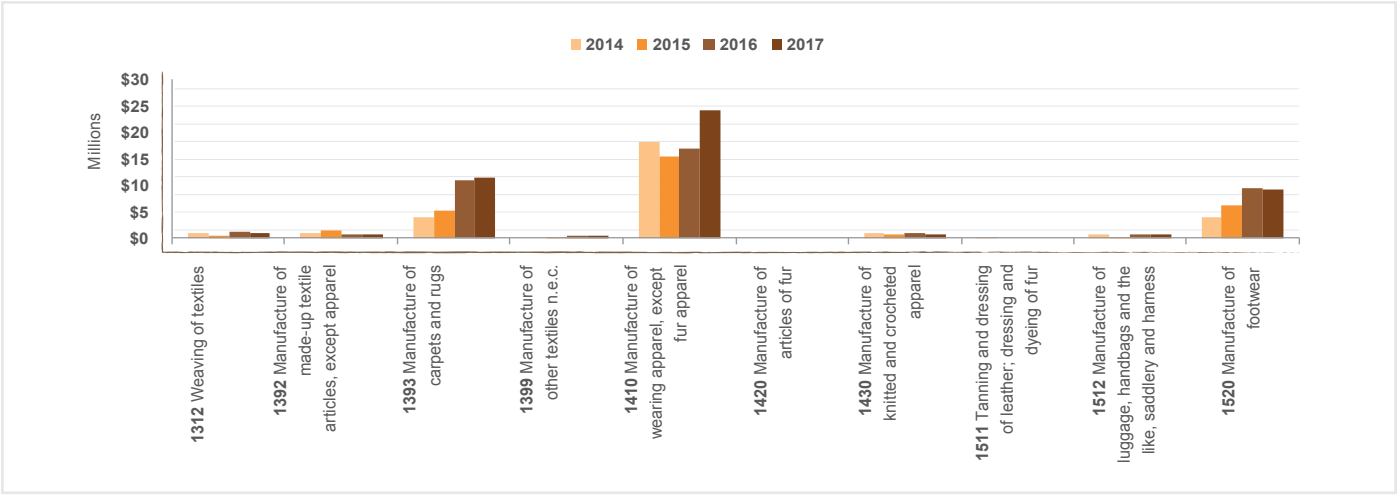
Taxes on production as a percentage of gross output is highest for the manufacture of other textiles (ISIC 1399), the manufacture of footwear (ISIC 1520) and the manufacture of carpets and rugs (ISIC 1399) (figure 8).[124] Though the manufacture of wearing apparel, except fur apparel (ISIC 1410) pays lower taxes measured against gross-output, in absolute figures this subsector is the leading tax contributor, followed by carpets and rugs (ISIC 1393) (figure 9).[125]

Figure 8: Garment and leather sector taxes on production as a percentage of production output (2014-2017)



121 Calculated using Department of Statistics data (2019c).
122 Calculated using Department of Statistics data (2019c).
123 Calculated using Department of Statistics data (2019c).
124 Calculated using Department of Statistics (2019c) data.
125 The manufacture of wearing apparel, except fur apparel (ISIC 1410) is a leading export-oriented sector that benefits from the 100 per cent income tax exemption on export profits. Though the production output of this subsector is high, the export tax exemption means that it pays lower taxes measured against gross output. The export tax exemption was cancelled with the introduction of the new tax law No. 38 of 2018, in effect from the 2019 tax year.

Figure 9: Garment and leather sector taxes on production (2014-2017), in US$

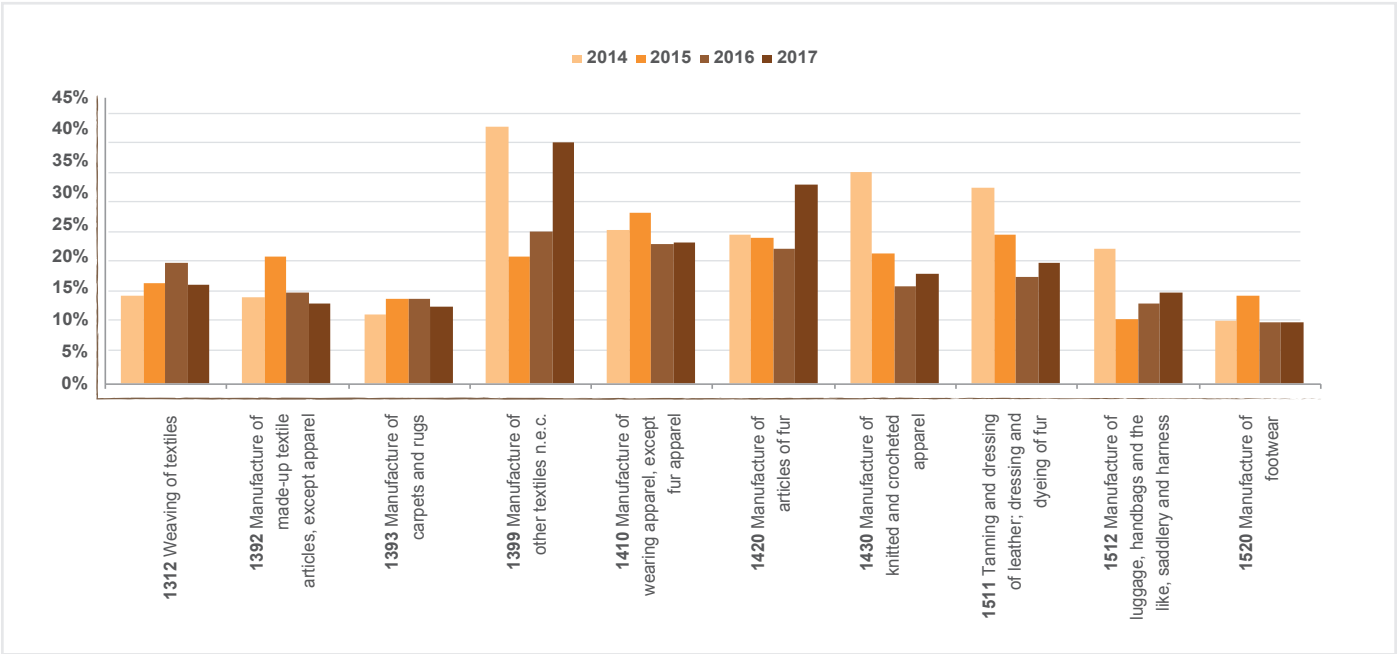


Department of Statistics (2019e) Conversion JD/$=0.708

5.2.5 Total worker compensation

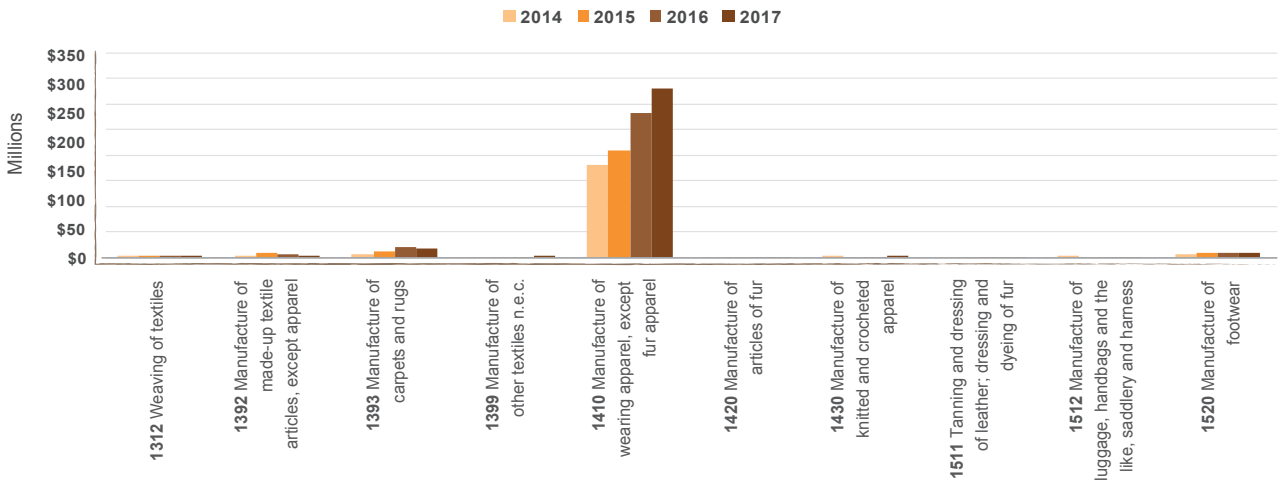
Total worker compensation in the garment and leather sector was US$328 million in 2017, accounting for nearly 12 per cent of total employee compensation in the industrial sector,[126] with a compound annual growth rate of 21 per cent for the period 2014-2017[127] (figures 10 and 11).

Figure 10: Worker compensation as a percentage of production output, (2014-2017)



126 Department of Statistics (2019c).
127 Department of Statistics (2019c).

Figure 11: Garment and leather sector - total worker compensation (2014-2017), in US$



Department of Statistics (2019e) Conversion JD/$=0.708

5.3 Summary

A closer look at the subsectors shows a decline in the manufacture of made-up textile articles, except apparel (ISIC 1392), the manufacture of knitted and crocheted apparel (ISIC 1430) and the weaving of textiles (ISIC 1312).[128] The figures further demonstrate promising growth in the manufacture of carpets and rugs (ISIC 1393), the manufacture of other textiles n.e.c. (ISIC 1399) and the manufacture of wearing apparel (ISIC 1410). Relative growth in the manufacture of leather and related products, mainly the manufacture of footwear (ISIC 1520) is evident.

128 International buyers source their fabrics and trims in countries such as Korea, China, Turkey, Taiwan and Indonesia. Usually these suppliers are prequalified by the buyer.

Table 10: Garment and leather industrial survey summary table, in CAGR (2014-2017)							
ISIC	Main Activity	Gross Output	Gross Value Added	GFCF	Intermediate Consumption	Taxes on production	Total employee compensation
13	**Manufacture of textiles**	**26%**	**19%**	**176%**	**33%**	**31%**	**27%**
1312	Weaving of textiles	-6%	-7%	60%	-5%	-6%	-3%
1392	Manufacture of made-up textile articles, except apparel	1%	2%	-58%	1%	-11%	-1%
1393	Manufacture of carpets and rugs	47%	37%	312%	54%	43%	53%
1399	Manufacture of other textiles n.e.c.	41%	45%	-71%	34%	71%	38%
14	**Manufacture of wearing apparel**	**26%**	**28%**	**67%**	**24%**	**10%**	**22%**
1410	Manufacture of wearing apparel, except fur apparel	26%	29%	70%	24%	10%	22%
1420	Manufacture of articles of fur	12%	27%	-	-6%	-13%	23%
1430	Manufacture of knitted and crocheted apparel	4%	4%	-24%	4%	-3%	16%
15	**Manufacture of leather and related products**	**6%**	**14%**	**43%**	**3%**	**29%**	**2%**
1511	Tanning and dressing of leather; dressing and dyeing of fur	17%	15%	-	18%	-17%	0%
1512	Manufacture of luggage, handbags and the like, saddlery and harness	-1%	6%	-	-6%	4%	-13%
1520	1520 Manufacture of footwear	6%	15%	43%	3%	33%	5%
	Total G&L	24%	26%	90%	23%	18%	21%

Calculated using Department of Statistics.2019c.

5.4 G&L Sector in light of COVID-19

The Garment & Leather sector, as part of the industrial sector has been affected negatively by the COVID-19 pandemic and is currently in a very difficult state. Firms within the sector depend both on exports or local sales, depending on the type of firm and its production lines. Both types have been impacted to different extents by the crisis. The majority of firms consulted reported zero sales during the months of March and April. This was exacerbated by major problems in the supply chain, and access to raw materials, that resulted in a poorer production quality.

Within the local market, the garment & leather sector was not considered as an essential sector, in comparison to that of the medical or food sectors for example. Thus regulations were eased on the sector at a later stage. However, even when the sector became partly operational, there was little to no-demand from the local market. This was caused by a combination of a weakening of the purchasing power of consumers,

coupled with the shift of demand to more “essential”-perceived products. Additionally, although local vendors expected their sales to increase slightly, due to the lower availability of imported products, that was not the case, as consumers did not view garments as an essential product to purchase. Furthermore, restrictions on retailers opening their shops, for instance the unavailability of fitting rooms, has affected the demand on garments even further.

Exporting firms, on the other hand, have faced similar if not more severe negative effects from the corona pandemic. According to Mr. Farhan Afram, president of JGATE over 80 percent of exports are to the USA, due to the FTA signed with Jordan. However, there has been no demand from the USA market due to the pandemic, and it there are no new orders expected before the end of year. This has brought production and operations to almost a full-stop. Even with the firms that export to the MENA region, they have faced similar problems, as exporting by land, especially to Palestine and Iraq, has been very difficult. Procedures are now much more complicated, specifically on the borders. This has caused extensive delays in delivery times. Nonetheless, sector representatives believe that they should increase exports to countries within MENA, at the current time, as is easier to reach them, and there is still some demand.

There has been cooperation between sector representatives and the Chamber of Industry and Commerce to manage this crisis. However, there is a need for further consultation with the Federation of Trade Unions, to help manage the crisis on the ground. Specifically, for the exporting firms, JGATE association is conducting weekly meetings to reassess the situation in the sector, and to focus on improving the quality and promoting Jordanian products in different countries. The upcoming months will be considered a “period of recovery” for the Garment & Leather sector, post the two months complete closure that was inflected at the beginning of the COVID-19 Pandemic.

6 Garment and leather sector: trade patterns and trends

The garment and leather sector is a net exporter that grew steadily during the period 2014-2018 at a compound annual growth rate of 9.48 per cent[129] for exports and 2.17 per cent for imports. Total exports in 2018 were US$1.82 billion, compared to US$1.39 billion in 2014, while imports were US$1.45 billion in 2018, compared to US$1.36 in 2014 (figure 12).

Figure 12: Garment and leather sector trade (2014-2018), in US$M

Source: UN Comtrade and ITC

As already stated, the garment and leather sector accounts for 28 per cent of Jordan's domestic exports and 84 per cent of exports to the United States, according to an analysis of ITC Trade Map data for 2018.[130] The primary commodity exported from Jordan is apparel and clothing accessories, knitted or crocheted (HS 61), which amounted to US$1.66 billion in 2018, accounting for 91 per cent of total exports in the sector for that year. The United States accounts for 87 per cent of Jordanian exports of this commodity. The top imported commodity in this sector is fabric, knitted or crocheted (HS 60) to the value of US$586.9 million, 49 per cent of total imports of this commodity coming from China (table 11). The imported knitted fabric is used in the manufacture of garments exported under HS61.

129 Calculated using the ITC Trade Map (2019).
130 Trade data for 2018 was the latest published by the ITC at the time of writing.

Table 11: Main trading partners of the Jordanian garment and leather sector, 2018, percentage of trade

HS Code	Jordan top Export Destination			Jordan Top Source of Imports		
	Country	Value US$	% world	Country	Value US$	% world
41 Raw Hide & Skin	Turkey	2,015,000	53%	India	238,000	51%
42 Articles of leather	Saudi Arabia	552,000	31%	China	21,508,000	71%
43 Furskin & artificial fur	Saudi Arabia	383,000	100%	France	37,000	36%
50 Silk		-	0%	UK	29,000	83%
51 Wool, fine coarse animal hair	India	201,000	68%	Italy	4,369,000	47%
52 Cotton	Palestine	314,000	55%	India	4,711,000	33%
53 Vegetable textile fibres	Free Zones	3,000	100%	Bangladesh	4,641,000	87%
54 Man-made filaments	Syria	1,069,000	27%	China	50,916,000	50%
55 Man-made stable fibres	Free Zones	1,283,000	44%	China	27,046,000	31%
56 Wadding, felt and nonwovens	Egypt	1,548,000	54%	Saudi Arabia	8,220,000	26%
57 Carpets and other textiles	Saudi Arabia	14,151,000	58%	Turkey	17,478,000	61%
58 Fabrics; special woven fabrics	Iraq	299,000	35%	China	26,806,000	50%
59 Textile fabrics; impregrnated, coated...	Turkey	1,261,000	36%	China	4,796,000	46%
60 Fabrics; knitted or crocheted	Free Zones	1,835,000	25%	China	285,079,000	49%
61 Aparel & clothing; knitted or crocheted	USA	1,442,478,000	87%	China	142,802,000	48%
62 Apparel and clothing; not knitted or crocheted	USA	79,913,000	86%	China	36,078,000	46%
63 Textiles made up articles; sets; worn clothing..	USA	5,732,000	35%	China	9,989,000	23%
64 Footwear; gaiters and the like	Egypt	1,458,000	31%	China	49,025,000	72%

Calculated using ITC Trade Map (2019)

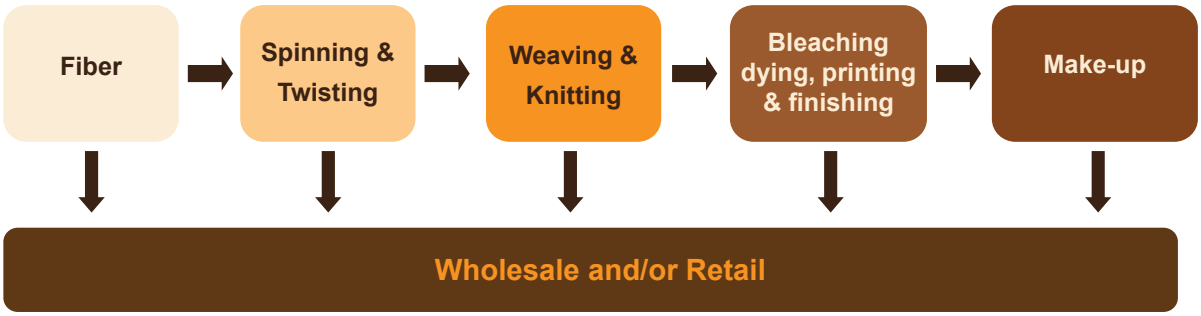
The specific trade patterns for the main product groups in the sector are outlined below.

6.1 Ready-made garments

Exports of ready-made garments (HS 61 – apparel and clothing, knitted or crocheted) amounted to US$1.66 billion[131] in 2018, accounting for 91 per cent of the sector's total exports for the year. In the same year, imports of products classified under HS 61 were US$298.2 million. Interestingly, imports of HS 60 (fabrics knitted or crocheted), which are inputs needed for the manufacture of knitted apparel, amounted to US$587 million[132] in 2018, accounting for 41 per cent of total imports in the sector. This reveals an industrial value chain in which knitted fabrics are imported rather than produced locally, which demonstrates a weak value chain in this industry. The value chain diagram (figure 13) shows that Jordan competes in the make-up of garments only to export to the United States (table 13).

131 ITC (2019).
132 ITC (2019).

Figure 13: Textiles and garments value chain



6.2 Textiles and yarns[133]

In 2018, Jordan's imports of textiles and yarns[134] (excluding carpets and rugs) amounted to $836 million and exports to US$18 million,[135] of which US$12.5 million (70 per cent) were re-exports of imported fabrics and yarns. This further demonstrates Jordan's dependence on imported raw material for the manufacture of garments.

6.3 Carpets and floor covering

Exports of carpets and floor covering continued to grow, despite a slow-down in 2015-2016, reducing the trade deficit in this commodity from US$18 million[136] in 2014 to US$4 million in 2018. In 2018, exports of carpets and floor covering (HS 57) amounted to US$24.4 million and imports to US$30.5 million. The findings show that the carpets and floor covering industry has a growing global market share, demonstrated by the steady growth of exports since 2014. This growth is also visible in the industrial indicators reviewed earlier. The industry has a weak industrial value chain that results from the absence of domestic yarn production, however, as explained under textiles yarns above.

6.4 Leather goods and accessories

This group of products includes footwear (HS 64) and leather accessories (HS 42). Trade data from 2018 show that there is a large trade deficit, mainly for footwear (HS 64), of US$63 million.[137] In 2018, footwear (HS 64) exports in 2018 amounted to US$4.7 million and imports US$68.1 million. Moreover, Jordan seems to have some excess raw leather material HS 41 (raw hides and skin) that is exported unfinished to Turkey,[138] rather than processed domestically to complement the domestic value chain in the footwear and leather industry.

133 HS 57 was excluded from the textiles and yarns section since it is included in a separate section under 5.3 carpets and floor covering.
134 Textiles and yarns include HS (50-60), but the main textile used as a production input in the manufacture of apparel is HS 60 since Jordan exports more apparel and clothing accessories, knitted or crocheted (HS 61) (see figure 12).
135 UN Comtrade (2019).
136 ITC (2019).
137 ITC (2019).
138 See table 6 Jordan's main trading partners.

7 Industrial survey results (demand-side survey):

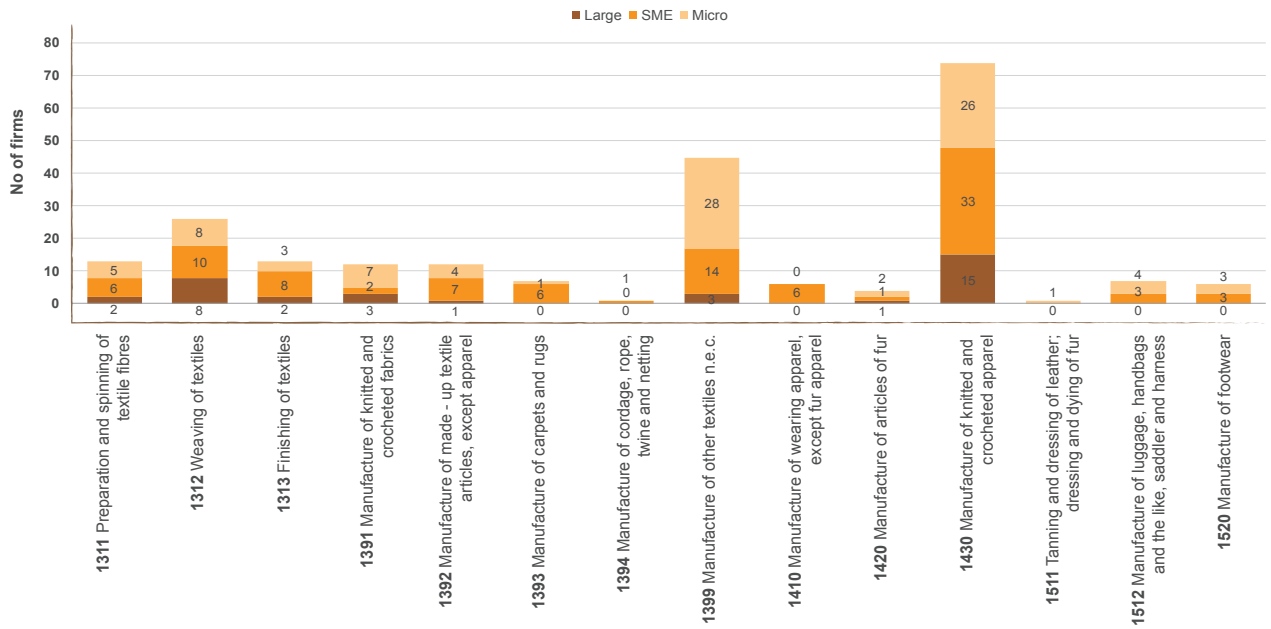
A representative sample of 229 garment and leather sector firms accounting for 27 per cent of the total 856 firms was surveyed.

7.1 Profile of the garment and leather firms surveyed

7.1.1 Distribution of garment and leather firms by size and subsector

The majority of large firms operate solely or primarily in ISIC 1430 manufacture of knitted and crocheted apparel (15 firms) and ISIC 1312 weaving of textiles (8 firms). SMEs operate across all subsectors but mainly: ISIC 1430 manufacture of knitted and crocheted apparel (33 firms) and ISIC 1399 manufacture of other textiles n.e.c. (14 firms). Microenterprises operate across most subsectors, but mainly: ISIC 1399 manufacture of other textiles (28 firms) and ISIC 1430 manufacture of knitted and crocheted apparel (26 firms).

Figure 14: Distribution of garment and leather firms surveyed by size and subsector



7.1.2 Distribution of garment and leather firms by size and geography

The representative sample of garment and leather firms is divided into 35 large firms, 102 SMEs and 92 microenterprises. The majority of firms are located in the capital city of Amman (74 per cent), Irbid (18 per cent) and Zarqa (7 per cent). Only one firm was surveyed in each of the cities of Kerak, Madaba and Al Mafraq. The majority of firms in Amman are located in the industrial zones of Sahab, Maraka and Mowaqar Industrial City. In terms of size, large firms are located in Amman, Irbid and Zarka, SMEs are centralized in Amman, Irbid and Zarqa, while microenterpises are located primarily in Amman (figure 15).

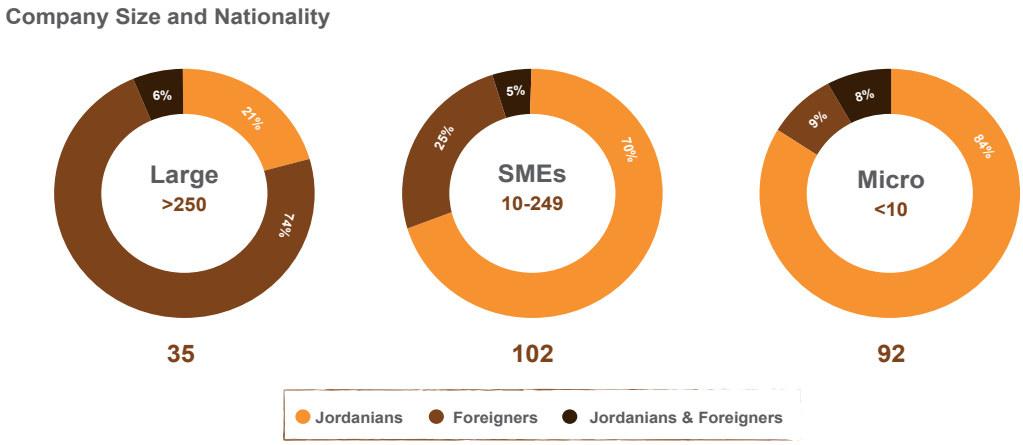
Figure 15: Distribution of firms by size and geography

Size/Location	Irbid	Amman	Az Zarqa
>250 Large	13	13	8
20-249 Medium	19	76	4
<10 Micro	8	81	3

7.1.3 Distribution of garment and leather firms by nationality of ownership

The majority of the 229 firms surveyed are owned by Jordanians (68 per cent). Foreign ownership is mainly concentrated in large firms (28 firms). Jordanian ownership is mainly concentrated in microenterprises (77 firms) and SMEs (72 firms). Joint foreign/Jordanian ownership is evident across the whole spectrum (figure 16).

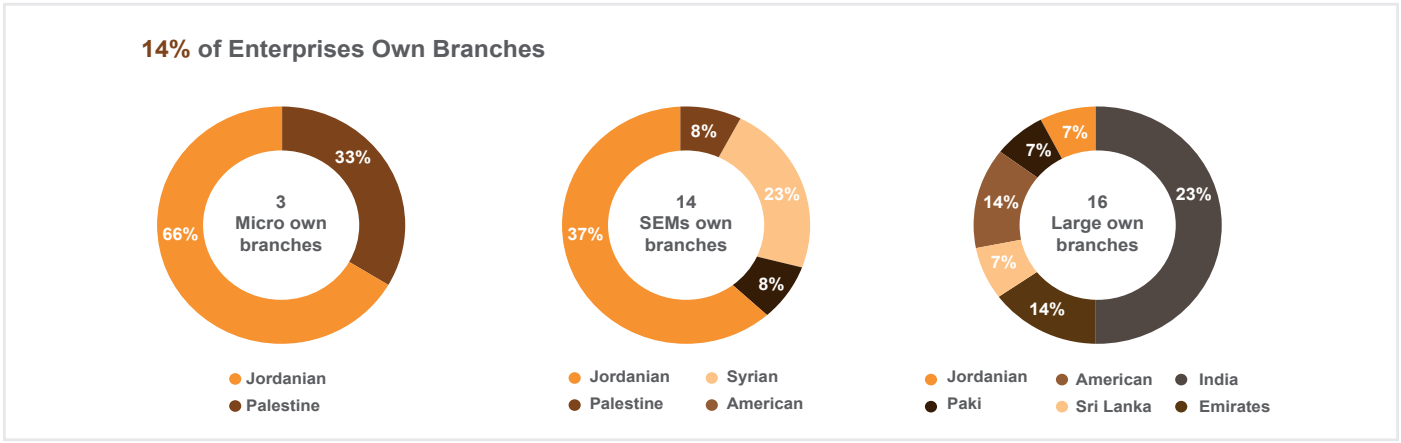
Figure 16: Distribution of firms by nationality of ownership



7.1.4 Garment and leather firms that own branches distributed by size and nationality of ownership

Of the total 229 firms surveyed, only 14 per cent (32 firms) own separate branches in the Kingdom. Nearly half of these are owned by larger factories, mainly by Indian investors. SMEs and microenterprises that have branches in Jordan (16 firms) are owned primarily by Jordanian, Syrian and Palestinian investors (figure 17).

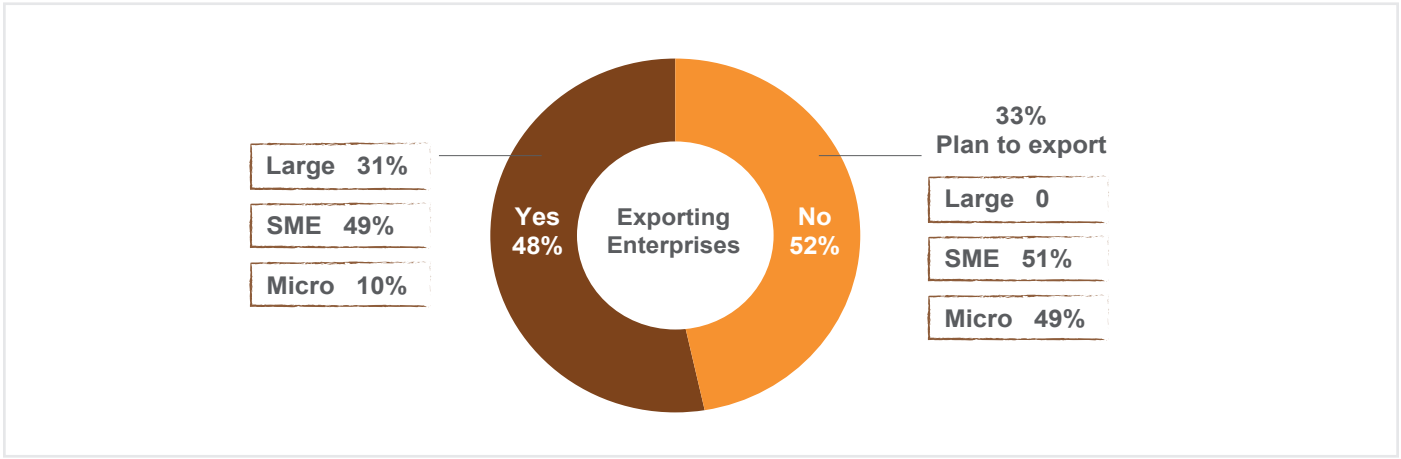
Figure 17: Firms with branches distributed by size and nationality of ownership



7.1.5 Garment and leather firms exporting or planning to export

Nearly half of the firms surveyed (110 firms) are exporters. These include the 35 large firms, 59 per cent of SMEs and 10 per cent of microenterprises. Of the non-exporters, only one third (39 firms) plan to export; half are SMEs and microenterprises.

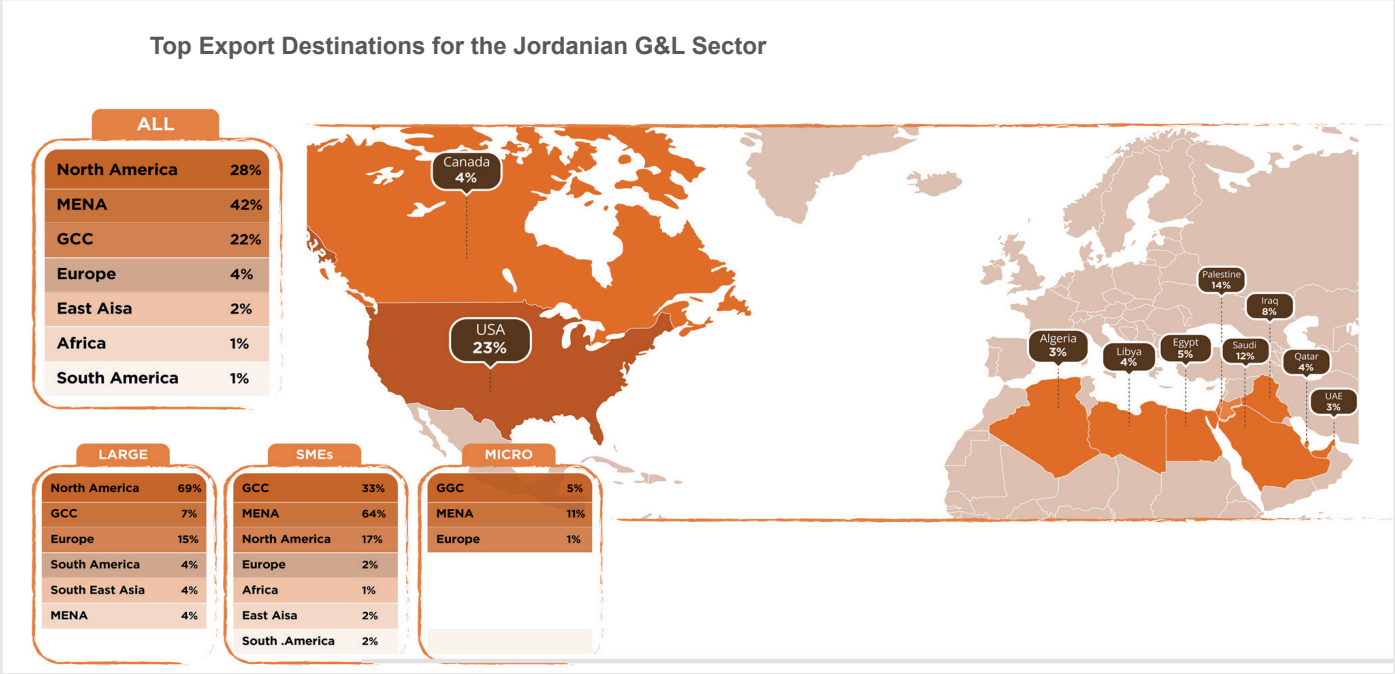
Figure 18: Exporting firms and those planning to export



7.1.6 Garment and leather exports by destination countries, regions and size of exporting firms

The top export destinations differ according size of firm: larger firms export to North America (mainly the United States) and Europe, while SMEs and microenterprises export mainly to GCC and MENA countries (figure 19).

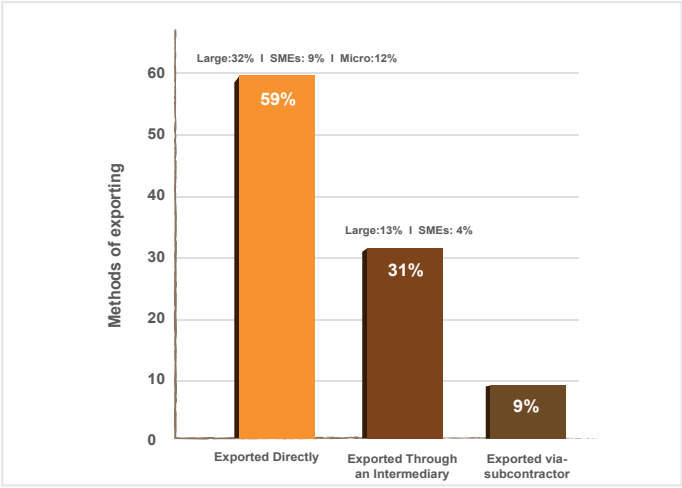
Figure 19: Exports by destination countries, regions and size of exporting firms, 2018-2019



7.1.7 Garment and leather export modality

It is mainly large firms (59 per cent) that export directly rather than through an intermediary or subcontractor. Only 31 per cent of firms export through intermediaries (shipping agents, etc.), and only 9 per cent export through subcontractors. Subcontracting of export activities is low in the sample, and the majority of exports are undertaken directly by the manufacturing firm or intermediaries (figure 20).

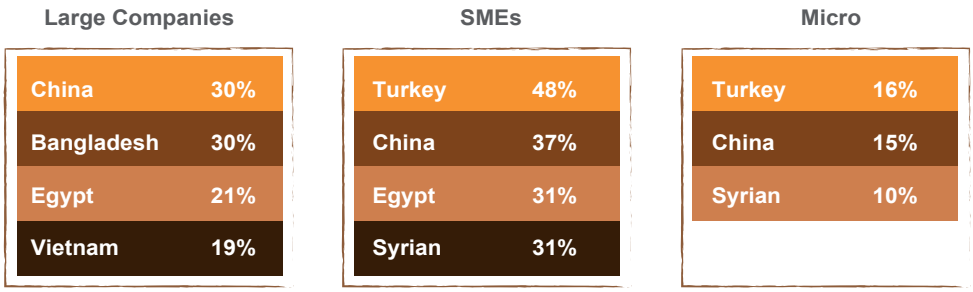
Figure 20: Garment and leather export modality



7.1.8 Garment and leather competition

As discussed earlier and according to the survey findings, all large firms are exporters (total of 34 large firms). Since large firms export mainly to North America and the EU, they constitute part of the global value chain of the industry. The competitors of large firms are therefore mainly CMT, CMP and FOB mass manufacturers in China, Bangladesh, Egypt and Viet Nam. SMEs and microenterprises export mainly to GCC and MENA countries; their competitors are mainly Turkey, China, Egypt and Syria, which sell finished products (branded or non-branded) in these markets (figure 21).

Figure 21: Garment and leather competitors identified by respondents – share of respondents identifying different competitor countries



7.1.9 Garment and leather exports and domestic sales by type of product

The top three products exported by the firms surveyed are Islamic dress, cotton dress and fabrics. It is worth noting that the statistical data shows that, in 2018, Jordan's exports of apparel and clothing knitted or crocheted (HS 61) amounted to US$1.66 billion, accounting for nearly 91 per cent of total garment and leather exports (figure 22).

Figure 22: Types of products exported and sold domestically

7.2 Garment and leather employment by occupation, gender and nationality

This section of the survey presents the breakdown of employment in the garment and leather firms surveyed by occupation, gender and nationality. The survey looks at current and future employment in the sector's priority occupations as defined by the G&L NSSC. These include a total of 39 occupations divided into six subsectors (table 12).

Table 12: Priority occupations summary [139]

Industry	Priority occupation			
Manufacture of garments linens	1.	Multi-skilled sewer	6.	Ironing and pressing operator
	2.	Production supervisor	7.	CAD technician
	3.	Production planning and control	8.	Cutter
	4.	Quality assurance	9.	Embroidery application developer
	5.	Quality controller	10.	Embroidery machine operator
Textile weaving	11.	Ball warpers	14.	Dye colour heat setting RAM machine operator
	12.	Dyeing lab technician	15.	Denim washing and aging machine operator
	13.	Dyeing machine operator	16.	Fabric polishing machine operator
Textile knitting and tricot	17.	Knitting machine operator	19.	Pressing machine operator
	18.	Linking machine operator	20.	Knitting machine programmer
Leather shoes and accessories	21.	Shoe designer/modellist	24.	Upper shoe sewing machine operator
	22.	Shoemaker	25.	Multi-sewing machine operator for shoes
	23.	Upper shoe cutting operator	26.	Leather bag sewers (school bags, women bags and messenger bags)
Leather tanning and leather garments	27.	Leather technologist (university graduate)	31.	Leatherwear designer (apparel, gloves)
	28.	Leather tanning machine operator	32.	Leather liming machine operator
	29.	Leather dyeing technician	33.	Pattern-maker (leatherwear)
	30.	Leather fleshing machine operator		
Carpet manufacture	34.	Carpet loom machine operator	37.	Carpet linking and gluing technician
	35.	Carpet weaving machine operator	38.	Carpet shearing machine operator
	36.	Carpet looping machine operator	39.	Carpet-mix chemical technician

7.2.1 Total employment in priority occupations at companies surveyed

According to the survey results, employment in the pre-defined priority occupations in the companies surveyed was 42,233 workers in 2018, representing around 61 per cent of total employment in the Jordanian garment and leather sector in that year.[140] Migrant workers account for 66 per cent of the workforce in these priority occupations and Syrians for 4 per cent of workers. Jordanians account for 30 per cent of workers, 20 per cent female and 10 per cent male (table 13)

138 For detailed description of duties per occupation please refer to Annex I.
140 Total employment in the garment and leather sector was 69,605 workers in 2019.

Table 13: Garment and leather priority occupations by number of workers in companies surveyed, 2018

	Priority occupation	Total employment	Jordanian male	Jordanian female	Total Jordanian	Migrant	Syrian
1	Multi-skilled sewer	31,624	2,669	6,326	8,995	21,487	1,142
17	Knitting machine operator	4,101	280	942	1,222	2,812	67
10	Embroidery machine operator	1,064	34	272	306	756	2
13	Fabric dyeing machine operator	1,004	12	270	282	721	1
38	Carpet shearing machine operator	400	399	1	400	0	0
6	Ironing and pressing operator	507	97	6	103	279	125
8	Cutter	748	152	67	219	520	9
5	Quality controller	829	65	112	177	588	64
2	Production supervisor	692	136	135	271	418	3
45	Production worker	170	50	120	170	0	0
4	Quality assurance	171	13	14	27	137	7
3	Production planning and control	386	72	76	148	215	23
35	Carpet weaving machine operator	186	153	3	156	18	12
19	Pressing and ironing machine operator (knits/woven)	148	55	3	58	61	29
7	CAD technician	30	2	10	12	18	0
37	Carpet linking and gluing technician	36	28	4	32	3	1
36	Carpet looping machine operator	20	12	2	14	3	3
22	Shoemaker	17	14	0	14	0	3
25	Multi-sewing machine operator for shoes	10	6	0	6	1	3
34	Carpet loom machine operator	14	8	0	8	1	5
44	Finishing workers	22	1	19	20	2	0
24	Upper shoe sewing machine operator	10	7	0	7	0	3
26	Leather bag sewers (school bags, women bags and messenger bags)	6	4	2	6	0	0
9	Embroidery application developer	17	4	0	4	12	1
20	Knitting machine programmer	4	1	0	1	2	1
23	Upper shoe cutting operator	5	3	0	3	0	2
11	Ball warpers	3	0	3	3	0	0
21	Shoe designer (modellist)	2	0	0	0	0	2
27	Leather technologist (university graduate	2	2	0	2	0	0
12	Dye lab technician	1	0	0	0	0	1
16	Fabric polishing machine operator	1	0	0	0	1	0
28	Leather tanning technician	2	2	0	2	0	0
29	Leather dyeing and tanning technician	1	1	0	1	0	0
	Total	**42,233**	**4,282**	**8,387**	**12,669**	**28,055**	**1,509**

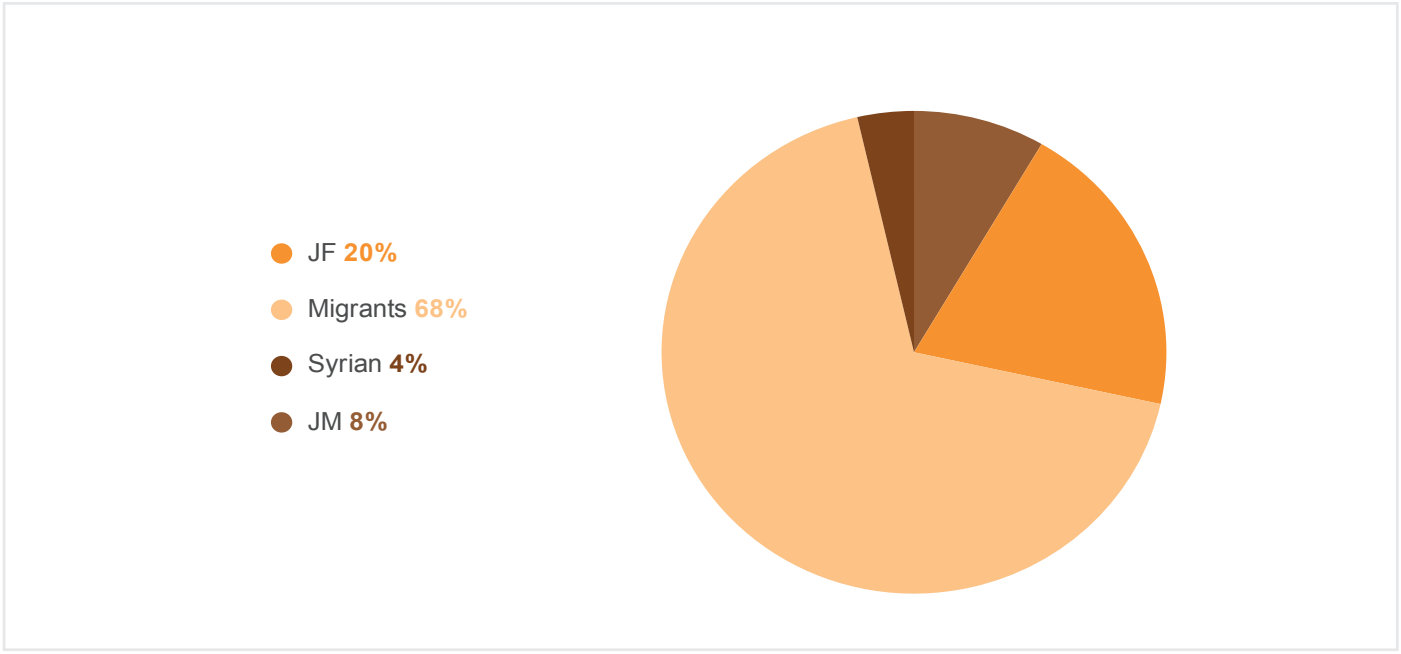
7.2.2 Garment and leather employment and occupations by gender and nationality

This section breaks down total employment in the priority occupations listed in table 8 according to: top hiring occupation, occupations hiring more than 150 workers and occupations hiring fewer than 150 workers.

Current employment in priority occupation: multi-skilled sewers

The majority of workers in the sample (75 per cent) are employed as multi-skilled sewers, who accounted for a total of 31,624 workers in 2019. Most (68 per cent) are foreign migrant workers and 4 per cent are Syrian workers. Jordanians account for only 28 per cent of workers in this occupation (20 per cent female, 8 per cent male) (figure 23).

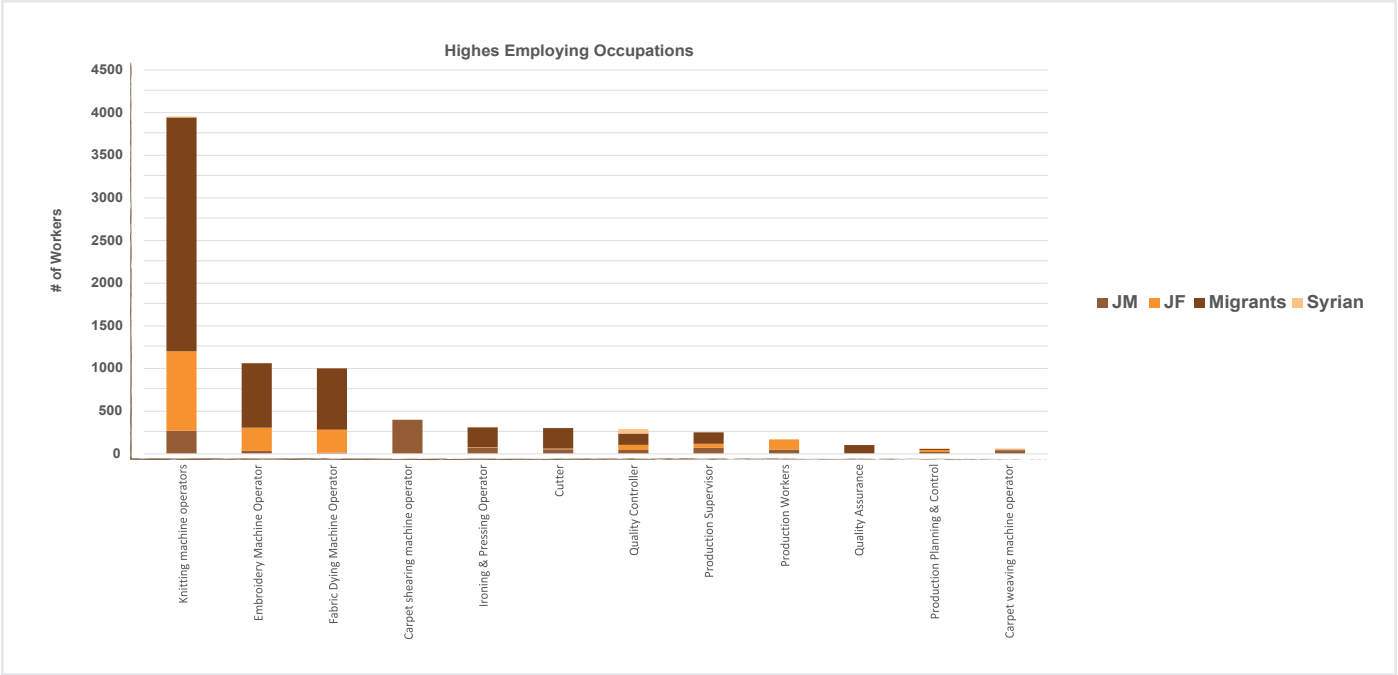
Figure 23: Multi-skilled sewers, current employment by gender and nationality



Current Employment in priority occupations employing more than 150 workers

A total of 12 other occupations employ more than 150 workers in the companies surveyed, with a total of 10,258 employees, representing 24 per cent of total workers employed in priority occupations. Around 63 per cent of workers are foreign, 3 per cent are Syrian and the remaining 34 per cent are Jordanian. Female Jordanian workers account for 20 per cent of total workers in these 12 occupations (figure 24).

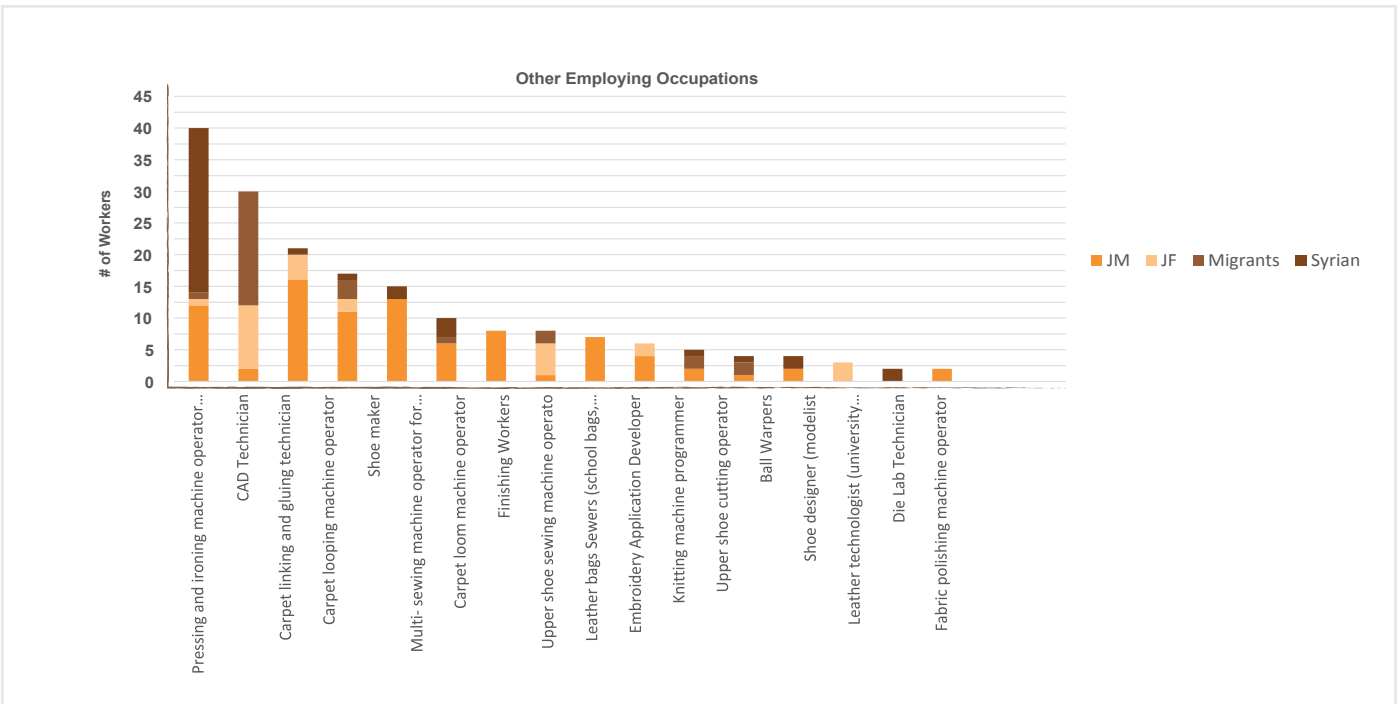
Figure 24: Priority occupations employing > 150 workers



Current employment in priority occupations employing fewer than 150 workers

A total of 20 occupations employ fewer than 150 workers per occupation in the companies surveyed, with total employment of 351 workers, representing less than 1 per cent of total workers employed in the priority occupations. Nearly one third (30 per cent) are migrant workers, 15 per cent are Syrian, and 55 per cent are Jordanian, the majority of whom are male Jordanians (43 per cent) (figure 25).

Figure 25: Priority occupations employing <150 workers



7.2.3 Garment and leather sector vacancies anticipated for 2019-2020 by companies surveyed, disaggregated by priority occupation and gender

Total anticipated job vacancies in the surveyed sample was 9,212 vacancies by 2020, broken down as follows:

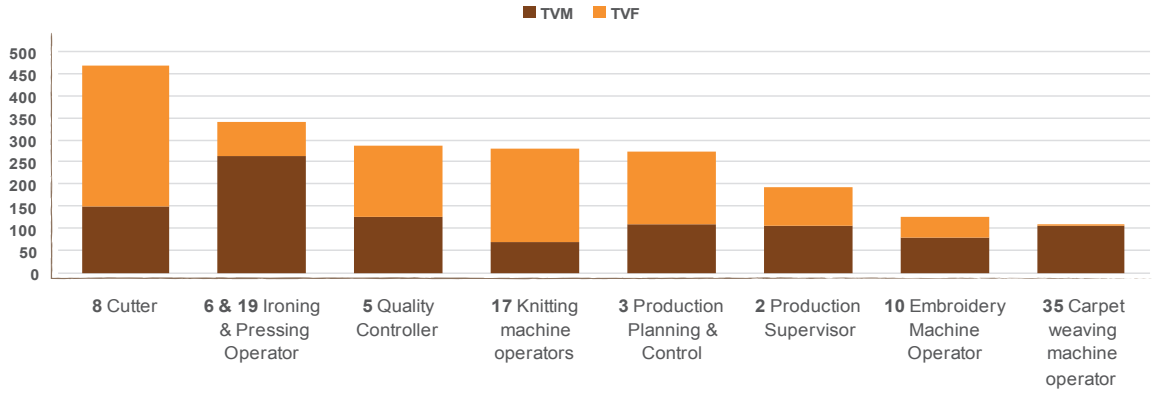
Vacancy priority occupation multi-skilled sewers by gender

Multi-skilled sewers account for nearly three quarters of total anticipated vacancies (6,871 jobs). These are predominantly anticipated to be for female workers (68 per cent).

Vacancies by priority occupation >100 workers by gender

The other priority vacancies that are anticipated to recruit more than 100 workers are mainly: cutters (470 anticipated vacancies), ironing and pressing operators[141] (342 anticipated vacancies), quality controllers (289 anticipated vacancies), knitting machine operators (283 anticipated vacancies), production planning and control (274 anticipated vacancies), production supervisors (193 anticipated vacancies), embroidery machine operators (126 anticipated vacancies) and carpet weaving machine operators (111 anticipated vacancies) (figure 26).

Figure 26: Vacancies anticipated by companies surveyed 2019-2020, for occupations with >100 projected vacancies (2019-2020), by gender

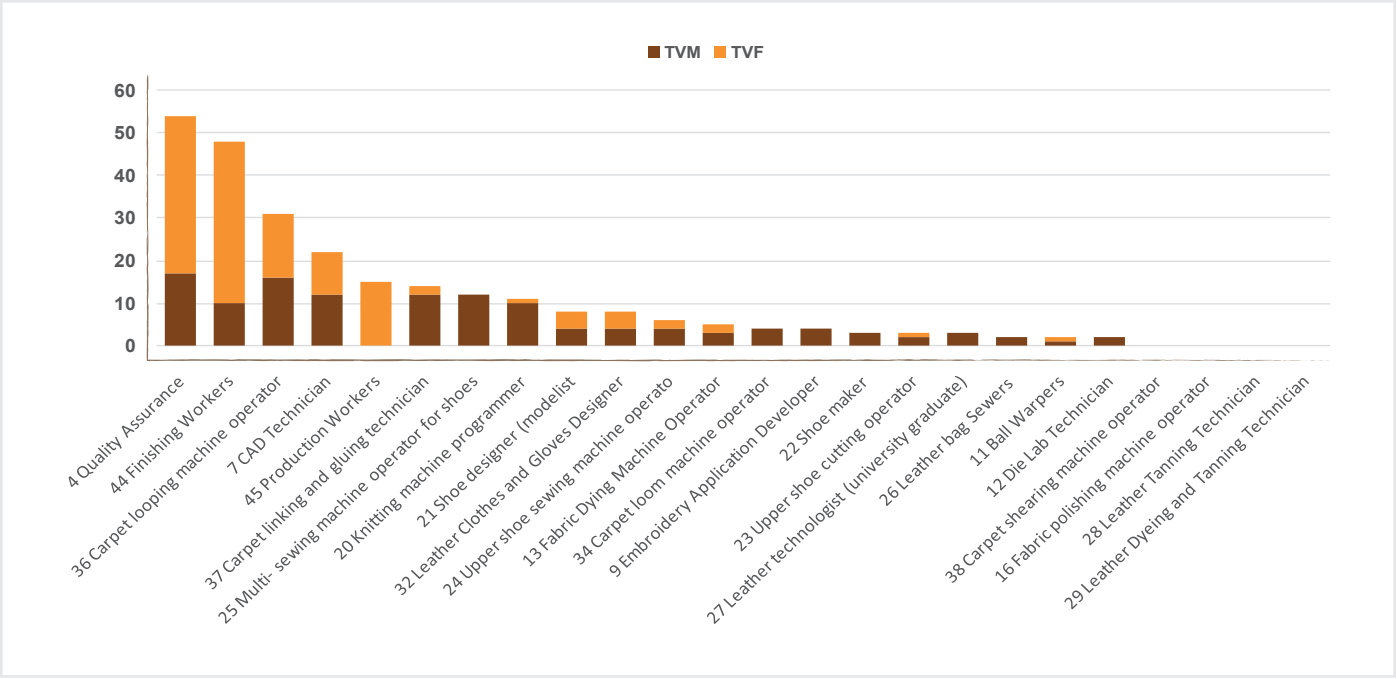


Vacancies by priority occupation <100 workers by gender

The other priority occupations employing fewer than 100 workers are: quality assurance (54 anticipated vacancies), finishing workers (48 anticipated vacancies), carpet looping machine operators (31 anticipated vacancies) and CAD technicians (22 anticipated vacancies) among others (figure 27).

141 Pressing and ironing occupation #6 and #19 were merged in the total at the request of G&L NSSC during validation.

Figure 27: Vacancies anticipated by companies surveyed 2019-2020, for occupations with <100 vacancies projected (2019-2020), by gender



Other occupations vacancies

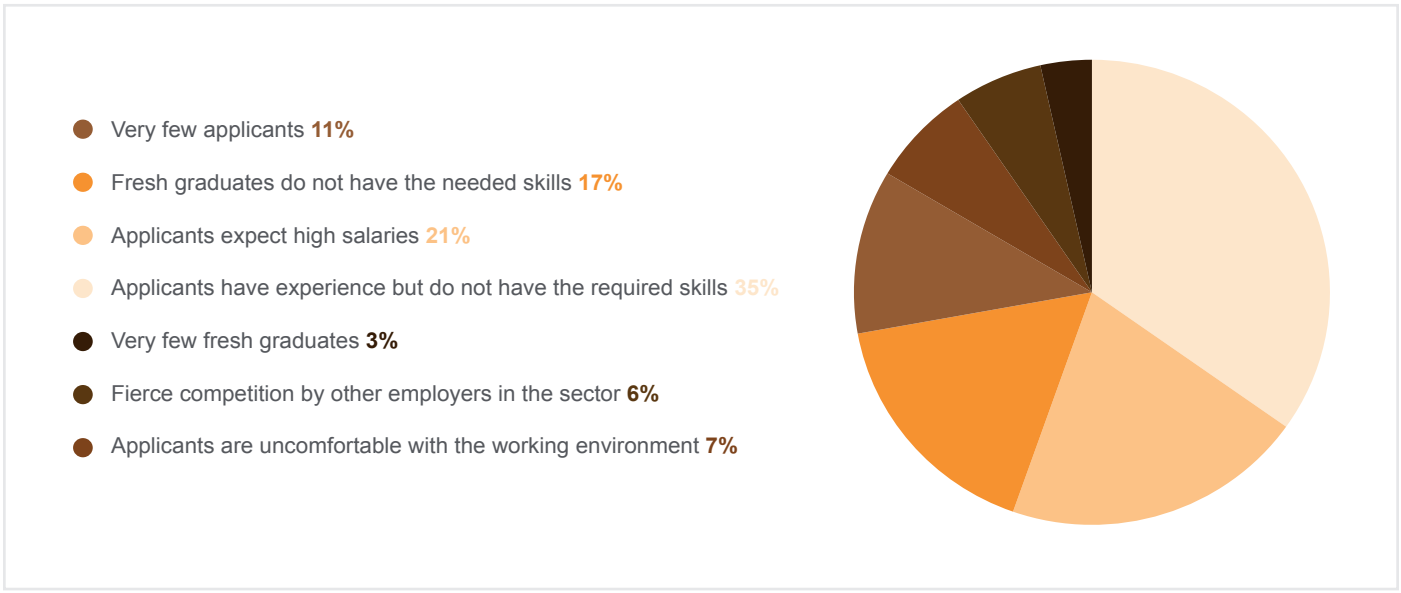
The companies surveyed also listed vacancies for occupations outside the priority occupations identified by the G&L NSSC but without vacancy figures. These occupations are mechanical engineer, warehouse workers, packing and packaging workers, salespeople and administrators.

7.3 Garment and leather recruitment, skills and collaboration with training/ education providers

7.3.1 Recruitment challenges identified by firms surveyed

The main recruitment challenge, accounting for 52 per cent of survey responses, is the lack of required skills in experienced applicants (35 per cent) and fresh graduates (17 per cent). Other recruitment challenges include high salary expectations (21 per cent) and very few applicants (11 per cent), among others (figure 28). Other challenges include difficulties obtaining work permits, difficulty hiring female workers in certain occupations and transportation difficulties.

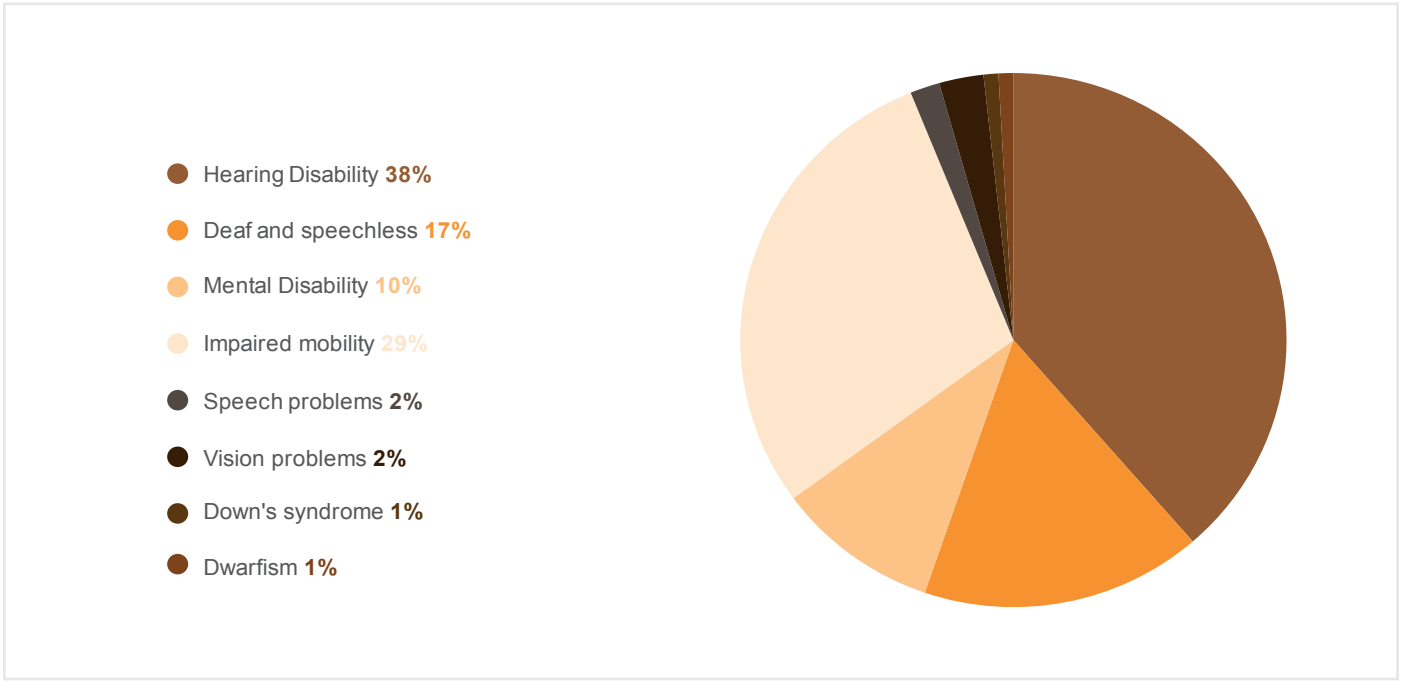
Figure 28: Garment and leather recruitment challenges



7.3.2 Hiring of people with disabilities by firms surveyed

More than half of the firms surveyed (118) reported hiring people with disabilities. More than one third of those hired had a hearing disability (38 per cent); others had impaired mobility (29 per cent), deafness and speech disabilities (17 per cent), mental disability (10 per cent). Other types of disability mentioned include sight, speech, Down syndrome, and dwarfism (figure 29).

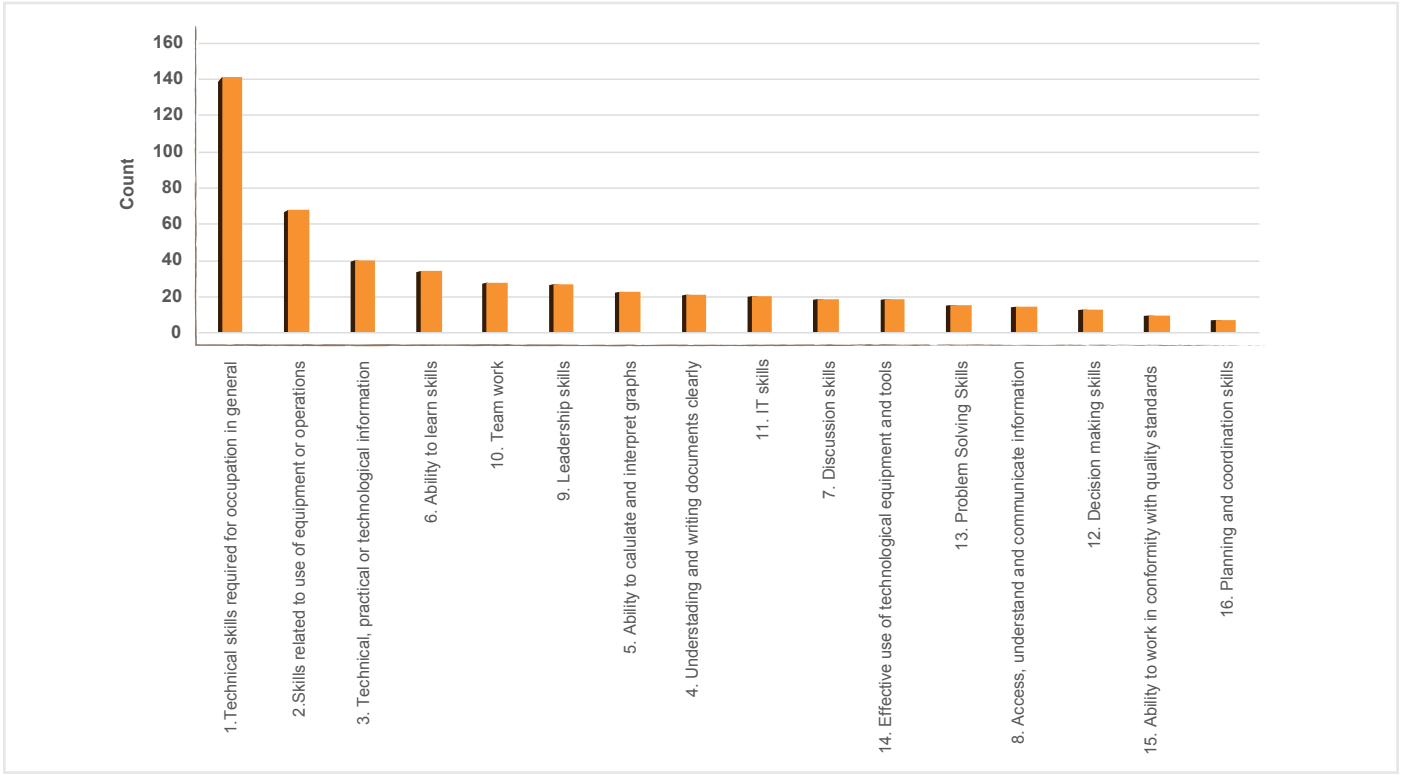
Figure 29: Garment and leather hiring by type of disability



7.3.3 Skill gaps identified by firms surveyed

60 per cent of the skill gaps identified by the firms surveyed concern: skills associated with the occupation itself; the use of equipment; technology; understanding and writing documents clearly; and the ability to conform to quality standards. The other skill gaps identified (33 per cent) are mainly employability skills concerning: teamwork and leadership skills; ability to calculate and interpret graphs; information technology (IT) skills; and comprehension skills (access, understand and communicate information). Workers' aptitude to learn new skills accounts for 7 per cent of the skill gaps mentioned (figure 30).

Figure 30: Garment and leather skill gaps



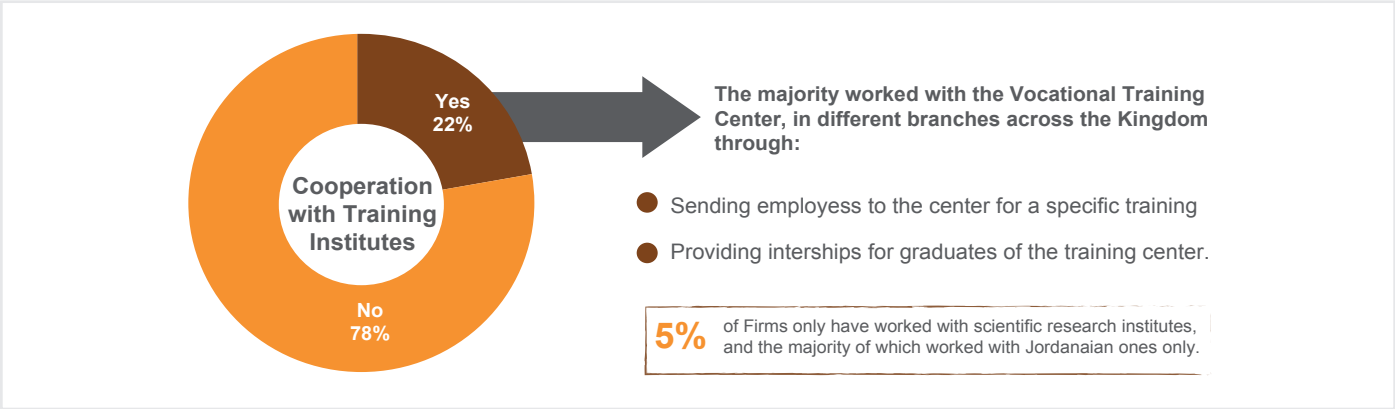
7.3.4 Collaboration with training/education providers and support institutions

Around two-thirds of respondents say they do not work with training providers (78 per cent). Less than a quarter confirmed that they have worked with training providers by: sending their employees to training; and receiving the students of training centres for internship /apprenticeship programmes. The firms attributed this weak collaboration to the lack of capacity of these institutions to provide up-skilling support to trainees.

More than half of the firms that have worked with training providers have worked mainly with the Vocational Training Centre (51 per cent); other training centres include: the Garment Design and Training Centre (JModa), Luminus, Employment Directorate of Jordan, Just and Philadelphia University training, Better Work Jordan, the Leather Association, Irbid College for Girls, Ladies of AD-Dulayl Association, the Star Foundation, the White Hands Association and Marka Sewing and Training Centre.

Only 5 per cent said they had worked with Jordanian research and development (R&D) institutions and international institutions in Europe, mainly the Netherlands. These institutions include: the Jordan armed forces lab for quality control, Better Work Jordan and the Royal Scientific Society (RSS) (figure 31).

Figure 31: Collaboration with training providers and support institution



7.3.5 Collaboration with donor-funded projects

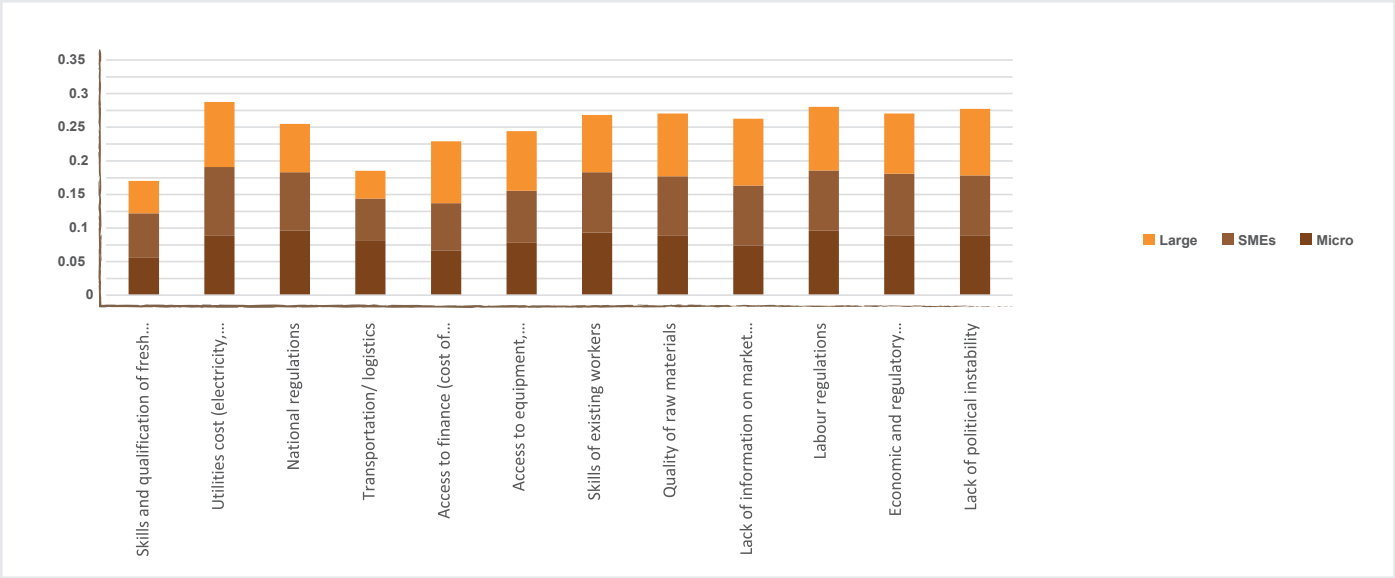
More than a quarter of respondents (26 per cent) were aware of donor-funded projects, but only 17 per cent of those have collaborated with them. Such donor projects include: an employment project in collaboration with the Irbid Chamber of Industry, workforce development project – GIZ, an industrial policy project, a solar energy project, a General Trade Union for Workers in Textile, Garment and Clothing Project; and a donor project that supports the competitiveness of factories.

7.4 Garment and leather sector challenges

Questions in the survey about challenges facing the sector were divided into two sections: doing business challenges that affect the daily operation of firms; and competitiveness challenges that affect the ability of firms to compete internationally.

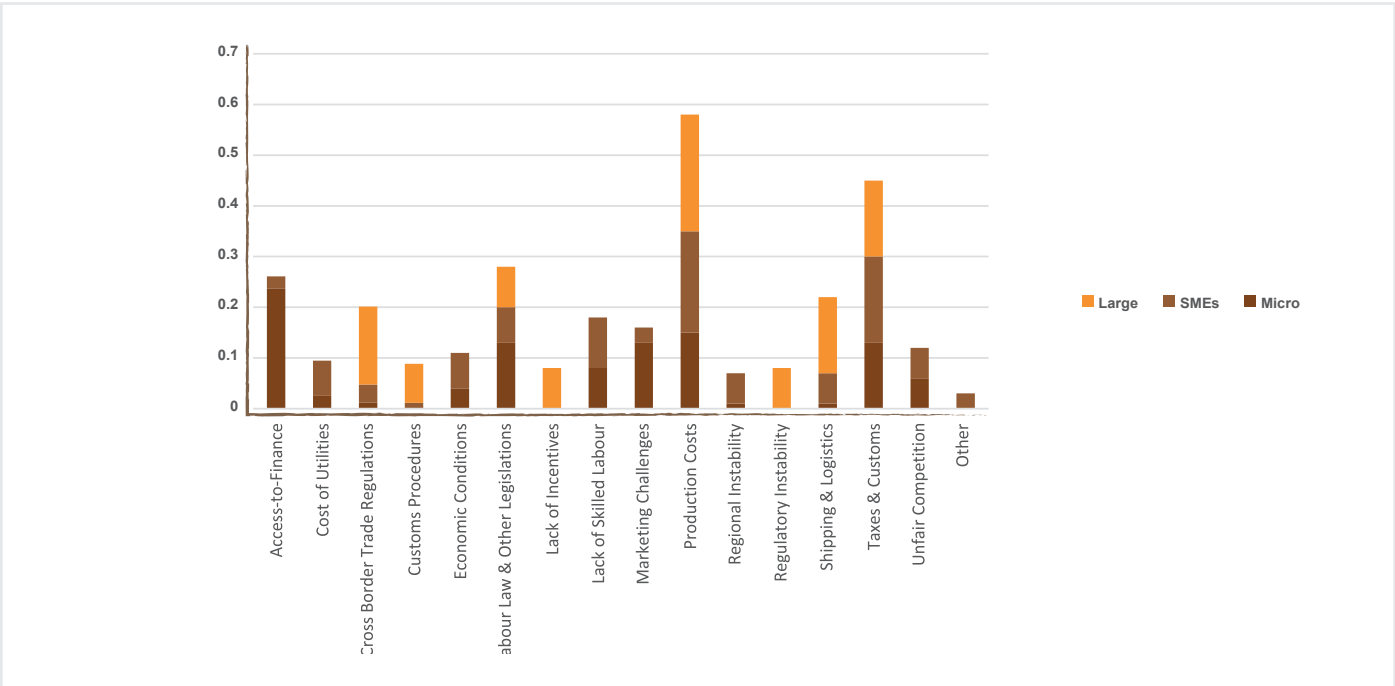
Doing business challenges. The top five doing business challenges are almost equally distributed among the whole spectrum of firms surveyed; micro, small and medium, and large. The main challenges identified by respondents are: **utility costs**, given the high cost of electricity and water; **labour regulations**, mainly high social security contributions for local and foreign workers; **political instability** in the region, which is affecting export markets and export transit routes (e.g. Syria); **quality of raw materials** as the raw materials available on the market are of inferior quality; and **skills of existing workers**, which negatively affect the quality and cost of production (figure 32). Others include lack of information on market demand, access to machinery and equipment, economic regulatory policies, national regulations, access to finance, transportation and logistics, and skills and qualifications of fresh graduates (figure 32).

Figure 32: Garment and leather doing business challenges (percentage of respondents)



Competitiveness challenges. Around 55 per cent of respondents stated that they face challenges that directly affect their international competitiveness and ability to export. These challenges are mainly attributed to: **production costs**, utility and labour costs;, equally distributed among all firm sizes; **taxes and customs**, also equally distributed among all firm sizes; **labour law and other regulations**, which is the most prominent challenge for microenterprises; **access to finance**, which is most prominent among microenterprises; and **cross-border trade and regulations and shipping and logistics costs and procedures**, which is the most prominent challenge for large exporting firms. It is noteworthy that large exporting firms identified regulatory instability, customs procedures and lack of incentives as important challenges affecting their competitiveness (figure 33).

Figure 33: Competitiveness challenges



8 Survey of training providers survey (supply side)

In-depth interviews were conducted of a sample of ten training/education providers selected by the G&L NSSC from the private and public sectors: five universities and five training institutions (table 14).

Table 14: List of training/educational providers interviewed by ownership and accreditation level

Institute	Institution ownership	Accreditation
Universities		
Luminus Technical University College	Private (Jordanian)	Accreditation and Quality Assurance Commission for Higher Education Institutions
University of Jordan	Government	ABET (Engineering Accreditation Commission)
Balqa Applied University	Government	Accreditation and Quality Assurance Commission for Higher Education Institutions
Yarmouk University	Government	Accreditation and Quality Assurance Commission for Higher Education Institutions
Jordan University for Science and Technology	Government	Accreditation and Quality Assurance Commission for Higher Education Institutions ABET (Engineering Accreditation Commission)
Training centres		
Garment Design Training Centre	Public-private (Jordan Enterprise Development Corporation)	Accreditation and Quality Assurance Commission for Higher Education Institutions
Couture Academy	Private (Jordanian)	Ministry of Labour
Design Institute Amman	Private (Jordanian)	----------
Picasso School (Oasis 500-funded)	Private (Syrian)	USA / UK certification (not specified)
Vocational Training Centre	Government	Ministry of Labour

8.1 Universities

All the university providers, except Luminus Technical University College are government-owned, whereas Luminus is owned by private Jordanian investors. These universities are registered at the Ministry of Higher Education and Scientific Research, and are accredited by ABET (Engineering Accreditation Commission) or the Accreditation and Quality Assurance Commission for Higher Education Institutions.

8.1.1 Priority garment and leather occupations offered in universities

The universities interviewed offer various programmes covering subjects that relate to garment and leather priority occupations, but none provides standalone educational programmes targeting specific garment and leather occupations. Some relevant programmes (such as industrial engineering) provide training in skills for a range of sectors. Fashion design and clothing production programmes target the sector's skills needs, but develop skills relevant to a range of different occupations within the sector.

Education programmes with garment and leather content are offered as: bachelor's and master's engineering degrees under the National Qualification Framework (NQF 7 & NQF 9); and technical diplomas (NQF 5) and

higher diplomas (NQF 6). In some cases bachelor's degrees cover two broad subject areas, such as Fashion Design and Clothing Production and Computerized Manufacturing Technology.

A review of these programmes identified content for the skills needed for ten priority occupations as present in subject listings (credited-hours) in the curricula, other than as principal subjects (table 14). Occupations marked in red in table 15 are covered in the subjects listed. In other words, the skills required by a production supervisor are covered as part of the subject "production planning and control", while "quality assurance" is covered as part of the "Quality Controller" subject. Furthermore, while occupations 32 and 33 relate to leather, their skills are taught for garments made only from fabrics.

It should be noted that some of these skills are taught to prepare students as managers, designers or engineers, rather than in the expectation that they will use the skill full-time after graduation. The bachelor's degree in fashion design and clothing production teaches sewing, but is not intended to train workers for careers as multi-skilled sewers.

Table 15: Priority occupations by educational programme

Educational programme	NQF level	Occupations covered as "subjects" within the programme
Industrial Engineering	Bachelor's degree (7)	#2: Production Supervisor
	Master's degree (9)	#3: Production Planning and Control
		#4: Quality Assurance
		#5: Quality Controller
Chemical Engineering	Bachelor's degree (7)	None
	Master's degree (9)	
Fashion Design and Clothing Production	Diploma (5) (non-Tawjihi)	#7: CAD technician
	Diploma (6)	#8 Cutter
		#9: Embroidery application developer
		#32 Leather clothes and gloves designer (only fabric)
		#33: Pattern and leather garment maker (fabric only)
	Bachelor's degree (7)	#1 Multi-skilled sewer
		#7: CAD technician
		#9: Embroidery application developer
		#33 Pattern and leather garment maker (fabric only)
Computerized Manufacturing Technology	Diploma (6)	#3: Production planning and control
		#7: CAD technician
Occupations key:	**Taught as subject** ■	**Covered as part of a subject (chapter)** ■

The approximate numbers of graduates from universities with the knowledge and skills in the priority occupations identified by the G&L NSSC are summarized in table 16.

Table 16: University graduates with knowledge and skills in priority occupations

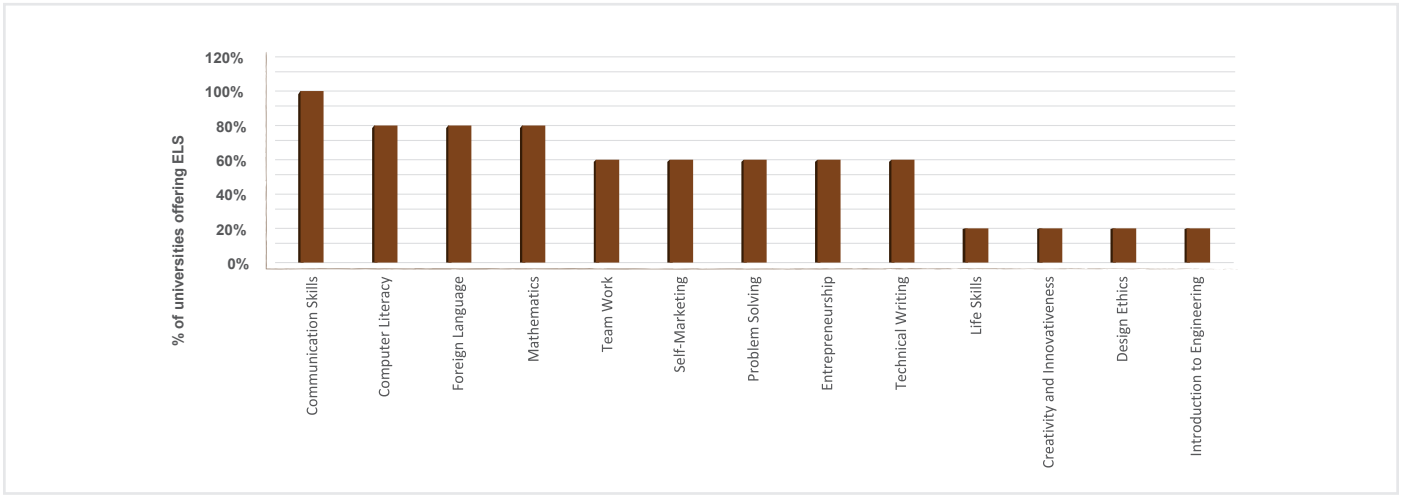
Occupational categories	Educational programme under which skills are taught	Name of centre	NQF level of qualification	Number of graduates
#1 Multi-skilled sewer	Pattern-making	Garment Design Training Centre	Diploma (4)	58
		Couture Academy		-
	Fashion design	Design Institute Amman	Certificates of attendance	120
		Picasso School	Practising certificates (Ministry of Labour exam and quality control)	176
		Couture Academy	Diploma (4)	23
	Shirts and pants tailoring (men)	Vocational Training Centre	Diploma (3)	65
	Women's clothes tailoring			65
#6: Ironing and pressing operator	Shirts-pants tailoring (men)	Vocational Training Centre	Diploma (3)	65
	Women's Clothes tailoring			65
#7 CAD technician	Pattern-making	Garment Design Training Centre	Diploma (4,5)	58
	Fashion design	Design Institute Amman	Certificates of attendance	120
	Fashion illustrator	Vocational Training Centre	Diploma (4)	13
#8: Cutter	Pattern-making	Garment Design Training Centre	Diploma (4,5)	58
	Fashion design	Design Institute Amman	Certificates of attendance	120
		Picasso School	Practising certificates (Ministry of Labour exam and quality control)	176
		Couture Academy	Diploma (4)	23
	Shirts-pants tailoring (men)	Vocational Training Centre	Diploma (3)	65
	Women's clothes tailoring			65
#10: Embroidery machine operator	Embroidery machine operator	Vocational Training Centre	Diploma (2)	35
#17: Knitting machine operators	Shirts-pants tailoring (men)	Vocational Training Centre	Diploma (2)	65
	Women's clothes tailoring			65
#19: Pressing and ironing machine operator (knits/woven)	Shirts-Pants Tailoring (Men)	Vocational Training Centre	Diploma (3)	65
	Women's clothes tailoring			65
#33 Pattern and leather garment maker (fabric only)	Pattern-making	Garment Design Training Centre	Practising certificates (Ministry of Labour exam and quality control)	58
		Couture Academy	Diploma (4,5)	-
	Fashion design	Design Institute Amman	Certificates of attendance	120
		Picasso School	Practising certificates (Ministry of Labour exam and quality control)	176
		Couture Academy	Diploma (4)	23

**** These graduates with multi-skilled sewing skills also learn more advanced garment technical and management skills and should not be understood as part of the supply of workers for multi-skilled sewing jobs.***

8.1.2 Universities and employability/life skills

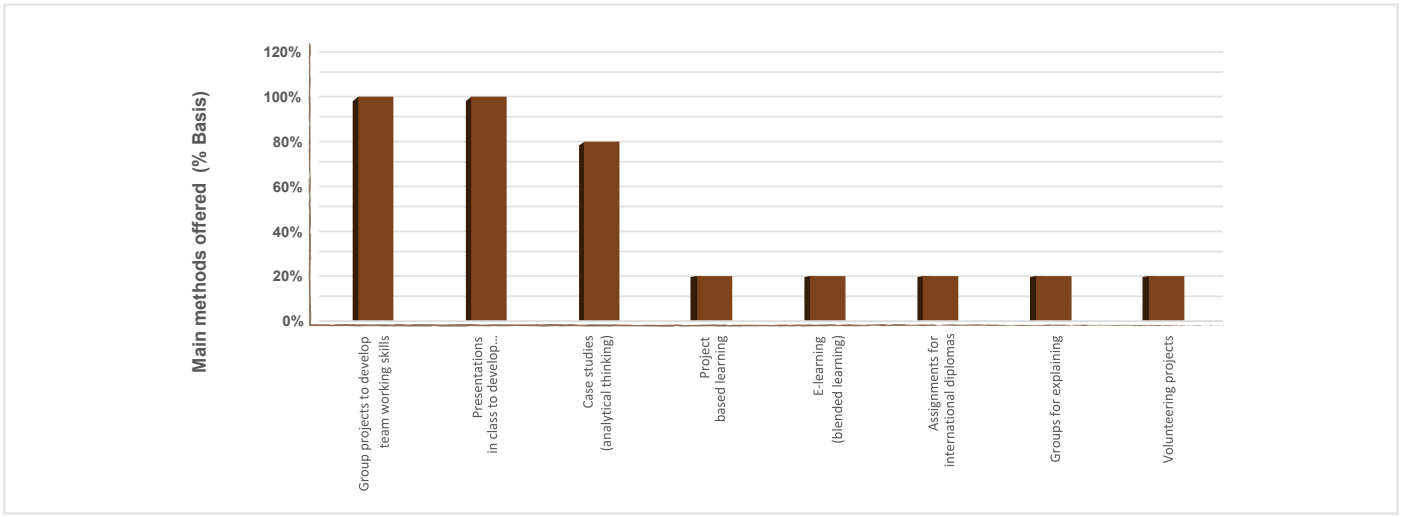
All the universities surveyed stated that they provide students with employability/life skills focusing mainly on communications, computer literacy, foreign language and mathematics (figure 34).

Figure 34: Employability life skills



Training/education providers use various methods to integrate these employability and life skills into technical courses, such as using group projects to develop teamwork skills, and in-class presentations to develop communications skills (figure 35).

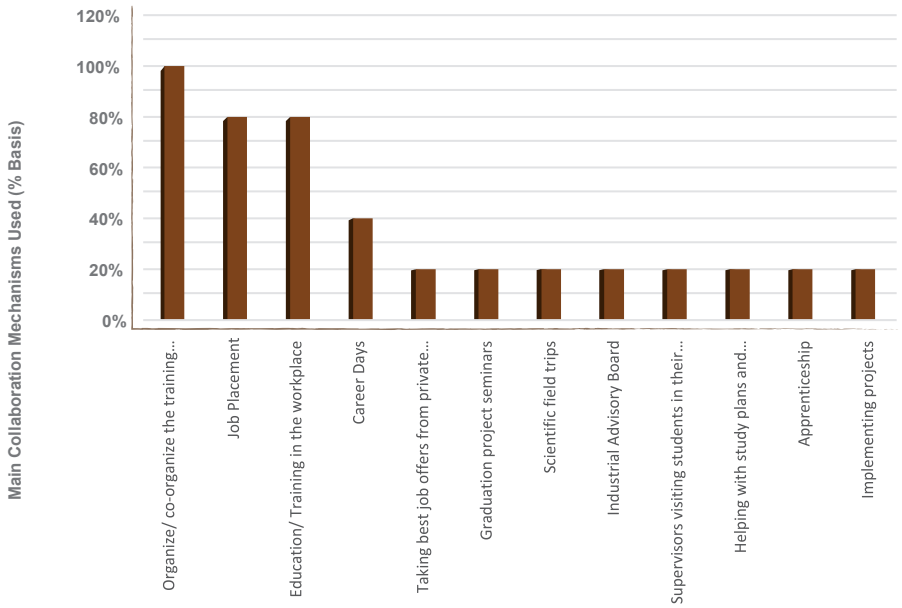
Figure 35: Methods of integrating employability / life skills into courses



8.1.3 University collaboration with employers and private sector entities

All the universities stated that they collaborate with employers and integrate students/graduates into the industry using multiple mechanisms: organizing training with private sector establishments; job placement (graduates); and education/training in the workplace (figure 36). However only two of the five education providers measure the hiring success of graduates using two mechanisms: requesting proofs of employment; and informal follow-up.

Figure 36: Mechanisms for collaboration with employers



The majority of training/education providers also stated that they cooperate with private sector entities such as chambers of industry/commerce or associations, through the following mechanisms:

- The Faculty for Factory Programme, conducted by the Jordanian Engineering Association
- Participation in conferences and seminars
- Participation in job exhibitions
- Graduation project competition relating to industry problems.

8.2 Training centres

Five training centres in Jordan offer programmes for the garment and leather sector. Three of them are privately owned. The Couture Academy and the Design Institute Amman are owned by Jordanians, while the Picasso School (financed by Oasis 500) is owned by a Syrian investor. The Garment Design Training Centre – a not-for-profit company – is owned by the Jordan Enterprise Development Cooperation (JEDCO), while the Vocational Training Centre is owned by the Government.

Most training centres do not offer degrees. The Couture Academy offers a “practising certificate” (Ministry of Labour exam and quality control), while the Picasso School offers only “certificates of attendance”. The Vocational Training Centre, on the other hand, offers four educational levels based on NQF categorization ranging from NQF 2 to 5. These qualifications, in ascending order, range in classification from Grade 10 academic qualification to National Certification and Occupational Awards. The Picasso School offers only Diploma NQF level 4, which is equivalent to Grade 12. The Garment Design Training Centre offers a diploma (NQF 4 &5) that qualifies as Grade 12 and National Certification and Occupational Awards.

In terms of accreditation, the Garment Design Training Centre is accredited by the Accreditation and Quality Assurance Commission for Higher Education Institutions, while both Couture Academy and the Vocational Training Centres are accredited by the Ministry of Labour. As for the Picasso School, it stated that it has US and UK accreditation, but did not provide additional information. The Design Institute Amman is not accredited.

8.2.1 Priority garment and leather occupations offered by training centres

Training centres offer nine different qualifications divided across different educational programmes and NQF levels (table 17).

Table 17: Garment and leather occupations offered by training centres

Occupational categories	Educational programme under which skills are taught	Name of centre	NQF level of qualification	Number of graduates
#1 Multi-skilled sewer	Pattern-making	Garment Design Training Centre	Diploma (4)	58
		Couture Academy		-
	Fashion design	Design Institute Amman	Certificates of attendance	120
		Picasso School	Practising certificates (Ministry of Labour exam and quality control)	176
		Couture Academy	Diploma (4)	23
	Shirts and pants tailoring (men)	Vocational Training Centre	Diploma (3)	65
	Women's clothes tailoring			65
#6: Ironing and pressing operator	Shirts-pants tailoring (men)	Vocational Training Centre	Diploma (3)	65
	Women's Clothes tailoring			65
#7 CAD technician	Pattern-making	Garment Design Training Centre	Diploma (4,5)	58
	Fashion design	Design Institute Amman	Certificates of attendance	120
	Fashion illustrator	Vocational Training Centre	Diploma (4)	13
#8: Cutter	Pattern-making	Garment Design Training Centre	Diploma (4,5)	58
	Fashion design	Design Institute Amman	Certificates of attendance	120
		Picasso School	Practising certificates (Ministry of Labour exam and quality control)	176
		Couture Academy	Diploma (4)	23
	Shirts-pants tailoring (men)	Vocational Training Centre	Diploma (3)	65
	Women's clothes tailoring			65
#10: Embroidery machine operator	Embroidery machine operator	Vocational Training Centre	Diploma (2)	35
#17: Knitting machine operators	Shirts-pants tailoring (men)	Vocational Training Centre	Diploma (2)	65
	Women's clothes tailoring			65
#19: Pressing and ironing machine operator (knits/woven)	Shirts-Pants Tailoring (Men)	Vocational Training Centre	Diploma (3)	65
	Women's clothes tailoring			65
#33 Pattern and leather garment maker (fabric only)	Pattern-making	Garment Design Training Centre	Practising certificates (Ministry of Labour exam and quality control)	58
		Couture Academy	Diploma (4,5)	-
	Fashion design	Design Institute Amman	Certificates of attendance	120
		Picasso School	Practising certificates (Ministry of Labour exam and quality control)	176
		Couture Academy	Diploma (4)	23

Training centre graduates for each occupation up to the end of 2018 are summarized in table 18.

Table 18: Training centre graduates by occupation, 2018*

Occupational categories	Enrolment 2018	Approximate no. of graduates (end 2018)
#1 Multi-skilled sewers	650	507
#6: Ironing and pressing operator	190	130
#7 CAD technician	227	191
#8: Cutter	650	507
#10: Embroidery machine operator	140	100
#17: Knitting machine operator	190	130
#19: Pressing and ironing machine operator (knits/woven)	190	130
#33 Pattern and leather garment maker (fabric only)	490	405

** Note that many graduates appear under multiple occupations in this table because there are qualifications that prepare trainees for more than one occupation. Note also that some graduates are from courses that aim to supply skills to multiple sectors, so not all graduates from these courses will be available to the garment and leather sector.*

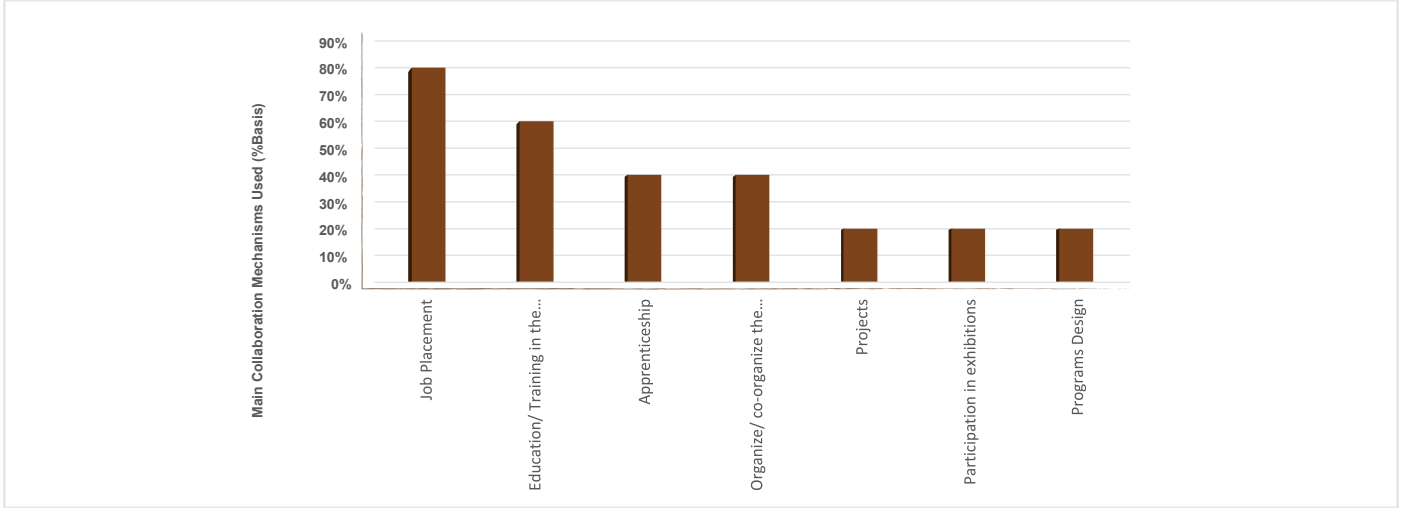
8.2.2 Training centres and employability/life skills

Of the five training centres interviewed, only the Vocational Training Centre formally offers employability / life skills training to their students, focusing on: communications, teamwork, problem-solving, entrepreneurship, computer literacy, foreign language, mathematics and technical writing skills.

8.2.3 Training centre collaboration with employers and private sector entities

All training centres except the Couture Academy collaborate with employers in different ways, most often through job placement (figure 37).

Figure 37: Training centre collaboration with employers



Training centres also work with the private sector using the following methods:

- unstructured consultation with employers
- student feedback
- participation in exhibitions
- industry-educational committees

8.3 Summary

The five universities interviewed offer three educational programmes that cover ten of the 39 priority occupations in the garment and leather sector, with a total of 2,133 graduates in 2018 with skills relevant to the following occupations: multi-skilled sewer, production planning and control, quality controller, CAD technician, cutter and embroidery application developer. **It is, however, not clear from this background research whether or not the education provided in the priority occupations is relevant to the industry, or if it requires additional fine-tuning to match the needs of the industry, in view of an absence of occupational standards in the priority occupations identified by the G&L NSSC. Nonetheless, according to the responses of the firms surveyed (demand-side survey, see 7.3.4) the majority of firms stated that they do not collaborate with training providers because of the training providers' lack of capacity to provide up-skilling support to trainees**. Those that do (less than a quarter of firms surveyed), collaborate mainly with the Vocational Training Centre (51 per cent) and other training centres, including: the Garment Design and Training Centre (JModa), Luminus, the Employment Directorate of Jordan, JUST and Philadelphia University training, Better Work Jordan, the Leather Association, Irbid College for Girls, Ladies of AD-Dulayl Association, the Star Foundation, the White Hands Association, and Marka Sewing and Training Centre.

The five training centres offer training for eight priority occupations in the garment and leather sector and had a total of 2,100 graduates in 2018. As with the universities, **it is not clear whether or not the education provided in the priority occupations is relevant to the industry or requires additional fine-tuning to match the needs of the industry, in view of an absence of occupational standards in the priority occupations identified by the G&L NSSC**.

All the universities, but only the Vocational Training Centre among the training centres surveyed, provide students with employability life skills focusing on: communications, teamwork, problem-solving, entrepreneurship, computer literacy, foreign language, mathematics and technical writing skills. In terms of collaboration with employers, all the universities stated that they collaborate with employers, while all the training centres, except the Couture Academy, stated that they collaborate with employers through job placement, apprenticeship and training within the private sector, among others. However only two universities stated that they measure job placements of students after graduation, whereas training centres did not reply to this question.

Regarding collaboration with the private sector, the universities stated that they have industry faculty for factory programmes organized in collaboration with the Jordan Engineering Association, and are involved in graduation project competitions related to solving industry problems, among others. In contrast, training centres collaborate with the private sector by holding unstructured consultations with employers and participating in industry educational committees, among others.

It is clear that the mechanisms for collaboration between training/education providers and the private sector need to be better aligned. The mechanisms should be more structured in order to ensure that graduates from these institutions meet the employability requirements of the private sector in terms of technical skills and employability life skills (see 7.3.3). The industrial survey clearly demonstrates a mismatch between supply of and demand for skills.

9 COVID-19 impact Survey

In light of COVID-19, additional in-depth interviews were conducted with 9 sector representatives, 1 representative from the Jordan Chamber of Industry, and 1 from the workers union. The main aim of the interviews was to assess any changes in the sector's indicators, and changes to information collected earlier. The following information and perspectives were collected for the sector, covering domestic and exporting firms:

9.1.1 Domestic Firms:

Firms working for the domestic market (i.e. depending mainly on local sales within Jordan) have faced multiple problems due to the COVID-19 pandemic. Production was suspended for most in the months of March and April, which resulted in major losses, and overstocking of raw materials. Accessing additional raw material, to recharge production, has been a problem, as importers have been unable to import new raw materials[142], and suppliers have taken advantage of low supplies to raise prices.

At the start of May 2020, access to the local market was reopened for most enterprises, and some saw an increase of 5 percent in their local sales since the start of the Corona Pandemic in Jordan in March. However, many contracts and orders were cancelled, due to the low demand by the market, even while some enterprises were already producing for the orders. This was exacerbated by bounced cheques from many vendors. For instance: one enterprise reported that they had 40 cheques deemed un-loanable by the 30th of April. This resulted in immediate cash flow problems, and the inability to pay overheads, specifically electricity bills, rent, and salaries. It has also affected the financial health of many enterprises, and as such their ability to access credit. As the sector relies heavily on credit payments, particularly domestically, revenues have dropped.

Some sub-sectors have been hit more from the crisis than others, due to their size of firms and methods of operations. For some, especially the smaller enterprise, operating at a lower capacity (ie. 10 percent of human resource) in the months of April and, was not sufficient for production. Additionally, the Manufacture of footwear sub-sector was affected more than others, as it mainly composes of micro-enterprises, who have not registered in the Social Security corporation before, as such it was very difficult to resume their operations. Representatives pf the Manufacture of carpets sub-sector stated that only 30 percent of carpet showrooms were open, making demand was low. In addition, mosques and hotels are usually great sources of demand from this sub-sector, and their closure meant that there was a direct effect on sales for over 3 months.

This has led factories in the G&L sector to introduce strategies of risk mitigation in both production and spending. As it was difficult to pay costs, it was in parallel difficult to collect proceeds from sales, and accounts receivable accumulated. Many enterprises have reverted to cash-sales only. Additionally, production decisions became restricted, based on orders only, and composed mainly of what are considered as more "essential goods", as human resources and raw materials became scarcer. Moreover, although some firms reported that they focused less on quality of production, others worked on improving it to compete with existing suppliers to the local market, so that their product could become a substitute for imported goods. Almost all enterprises have increased their safety measures, and some have changed their operations into two shifts per day to ensure social distancing between workers to improve safety and health and to comply with the new regulations.

142 The G&L sector imports over 80 percent of its raw materials

In an effort to counteract the problems arising from COVID-19, several meetings were conducted between sector representatives, Jordan Chamber of Commerce, and workers union representatives. The meetings discussed the promotion of Jordanian products, re-assigning of labour from one factory to the other when and if needed to avoid laying off workers, negotiations of rent policies, effects of income and sales taxes, and the functioning of the access-to-finance strategy specifically for SMEs, among other topics.

9.1.1.1 LABOUR STATUS AND SKILLS ISSUES AT DOMESTIC FIRMS

The employment status of workers in G&L enterprises that sell domestically was affected initially by the inability of the factories to resume their operations. Some factories closed down completely, while others suspended their operations. Unemployment within this sector is expected to increase significantly. Many workers in the sector earned a minimum wage of JOD 300. With the crisis, and with enterprises unable to fulfil their obligations, the minimum wages in the sector were reduced to JOD 260. Accordingly, salary cuts (i.e. paying 30 percent of the salary by the employer, and covering an additional 50 percent via the social security corporation) were introduced in factories only to a few workers who are administrators or at a production supervisor level. However, even with the assistance introduced by the new Social Security Corporation regulations and the reduction of the minimum wages, some factories were still unable to pay their workers, due to lack of income. Others left workers with much lower income than was anticipated, as most of them relayed heavily on overtime.

Even with all the hurdles, the number of Jordanian workers employed was not affected much in this part of the sector. The sector producing for local markets has a higher number of Jordanian workers than the exporting firms, and has been able with government support to better sustain employees and their rights. Additionally, factory owners have indicated that the training and skills possessed by the current labour force would be very difficult to find, and that this improves their workers' job security. Nonetheless, in a sector that was anticipated to employ the highest proportion of workers among the industrial sectors by 2025, few factories now project an increase in employment. Although the factory owner of AlZaghal Industrial Co. has stated that they will hire up to 5 employees in the upcoming period, most sector representatives stated that at least in the next two months their requirement for Jordanian workers for will not change.

As indicated earlier, much of the domestically-oriented part of the sector mainly employ foreign labour. It has been very difficult to sustain the workforce, and the current operational capacity, as these workers were not included in most of the defense order regulations that have helped sustain employment for Jordanian workers. The sector representatives consulted predict that as some of the foreign workers are being let go, more Jordanian workers may be willing to work in the G&L sector factories, due to the worsening economic conditions, and lack of demand in the labour market. As recruitment in the economy is almost suspended, it will force Jordanians to consider jobs they were unwilling to do before, as they were considered at a lower end of the human resource value chain and to be unacceptable due to the perception of the "culture of shame".

Even as the curfew procedures eased in May, the factories were not able to operate at a higher than 40 percent capacity, especially due to the difficulty in getting Jordanian workers to the factories, even after they acquired permits. For some enterprises, nonetheless, ss foreign workers mostly lived on the premises, it was much easier for them to resume their work, so much so, that some representatives believe that it would be more efficient to recruit foreign workers if the crisis continues. This has in turn forced factories to prioritize in terms of labour needed, especially on the medium run. For instance, although administrative and sales staff were able to work remotely, their "jobs" were not considered essential any longer, and may be the first to be laid-off. This is similar when it comes to an unskilled labour, for instance, general tailors and materials

handlers may be let-go. However, skilled labour will not be affected as much (for instance, knitting machine operators, programmers, multi-skilled sewers…etc.), and the demand for these skills may even increase in the upcoming period.

Unfortunately, in the context of the crisis and the digital revolution, most factory workers will not be well suited to upgrading from lowskilled to skilled work, as it is almost difficult to train factory workers online. Nevertheless, the carpet sub-sector wants to make use of this opportunity to start workers with online training of carpet designing theory, before enrolling any new labour in the factories. This is essential, according to the sector representative, as there are only 5 carpet designers serving 8 factories in Jordan. In addition to the designers, the crisis has presented an opportunity for new occupations to emerge in the G&L factories. Most enterprises have indicated that in the near future they will need programmers and digital marketing officers. They have not considered a need for skills in these areas thoroughly before, and in their opinion this is an important area where training should be introduced.

9.1.2 Exporting Firms:

The exporting firms within the G&L sector have been affected significantly by the pandemic, especially small and medium enterprises. The factories in this part of the sector have worked with a central control department with the Ministry of Labour on new forms of "standard operational procedures – SOPs" to allow them to operate safely and productively. Nonetheless, this was not sufficient to allow them to operate efficiently, as production decreased overall, by 60 percent according to sources interviewed, and it is expected to remain at this pace until 2021. This was mainly due to operational capacity burdens, and to the procedures that allowed the exporting factories until the month of May 2020 to operate at a maximum of 70 percent of their employed labour. This was paralleled – according to the same sources – by an international decrease in demand approximated at 25 – 30 percent, which will lead to a loss of USD 500 million in the sector's revenues.

Overall, exporting factories were affected by the crisis differently to domestic factories, depending on the way they conducted international business. Nonetheless, there was negative impact across board. One group of firms already had pre-orders that they were preparing and were able to successfully sell them, so were in a more stable positions than others. Even so, as with all exporting firms, they faced additional charges on cargo, and delays in shipping due to the stricter procedures implemented. The majority, nonetheless, have faced order cancellations, whether it was on their products, or the raw materials they were accepting to receive, either due to shipping complications or because vendors and buyers were not able to meet their obligations in midst of the crisis. The USA, being a major market for the Jordanian G&L industry, and a country with by the month of May had high numbers of COVID-19 cases, had the biggest negative effect on the sector, as orders were cancelled even after arriving at USA ports, and discounts were expected on previous orders due to the inability of the vendors to sell them. In parallel many payments were postponed, affecting the revenue cycles of these exporting firms.

Difficulties were also faced on production inputs, as was referred to earlier. Although for some factories, raw materials are sufficient until the month of August, most have faced great difficulties in importing raw materials, especially from South East Asia. Delays and shifting of orders started before the pandemic hit Jordan, as most of the material comes from China, Taiwan, and Sri Lanka. Once these countries started recovering from the crisis, Jordan has gone into lockdown, as cases were increasing, and as such the effects were exacerbated.

The overall situation and great burdens entailed have given these firms an incentive to start selling some of their products locally. All have faced problems in cash flows, and would rather work with cash sales only at

this time. Even with these cash shortages, most firms were successful in paying full salaries for all of their employees, even when they were working off premises. Nonetheless, they have ceased all pay raises and career development opportunities at this time, and some have let go of interns and university students who were working in their showrooms.

On a different front, some of the factories have introduced innovative policies to counteract the crisis. A few have started working on producing medical masks, in coordination with the Ministry of Health, and the Food & Drug Administration. Others have made use of the closures to create E-commerce platforms in a time where innovation has become much more important.

In efforts to counteract the pandemic, factories have implemented very strict health and safety procedures. For many factories, gatherings, trainings and meetings were cancelled, all employees are required to wear masks and go through sterilization tunnels and temperature measurements as they enter the factories. Additionally, social distancing was introduced on production lines, and during lunch breaks, and all payments including salaries are now paid using e-wallets.

9.1.2.1 LABOUR STATUS AND SKILLS ISSUES AT EXPORTING FIRMS

The employment situation for workers in exporting firms in the G&L sector varies depending on whether they are local or not. A shift towards replacing migrant workers with Jordanian workers is being considered thoroughly as a new sector strategy in the midst of COVID-19. Overall, most employees have retained their employment status and received their full salaries during lockdown, which reflects the resilience and underlying stability of the exporting firms during the crisis. Nonetheless, recruitment has ceased, and employment contracts will be reviewed in the near future.

According to the sector representatives, earlier in the year exporting firms collectively were preparing for an expansion, by employing an additional 150 foreign workers and 80 Jordanian workers. Given the crisis the plans have ceased, and reverse plans have been introduced, where 400 Indian workers have been laid-off based on their contract termination date (July 2020), and their wish to return to their home country given the current situation. This loss of workers is not uncommon for exporting firms, as 3 percent of foreign workers in the sector leave in a typical month due to the expiry of their contact, and the Jordanian law that allows them to work in the country for a maximum of three years. However, it would be much more difficult to hire foreign labour back at this time, due to the regulations and the working conditions. Many workers in the sector rely on overtime and incentive schemes, which will not be available to them given the current circumstances.

The COVID-19 pandemic provides an opportunity to transition from hiring foreign workers to hiring a local work force. However, although the factory managers would like to prioritize working with locals there are many obstacles to achieving such a transition if it is even possible. Factory owners have stated that Jordanian workers do not possess the skills to conduct the required jobs, and that it would take a long time to train them to the required level. Most of the Jordanian workforce in the exporting factories are lower skilled occupations (ex: finishing, assisting, packaging…etc.), which makes them easily replaceable. To achieve a transition, it is necessary that Jordanian workers should be trained in more highly skilled occupations, including multi-skilled sewer, cutter, and designer. These hurdles are combined, as with local firms selling domestically, with the stigma of a “culture of shame” that discourages Jordanians from working in blue-collar occupations. In addition, it has been noted by factory owners that Jordanians workers in general do not put in as much time and effort as foreign workers in the same position, and expect to be paid more for the same job. For these reasons, business owners often see hiring foreign workers as more efficient.

These factors are affecting the structure of the workforce and the security of the jobs during the pandemic, and will continue to do so afterwards. Although the majority of jobs in the sector have been maintained, and salaries paid so far, some issues were highlighted in terms of job security. The jobs of skilled workers, in occupations that are in high demand (Ex: Multi-Skilled Sewers), will typically be secure. Non-skilled workers, such as in packaging and finishing are at a higher risk of losing their jobs, especially as skilled workers will be expected to split their time to also do lower skilled work. Nonetheless, as was highlighted earlier, lower skilled jobs are mainly held by Jordanian workers, who have been protected by the SSC system put in place, which has guaranteed their employment for a longer period of time. Administrative and logistical workers, and engineers, are some of the very few factory occupations which can work remotely, which has given them somewhat higher job security.

Demand for low skilled workers will be very low in the short-term, especially as demand for garment products is diminishing due to the crisis. Company plans for training will be directed to certain positions and kinds of jobs, mainly concentrating on middle management (i.e. supervisors and engineers), and digital skills including digital marketing and development or deployment of digital technologies.

Digital learning approaches are highly applicable for remote training, and will be essential for any vacancies in the sector, moving forward. Recruitment for the “middle management” career stream has been directed by some factories to target Jordanians, so as to enable local hiring and because Jordanians are more willing to work in these positions, due to the reasons elaborated on above. As a pioneer for this proposed training and development approach, Pine Tree Company has formed an engineering team to prepare online courses and videos for the industrial sector, based on the “5S lean concept” to train workers and production line managers.

10 STED Validation of results and Scenario Planning

In light of The validation of results was undertaken with the G&L NSSCs and sector representatives. The findings of the study were approved by the G&L NSSCs. The following summarizes the main discussion points:

Discussion on the Occupation "Mechanical Engineer": The sector highlighted that there is demand for this occupation in their sector. But the survey data only refers to it under other occupations without providing specific numbers on vacancies.

Explanation: *The occupation "mechanical engineer" was not identified as a priority occupation by the G&L NSSCs, thus this profession was requested by some of the surveyed firms without providing detailed numbers on current jobs, or future vacancies. As such, it is worth validating this occupation with the G&L sector during the remainder of the STED process to confirm that there is a demand for this occupation, and to obtain a rough estimate of the numbers required.*

Discussion on Occupation #6 Ironing and Pressing operators merge with occupation #19: The G&L NSSC decided to merge both occupations together.

Explanation: *Initially, occupations #6 and #19 ironing and pressing operator were differentiated between knits and woven. The G&L NSSC requested that these occupations should be merged, and this is reflected in the final amendments of vacancies by occupation (see G&L anticipated vacancies by priority occupation and gender 9.2.2).*

10.1 STED Scenario Planning

To assess the effects of the COVID-19 pandemic on the sector in question, specifically in terms of employment and exports, two future scenarios are explored. The scenarios anticipate the growth of employment and exports within the sector up to the year 2025. Multiple resources were used to construct the scenarios, so as to enable a comprehensive assessment. The sources are as follows:

- UN Comtrade for export data covering Jordan's exports in the Garments and Leather (G&L) sector for the period (2001-2018).
- Department of Statistics (DoS) for data on employment for the period (2011-2018) and the Social Security Department for the year 2019.
- A comprehensive study conducted by Leaders International under the supervision of the ILO using the Skills for Trade & Economic Diversification (STED) methodology for the Garments & Leather Manufacturing Sector.
- 10 comprehensive interviews with Sector Skill Council members and factory owners during the COVID-19 Crisis (April 2020)

The first scenario is a "Business-as-usual-Scenario", and the second is a "Pessimistic-Scenario-Under COVID-19". The first scenario takes into consideration the following information and assumptions:

- Jordan has experienced external shocks in the past few decades prompted by political and economic instability in the region. Despite that, the sector has continued to grow.

- The US market represents the driving force for exports in the sector. Thus, any disruption in the trade agreements that underpin this will negatively affect the sector (ex. Vietnam FTA with the USA).
- Since Jordan's G&L industry is not vertically integrated, Jordan will continue to rely on sourcing of raw material internationally, and this will affect the value-added production in this industry and delivery lead-time.
- The increasing costs of Jordanian labour, the lack of domestic skilled workers, and the dependence on CMT/CMP production will remain to be a challenge for the industry.
- Jordan's delivery lead-time and shipping costs will remain to be a challenge due to reliance on the imports of production inputs.
- Unstable land shipping routes resulting from regional instability minimizes the options of accelerating EU exports in the short-term.

The second scenario considers the factors of the first scenario and anticipates the following based on the current market assessment under COVID-19:

- The USA Market imports over 95 percent of sector exports, and the operation has halted from the month of March to June of 2020.
- It is anticipated that demand for G&L exports will decrease by 30 percent in 2020, in accordance to JGATE and Sector Skills Council representatives
- There will be no new demand for labour in the G&L sector in 2020, as factories are operating under a recovery-mode
- 400 foreign workers have been reported let go since March 2020
- Demand for low-skilled workers will decrease considerably, as their tasks are taken on by skilled workers who are not fully utilized in work requiring their skills
- Some demand for workers in sales and administrative jobs will be replaced through digital alternatives

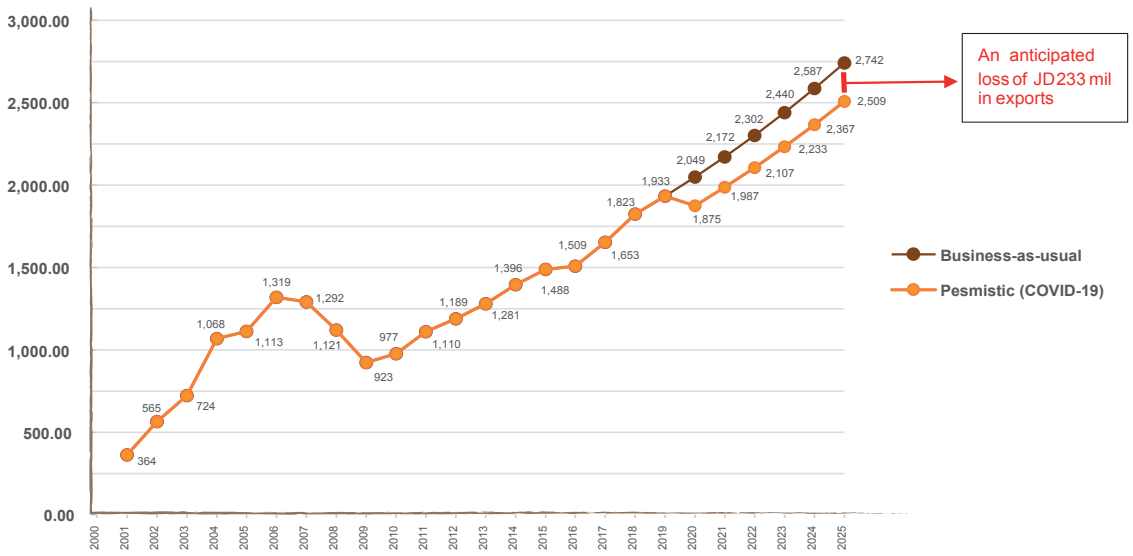
As such the following scenarios emerge:

10.1.1 Export Scenarios

As reflected in the figure below, the "business-as-usual" scenario projects that exports from the G&L sector, will increase to reach approximately JD 2.7 Billion by 2025. This scenario builds on historic figures, and uses a weighted-average estimation to estimate an annual increase of 6 percent. This increase is built on competitive advantage and high exports to the USA based on the FTA signed between the US and Jordan. In midst of the COVID-19 pandemic this scenario is no longer viable, as G&L firms have closed down for approximately 3 months, and exports to the USA have decreased drastically.

For the COVID-19 scenario, It is estimated that demand for exports will decrease by 30 percent in 2020, with exports expected to pick up in the 3rd quarter of the year. Even though the eventual increase in exports is 6 percent per annum, based on the same factors, there is a visible drop in 2020, that continues to fall in the short-term even as the global market begins to recover from the pandemic. Accordingly, by 2025, exports under the COVID-19 scenario are expected to drop by JD 233 million relative to the "business-as-usual scenario". Given current market conditions, and predications for a new wave of the virus come September, and current trends in infections in the US, an additional shock is expected to extend and possibly deepen the drop in Jordanian G&L exports.

Figure 38: Export Forecast 2019-2025 (JD Million)



10.1.2 Employment Scenarios

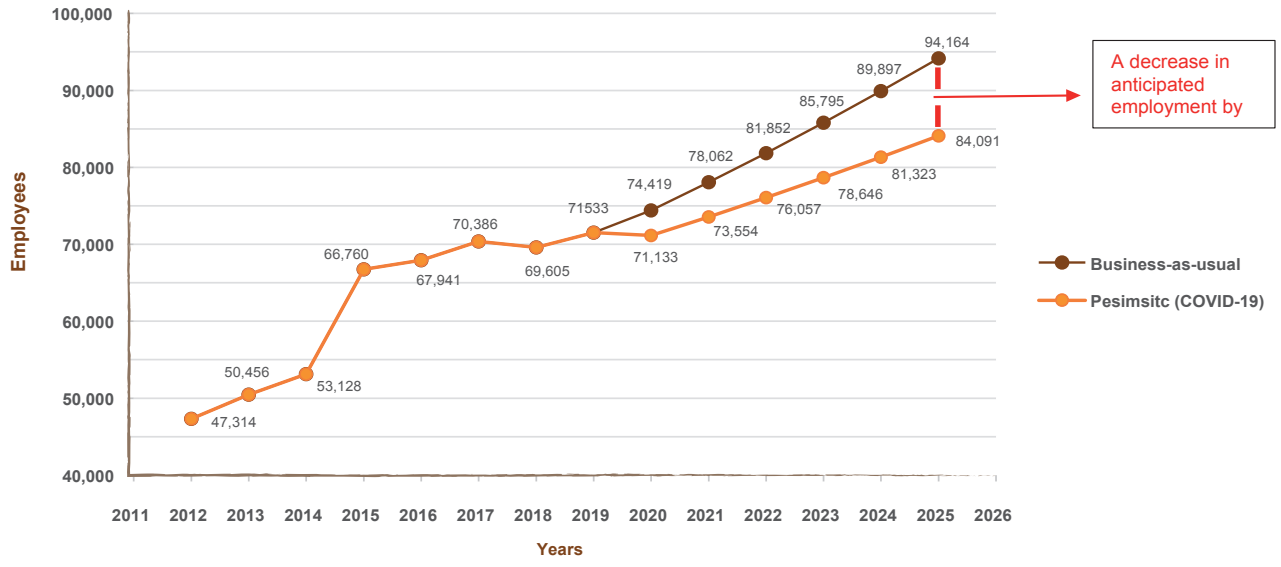
Under a "business-as-usual scenario", employment would be anticipated to increase especially in the sectors' priority occupations. The estimated increases were calculated using a weighted average to reach a 4 percent increase annually, incorporating both foreign and Jordanian workers. The shock exerted by the pandemic has shifted the intended increase, and the annual weighted rate of increase has declined to reach 3.4 percent under the COVID-19 scenario.

Although the majority of jobs in the sector continue to exist as of now, the demand for additional labour in 2020 is almost non-existent. Even if it picks up in 2021, it is anticipated that there will be a major shift in the composition of the labour force incorporating two main factors:

- Non-skilled workers will be laid-off, and skilled workers will duplicate their tasks to compensate
- Some administrative and sales jobs will be replaced by digital means

By the year 2025, the anticipated number of jobs will decrease by approximately 10,000 jobs relative to what was anticipated under the business-as-usual scenario, due to the decrease in the hiring rate and cost-cutting. Furthermore, it is possible that a trend of replacing foreign workers with Jordanian workers may appear. Even though the minimum wage has dropped from JD 300 to JD 260, this may be accepted by Jordanians given the economic turmoil.

Figure 39: Employment Scenarios (2019-2025)



11 Conclusions

The positive contribution of the garment and leather sector to the Jordanian economy in terms of exports and employment generation is overshadowed by its high dependence on foreign labour. Supportive policies are needed to localize jobs and secure positive spillover effects from foreign to local investors by: encouraging subcontracting between large and small firms; encouraging investors to expand in the sector's industrial value chain and value added services; and reducing the mismatch between labour supply and demand by providing specialized training for Jordanian workers in the priority occupations demanded by the sector. Moreover, challenges relating to utility costs, labour costs, regulations and taxes and customs should be addressed to enhance the doing-business environment and the overall competitiveness of the sector.

Exports and employment in the garment and leather sector are mainly driven by the manufacture of wearing apparel. The other subsectors (leather manufacture, bed linens and blankets, carpets and rugs) are much smaller and have less economic impact on employment and exports.

All the 35 large firms in the sample surveyed are exporters, owned mainly by foreign investors. These firms are located in Irbid, Amman and Zarqa. Large firms operate mainly in ISIC 1430 manufacture of knitted and crocheted apparel (15 firms) and ISIC 1312 weaving of textiles (8 firms). Most SMEs are owned by Jordanians, operate across all subsectors and are located mainly in Amman. Most microenterprises are owned by Jordanians, operate across all subsectors and are located mainly in Amman.

Large firms in the garment and leather sector export to North America, mainly the United States, and to GCC countries, while small and microenterprises export mainly to the GCC and the MENA region and to North America. Exports to the EU have not reached full potential and account for only 4 per cent of exports of the firms surveyed.

The identification of priority occupations in collaboration with the G&L NSSC prior to launching the industrial survey and training/education providers' survey, proved to be a good strategy. Survey results demonstrated, for example, that "multi-skilled sewers" is an occupation for which there is high current demand that is likely to continue and that it is able to employ female workers, but that it lacks occupational standards and training programmes. This disconnect between supply and demand was corroborated by the firms surveyed, who attributed recruitment challenges in the sector to the fact that new applicants and fresh graduates lack the required skills. Most of the skill gaps identified by these firms were technical (60 per cent) and soft, relating to employability skills (33 per cent). The sector has the potential to hire people with disabilities, in particular a hearing disability, impaired mobility, deafness and speech disabilities.

The industrial survey results identified the Vocational Training Centre as the main training provider. Other training providers include the Garment Design and Training Centre (JMODA) and Luminus, among others. However, according to the interviews with training/education providers, there are more than ten institutions that provide training in this industry, including the Vocational Training Centre. The absence of clear job placement measures by training/education providers makes it unclear where graduates from these institutions end up working. It is also clear that the collaboration mechanism between training/education providers and the private sector requires better alignment. It should become more structured in order to ensure that graduates from these institutions meet the employability requirements demanded by the private sector in terms of technical and employability / life skills.

Based on the above, it is expected that the sector will continue to grow at a similar pace (business-as-usual); exports are expected to grow from US$1.82 billion in 2018 to US$2.74 billion by 2025, while employment is expected to grow from 71,533 jobs in 2019 to 94,164 by 2025.

12 Next steps

The study has presented findings that can contribute towards developing a comprehensive sector skills strategy to ensure that the targets set forth by the study in terms of exports and employment are achievable within the coming five years even under a COVID-19 scenario, without being constrained by skills supply. The sector skill strategy should focus on priority sub-sectors, value chains, and value added-services, since only two or three subsectors in the G&L sector have substantial potential to grow. Over the short-term, the priority is to develop a skill strategy for the sector.

On the medium-long term, the sector should sustain its growth by increasing exports, diversifying markets and products and expanding investments in priority subsectors. Challenges related to utility costs, labour costs and regulations as well as taxes and customs should be addressed to enhance the doing business environment and the competitiveness of the sector.

In response to COVID-19, consideration should be given to making regulations and procedures for exporting smoother and more efficient, fostering local sales, and facilitating easier access to finance.

Additionally, in terms of labour support, more focus should be directed towards training of Jordanian workers, in addition to working on digital transition mechanism, and training workers to become more equipped with dealing with digital platforms, and health & safety mechanisms. The suggested recommendations for these steps are as follows:

Training of Jordanian workers: One of the main reasons the higher occupancy rate with the G&L sector is for migrant workers, is the lack of skills of Jordanian workers for the required occupations. Given the anticipated post-corona structure of a more centralized economy, and the continuously increasing unemployment rate in Jordan; special focus and funding should be directed towards training Jordanian youth on the required skills, that will enable them to penetrate this sector. Although many Jordanians have deviated from working in factories before, and preferred more “white collar” professions, the current situation will divert workers to different streams of employment, and as such it is a very critical time to upgrade the skills of the current Jordanian workforce.

Digital transitions: A global result of the corona pandemic was the acceleration of the digital revolution; as much more so than before countries, enterprises, and individuals need to relay on technology in light of social distancing and working from home. This has brought to the surface, the fact that the majority of factory workers are illiterate when it comes to technology, and are unable to use simple platforms (ex: Skype, Zoom, Slack…etc.), which makes it much more difficult to connect with them during lockdown. As such orientation and training courses should be administered to factory workers to assist them in adapting to technological platforms; especially as a second wave of the pandemic is anticipated.

Life Skills & Safety Measures: In parallel to raising awareness in regards to digitization, many workers within the sector lack on-the-job life skills, including but not limited to communication skills, writing skills, problem solving…etc. As such a parallel program to upgrade these skills is urgent, especially as once digital skills as uplifted it can be easily conducted online. In the current times the lack of life skill raises another worry of the ability to cope with the “new-norm” under the pandemic, as it depicts that these workers would also require an orientation on the health and safety measures that they should incorporate in their daily lives to enable ones-self and others protection.

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14 Annex

14.1 Annex I: Garment and leather priority occupations

Industry	Priority occupation			
Manufacture of garments linens	1.	Multi-skilled sewer	6.	Ironing and pressing operator
	2.	Production supervisor	7.	CAD technician
	3.	Production planning and control	8.	Cutter
	4.	Quality assurance	9.	Embroidery application developer
	5.	Quality controller	10.	Embroidery machine operator
Textile weaving	11.	Ball warpers	14.	Dye colour heat setting RAM machine operator
	12.	Dyeing lab technician	15.	Denim washing and aging machine operator
	13.	Dyeing machine operator	16.	Fabric polishing machine operator
Textile knitting and tricot	17.	Knitting machine operator	19.	Pressing machine operator
	18.	Linking machine operator	20.	Knitting machine programmer
Leather shoes and accessories	21.	Shoe designer/modellist	24.	Upper shoe sewing machine operator
	22.	Shoemaker	25.	Multi-sewing machine operator for shoes
	23.	Upper shoe cutting operator	26.	Leather bag sewers (school bags, women bags and messenger bags)
Leather tanning and leather garments	27.	Leather technologist (university graduate)	31.	Leatherwear designer (apparel, gloves)
	28.	Leather tanning machine operator	32.	Leather liming machine operator
	29.	Leather dyeing technician	33.	Pattern-maker (leatherwear)
	30.	Leather fleshing machine operator		
Carpet manufacture	34.	Carpet loom machine operator	37.	Carpet linking and gluing technician
	35.	Carpet weaving machine operator	38.	Carpet shearing machine operator
	36.	Carpet looping machine operator	39.	Carpet-mix chemical technician

14.2 Annex II: Garment and leather survey questionnaire

Sector Skills Interview Questionnaire – Amended Based on Pilot Study
Leather and Garment & Chemicals and Cosmetics

Hello, my name is…….. from the International Labour Organization (ILO). We are conducting a survey of employers, in collaboration with the Jordan Chamber of Industry, regarding skills in the sector, which aims to identify skills required and future skills need to support the implementation of the National Human Resources Strategy 2025.Please note that this survey is confidential and company information will not appear in the final report. The sole purpose of this study is to identify the needs of the sector to support it in putting forward strategies to develop the skills needed for the sector.

Ordinal number of questionnaire	
Expected date of interview	
Interviewer's name	
Interviewer's telephone number	
Interview date	
Start time	
Completion time	
Quality control by enumerator team leader	
Name of the team leader:	
Date	
Team leader's telephone number	
Signature	
Remarks	

Section A- Firmographics

A1	Enterprise Name- As stated in the registration certificate (specify the governorate)
Irbid	1
Ajloun	2
Al Mafraq	3
Jerash	4
Amman	5
Al Zarqaa	6
Al Balqaa	7
Madaba	8
Al Karak	9

Ma'an	10
Al Tafileh	11
Al Aqaba	12
Other (please specify) _____	13

A2	Size of the Enterprise (company) including seasonal/temporary workers:
Large (250 persons and more)	1
Medium (50-249 persons)	2
Small (10-49 persons)	3
Micro (less than 10 persons)	4

A3	Enterprise/Company Ownership
Government owned	1
Private	2
Public-Private ownership	3
Other (please specify) _____	4

A4	Legal Form of the Enterprise
Legal Form of the Enterprise	1
Partnership Company	2
Limited partnership	3
Limited Liability	4
Joint-Stock Company	5
Private Company	6
Public share holding company	7
Foreign Enterprise	8
NGO	9
Custom Free Company	10
Arab Joint Company	11
Civil Company	12
Joint investment Company	13
Other (please specify) _____	14

A5	Nationality of the company /establishment owners and investors
Jordanian	1
Foreign (please specify nationality)_____	2
Jordanian and foreign investors (please specify nationality) _____	3

A6	Gender Composition of the Female/ Male Owners Investors
Number of Females	
Number of Males	

A7	Does your firm have other branches?
Yes	1
No	2
If yes, how many? _____	3

A8	Does your company export?
Yes	1 (Please go to A10)
No	2 (Please go to A11)

A9	What are the main export destinations for your company? (based on export amount)
	1. 2. 3. 4.

A10	Does your company have plans to start exporting?
Yes	1
No	2

A11	Is your company affiliated with any association or union?
Yes (Please specify)? _____	1
No	2

Section B- Production & Business

B1	Can you please give us an approximate indication of the distribution of your firm's sales in the past three years?		
	2016	2017	2018
Sales to domestic market			
Exported directly			
Exported through an intermediary			
Exported via a sub-contractor			
Total	100%	100%	100%

B2	Which countries do you consider as strong competitors for your export market? (Please list up to 4 in order of importance)
	1. 2. 3. 4.

B3	Which countries do you consider as a competitor in the local market? (Please list up to 4 in order of importance)
	1. 2. 3. 4.

B4	Are there any constraints on the ability of your establishment to export?
Yes	1
No	2 (Please go to B6)

B5	What are the reasons? (Please list up to 4 in order of importance)
	1. 2. 3. 4.

B6	What was your company's production volume in the following years	
Year	Production capacity (number or weight)	Ratio of actual output
2016		
2017		
2018		

B7	Which products does your company produce? Please list at most your top 3 product (s) (or groups of similar products) based on output value.		
	Name or group of product (if possible, please kindly list the ISIC code)	Share of output of this product in total output	This product is for: 1. Export only 2. Domestic only 3. Both: Export and Domestic
	1.		
	2.		
	3.		

B8	Please list your three main input materials (raw). Where are they sourced from?		
	Input materials	Source	
		Domestically produced (%)	Imported (%)
	1.		
	2.		
	3.		

B9	What do you see as the biggest threats/challenges facing your business? (NA: no idea or don't know)				
		Not important at all	Important	V. Important	NA
1	Skills and qualification of fresh graduates of education and training providers	1	2	3	4
2	Utilities cost (electricity, water, etc.)	1	2	3	4
3	National regulations	1	2	3	4
4	Transportation/ logistics	1	2	3	4
5	Access to finance (cost of finance…)	1	2	3	4
6	Access to equipment, machinery and technology	1	2	3	4
7	Skills of existing workers	1	2	3	4
8	Quality of raw materials	1	2	3	4
9	Lack of information on market demand	1	2	3	4
10	Labour regulations	1	2	3	4
11	Economic and regulatory policies	1	2	3	4
12	Lack of political instability	1	2	3	4
13	Other (specify_____)	1	2	3	4
14	Other (specify_____)	1	2	3	4
15	Other (specify_____)	1	2	3	4

B10	What do you think should be done to increase the competitive capacity of your products in order to compete effectively against imports into Jordan? (please provide no more than 5 answers)
	1.
	2.
	3.
	4.
	5.

Section C: Structure of the workforce

C1	Can you please give us an approximate indication of the distribution of your firm's sales in the past three years?			
	2016	2017	2018	2019

C2	Have you ever recruited employees with disabilities? Do you have it in mind to employ them in the future?
1	Yes, Type of disability _____?
2	No, Why?
3	It is likely that I will employ people with disabilities in future

Section E: Current Workforce Skills

E1	In which subsector/s does your company work based on the industrial classification? (ISIC Code 4.0)
	ISIC Code List

E2	In the career list, what are the priority occupations of employment in your company based on gender preference.	
	Occupation	Gender M/F
1	Career list	
2	Career list	
3	Career list	
4	Career list	
5	Other, please specify_____	
6	Other, please specify_____	

E3	Could you please specify the following details among these occupations					
	Occupation	Total number of employees *(Please write 0 if not applicable)*	Total number of Male Jordanian workers	Total number of Female Jordanian workers	No. of migrant workers (including Syrian refugees)	No. of migrant workers (excluding Syrian refugees)
1						
2						
3						
4						
5						
6						

E4	Could you please specify the following details among these priority occupations in your company?					
	Occupation	Number of vacancies currently available		Expected by 2020		Indicate if these vacancies are hard-to-fill? 1. Yes 2. No
		Male	Female	Male	Female	
1						
2						
3						
4						
5						
6						

E5	What challenges did you face in the recruitment process? (Maximum of two answers)know)
1	Very few applicants
2	Very few fresh graduates
3	Applicants with experience but do not have the required skills
4	Fresh graduates they do not have the needed skills
5	Applicants expects high salaries
6	Applicants were not comfortable with the working environment
7	There is fierce competition by other employers in the sector
8	Other, please specify:-
9	Other, Please specify:-

E6	What skills do your current staff lack in the main occupations?						
	Skill	Occ. 1	Occ. 2	Occ. 3	Occ. 4	Occ. 5	Occ.6
1	The technical skills required for the occupation in general						
2	The technical skills related to certain equipment or operations						
3	Technical, practical, or technological information						
4	Understanding and writing documents clearly						
5	Ability to do calculations and interpret graphs						
6	Ability to learn skills						
7	Discussion skills						
8	Access, understand and communicate information						
9	Leadership skills						
10	Team work						
11	IT skills						
12	Decision making skills						
13	Problem Solving Skills						
14	Effective use of technological equipment and tools						
15	Ability to work in conformity with quality standards						
16	Planning and coordination skills						
17	Other Skills - Specify						

E7	What do you usually do to overcome skills shortages among your current employees?
1	
2	
3	

Section F: Workforce Development

F1	During the past 12 months, have your employees participated in any training courses organized within or outside the workplace, be it partially or fully funded by your enterprise?
	Yes (Please go to F2)
	No (Please go to F3)

F2	In which job areas /skills did your establishment finance or arrange the training programme?		
Code	Skill	Training	No/% of employees who took part of the training
1			
2			
3			
4			
5			

F3	According to you, what are the top five training centers (vocational/technical/ professional) that provide high quality training for the occupations in your industry?
1	
2	
3	
4	
5	

F4	During the past 3 years, did your establishment recruit from or collaborate with training centers (vocational/technical/ professional)?	
	Yes	1 (go to F5)
	No	2 (go to F7)

F5	Please name up to 5 of those vocational/technical/professional centers with whom your establishment has collaborated with in the past 3 years.
1	
2	
3	
4	
5	

F6	Please describe what kind of cooperation did your establishment have with those training centers?
1	Send your employee(s) to get trained
2	Co/organize the training of your employee(s) within your establishment
3	Receive the students of these centers for internship /apprenticeship programmes
4	Recruit from these centers
5	Other (Specify……..)
6	Other (Specify……..)
7	Other (Specify ……..)

F7	Has your company previously cooperated with institutions / centers for scientific research and development in Jordan or abroad? 1.Yes 2.No			
	Sector		Country	Type of cooperation
	Public	Public		
1				
2				
3				
4				
5				

F8	Is your company aware of the projects directed to support the sector?
1	Yes
2	No

F9	Did your company ever benefited from these projects
1	Yes Specify Name of Project_____
2	No

Name of Respondent	Position	Telephone No	E-mail

General Observations by the Interviewer

14.3 Annex III: Skills supply in-depth interview questionnaire

Skills Supply In Depth Interview Questionnaire

My name is…….. from the International Labour Organization (ILO). We are conducting interviews with training providers, in collaboration with the Employment, Technical and Vocational Educational and Training Council (ETVET), regarding skills supply for the industrial sectors focusing mainly on Chemicals industry as well as Leather & Garments. The interview aims to identify the existing skills supply as well as the mechanisms of collaboration existing between the supply (training providers) and demand (private sector employers) to support the implementation of the National Human Resources Strategy 2016-2025.

Ordinal Number of Questionnaire:_____

Expected Interview Time:_____

Data entry record

Name of data encoder:_____ Date: _____

Remarks: _____

Enumerator record

Interviewer's name:_____

Telephone number:_____

Date of interview: _____

Time started:_____ Time completed:_____

Quality control by enumerator team leader

Survey team leader's name:_____ Date: _____

Telephone number: _____ Signature:_____

Remarks:_____

Section A- Firmographics

A1	Training institution nameas stated in the registration certificate (please specify the governorate and the address of the institution)		
1	Irbid	1	Specify the location
2	Ajloun	2	
3	Al Mafraq	3	
4	Jerash	4	
5	Amman	5	
6	Al Zarqa	6	
7	Al Balqaa	7	
8	Madaba	8	
9	Al Karak	9	
10	Maan	10	
11	Al Tafileh	11	
12	Aqaba	12	
A2	Contact Person 1 (Interviewee)	Name, Surname	
	Contact Person 2 (Interviewee)	Name, Surname	
	Contact Person 3 (Interviewee)	Name, Surname	
A3	Telephone no. of the interviewee	Official phone number	
A4	Interviewee 1 Telephone no.		
	Interviewee 2 Telephone no.		
	Interviewee 3 Telephone no.		
A5	Job Position of the Interviewee	1. Director/Senior manager/owner 2. Representative of Administration Department 3. Other (please specify)_____	
A6	Date of the Interview	dd/mm/yyyy	
A7	Institution Ownership	1. Government owned 2. Private 3. Public-Private ownership	
A8	Legal Form of the Institution	1. Partnership Company 2. Limited Partnership Company 3. Limited Liability Company 4. Joint-stock Company 5. Private Enterprise 6. Public Enterprise 7. Foreign Enterprise 8. Non-Profit Organization 9. Custom Free Company 10. Arab co-owned 11. Civil Company 12. Joint Investment	

A9	The institution is owned by _____ investor(s), please specify	1. Jordanians 2. Foreigners, please specify nationality(ies)__ _____, _____, _____, _____, _____, _____ 3. Jordanian and foreign investors, please specify nationality(ies) _____ __,_____,_____,_____
A10	Does the institution have other branches in Jordan?	1. Yes 2. No 3. If yes, how many? _____
A11	Educational Level of Qualification based on National Qualification Framework (NQF)	Specify the Level of Qualification: _____
A12	International Educational Level of Qualification (if available)	Name of Country: _____ Levels of Qualification:_____ _____
A13	Source of Accreditation?	1. National, Please specifiy 2. International, Please speci fy_____
A14	Total estimated number of students per year(stock)	1. 1- 500 students 2. 501 – 1000 students 3. 1001 – 2000 students 4. Above 2001 students
A15	Total number of employees (including temporary employees)	1. Large (more than 250) 2. Medium (50-250) 3. Small (10-49) 4. Micro (less than 10)
A16	Year of Establishment	
A17	Website (if available)	

Section B- Training/Educational Programmes

B1-How many training/educational programmes do you have, and in which occupational sectors/academic majors are they concentrated (please provide brochure if available).

No	Occupational Sector/academic majors	No of training/educational programmes
1		
2		
3		
4		
5		
6		
7		

B2- Which are your **top five training/educational programmes in terms of enrollment?** Please list themaccordingtoprogram duration, enrollment number, number of graduates and drop-out rate?

No	Name of programme	Programme Duration				Is it a multi-year programme?	Total Enrollment No	Total No of graduates (2018)
		≤ 3 months	≤ 6 months	≤1 year	> 1 year			
1						Yes No		
2						Yes No		
3						Yes No		
4						Yes No		
5						Yes No		

B3- Doyou think that your top five training /educational programmes have higher employment rate than the other programmes?

Yes	1 (Go to B4)
No	2 (Go to B5)

B4- Please provide three reasons why you have higher employment rate in the top teaching/training programmes?

1	
2	
3	

B5- What are the most repeated training/education programmes through the past three years (2016-2017-2018), please specify the most five requested programmes.

No	2016		2017		2018	
	Programme	level	Programme	level	Programme	level
1						
2						
3						
4						
5						

B6- How do you choose your new programmes? Please specify the top reasons for selecting a specific training/educational programme?

1	
2	
3	
4	
5	

B7- Could you please indicate if you provide training/education for the following occupations? Please specify the level of qualification for each programand target groups?

Occupation Categories	Level of Qualification (NQF)	Target Group (ex: adult learners, students, company employees)

B8- Which are your **top five training/educational programmes in terms of enrollment?** Please list themaccordingtoprogram duration, enrollment number, number of graduates and drop-out rate?

No	Name of programme	Programme Duration				Is it a multi-year programme?	Enrollment number (2018)	Total Graduates (2018)
		≤ 3 months	≤ 6 months	≤1 year	> 1 year			
1						Yes No		
2						Yes No		
3						Yes No		
4						Yes No		
5						Yes No		
6						Yes No		
7						Yes No		
8						Yes No		

B9- Which training/educational institutions do you consider as your competitors? Please list a maximum of three institutions.

1	
2	
3	

B10- What differentiates you from your competitors? Please list a maximum of three reasons.

1	
2	
3	

Section E: Employability Life Skills

E1- Does the institution provide students with employability life Skills?

Yes	1
No	2 (Please go to section D)

E2- Please select the employability life skills you train your students upon?

1	Communication
2	Team Work
3	Self-Marketing
4	Problem Solving
5	Entrepreneurship
6	Computer Literacy (ex: ICDL)
7	Foreign Language
8	Mathematics
9	Other
10	Other

E3- How many training hours (or percentage from the training programme) doesyour institution provide students with education/training specifically in employability life skills?

Training Hours	hours
Percentage from training programme	%

E4- Does your institution integrate employability life skills with the technical course material?

Yes	1
No	2 go to section F

E5- Please specify how you integrate employability life skills with the technical course material?

1	**Presentations in class to develop communication skills**
2	Group projects develop team working skills
3	Case studies (analytical thinking)
4	Other
5	Other
6	Other

Section F: Collaboration with Employers

F1- Does the institution collaborate with employers?

Yes	1
No	2 (Please go to section H)

F2- Please select the collaboration mechanism most adopted by your institution:

1	Job Placement
2	Apprenticeship
3	Education/Training in the workplace
4	Organize/co-organize the training of your student(s) (within private sector establishment)
5	Other
6	Other

F3- Do you adapt your training programmes to the needs of employers?

Yes	1
No	2

F4- Please specify how?

1	Unstructured consultation with employers
2	Committees formed by employers
3	Formal programme reviews including structured consultation that consult with employers
4	Other

F5- F5-Do you train your students on equipment currently used by industry?

Yes	1
No	2

F6- Do you find challenges in keeping your equipment up-to-date with industry?

Yes	1
No	2

F7- Please specify the challenges in keeping learners/trainers up-to-date and relevant to industry?

1	
2	
3	
4	
5	

F8- Do you receive feedback from employers on the quality of your graduates and your training programmes?

Yes	1
No	2

F9- Please specify how you receive feedback from employers?

1	Annual Survey
2	Periodic reports (ex: within 3 months from hire)
3	Other
4	Other
5	Other

F10- Have you ever signed any job placement agreements or MOUs with employers?

Yes	1
No	2 (Please go to F13)
Would consider	3 (Please go to F13)

F11- If Yes, who is responsible of the training costs?

1	Trainees/Students
2	The Company in which they are trained
3	The training/education institute
4	Other
5	Other

F12- Do the agreements /MOUs help your graduates find decent jobs?

Yes	1
No	2
To some extent	3

F13- Did your institution cooperate with donor-funded programmes to support education and training?

Yes	1
No	2

F14- If yes, how was the cooperation with the donor-funded programmes?

1	
2	
3	

F15- Does your organization cooperated with any private sector entities such as chamber of industry/ commerce or associations to support education and training?

Yes	1
No	2

F16- If yes, how was the cooperation with those private sector entities?

1	
2	
3	

F17- Do you measure your job placement rate?

Yes	1
No	2

F18- Please specify how?

1	
2	
3	
4	
5	

F19- Do you face any challenges in collaborating with employers?

Yes	1
No	2

F20- Please specify the main challenges

1	
2	
3	
4	
5	

Section G: Educational/Training Standards and Trainers:

G1- From where do you obtain your training/educational standards? Please specify

1	
2	
3	
4	
5	

G2- Is your training/educational institution licensed?

Yes	1
No	2

G3- Is your training/educational institution accredited?

Yes	1
No	2

G4- Kindly provide the name of your licensing and accrediting bodies?

	Licensing Body	Accrediting Body
1		
2		
3		

G5- What are the challenges you face in licensing and accreditation?

1	
2	
3	

G6- Do you find challenges in recruiting qualified trainers/educators?

Yes	1
No	2

G7- Please state your main challenges and how you address them.

	Challenges	Solutions
1		
2		
3		
4		
5		

For more information, contact:

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