PUNJAB CLUSTER DEVELOPMENT

READYMADE GARMENTS CLUSTER LAHORE

CLUSTER DEVELOPMENT INITIATIVE

ADDRESS: 40, T BLOCK GULBERG-II, LAHORE. PAKISTAN
EMAIL: info@cdi.psic.gov.pk
WEBSITE: www.cdi.psic.gov.pk
PHONE: 042 35714083-86

THE CDI IS JOINTLY IMPLEMENTED BY PSIC AND UNIDO

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Diagnostic Study Report

Fawad Malik (Cluster Manager)
Abeera Tariq (Deputy Cluster Manager)
Mubeen Fatima (Cluster Facilitator)

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EXECUTIVE SUMMARY

The cluster concept has gained prominence as an economic policy tool aimed to foster innovation and the growth of a competitive private sector in developing as well as developed countries. Clusters play a critical role in generating employment, income, increasing exports, fostering innovation and generate / create opportunities for the local community to become drivers of broad-based local economic development.

The Government of Punjab has recently adopted the "Punjab Growth Strategy", which incorporates a target of 8% annual GDP growth within the Province. The Industrial Sector Development Plan, an element of the Growth Strategy, is oriented to increase private sector investment, thereby increasing job creation and exports. As part of the development plan, the Government has introduced the Cluster Development Initiative (CDI) to support the growth and competitiveness of key manufacturing clusters, in particular through Punjab Small Industries Corporation (PSIC). This initiative is part of a larger cooperation on the "Jobs and Competitiveness Programme" with the World Bank.

In the framework of the "Punjab Jobs and Competitiveness Programme", the Government of Punjab has signed a cooperation agreement with United Nations Industrial Development Organization (UNIDO) to provide technical assistance for the development of industrial clusters in Punjab province and to support their further integration into global value chains.

Textile is an export oriented industry of Pakistan, which has an overwhelming impact on the country's economy. Textile being the largest industrial sector has contributed to around 58% of the country's exports, providing employment to 40 % of the skilled and semi-skilled workers in 2016.

Within the textile industry, the readymade garments industry has emerged as one of the important small to medium scale industries in Pakistan. It contributes around 22.43 % to the total exports of Pakistan whereas its contribution to world trade is approximately 1.056%. Around 2,274,800 people were employed by the garments sector in 2014-2015, an increase of about 10% from 2012-2013. The readymade garments cluster of Lahore comprises of woven and knitwear production. Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA) & Pakistan Hosiery Manufacturers & Exporters Association (PHMA) are the two most active trade organizations representing the readymade garments sector in Lahore.

This study addresses the factors that have contributed to the development of the cluster concept and the barriers that hinder its growth. The study is also intended to help understand the comparative socio-economic environment of the cluster, identify the most effective leverage points for intervention, provide a baseline for future monitoring and evaluation and help build initial trust with stakeholders. The study also entails potential intervention areas to overcome the prevailing issues vis-à-vis possibilities of joint actions on the part of the cluster actors.

Different analytical tools including PESTLE Analysis, Porters Five Forces, SWOT Analysis, Diamond Model, Cooperation Matrix and Cluster Map have been used to understand the competitive intensity of the cluster as well as the factors affecting its performance and growth. These data analysis tools have helped identify the short to long term challenges that the cluster is facing.

SOME OF THE KEY FINDINGS IDENTIFIED ARE SUMMARIZED BELOW

INNOVATION, RESEARCH & DEVELOPMENT:

Only large and a few medium sized manufacturers were involved in some research and development and had full time or part time R & D departments. Many medium and small manufacturers (around 74%) had no designated R & D department. At present, a majority of the designs are provided by the customers / buyers and companies are manufacturing them on the basis of patterns and designs provided. Manufacturers mainly produce low to medium value readymade garments. There is a skills gap in creative designing in the cluster, because of which there is a discrepancy between human resource needs for engaging in design of new products and the existing capacity of enterprises. Moreover, there is a lack of market intelligence in the cluster.

PRODUCTION & PRODUCTIVITY:

Production is affected by seasonality. Production is usually slow in the months of March – April and December – January due to changes in the seasons and reduced demand in Europe. Capacity utilization of large companies is high, whereas it is around 40-60% for the small and medium manufacturers. Line balancing is a key challenge faced by manufacturers. A majority of the firms are not implementing modern production techniques and quality management systems, due to which the quality of the products they produce is low and defect rates are high.

MARKETS AND MARKETING:

Around 80 % of the companies (mostly SMEs facing marketing constraints) visited were selling their products via buying houses. Selling via buying houses mean their profit margins are reduced. Only 19 % of the firms sold their products directly to buyers. A majority of the manufacturers have weak or very little export marketing strategy. Upon inquiring, it was found out that the buyers are not willing to travel to Pakistan due to security reasons. Large manufacturers frequently travel abroad to attend trade fairs and exhibitions in Europe, Middle East and other countries, whereas the SMEs are not able to frequently visit other countries to attend trade fairs and exhibitions or to meet their buyers due to financial constraints. In case of SMEs, the owner himself is looking after all the operations of the unit so the opportunity cost of leaving behind his operations in order to meet international buyers abroad is very high. It was further revealed that there are several untapped markets, especially Eastern Europe, Australia, Russia and some parts of Africa where there is a great potential for exports. of Africa where there is a great potential for exports.

SPECIALIZED SKILLS AND WORKFORCE WELFARE:

Availability of trained and skilled labor is a major issue of the cluster. "Ustaad Shagird" mechanism is the major form of skills transfer under which the workers are trained on the job by their mentors. The Manufacturers highlighted that Line and Floor Supervisors lack competence and technical knowledge. Firms were facing very high defect rates in stitching and washing, and highlighted the need for quality human resource in these areas. Manufacturers are also facing serious issues with the mindset and attitude of the workers. Moreover, they are not willing to send their workers to training institutes for training and prefer on the job training. Female participation is very low in the cluster and the SMEs are not providing adequate facilities for the female workforce.

RAW MATERIAL:

86% of the manufacturers procure their fabric locally from Karachi, Faisalabad and Lahore while 14% partially use imported fabric or thread, depending on buyers demand. The cluster is heavily dependent on trims, metals and accessories which are imported from China and Hong Kong. A majority of the firms were totally relying on imports as a source of accessories while a few were importing and purchasing some of the accessories from the local market.

TECHNOLOGY:

All the machinery used is imported (new and refurbished), mainly from China, Japan and Turkey. The readymade garments industry in Pakistan has not undertaken requisite investment in machinery for the last 8 – 10 years.

COMPLIANCE:

Currently the Cluster is not facing any issues and difficulties in compliance to quality standards or corporate social responsibility, but issues related to resource efficiency, waste management or treatment of chemicals, etc. remain critical factors for compliance. International buyers and consumers are becoming increasingly aware and demanding strong implementation of compliance and environmental standards.

GOVERNANCE & POLICIES:

Instable political and law and order situation has led to insecurity amongst the manufacturers as well as international buyers. The garment exporters have to face inefficient customs procedures both for import and export. Though the Government has announced various incentives and subsidies for the readymade garments sector, they are not effectively implemented. Moreover, there is a lack of interaction between manufacturers and government agencies in policy making and trade agreements resulting in formulation of policies and agreements that are not in the interest of the industry. Overcoming the energy shortage is a constant struggle that the cluster is facing.

The report contains a set of recommendations to address the issues that have been identified during the study. These include innovation, productivity & compliance, marketing and branding, specialized skills & skilled workforce, governance, policies & regulations as well as some recommendations for the public and private sector.

The study is carried out by the Readymade Garments (RMG) Cluster team working as part of the Cluster Development Initiative (CDI). CDI is jointly implemented by Punjab Small Industries Corporation (PSIC) and United Nations Industrial Development Organization (UNIDO).

01 INTRODUCTION

1.1 - OBJECTIVE OF THE STUDY

The objective of this study is to assess the competitiveness of the readymade garments sector, understand the dynamics of the supply and demand factors, support mechanisms as well as the linkages between the backward and forward industries and cluster actors. Principal firms of the cluster, companies with backward and forward linkages, support institutions and business development service providers were met and interviewed as well as data and information gathered from secondary sources were analyzed in order to understand the common problems, advantages and disadvantages of the cluster.

This study addresses the factors that have contributed to the development of the cluster and the barriers that hinder its growth and helps understand the comparative socio-economic environment of the cluster, identify the most effective leverage points for intervention, provide a baseline for future monitoring and evaluation and help build initial trust with and among the stakeholders. The study also entails potential intervention areas to overcome the prevailing issues vis-à-vis possibilities of joint actions on part of cluster actors.

1.1.1 - JOBS & COMPETITIVENESS PROGRAMME AND THE CLUSTER DEVELOPMENT INITIATIVE

Keeping in view the stagnant growth of the manufacturing clusters in Punjab, the Provincial Government has recently adopted the "Punjab Growth Strategy", which incorporates an annual 8% GDP growth target for the Province. The Industrial Sector Development Plan, an element of the Growth Strategy, is oriented to increasing private sector investment, thereby increasing job creation and exports. As part of the development plan, the Government has introduced the Cluster Development Initiative (CDI) to support the growth and competitiveness of key manufacturing clusters through interventions of the Punjab Small Industries Cooperation (PSIC). This initiative is part of a larger cooperation on "Jobs and Competitiveness Programme" with the World Bank.

In the framework of the Punjab jobs and competitiveness programme, the Government of Punjab has signed a cooperation agreement with UNIDO (United Nations Industrial Development Organization) to provide technical assistance for the development of industrial clusters in Punjab province and to support their further integration into global value chains.
The purpose of CDI is to create an enabling environment for growth and prosperity of industries, to create better quality of life through economic uplift in Punjab and to up-grade technology and enhance productivity quality and profitability of local industries. The lead on the implementation of the CDI for the Government of Punjab is with the Punjab Small Industries Cooperation (PSIC) as a government institution.

In consultation with UNIDO, clusters with high potential for growth in Punjab were identified and four prominent clusters are selected as the pilot clusters;

- Readymade Garments
- Auto parts
- Leather Footwear
- Surgical Instruments

1.1.2 - CLUSTER DEVELOPMENT

The cluster concept has gained prominence as an economic policy tool aimed to foster innovation and the growth of a competitive private sector in developing as well as developed countries.

Clusters play a critical role in generating employment, income, increasing exports, fostering innovation, and creating opportunities for the local community to become drivers of broad-based local economic development.

The foundations of this paradigm can be traced back to the work of the economist Alfred Marshall, who in Principles of Economics (1890) described the phenomenon as "the concentration of specialized industries in particular localities" and noted that these agglomerations of small-scale businesses enjoyed economies of scale comparable to those of large firms. More recently, Michael Porter popularized the concept of industrial clusters in his book The Competitive Advantage of Nations (1990). Thereafter, there has been a surge of interest in clusters as drivers of economic growth and hubs of innovation, and during the last two decades, the Cluster Development approach was introduced all around the world in different industrial, agriculture, services and tourism sectors in developed and developing economies, yielding successful results in competitiveness of the SMEs.

As a starting point for Cluster Development, it is imperative that a thorough diagnostic study needs to be carried out and cluster strategy and an action plan built upon the main findings of the study, in consultation and most importantly in consensus with the cluster stakeholders.

1.1.3 - LIMITATIONS OF THE STUDY

It is important to stress that in a complex socio-economic environment and in a micro and small enterprise cluster environment, no one-off study can be expected to identify all relevant issues and their remedies. The diagnostic study provides an entry framework, a snapshot of the existing business environment with current possible opportunities and threats and the Cluster's advantages and disadvantages which need to be regularly fine-tuned and revised with the stakeholders and supplemented with specialized studies, on a need basis, at later stages.

1.2 - GLOBAL TEXTILE & READYMADE GARMENTS INDUSTRY

The textile and clothing industry plays an important role in economic growth and development strategies of both developed and developing countries. It is a labor intensive industry which provides employment, especially to women, in the short run and sustainable economic development in the long run to countries with effective government policies and institutions. This industry has encouraged the use of modern technology globally. Even the poor countries are using modern technology in this sector at a relatively low investment cost. This is one of the reasons why many countries such as Sri Lanka, Bangladesh, Vietnam, Mauritius and Cambodia have been able to achieve high output growth rate in the sector (Nordas, 2004).

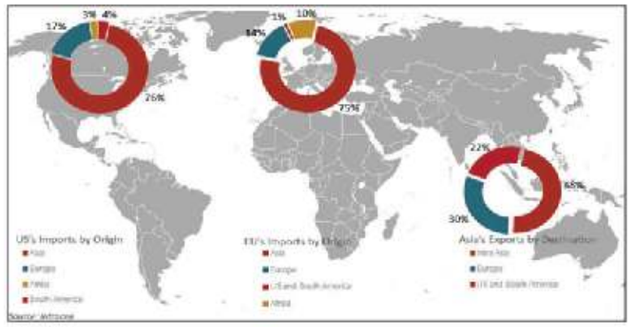


Figure 1: Export & Import Origins of Textiles World Trade (International Apparel Federation – 2012 to 2016)

The value of the global apparel market totaled $842.7 billion in 2016, up by 5.5 % from a year earlier. The compound annual growth rate of the market was 5.2 % between 2012 - 2016. Asia-Pacific region accounted for 60.7 % of the global textile mills market value in 2016 and Europe accounted for a further 15.0 % of the market (Intracen statistics, 2012 to 2016). Figure 1 above shows that between 2012 – 2016, Asia is the most popular origin for imports in textile for both US and EU, whereas Asia's most popular export destination for textile and clothing is Intra Asia.

The global apparel market is forecast to reach $1,004.6 billion in value in 2021, an increase of 19.2% from 2016. As shown in Table 1, the compound annual growth rate of the market in the period 2016 – 2021 is predicted to be 3.6% (International Apparel Federation).

Year	USD Billion	% Growth
2016	842.7	5.5%
2017	872.3	3.5%
2018	903.9	3.6%
2019	937.4	3.7%
2020	970.9	3.6%
2021	1004.6	3.5%
CAGR: 2016 - 21		3.6%

Table 1: Globatl Apparel & Non-Apparel Manufacturing Market Value Forecast

Global Apparel Trade data has revealed that China, India and Italy are the top three exporters of apparel in the world. China has exported textiles worth 265 billion dollars in 2014, accounting for 36.5% of the total worldwide apparel trade. India, being the second largest exporter has exported 38.7 billion dollars of clothing in 2014. Italy, Turkey and Bangladesh are also part of the top five exporters of apparel exporting 32.7 billion dollars, 30.4 billion dollars and 28 billion dollars respectively. These top five largest exporters account for almost 55% of the total apparel trade in the world.

Table 2 shows the number of people employed over different years in the textile & clothing sector. It can be seen from table 2 that over a span of fourteen years, from 2000 to 2014, the worldwide employment in textile and clothing has increased by almost 50% (International Apparel Federation).

Year	Number of People Employed
1990	34.2 Million
1995	29.9 Million
2000	26.5 Million
2014	57.8 Million

Table 2: Number of people employed in Textiles & Clothing

The textile and clothing sector is an important part of global trade. A further breakup of the textile trade (table 3 and figure 2) depicts that the global exports of women suits, dresses, skirts &shorts have surpassed the exports of other product categories within the textile and clothing sector. These items account for almost 29 % of the total global exports (International Apparel Federation), thus implying that this product category[1] globally dominates the different product segments within the textile and clothing industry.

Products	Value (USD Thousand)
Women Suits, Dresses, Skirts & Shorts	108,047,927
Jerseys, Pullovers & Cardigans	55,202,644
Men's Suits, Jackets & Trousers	64,752,059
T-shirts, Singlets & Vests	44,841,833
Women Blouses & Shirts	19,678,047
Men Shirts	25,626,994
Overcoats	21,080,299
Baby Garments	10,145,869
Track Suits	17,184,989

Table 3: Global Market Segmentation by Products in Value - 2016

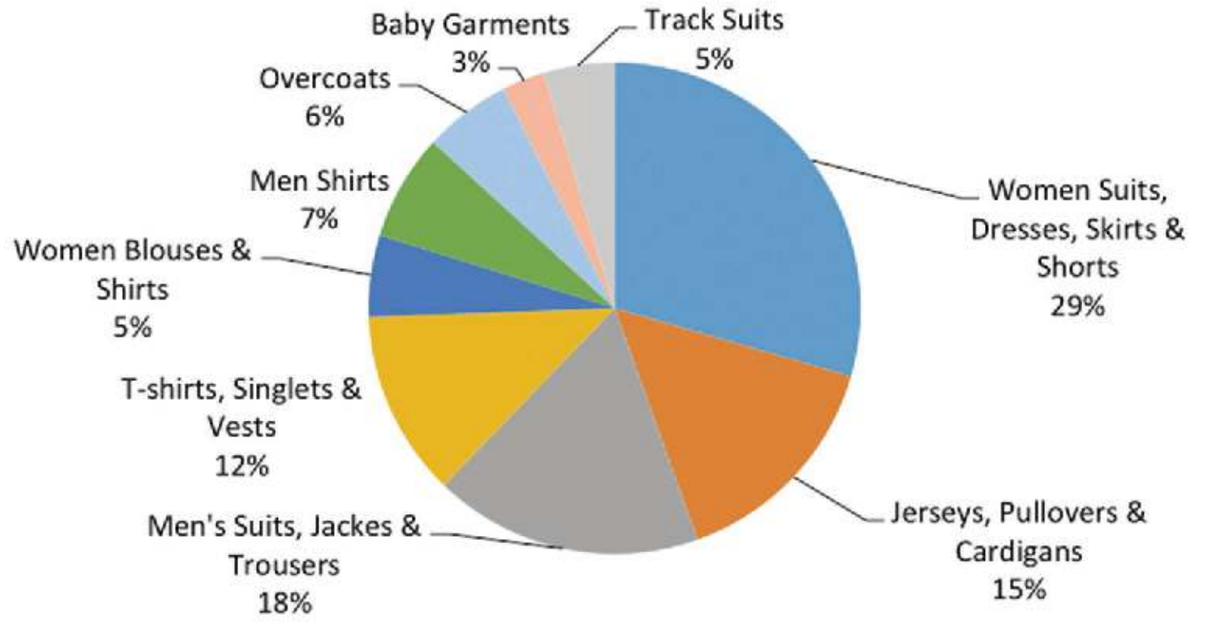


Figure 2: Global Market Segmentation of Products in Percentage - 2016

[1]HS codes for these products have been provided in table 11 and table 12 of chapter 1.

1.3 - PAKISTAN: TEXTILE & READYMADE GARMENTS INDUSTRY

1.3.1 - PAKISTAN & ITS ECONOMY

The population of Pakistan is 207.75 million people and it is the 5th most populous country in the world. Geographically, it is situated in South Asia and has borders with India in the East, Afghanistan in the West, Iran in the South West and China in the North. About 20 % of the population lives below the international poverty line of US$1.25 a day. The majority of southern Pakistan's population lives along the Indus River. By population size, Karachi is the biggest city of Pakistan. In the northern half, most of the population lives around an arc formed by the cities of Lahore, Faisalabad, Rawalpindi, Islamabad, Gujranwala, Sialkot, Gujrat, Jhelum, Sargodha and Sheikhupura (Iqbal, Mahmood and Shafiq, 2010).
Some of the major strengths of Pakistan are its huge domestic market, natural resources, agricultural land, large portion of population under 30 and strategic location. However, it is also susceptible to natural disasters, poor security, energy crisis, low per catpita incomet, large fiscal and trade deficits and weak business environment due to which the country is not able to fully realize it's potential.

Figure 3. Pakistan's Map

Historically, economic growth in Pakistan has always remained volatile and the country always has had an unsteady path towards growth. As per the Economic Survey of Pakistan, the country's economy was able to achieve a growth rate as high as 10% in 1954 but it fell to 2% the following year. In 1969 and 1970, the growth rate went up again to 9% but then it fell again to 2% the following year. Similarly, it was as high as 7.5% in 2004 but it dipped again to 5.5% in 2006-2007. The average growth rate of the economy from 2007-08 to 2012-13 was 3.2%. Till 2013, the trajectory of the country's economic growth has been extremely volatile, therefore adding to the economic uncertainty.

The growth rate of the economy has experienced a smooth upward trend since 2013-14. As per the Economic Survey of Pakistan, the real GDP was above 4.0 percent in 2013-14 and has smoothly increased during the last four years to reach 5.28 percent in 2016-17, which is the highest in 10 years. It is widely acknowledged that Pakistan has immense economic potential. According to a report published by Price Waterhouse Coopers in 2017, Pakistan is projected to become the world's 20th largest economy by 2030 and 16th largest by 2050. In 2016-17, the economy of Pakistan continued growing and reached a GDP growth rate of 4.7 percent, which is the highest in 10 years. As shown in figure 5, the country also witnessed an impressive growth in all sectors, especially in the agriculture and services sectors in 2016-17. Growth in agriculture registered a growth of 3.46 percent against the growth of 0.27 percent last year. The Industrial sector witnessed a growth of 5.02 percent against 5.80 percent last year, large scale manufacturing posted growth of 5.06 percent against 4.6 percent last year, while services sector surpassed its target and recorded 5.98 percent growth as compared to 5.55 percent last year (Economic Survey of Pakistan 2016-17).

With a GDP per capita of $5100, high unemployment rate of 6.1% and an inflation rate of 2.9% (CIA Fact book, 2016), Pakistan continues to be an under developed country. Exports are mostly concentrated in Textiles, Rice, Leather goods, Sporting goods and Chemicals. Pakistan's performance in exports has floundered in 2015-16, marking a decline of almost 12.9% (Economic survey of Pakistan, 2015-16).

Pakistan: Economic Performance at a Glance

GDP (PPP)	:	$ 988.2 Billion (Estimated)
GDP Growth	:	4.7 % (Estimated)
GDP/Capita (PPP)	:	$ 5100 (Estimated)
Total Labor Force	:	65.1 Million
Unemployment	:	6.1 %
Inflation Rate	:	2.9 % (Estimated)
Exports	:	Textiles (Garments, Bed Linen, Cotton Cloth, Yarn), Rice, Leather Goods, Sporting Goods, Chemicals, Manufactures, Surgical Instruments, Carpets and Rugs
Export Partners	:	US 13%, UAE 9%, Afghanistan 9%, China 8.7%, UK 5.3%,Germany 4.9%
Imports	:	Petroleum, Petroleum Products, Machinery, Plastics, Transportation Equipment, Edible Oils, Paper and Paperboard, Iron and Steel, Tea
Import Partners	:	China 28.3%, Saudi Arabia 11%, UAE 10.9%, Kuwait 5.7%
Exchange Rate	:	Pakistani Rupees per US Dollar – 103.77 (2016)

Source: CIA Fact Book 2016

Figure 4: Pakistan's Economic Indicators - 2016

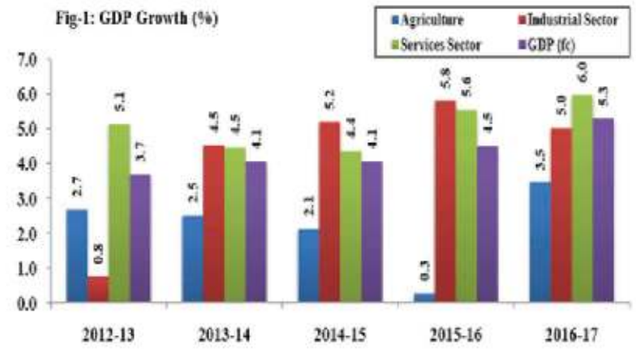


Figure 5: GDP growth in sectors

The main reasons for this decline are the energy crisis, high cost of doing business, increasing competitiveness of other countries and an unsettled security situation.

1.3.1.1 - CPEC (CHINA-PAKISTAN ECONOMIC CORRIDOR)

Pakistan -- China friendship has always moved on an ascending trajectory and strengthened with time. Their friendly ties are further gaining strength as both the countries are working together to implement the China Pakistan Economic Corridor (CPEC).

CPEC is part of China's One Belt One Road (OBOR) initiative and the objective is to enhance regional connectivity between different regions and improve infrastructure in these countries. With it's initiation in 2013, CPEC has expanded to encompass cooperation in a large number of sectors under its short to long term plans. The project will encourage movement of goods and people and will promote new economic relationships by generating economic activities, thus benefiting the region as a whole.

CPEC is a long term partnership and vision of the leadership of the two countries, which aims to usher in an era of peace and prosperity for the whole region. Research studies suggest that the initiative will have a positive impact on Pakistan's economy by generation of employment opportunities, promoting trade and attracting local as well as foreign direct investment in the country. It will also result in technological progress and sharing of knowledge. Literature suggests that relocation of Chinese industries is also expected to benefit the garments industry in Pakistan by providing easy access to raw material at local prices and an environment with business friendly custom procedures. CPEC together with the GSP plus status will not only benefit the garments industry but the textile industry as a whole.

1.3.2 - OVERVIEW OF THE INDUSTRY

Pakistan is primarily an agricultural country, which produces good quality cotton. Pakistan has an inherent advantage of being the fourth largest producer and third largest consumer of cotton, due to which it holds an immense comparative advantage that needs to be converted into a sustainable competitive advantage. Local availability of basic raw material is considered one of the key success factors in reducing the cost of doing business for an export led industry and the availability of basic raw cotton as raw material for the textile industry has played a vital role in the growth of this industry in Pakistan.

COTTON	Years			Growth %	
	2014	2015	2016	2014	2015
Production (for cotton 000 bales)	12,769	13,960	9,917	9.3	-29
Yield (kilograms per hectare)	774	802	581	3.6	-27.6
Cotton Imports		$344m	$750.4m		

Table 4: Production of Cotton (Ministry of Textile Industry)

The table shows that the production of cotton fell drastically by 29% in 2015-16. The excessive rain during that year inflicted damages to the crop and the cotton producers had to face a major setback when the prices of cotton fell in the domestic market by 17%. This led to an increase in the import of cotton, which has become cheaper than the local cotton. Table 4 shows that the import of cotton more than doubled in 2015. It rose from US $344 million in 2014-15 to US $750.4 million in 2015-16. Therefore, a fall in production of cotton necessitated hefty imports.

Production	2012-13	2013-14	2014-15	2015-16
Yarn Production (M. Kgs)	3069.7	3333.4	3369.7	3397.3
% Change		8.6%	1.09%	0.83%
Cloth Production (M. Sq. Mtrs)	9115	9124.8	9126.6	9159.2
% Change		0.12%	0.02%	0.35%

Table 5: Production of Yarn and Cloth (Ministry of Textile Industry)

The production of yarn has increased from 3369.7 million kg in 2014-15 to 3397.3 million kg in 2015-16. The production has increased slightly, but the growth in the production has slowed down, as shown in the table 5. The cloth production has also increased slightly by 0.35%, from 9126.5 million sq. meters to 9159.2 million sq. meters.

The textile value chain consists of multiple industrial sub-sectors. It has the longest value chain starting from cotton production, ginning (when fiber is separated from the cotton seed), spinning (when fiber is spun into yarn), knitting, weaving, dyeing and finally stitching it into a finished garment. Each sub sector not only adds value to the value chain but also generates employment.

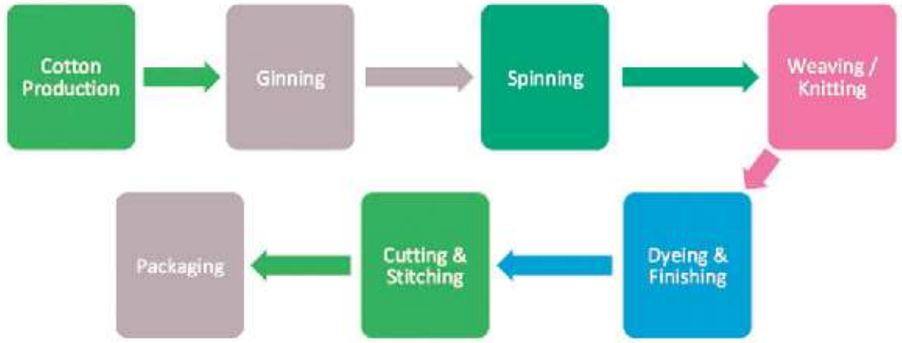


Figure 6: Textile Value Chain

Textile is an export oriented industry of Pakistan which has an overwhelming impact on the country's economy. This industry is the backbone of Pakistan's economy. As shown in table 6, textile is the largest industrial sector which contributes around 58% to the country's exports; the industry provides employment to 40 % of the skilled and semi-skilled workers in 2016. It contributes 5.28 % to GDP and consumes about 40% of banking credit to the manufacturing sector.

The textile industry in Pakistan is catering to both the global as well as domestic market. The global demand for textiles is currently US $847 billion and Pakistan is producing around US $12 billion worth of textile products (Johri & Qazi, 2007). Because of the huge population size, domestic demand in Pakistan is also very high and this is the reason why the industry is only able to cater to about 3% of the global demand. China, India and Italy are the top three exporters of textiles, collectively having the highest market share in the global textile market. The key export destinations are European countries, USA and the Middle East.

	2013	2014	2015	2016
Total Exports of Pakistan	USD 24.5 Bn	USD 25.13 Bn	USD 23.8 Bn	USD 20.5 Bn
Total Exports of Textiles	USD 13.1 Bn	USD 13.8 Bn	USD 13.5 Bn	USD 11.9 Bn
Export Contribution of Textiles	54%	55%	57%	58.04%
2016				
GDP Contribution	5.28%			
Number of Units	26,491			
Total Employment	Approx. 3.5 – 4 Million			
Female Employment	Approx. 0.8 Million (21.3 %)			

Table 6: Profile of textile industry in Pakistan (Economic Survey of Pakistan 2016 – 17)

The textile made-up sector comprises of different sub groups namely Towels, Tents & Canvas, Cotton Bags, Bed-Wear, Hosiery, Knitwear & Readymade Garments including Fashion Apparel. Textile made-ups industry in Pakistan has two major components, hosiery knitwear and readymade garments. Figure 7 shows the export mix of textile sector of Pakistan. It can be seen that cotton cloth (18%), knitwear (18%) and readymade garments (16%) have surpassed the exports of other sub groups within the textile sector.

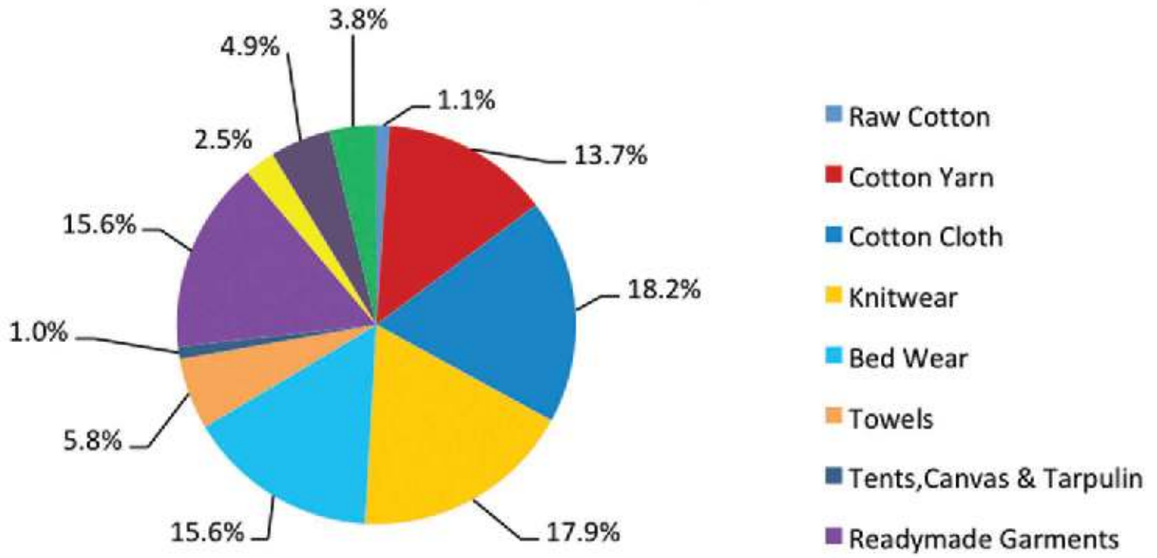


Figure 7: Export Mix of Textiles Sector – 2016 (APTMA)

1.3.3 - READYMADE GARMENTS INDUSTRY

Within the textile industry, readymade garments is the most labor intensive sub sector with the lowest energy requirements. It is one of those exported products within the textile industry which has the highest value addition to the industry. The readymade garment industry has emerged as one of the important small scale industries in Pakistan. The products produced by this industry has both local and global demand. The local needs are successfully met by this industry and large quantity of these garments is also exported to meet foreign demand. The readymade garments industry is a huge source of foreign exchange earnings for the country. Table 7 below also shows that the export earnings from the garments sector have increased significantly (Economic Survey of Pakistan 2016-17). The quantity of exports have increased from 23.704 million dozen to 24.823 million dozen from 2015 to 2016, showing an increase of 4.7 %, whereas the value of the exports have increased from USD $4.48 billion to $4.60 billion, showing an increase of 4.54% from 2015 to 2016.

The garment industry is also a good source of providing employment opportunities and significantly contributes to creating well paid jobs and improving the trade balance. Around 2,274,800 people were employed by the garments sector in 2014-2015, an increase of about 10% from 2012-2013. Its share in the manufacturing employment was 26.5% in the same time period (International Labor Organization, 2017). The garments industry contributes around 22.43 % to the total exports of Pakistan, whereas its contribution to world trade is approximately 1.056%. The sector has great potential to stimulate economic growth and if properly positioned, is best suited to Pakistan's comparative advantage.

READYMADE GARMENTS EXPORTS				
	2014	2015	2016	% Change (2015-2016)
Quantity (M. Doz)	23,174	23,704	24,823	4.7%
Value (Bn. USD)	4.38	4.48	4.60	4.54%

Table 7: Readymade Garments exports (Trade Map)

	2014	2015	2016
Total Exports of RMG	USD 4.38 Bn	USD 4.48 Bn	USD 4.6 Bn
Exports Contribution of RMG	17.90%	18.80%	22.43%
International Export Market of RMG	USD 412 Bn	USD 445 Bn	USD 435.56 Bn
Pakistan's Contribution to RMG World Trade	1.06%	1%	1.06%
Sector Growth	0.78%		
Employment in 2016	Approximately 2.2 million		
Geographical Concentration	Lahore, Karachi, Faisalabad & Sialkot		

Table 8: Profile of Readymade Garments Sector
(Trade Map, Economic Survey 2016 – 17, World Trade Statistics Review 2016)

The main focus of Pakistan's exports has been on three major markets, the European Union especially Germany, United Kingdom and Spain, and USA. In 2016, the exports of readymade garments to USA were $1.4 billion, $0.6 billion to UK and $0.4 billion to Spain. This reflects around 58% of the RMG exports. The rest of the exports are made to European countries including Belgium, Netherlands, etc. Duty free access was granted to Pakistan in 2014 by the European Union (EU) under its Generalized Scheme of Preferences (GSP+) plus scheme and this is one of the reasons why European countries make it to the top five export destinations of Pakistan in the readymade garments sector.

KEY EXPORT DESTINATIONS			
Country	2014 (USD 000)	2015 (USD 000)	2016 (USD 000)
World	4,387,275	4,487,070	4,600,492
USA	1,530,202	1,520,651	1,413,556
UK	622,431	637,836	643,023
Spain	416,270	443,174	474,008
Germany	357,246	390,439	455,344
Belgium	251,370	254,465	317,910
Netherlands	247,254	274,541	231,692

Table 9: Key Export Destinations (Trade Map)

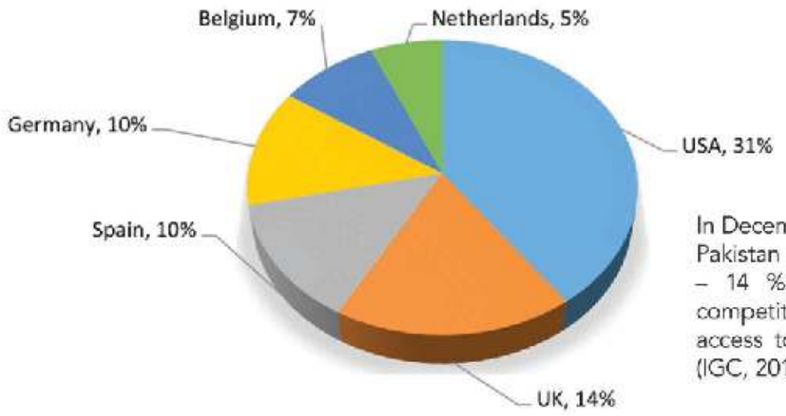


Figure 8: Key Export Destinations - 2016 (Trade Map)

In December 2013, GSP plus status was granted to Pakistan by the EU. This status gave Pakistan a 10 – 14 % duty advantage over major regional competitors and granted member states duty free access to 96 % of Pakistan's exports to the EU (IGC, 2017).

The exports of the readymade garments industry in Pakistan increased by almost 10 % from 2013 to 2015. However, during the same time period, Bangladesh increased its garment exports by 13 % while India increased it's exports by 17 % (IGC, 2017). Therefore, Pakistan was not able to fully realize the benefits of GSP plus status.

The figure below shows that the first two years of the GSP plus status had a positive impact on the exports of the readymade garments. From 2013 to 2015, Pakistan exports to EU increased by 11 % per year whereas its exports to the rest of the world increased only by 1.5 % per year.

It was also revealed by a study carried out by International Growth Center (IGC) that after the GSP plus status, Pakistan's exports in knitwear to the EU grew faster as compared to its exports in woven. Exports of knitwear to EU grew at 6% per year whereas exports of woven to EU grew at 5% per year after the GSP plus status. This is shown in the figure.

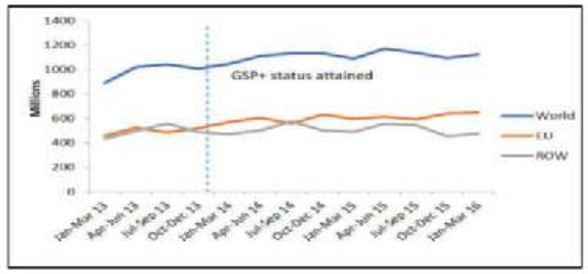


Figure 9: Pakistan's Garments Exports after GSP Plus 2013 (IGC 2017)

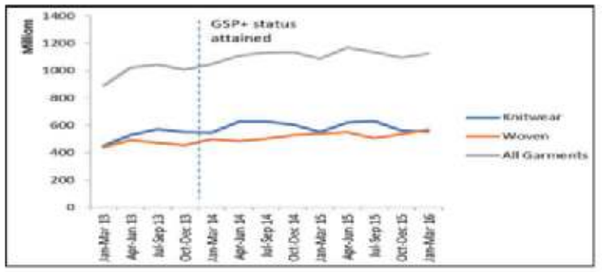


Figure 10: Pakistan's garments exports by categories after GSP plus (IGC 2017)

Despite the evident growth, the literature suggests that Pakistan has not been able to fully exploit the benefit of GSP plus status and one of the most apparent reasons is the energy shortfall. The energy crisis in Pakistan has increased the production costs of the firms and cost of doing business, making them less competitive in the global market[2].

	Bangladesh	China	India	Pakistan
24/7 energy availability to textile industry	Yes	Yes	Yes	No
Energy tariffs cents/KWh	7.3	8.5	9	14
Installed capacity utilization	90%	90%	90%	<70%

Table 10: Energy Tariff Comparison (IGC 2017)

The large firms are able to arrange alternate sources of energy whereas the small ones are not able to meet their power needs. Therefore, the energy crisis not only increases the costs of the SMEs but it also results in production delays. Consequently, the buyer switches to other competing countries for their orders where the production uncertainty is lower. As shown in the table above, when compared with other competing countries like Bangladesh, China and India, energy is not available to the garment manufacturers 24/7 in Pakistan. Moreover, as depicted in the figures below, the tariff on gas and electricity is also much higher as compared to the competing countries.

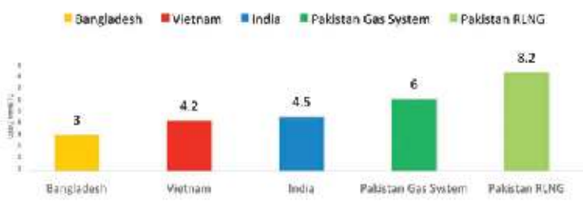


Figure 11: Gas Tariff comparison with competing countries - 2016

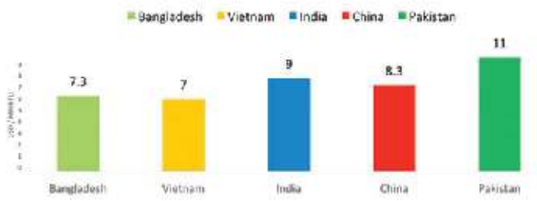


Figure 12: Electricity Tariff Comparison with competing countries - 2016

[2] Refer to the Water fall diagram (Figure 58 of chapter 4) which specifies that utilities contributes 5% to the total cost in case of knitted garments and 8-12% in case of woven garments.

In readymade garments, Pakistan's major exports are in knitwears (HS Code – 61) and woven (HS Code – 62). Top exports HS Codes of Pakistan are given below with description about the products:

HS Code	Product Label
61	Articles of apparel and clothing accessories, knitted or crocheted
6105	Men's or boys' shirts, knitted or crocheted (excluding nightshirts, T-shirts, singlets and other vests)
6103	Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (excluding wind-jackets and similar articles, separate waistcoats, tracksuits, ski suits and swimwear)
6115	Pantyhose, tights, stockings, socks and other hosiery, incl. graduated compression hosiery [e.g., stockings for varicose veins] and footwear without applied soles, knitted or crocheted (excluding for babies)
6109	T-shirts, singlets and other vests, knitted or crocheted
6110	Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted (excluding wadded waistcoats)

Table 11: Pakistan's Major Exports in Knit Wear (World Trade Map)

HS Code	Product Label
62	Articles of apparel and clothing accessories, not knitted or crocheted
6203	Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (excluding knitted or crocheted, wind-jackets and similar articles, separate waistcoats, tracksuits, ski suits and swimwear)
6204	Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (excluding knitted or crocheted, wind-jackets and similar articles, slips, petticoats and panties, tracksuits, ski suits and swimwear)
6207	Men's or boys' singlets and other vests, underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles (excluding knitted or crocheted)
6211	Tracksuits, ski suits, swimwear and other garments, n.e.s. (excluding knitted or crocheted)

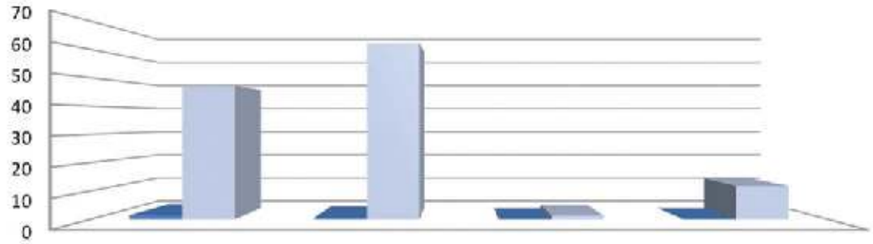
Table 12: Pakistan's Major Exports in Woven (World Trade Map)

Figure 13 and figure 14 show bifurcation and Pakistan's share in world exports in knitwear and woven. In knitwear, Pakistan's share in world's exports is the highest for 6109 (T-shirts, singlets and other vests, knitted or crocheted) i.e. 7.87% and lowest for 6115 (Pantyhose, tights, stockings, socks and other hosiery) i.e. 2.4% (figure 13).

In case of woven, Pakistan's share in world's exports is highest for 6207 (singlets and other vests, underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles) i.e. around 4% and lowest for 6211 (tracksuits, ski suits, swimwear and other garments) i.e. 0.25% (figure 14).

	6105	6103	6115	6109	6110
Pakistan's Export in 2016	0.48 M	0.43 M	0.3 M	0.34 M	0.18 M
World Export in 2016	8.23 M	13.1 M	12.3 M	4.32 M	4.9 M

Figure 13: Comparison of World & Pakistan's Exports in Knit Wears (World Trade Map)



	6203	6204	6207	6211
Pakistan's Export in 2016	1.47 M	0.59 M	0.05 M	0.037 M
World Export in 2016	47.1 M	62.3 M	1.27 M	11.8 M

Figure 14: Comparison of World &Pakistan's Exports in Woven (World Trade Map)

Globally, the demand is high for finished value added products such as garments as compared to goods based mainly on cotton. But when compared to its main competitors like Bangladesh, Sri Lanka, Vietnam, India and Turkey, Pakistan's share in the export of readymade garments has remained very low, as shown in the figure below.

Per capita spending on readymade garments is different in developing and developed countries (Memon, 2016). Australia, being a developed country, has the highest per capita spending on garments whereas Pakistan, being a developing country, has the lowest per capita spending on garments. This view is in line with the findings of in depth interviews conducted with the principal firms in the readymade garments cluster of Lahore. It was found that people's spending on garments is gradually falling because the buying preferences of people are changing. People in Pakistan, especially men, prefer to spend on technology rather than readymade garments.

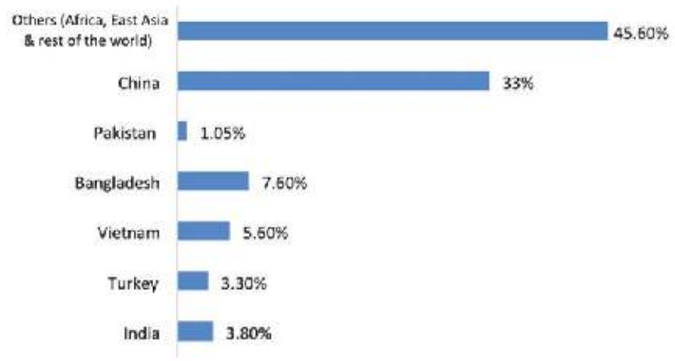


Figure 15: Share in Readymade Garments World Export 2016 (TDAP)

1.3.4 - GEOGRAPHICAL CONCENTRATIONS

Pakistan's textile industry has long historic roots. In the Indus River Valley of Pakistan, cotton was being grown, spun and woven into cloth about 3,000 years BC (Cotton Counts 2007). The production of textiles continued flourishing during different historic regimes such as the Sultanate period, the Mughal dynasty and the British colonial times. During the British regime, India was a primary supplier of raw cotton for textile mills based in Manchester and other parts of the United Kingdom (Johri and Ali, 2007).

After Pakistan's independence in 1947, the Government of Pakistan not only offered attractive packages to industry start-ups, but also invested in the irrigation system of the county. Due to these initiatives, the textile industry continued to grow. Over time, the textile industry became a significant part of the manufacturing sector and its share in exports remained considerably high.

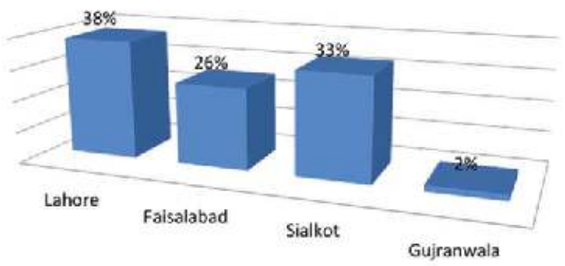


Figure 16: Garments cluster in Punjab (PSDF)

Majority of the textiles and readymade garment units are located in Karachi, Lahore, Faisalabad & Sialkot. A sector skills study carried out by Punjab Skills Development Fund (PSDF) on the garments sector also revealed that the largest concentration of garments sector in Punjab is in Lahore. This cluster is within and around the whole city. As shown in the figure, out of the 250 entities surveyed in Punjab, 38% were concentrated in Lahore, followed by Sialkot and Faisalabad.

It was also found in this survey that each city produces its own specialized products in the readymade garments sector. Denim products are predominantly produced in Lahore, Sports goods and technical wear are mostly produced in Sialkot and Gujranwala, whereas hosiery products are mainly produced in Faisalabad.

1.3.5 - HISTORY OF READYMADE GARMENTS CLUSTER IN LAHORE

One of the leading manufacturers of denim based woven garments, US Apparel, started its operations in Lahore in the late 70s. Lahore became an attraction for other companies as well due to strong spinning infrastructure and availability of local yarn. In the 80s, a number of related businesses began/emerged in the woven sector in/of Lahore. The economy also started to grow when the banks offered access to finance and loans were easily available. Many stitching units were also set up in knitwear, due to which many people acquired skills in stitching. These skills were transformed via Ustaad shagird system[3]. Gray fabric was also locally available. Due to the uncertain political situation in Karachi, many garment units were forced to move from Karachi to Lahore in the late 70s and early 80s.

In the 80s and 90s, the woven sector shifted from low value added to high value added products. From products like cotton yarn or cotton fabric, they shifted to production of items that were adding higher value, such as woven apparel. The fabric producers and spinning units started producing value added products. As the markets became more accessible, the manufacturers and exporters started visiting the European markets personally and a few of them also opened their own offices in these markets.

The Government at that time offered various incentives to the industry such as export rebates, export refinance, duty drawbacks and quota protections. This encouraged many entrepreneurs to set up new industries, helping the cluster to further grow. Garments cluster in Lahore is approximately 35 to 40 years old. The growth of the industry picked up in the mid 90s when many commercial banks opened up their policies and offered soft /easy loans to set up new industries. This played a crucial role in the growth of the garments cluster in Lahore and many units started setting up during and after that period.

Some of the main reason for growth of the cluster included:
- Availability of land
- Favorable political situation
- Law &order
- Availability of cheap labor
- Availability of good quality raw material

[3] A master-apprentice system under which experienced co-workers guide new and less experienced workers on the job.

In the knitwear sector, mostly units were fully integrated whereas the woven units were more specialized and mainly based on the stitching set-ups. Initially, the knitwear producers used to just produce knitted garments and did not take any risks to diversify their product range. But as consumer preferences changed overtime, the knitwear producers diversified their product lines and expanded their businesses to set up an independent unit for the production of woven garments.

1.3.6 - READYMADE GARMENTS CLUSTER IN LAHORE

The readymade garments cluster of Lahore comprises of the following two categories:
- Woven
- Knitwear

Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA) & Pakistan Hosiery Manufacturers & Exporters Association (PHMA) are the two most active trade organizations representing the readymade garments sector in Lahore. PRGMEA & PHMA both have technical training institutes of their own. PRGMEA mainly represents the woven sector whereas PHMA represents the hosiery and knitwear industry.

The readymade garments cluster of Lahore comprises of different sizes of machines starting from 50 to 350 machines for small & medium size units, and 350 or above machines for large size units.

WOVEN PRODUCTS

- Jeans
- Pants
- Skirts
- Shirts
- Leggings
- Jeggings
- Jackets

KNITWEAR PRODUCTS

- Jackets
- Shirts
- T shirts
- Safari suits
- Khakis (Trousers)
- Dress pants
- Uniforms
- Work Wear
- Kitchen wear
- Shalwar Kameez

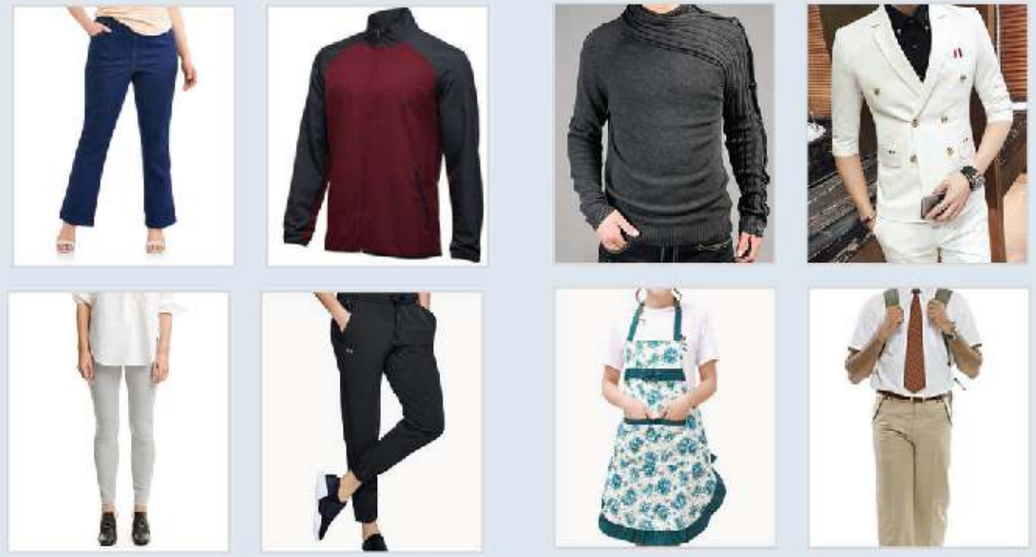


Figure 17: Major products of the cluster

The figure above shows the major products of the cluster. These include mostly basic readymade garments with some semi and high value added fashion items. Main markets are Europe especially U.K., Germany, France & Spain for high value added garments. Companies are exporting directly as well as through buying houses. Very few companies have their branch or sales offices established in Europe or the USA.

1.3.7 - SOCIO ECONOMIC STRUCTURE OF LAHORE

The city of Lahore is bounded on the north and west by Sheikhupura district, on the east by India and on the south by Kasur district. The Ravi River flows on the northern side of Lahore. Lahore district covers a total land area of 1772 sq. km (Bureau of Statistics, Punjab). The city is growing at a considerable rate. The city lies between 31°15' and 31°45' North latitude and 74°01' and 74°39' East longitude.

The population of Lahore is more than 11.1 million. Male and female population ratio is approximately 53 and 47 percent respectively. Lahore district comprises of 2 tehsils and 9 towns. There are approximately 1,352 educational institutions including degree and post graduate colleges (Bureau of Statistics, Punjab).

Literacy rate of the city is 73 %. (Bureau of Statistics, Punjab). Lahore has 318 health institutions, which include hospitals, dispensaries, basic health units, etc. (Bureau of Statistics, Punjab).

Lahore is the provincial capital of Punjab. It is the 2nd largest city of Pakistan and an important hub of economic activity. Major industries situated in the district include foundries, textile units, automotive, footwear, food and beverages. The city is the largest software producing and exporting city in the country.

In Lahore, there are more than 2950 factories and approximately 200,000 people are employed in them (Bureau of Statistics, Punjab). There are three types of employment categories in the city (Labor Force Survey 2013):

- Regular 45.18 %
- Casual / Daily 28.19 %
- Piece Rate 25.75 %

GDP (PPP) Per Capita Income of the city is approximately US $ 1,100 (PWC).

1.3.8 - MAJOR CLUSTER ACTORS

1.3.8.1 - GARMENTS PRODUCERS & EXPORTERS (LARGE COMPANIES)

Large companies of garments producers and exporters are the leading and key actors of the industry. They drive the industry and are also involved in dialogue with the government to provide feedback on various laws and regulations. These companies are well organized, have departments for each operation and have significantly large infrastructure and production capacity. They have more than 350 machines on average. They prepare their own collections and invest in research and development as well. Their marketing department is usually very active and most of the sales are direct. In Lahore, there are approximately 10 – 12 companies that fall in this category. They have no sales in local market. They produce for renowned foreign brands.

1.3.8.2 - GARMENTS PRODUCERS & EXPORTERS (SMALL & MEDIUM COMPANIES)

Small and medium sized companies of garments producers and exporters are the other key actors of the industry. Most of them do little or no research and development and do not usually have an organized company structure. Departments are often overlapping. Samples are provided by the buyers which they produce as is with no innovation. They have 50 – 350 machines on average. Usually the owner is doing the marketing and meeting the buyers. Majority of their sales are through buying houses and they are export oriented. Some of their operations are also out-sourced such as dyeing and washing. They have a considerable potential for growth both in domestic and foreign markets.

1.3.8.3 - CMT UNITS

CMT stands for Cut, Machine and Trim. These units have the least business volume. They are small and perform only a part of the value chain i.e. fabric is supplied from some other producer and they do not do washing, labeling, inspection or packing. There are also a few informal units, which are provided with specifications and fabric by the bigger units. They cut the fabric, stitch it and trim the garment. The garment is then returned to the same unit that provides the fabric. These CMT units work for large, medium and small companies when they have more orders than their capacity and also for small entrepreneurs and buying houses.

1.3.8.4 - RAW MATERIAL SUPPLIERS

More than 95 % of the raw material is purchased and is available locally. It is of good quality and companies do not see any need of importing unless specified by the buyer. Majority of the woven fabric is purchased from Karachi and some from Lahore, whereas most of the knitwear companies procure their fabric from Faisalabad and Lahore. 5 % of the fabric is imported from China, Turkey & Hong Kong.

1.3.8.5 - ZIPPERS

YKK is internationally the most renowned brand for zippers. Almost all the large and medium size companies use zippers of YKK. YKK has its factory in Karachi and all the companies purchase from there. Small companies use other imported zippers to reduce the cost. They import these from China & Hong Kong. In some cases large and medium sized companies also import zippers when specified by the buyers to purchase it from their vendor located in some other country.

1.3.8.6 - METALS & OTHER ACCESSORIES

Metals such as buttons and other accessories are imported from China & Hong Kong. Their timely delivery is an issue for the companies. Delays are usually faced in customs clearance. Buttons and other accessories which are available locally are of very low quality and are way below the standards to be used for exports. Therefore, manufacturers who are exporting have to import the metals and accessories. There is a huge demand for buttons and other accessories, and if any company can produce them locally with high quality, it will have tremendous potential of growth.

1.3.8.7 - MACHINERY SUPPLIERS

All the machinery used in the readymade garments industry is imported. More than 85 % of the machinery is from Korea, Taiwan, China & Japan. The remaining 15 % of the machinery is imported from Germany, Turkey & Spain. Machinery imported from European countries and Turkey is mainly used for Cutting and Washing (Wet & Dry Processes). Some of their suppliers and distributors are available locally with a majority of them in Karachi. Spare parts are available locally and companies do not face any major issues / hurdles in case of breakdowns.

1.3.8.8 -PACKAGING MATERIAL SUPPLIERS

All the packaging material required for packaging and transportation, such as cartons are available locally. There are many companies in this field and their packaging is of good quality, which is accepted worldwide. However, due to increasing cost of utilities their prices are also increasing.

02 INSTITUTIONAL FRAMEWORK

This chapter will provide an insight into the dynamics of the readymade garments cluster by assessing the current cluster institutional framework and the role of support firms in guiding the readymade garments sector in the right direction.

Institutional setup is divided into two categories:

1. Public (Government Ministries & Attached Department)
2. Private (NGOs, Financial Institutions, Associations etc.)

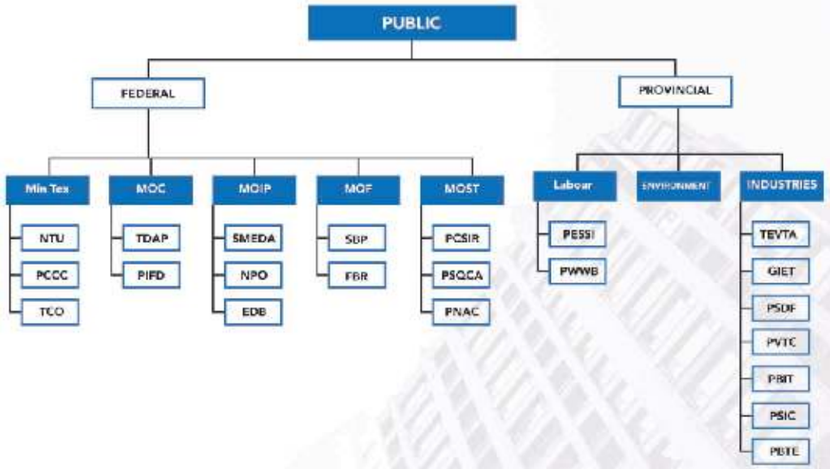


Figure 18: Federal & Provincial Ministries & Attached Departments

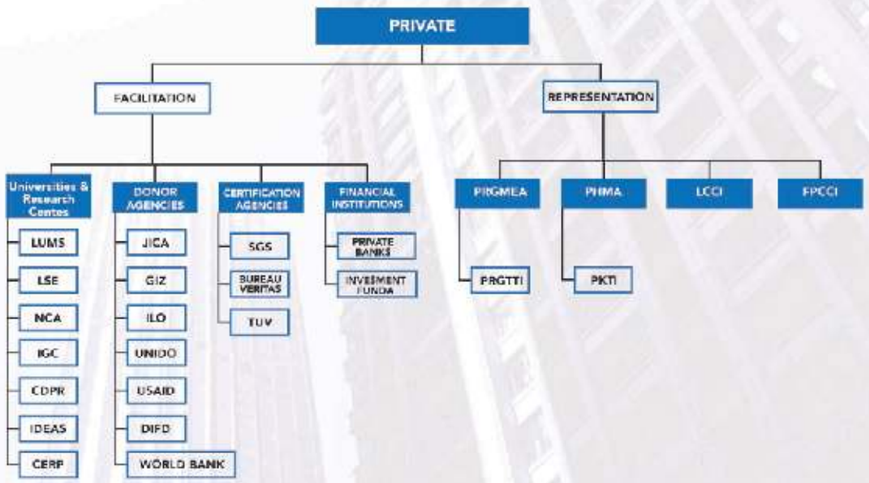


Figure 19. Private Facilitation & Representation Agencies

Government ministries and their attached departments, private facilitation agencies and representative bodies that are directly linked with the readymade garments industry and play / hold a critical role have been discussed below:

2.1 - FEDERAL & PROVINCIAL MINISTRIES

2.1.1 - MINISTRY OF TEXTILE INDUSTRY

The Ministry of Textile Industry comes under the domain of the Government of Pakistan. It was created in 2004 combining all textile related functions of the Ministries of Commerce, National Food Security & Research and Industries and Production. Some of its functions are still under the ambit of other ministries, e.g. trade negotiations on textile are looked after by the Ministry of Commerce. It is also linked very closely with other ministries such as Climate Change and Overseas Pakistanis &Human Resource Development.

In 2014, the Ministry of Textile announced the 2ndTextile Policy for a period of 5 years with a vision to become a leading country in the field of export of value – added textile products. The key goals of the policy are under:

- To double textile exports from $13 billion per annum to $26 billion per annum in the next five years.
- To improve the product mix, especially in the garment sector from 28% to 45%.
- The SME sector will be the main focus of attention to enhance growth in value-added products through support and incentives schemes.
- Vocational training of workers for capacity building, internships and different programmes for enhancement of skills and higher per capita productivity would be introduced.

In order to implement the policy and facilitate the industry, the Ministry has restructured the Federal Textiles Board. This Board will now only be used to monitor the progress and implementation of the policy. Strategic master plans will be developed especially for export promotion, SME development etc.

2.1.2 - MINISTRY OF COMMERCE

The Ministry of Commerce is a federal ministry and comes under the ambit of the Government of Pakistan. It deals with the exchange of goods and services from producer to the final consumer. It comprises the trading of something of economic value such as goods, services, information, or money between two or more entities. It contributes to the national economy through liberalization and facilitation, improving export competitiveness and reducing the cost of doing business in the country. The Ministry has Commercial Counsellors / Trade Ministers and offices in Pakistan's embassies and high commissions all over the world to achieve higher market access for Pakistani products in existing markets as well as new markets with the ultimate aim of increasing exports. The Trade Development Authority of Pakistan (TDAP) is a key attached organization of the Ministry of Commerce responsible for trade promotion. The Commerce Ministry's key functions are: Imports and exports across custom frontiers, Export promotion, Commercial intelligence and statistics, Tariff policy and its implementation, Anti-dumping duties, countervailing duties and safeguard laws.

2.1.3 - INDUSTRIES, COMMERCE & INVESTMENT DEPARTMENT

The Industries, Commerce & Investment Department is one of the major Government institutions striving to promote industrial development, trade and investment in the province of Punjab. The main focus of activity of this department is the promotion of trade and investment in the province. The main objectives of the Industries, Commerce & Investment Department are:

- Promotion of Industry & Investment in the Province
- Advocacy and Implementation of Trade & Investment Policies
- Improve product competitiveness and Export Supply Chains
- Conduct research and provide technical expertise to the private sector
- Land acquisition for industries and industrial estates

2.2 - GOVERNMENT SUPPORT INSTITUTIONS

2.2.1 - SMALL & MEDIUM ENTERPRISES DEVELOPMENT AUTHORITY (SMEDA)

SMEDA is the premier institution of the Government of Pakistan under the Ministry of Industries & Production for the development of SMEs. Its main focus is on providing an enabling environment and business development services to SMEs. SMEDA is an autonomous body and a development organization established in 1998. Its head office is located in Lahore due to the presence of major clusters of SMEs close to the city. Its regional offices are spread all across Pakistan. SMEDA is working with many International donor agencies such as JICA, UNIDO, USAID, World Bank, IFC, ADB and EU. Some of the functions of SMEDA are to: Formulate policy to encourage the growth of SMEs in the country, advise the Government on fiscal and monetary issues related to SMEs, facilitation of SMEs in securing financing, donor assistance for SME development through programs and projects and assist SMEs in getting international certifications for their products and processes.

2.2.2 - TRADE DEVELOPMENT AUTHORITY OF PAKISTAN (TDAP)

The Trade Development Authority of Pakistan (TDAP) was established in November 2006. The Ministry of Commerce, Government of Pakistan is its administrative ministry. Its purpose is to promote exports through focus, synergy and with collective wisdom and consul of its stakeholders. TDAP is the premier trade organization of Pakistan. Major activities of TDAP are:

- To provide recommendations for national policy in order to maximize exports of goods and services
- To plan and organize exhibitions, and arrange delegations to and from Pakistan
- To examine supply chains of strategic export sectors and develop plans and initiatives
- To facilitate the availability of finance to exporters and export oriented SMEs
- To promote the establishment and development of professional, educational and training organizations connected with exports with a view to improving the management of export business

TDAP has offices all across Pakistan and also has a close liaison with Pakistan's trade missions abroad.

2.2.3 - FEDERAL BOARD OF REVENUE (FBR)

The Federal Board of Revenue (FBR) earlier known as Central Board of Revenue was established on April 01, 1924 through enactment of the Central Board of Revenue Act, 1924. In July 2007 the Central Board of Revenue became Federal Board of Revenue. FBR is an attached department of The Ministry of Finance, Government of Pakistan. The Chairman FBR is the Executive Head of the board. FBR is responsible for administering tax laws and acts as the central revenue collection agency of the Government of Pakistan. The main functions of FBR are formulation and administration of fiscal policies, levy and collection of federal taxes and hearing of tax cases and appeals.

The FBR has two major wings: the Inland Revenue and Customs Department. The Inland Revenue wing administers domestic taxation including sales tax, income tax and federal excise duties and is the main component of FBR. The Pakistan Customs Service administers import duties and other taxes collected at the import stage, as well as regulating international trade with regard to prohibitions & restrictions imposed by the Government.

2.2.4 - PUNJAB SMALL INDUSTRIES CORPORATION (PSIC)

Punjab Small Industries Corporation (PSIC) works under the ambit of the Industries, Commerce & Investment Department of the Government of Punjab. PSIC was established in 1972 with the mission to promote sustained industrial development through provision of market driven credit, infrastructure and technology support contributing to employment generation, poverty alleviation and socio – economic uplift of the province. PSIC is an important instrument for enterprise building, micro economic development, employment generation and poverty alleviation.

2.2.5 - PUNJAB BOARD OF INVESTMENT & TRADE (PBIT)

The Punjab Board of Investment & Trade (PBIT) is the premier trade and investment promotion agency of the Government of Punjab and was established in 2009. PBIT's focus is mainly around three key objectives: facilitating new and existing businesses; creating a mutually beneficial business environment through proactive policy advocacy both at the provincial and federal level and promoting Punjab as the ultimate investment destination. It provides investors and businesses with a one-window facility and reduces their time to market their products. Punjab Board of Investment & Trade actively conducts and participates in global and local trade and investment events. It provides services to investors, exporters and local businesses.

2.3 - ASSOCIATIONS & CHAMBERS

2.3.1 - PAKISTAN READYMADE GARMENTS MANUFACTURERS AND EXPORTERS ASSOCIATION (PRGMEA)

Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA) is a non-profit organization registered under the Trade Organization Act and working under the Ministry of Commerce; it was established in 1985. PRGMEA has a zonal office in Lahore, which was established in 1990. The main concentration of PRGMEA members is in Karachi, Lahore and Sialkot.

PRGMEA's head office is in Karachi, which also looks after the south zone. There is a North region zonal office in Lahore, whereas in 2017, PRGMEA also opened a branch office in Sialkot. The North zone office of PRGMEA represents the manufacturers and exporters in the Punjab and Khyber Pakhtunkhwa provinces. PRGMEA has more than 1000 members in Pakistan, out of which 400 are in the north zone. In Lahore, PRGMEA has 175 members.

PRGMEA, being the representative association, facilitates members by providing data and acts as a strong voice of the garments sector in front of different government agencies and departments like excise and taxation, customs and different ministries. It also gives policy recommendations at various national and provincial levels.

2.3.2 - PAKISTAN HOSIERY MANUFACTURERS & EXPORTERS ASSOCIATION (PHMA)

Pakistan Hosiery Manufacturers & Exporters Association (PHMA) is the premier trade organization representing the hosiery and knitwear industry of Pakistan; it was established in 1960. PHMA was established to promote, develop, protect, stimulate and etncourage the hosiery, knitwear and all made-ups sector and to raise the standard of production in order to enhance exports. Its head office is in Karachi with a North Zone office in Lahore. In Lahore, PHMA has 112 members.

PHMA in collaboration with Bfz GmbH- International Division has established a technical support cell whose purpose is to provide sustainable, reliable and affordable services related to energy, environment and engineering aspects to the members of PHMA. PHMA has established a technical training institute named Pakistan Knitwear Training Institute (PKTI) established in Lahore for providing technical education to the work force of hosiery and knitwear industry.

2.3.3 - LAHORE CHAMBER OF COMMERCE & INDUSTRY (LCCI)

Lahore Chamber of Commerce & Industries (LCCI) is a private organization under the Company's Act. It has more than 8,000 members. Out of these,27 are Executive members (President, Senior Vice President, Vice President and 24 Executive members) and each member is elected for 3 years. LCCI collects information, discusses problems in meetings and sends recommendations to the Federal and Provincial Government. LCCI works to safeguard and protect the interest of the business community and plays an advisory role in different policies and initiatives.

2.4 - UNIVERSITIES & RESEARCH CENTRES

2.4.1 - PAKISTAN INSTITUTE OF FASHION DESIGN (PIFD)

Pakistan Institute of Fashion and Design (PIFD) started off as Pakistan School of Fashion Design (PSFD) in 1994 as a project of the Export Promotion Bureau (EPB), Ministry of Commerce and Government of Pakistan. The institute now has an affiliation with the most renowned fashion school in France, Ecole de La Chambre Syndicale de La Couture, Paris.
PIFD specializes in Design Education, which provides a platform to all those students who have the capability to design innovative products. By focusing on the relationship between the designed product and the consumer, the design education at PIFD caters to the demand of the industry. Out of the four schools/faculties that the institute offers, the School of Textile Design and School of Fashion Design are the ones that directly have an impact on the textile industry. Textile Design at PIFD is further bifurcated into two options; home or apparel design. Under this faculty/school, students get to know about the different fabric qualities, use of appropriate fibers, yarn, etc. They also get the chance of learning skills like weaving, knitting, printing and finishing. All the students are employed by the industry after graduating from PIFD. They are hired by design houses, export houses, textile manufacturers and the retail world.

The School of Fashion Design at PIFD focuses on exploring new methods as well as trends in designing and creating garments. Under this program, students also get the opportunity of getting two weeks training at Ecole de La Chambre Syndicale de La Couture, Paris. Once graduated, students are capable enough to start their own designer brands. Fashion design graduates are also hired by other designers, design houses and industries.

To establish strong linkages with the industry, students visit the industry every semester and are also required to work on an industrial project in order to have an exposure about the challenges that the textile industry in Pakistan is facing. The students directly work in the labs that are fully equipped with latest machinery and state of the art equipment. These include weaving labs, knitting labs, pattern making labs, draping labs, design studios, fabric museums, etc.

2.4.2 - NATIONAL TEXTILE UNIVERSITY (NTU)

National Textile University (NTU) is an institute of textile education in the country which meets the technical and managerial human resource needs of the entire textile industry of Pakistan. The faculty of Engineering and Technology at NTU has a department of yarn manufacturing, weaving, knitting, textile processing, polymer engineering and material and testing. The Department of Garments Manufacturing offers undergraduate programs in Textile Engineering and Textile Apparel Merchandizing. This department equips the students with the skills necessary for employment in the home textile industry, knitwear industry, denim garments industry, readymade garments industry, sportswear industry, buying houses and teaching areas. Students interact with the industry throughout the program. The Department of Garments Manufacturing has a fully equipped swing lab, updated software such as Accumarks, Fashion studio, Vstitcher, etc. Once graduated, the students find managerial positions in merchandizing, production, quality, marketing and product development of sewn product industry.

The Department of Design under the faculty of Humanities and Social Science offers Bachelor programs in Fashion Design as well as Textile Design. This department follows a research based approach to design and offers facilities such as sewing and weaving labs, 3D art workshops, drawing studios, draping labs and several design studios. After acquiring this degree, students usually become textile designers, fashion designers, surface designers, stylists, graphic artists, etc.

2.4.3 - CONSORTIUM FOR DEVELOPMENT POLICY RESEARCH (CDPR)

The Consortium for Development Policy Research (CDPR) is a nonprofit association of independent researchers, which is sponsored by the Pakistan office of the International Growth Center (IGC). The Center for Economic Research (CERP) and Institute of Development and Economic Alternatives (IDEAS) are the participating organizations. CDPR is carrying out extensive research on the garments sector of Pakistan; its role as a modernizing industry, its performance following the attainment of GSP plus status, its role in country's economic growth and job creation and its comparative analysis with other competing countries.

2.4.4 - NATIONAL COLLEGE OF ARTS (NCA)

National College of Arts (NCA) is an arts college in Lahore, which offers a number of undergraduate and graduate degree courses. Keeping in mind the requirements of the job market, these degree courses provide a platform to students to explore and express their creative ideas. The Department of Design at NCA offers four disciplines and a textile department is one of them. It aims to develop critical and technical skills in patterns, weaves, knits, embroidery, embellishment and the value addition that can be created through motifs, colours, materials, fashion trends, etc. The industry based internship programs are part of the four year degree program and train the students on facing the challenges the industry faces.

2.5 - TRAINING INSTITUTES & BODIES

2.5.1 - PUNJAB SKILL DEVELOPMENT FUND (PSDF)

Punjab Skills Development Fund (PSDF) is a not for profit company set up under the Companies Ordinance 1984 by the Government of the Punjab in collaboration with the Department for International Development UK. PSDF has a unique model as it does not provide the training itself. It funds training programs by other training institutes in the public, private and non-profit sectors.

In readymade garments, PSDF offers various training courses such as computer pattern design, fashion design, pattern drafting and cutting, production planning and control, quality control in garments, knitting machine operator and apparel merchandizing. Skills for Garments Program was launched by PSDF in 2013. Till now, PSDF has trained approximately 10,135 trainees in the garments sector.

2.5.2 - TECHNICAL EDUCATION & VOCATIONAL TRAINING AUTHORITY (TEVTA)

Technical Education and Vocational Training Authority (TEVTA) was set up by the Government of Punjab through an ordinance (No XXIV of 1999), which has now been replaced by the TEVTA Act(Act X of 2010) in Punjab. Its basic objective is to promote and provide demand driven technical education and vocational training. Currently TEVTA has a total of 394 institutes.

TEVTA responds to the needs of the readymade garments sector by offering three, six, twelve and twenty four month courses in Industrial Stitching, Dress Making, Dyeing and Finishing, Fabric Inspecting, Wool Textile Technology and Export Import Documentation. TEVTA has designated 3 service centers in Jhang and Faisalabad, which are offering services to the textile sector in Punjab.

Skilled Labor Market Information System (SLMIS) is a job portal service provided by TEVTA in order to help its trainees get employment after acquiring training. Through this portal, the local garments industry and overseas employers have access to the profiles of students, trade wise as well as district wise.
An industry partnership program was initiated by TEVTA for which fundingwas provided by the World Bank. The framework of the partnership has been developed in such a way that 55% of the students are hired by the industry. TEVTA, in collaboration with industry, is offering short courses in the garments sector in Punjab.

2.5.2.1 - GOVERNMENT INSTITUTE OF ENGINEERING AND TECHNOLOGY (GIET)

The Government Institute of Engineering and Technology is one of the most important initiatives undertaken and funded by the Turkish Cooperation and Coordination Agency, TIKA in April 2017. This institute is being run and operated by TEVTA. It provides technical training in three disciplines of denim's value chain; stitching, wet & dry and laser. Courses for stitching and laser are 6 months long whereas courses for denim wet & dry are 12 months long. TEVTA provides the curricula but the course outlines are designed by GIET.

2.5.3 - PUNJAB VOCATIONAL TRAINING COUNCIL (PVTC)

Punjab Vocational Training Council (PVTC) was established in 1998. It utilizes Zakat funds in order to alleviate poverty by providing demand driven skills training to the deserving youth. The private sector is involved in order to ensure employability of the trained individuals. 326 vocational training institutes have been set up all over Punjab in order to impart training in different trades. Till now, almost 445,169 trainees have been trained by PVTC and 74% of them have gained employment. PVTC responds to the needs of the textile sector by providing training in Industrial Stitching, Fashion Designing, Dress Making, Embroidery, Domestic Tailoring, Computer Textile Designing, Computer Pattern Designing, Textile Fitter and Textile Weaving. Training for these courses is provided both on the job and in the vocational training institutes.

2.5.4 - PAKISTAN READYMADE GARMENTS TECHNICAL TRAINING INSTITUTE (PRGTTI)

The Ministry of Textile Industry, Government of Pakistan and Pakistan Readymade Garments Manufacturers and Exporters Association (PRGMEA) initiated a project called Pakistan Readymade Garment Technical Training Institute (PRGTTI) in 2001. This training institute aims at providing skills, which eventually leads to employment of the trained individuals. PRGTTI provides technical and vocational training for the complete supply chain of the garments industry. PRGTTI offers 3 to 6 months training courses, which includes Merchandising Management Techniques, Computerized Industrial Embroidery, Production Planning and Control, Quality control and Assurance, Garment Machine Operators, Business Communication Skills, CAD/CAM (Computerized Pattern Designing) and Pattern Drafting & Grading. Till now, PRGTTI has trained almost 10,000 candidates, both male and female.

PRGTTI has strong linkages with the employers in the garments industry. Due to the public-private framework adopted by PRGTTI, almost 80% of students get jobs in garment factories after the training is completed. PRGTTI is working with many national and international organizations.

2.5.5 - PAKISTAN KNITWEAR TRAINING INSTITUTE (PKTI)

Pakistan Knitwear Training Institute (PKTI) based in Lahore is a project of the Ministry of Textile Industry, Government of Pakistan and the business community based on public private partnership. It was set up in 1994 with the basic objective to provide training to the knitwear garments industry of Pakistan. Realizing the importance of the knitwear garments sector and its contribution towards the economy of the country, this institute offers different courses with a duration varying from 2 months to 1 year. These include Industrial Stitching Machine Operators, Circular Knitting Machine Operators, Fabric Cutting Expert, Fabric printing, Fashion Designing and many more. The institute has fully equipped stitching, knitting, dyeing and computer labs.

2.5.6 - SCHOOL OF ARTS & TEXTILES FOR GARMENTS INDUSTRY (SATGI)

SATGI is also offering training in different short courses in various disciplines of garments value chain with a duration varying from 3 months to 1 year. However, the most demanded courses are Stitching Machine Operator, CAD/CAM Digital Embroidery Design, Fabric Cutting and Fashion Design Hosiery. Till now, SATGI has trained 1700 students, out of which 30% are females. SATGI is also collaborating with PSDF for training of 1200 individuals over a period of 2 years.

2.6 - INTERNATIONAL DONORS & NGOS

2.6.1 - JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Japan International Cooperation Agency (JICA) was established in 1974 as the Japanese international donor and assistance agency. The headquarters of JICA are in Tokyo, Japan with offices all around the world.

JICA has cooperated in the economic and social development of Pakistan in various sectors such as power, industry and investment, transport, agriculture and irrigation, education, health etc. In 2016, JICA launched a new technical cooperation project called "The Project for Skills Development and Market Diversification of the Garment Industry", which is offering technical assistance to PRGMEA & PHMA, especially to their training institutes PRGTII and PKTI.

2.6.2 - UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)

United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations dedicated to promoting sustainable industrial development in emerging economies. Established in 1968 and located in the capital city, Islamabad, the UNIDO Representative Office in Pakistan has extensive and successful experience in industrial development cooperation. UNIDO in Pakistan is actively involved in continuous interaction with the public and private sectors and has implemented over 50 projects covering many industrial sectors.

UNIDO initiated a cluster development program in Pakistan in 2001, which covered five pilot clusters: leather and leather products, gems and jewellery, readymade garments, fans and cutleryt. The Cluster Development Initiative (CDI) is the 2nd cluster development project in which UNIDO has been assigned the role of providing assistance to the Punjab Small Industries Corporation, Government of the Punjab.

2.6.3 - DEUTSCHE GESELLSCHAFT FUR INTERNATIONALE ZUSAMMENARBEIT (GIZ) GMBH

Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH has been actively involved in Pakistan for more than 54 years. GIZ has been working in Pakistan on behalf of the German Government and has maintained its country office in Islamabad since 1990. GIZ's projects and programs in Pakistan are among its largest worldwide. It has more than 60 international and 400 national staff working in various sectors.

In the readymade garments sector, GIZ has initiated several projects in the fields of technical and vocational education and training reforms, implementation of social standard in the textile and garment industry and competency based curriculum development for both hosiery and woven sector.

2.6.4 - INTERNATIONAL LABOUR ORGANIZATION (ILO)

International Labour Organization (ILO) established in 1919 brings together governments, employers and workers in UN member states to set labour standards, develop policies and devise programmes for promotion of decent work for all men and women. It aims to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue on work related issues.

In Pakistan, ILO has a wide range of programmes and projects in the form of technical cooperation. In the readymade garments sector, ILO has conducted various initiatives, workshops and trainings on competency standard development, women workers training, competency based curricula development and gender dynamics of employment.

2.7 - FINANCIAL INSTITUTIONS

2.7.1 - STATE BANK OF PAKISTAN (SBP)

The State Bank of Pakistan (SBP) is incorporated under the State Bank of Pakistan Act, 1956, as the central bank of Pakistan. The SBP Act mandates the Bank to regulate the monetary and credit system of Pakistan and to foster its growth in the best national interest with a view to securing monetary stability and fuller utilization of the country's productive resources.

SBP-Banking Services Corporation (SBP-BSC), established in 2001supports the SBP in performing functions such as handling of currency and credit management, facilitating the inter-bank settlement system, and sale/purchase of savings instruments of the Government on behalf of the Central Directorate of National Savings. It also carries out operational work relating to development finance, management of public debt, foreign exchange operations and export refinance.

In order to deal with small and medium enterprises and exports, SBP in 2011 established an Infrastructure, Housing and SME Finance department.The department is responsible for creation of an enabling regulatory environment for SME, housing and infrastructure finance. It plans and executes market development initiatives, capacity building programs, and measures for financial literacy.

The Infrastructure, Housing and SME Finance department is also responsible for designing, implementing and monitoring short and long term schemes such as Export Finance Scheme and Long Term Financing Facility for enhancing exports of the country.

2.8 - CERTIFICATION AGENCIES

2.8.1 - SGS

SGS is the world's leading inspection, verification, testing and certification company. SGS Pakistan has been providing services for the last 54 years. The Company has two textile laboratories located in Lahore and Karachi. These labs verify the quality of the product as per the requirements of buyers. In these labs, 22 tests for both European and American markets for fabric and garments are carried out. Some of the major tests carried out are: Strength Tests, Performance & Flammability Test, Shrinkage / Dimensional Test, Appearance After Wash, Color Fastness Tests and Construction Analysis.

2.8.2 - BUREAU VERITAS

Bureau Veritas established its office in Pakistan in 1999 in Karachi and in Lahore in 2001. Bureau Veritas operates in the field of management systems certifications, energy & process, in-service verifications, building & facility, HSE, pre-shipment inspections and international trade division.

In 2007 Bureau Veritas established its testing laboratory for textiles and garments which was further expanded and upgraded in 2015. This lab specializes in product testing for textiles and garments. The lab offers a full range of services including chemical, physical, analytical, and regulatory testing as well as inspections, audits and social compliance services.

03 CLUSTER ASSESSMENT

An enterprise-level survey was conducted from July to October 2017 to collect detailed information from readymade garments manufacturers of Lahore in order to understand the facts and ground realities of the sector. Backward and forward linkages as well as support institutions and business development service providers were also visited. From a sample of 40 readymade garment manufacturing enterprises in Lahore, information on technical and non - technical details were sought from the manufacturers during field visits and meetings.

In order to have detailed information on the entire sector, manufacturers of both woven and knitted garments were visited. There are four – five basic stages in finished garment production: dyeing, cutting, stitching, washing (woven only) and finishing. The standard method for knitting / weaving fabricis to run a knitting / weaving machineloaded with yarn to produce fabric, while the standard method for making garments from fabric is to use an assembly line of sewing machines and operators. As the process flows, the machinery and production of finished woven and knitted garments is different, therefore the cluster survey was carried out on both woven and knitwear manufacturers.

The sample included 40 entities, which included registered members of PRGMEA and PHMA as well. All the enterprises were producers of readymade garments. 6 enterprises which were not members of associations and were part of the informal sector refused to provide information or share any details. Therefore, the total sample size for collection of information was 34.

For the survey, a structured and purpose-designed questionnaire was developed with the assistance of UNIDO's international and local experts.The questionnaires were filled for each enterprise by visiting them and seeking information through direct interviews and general discussions either with the Owner, General Manager or other senior officials. As we sought specific information on each enterprise's technology, production, marketing, human resources etc., the heads of relevant departments and other key individuals were also met. It is also important to mention that the data was collected from small, medium and large manufacturers.

3.1 - TRENDS

During the interviews / visits, trends of the manufacturers for the last 3 – 5 years were discussed in terms of sales, profits, exports, prices, number of products, production capacity etc. It can be noticed from the graph below that the sales of 47 % manufacturers have decreased while only 29 % of them managed to increase their sales. Survey findings revealed that the sales have experienced a decrease in the cluster mainly due to high cost of doing business, energy and marketing constraints. Small and medium firms supplying material and services to garment exporters are not able to make alternative arrangements for electricity and gas shortages. This causes delays in the entire value chain and these delays result in exclusion of Pakistani firms from the buyers' list of reliable suppliers.62 % of the manufacturers said that their profits have decreased significantly and 64 % said that the overall prices of their products have also decreased though the exports of 38 % manufacturers remained unchanged. In order to remain competitive, the Pakistani exporters have to offer low retail prices for their products of reasonable quality. Countries like Bangladesh offer very low retail prices to their buyers because their cost of doing business is much lower; electricity is available to the Bangladeshi garments manufactures and the minimum wages are also very low. In order to compete globally, the overall Pakistani exports in garments are concentrated around the lower end of the price range. Prices have decreased and cost of doing business has gone up due to which the profit margins of the garment manufacturers have been squeezed. 68 % of manufacturers said that the number of products remained the same while remaining 32 % said that their number of products have increased. The garment exports in Pakistan have a relatively narrow base, with few products accounting for bulk of exports. Firms do not want to take the risk of diversifying their product range. Tariff and non-tariff barriers on man-made fibre (MMF) yarn and various kinds of fabrics and accessories have limited the manufacturers to produce different kinds of products. This could be the reason why the number of products has mostly remained the same. Production capacity of 50 % of the firms remained unchanged while it increased for 26 % of the manufacturers. 24 % of them claimed that their production capacity has decreased due to lack of orders. Due to poor security, political uncertainty and law and order situation of the country, the international buyers have a high country risk perception of the country. Interaction with international buyers is very important especially when the firm diversifies its product range and moves up the price range for its products. Since international buyers are reluctant to visit Pakistan, the garment exporters end up with small orders, which are less time sensitive and at the lower end of the price range. This directly impacts the capacity utilization of the producers and explains the reason why the production capacity has remained unchanged or decreased for a majority of the garment manufacturers.

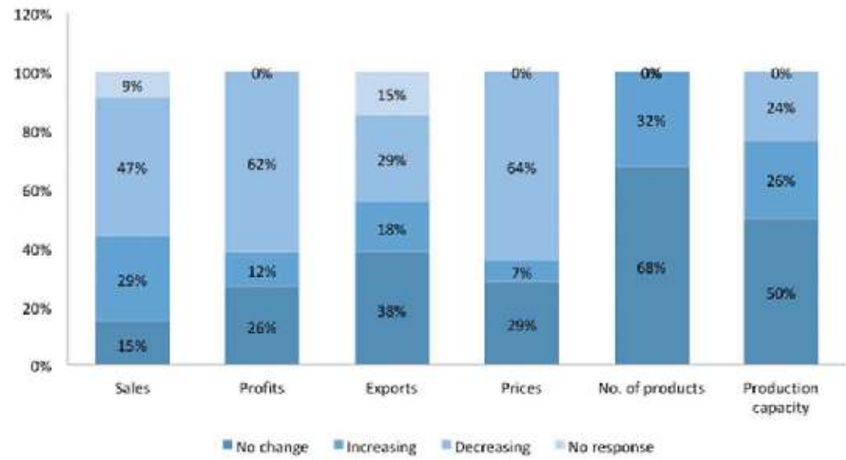


Figure 20: Trends of last 3 – 5 years

It has been noticed that the large manufacturers which are doing business with 1 or 2 big buyers have managed to increase their sales, profits, exports and production capacity due to reliable and sustainable relationship they established with their clients while small and medium size manufacturers have either managed to keep their sales, profits, exports and prices stagnant or have faced a decrease. This is mainly because the SMEs are facing a lot of challenges over the last decade or so, due to a number of factors like energy shortages, high labour cost, lack of research and development, marketing constraints, high cost of doing business, lack of access to finance, buyers not visiting Pakistan, etc.

3.2 - RAW MATERIAL

Readymade garments cluster of Lahore relies mainly on domestically produced woven and knitted fabric. Pakistan's cotton varieties are well suited for the production of denim. In knitwear, Pakistan has advantage in heavy knits such as fleece and jerseys. The fabric is produced mainly in Karachi, Faisalabad and Lahore. Textile mills deal directly with the readymade garments manufacturers and in some cases they have appointed agents / dealers for supply of fabric.

During the survey it was observed that 86 % of the manufacturers procure their fabric locally from Karachi, Faisalabad and Lahore while 14 % partially use imported fabric or thread, depending on buyers demand. Fabric produced in Lahore is expensive and is mostly exported or utilized by the manufacturer itself who is vertically integrated. Small and medium companies mentioned that when the need arises, the fabric is available to them at 2 % credit on monthly basis. Prices of the fabric are generally stable with very little or no fluctuation. The relationship between the fabric producers and garment manufacturers is stable and the supply is of good quality. Fabric is delivered on time.

It was observed that the dynamics of readymade garments industry has changed drastically in terms of raw material, especially fabric. Nowadays, man-made / artificial fibers are a key factor. Today, the Lahore cluster largely depends on natural cotton fabric and only 14 % of large manufacturers use imported thread, especially man-made fibers from China, Hong Kong and Turkey. Man – made / artificial fibers have an impact on the competitiveness of the companies due to changing trends in the markets.

The presence of related and supporting industries is of critical importance for the growth of the cluster. In readymade garments supply chain, there are several secondary players involved directly or indirectly. The supply for trims, metals and accessories is currently very poor. Cluster is heavily dependent on trims, metals and accessories which are imported from China and Hong Kong. As shown in the figure below, 53 % of the firms were totally relying on imports as a source of accessories whereas 38 % were mainly importing and purchasing some of the accessories from the local market. There is only one renowned zipper manufacturer located in Pakistan. Out of the 14% firms that were importing fabric, more than 80 % of them were importing it from either China or Hong Kong and out of the firms, which were importing accessories, all of them (i.e. 100%) were importing it from either China or Hong Kong. In the case of accessories, buyers usually inform the manufacturers about the vendors they want them to purchase from. The charts below show the major sources of accessories and import origins of manufacturers.

It is important to mention that all the manufacturers have at one point or another, faced issues and delays in importing. The cumbersome and long customs procedures have resulted in delays of their orders.

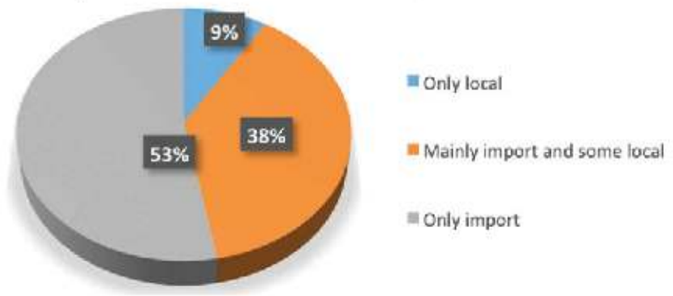


Figure 21: Source of Accessories

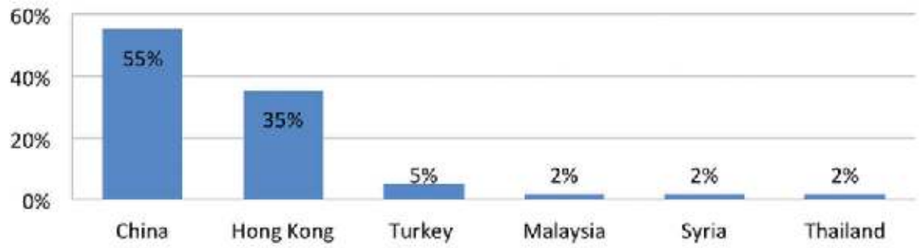


Figure 22: Import destinations for fabric and accessories

For cluster's long-term success, development of the supporting industry of trims, metals and accessories plays a critical role. There is also lack of testing laboratories for fabric and accessories in the cluster.

3.3- PRODUCTION DETAILS

In the readymade garments cluster, manufacturers use assembly line system for manufacturing. Under the assembly line system, each worker stitches a different part of the garment in a particular order so that the garment takes shape along the line. For example, in the stitching of denim garments, the factory floor is generally divided into four - five sections: small parts (such as pockets and belt loops), backs, fronts, and assembly. In knitwear, lines are usually allocated to various styles to allow workers to specialize in the operations of particular styles. Most machine operators are multi - skilled and workers can be substituted for each other to minimize bottlenecks due to absenteeism.

The production structure of a readymade garments manufacturer in the cluster is a combination of both production and quality. On each line there is one line / section supervisor who is in charge of the production line and responsible for looking after the inputs and output of the line and managing the workers. Across lines, production managers oversee multiple lines. Usually, there is one quality supervisor in each line or section. In large manufacturers, under each quality supervisor are two to three quality inspectors who check the garments at each and every stage of production. Quality inspectors specialize in checking a handful of stitching operations. The hierarchy of quality and production supervisors vary across factories.

Based on our discussions with line supervisors, it appeared that they exercise a fair amount of decision-making authority and can move around operators on the line as needed. They rely mainly on their own informal knowledge of each operator's skills to balance the line. If a machine breaks down or needs repairing, the line supervisor consults other supervisors and managers. Supervisors also discuss the layout and targets for the line and suggest changes to the industrial engineers. Production targets are set and approved by production managers. Incidents on the line are reported to the Production Manager who then takes care of them.

As the line system is used in the cluster, it is very important to have the production line balanced. Large manufacturers that were visited have engaged industrial engineers and have an industrial engineering department. These companies have adopted a standard minute value (SMV) system, which is used to estimate the time required in each operation in stitching of a garment. The cumulative SMV for each operation gives the total required stitching time per piece. SMV is also used to set the piece rates that workers receive per garment they stitch. Through this system they organize production, pay wages, and set production targets.

Medium and small size manufacturers adjust their production targets according to the time it actually takes to produce a garment on their line. They conduct their own time and motion studies such as using a stopwatch to determine the time it takes to perform each operation of a particular garment, a particular number of times. The piece rate is then set accordingly.

During the visits / interviews it was informed and observed that 24 % of the manufacturers, which were large manufacturers, partially apply modern production techniques such as lean manufacturing and are to some extent balancing their lines as per the international standards while 76 % of the firms do not have a proper written production plan and are not implementing any of the modern production techniques.

Lack of industrial engineering department especially in the SMEs is the reason behind not having proper written production plan and for non-implementation of the modern production techniques. Majority of the SMEs do not have any industrial engineer or industrial consultant working for them. In SMEs, generally the owner looks after all the production and administrative matters. The reason behind this is that the industrial engineers demand high salaries and SMEs lack financial resources to engage them. SMEs are aware of the importance of having a production plan and the application of modern production techniques but financial constraint is their biggest problem.

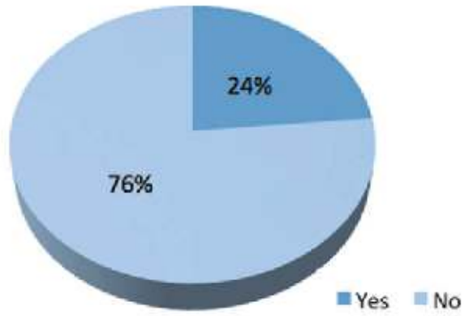


Figure 23: Application of Modern Production Techniques

Shown on the next page is the production lead time of the manufacturers. Production lead time varies significantly as several factors determine it such as existing or new buyer, existing or new product, design, type and availability of fabric, availability of accessories, etc. The production lead time for existing buyers and existing products is usually much less as these products are already running in production lines and the existing buyers are also familiar with the work dynamics of the manufacturers. For new products, manufacturers at times have to establish a new production line and train the workers, which also results in production delays.

It has been observed that the production is also affected by seasonality. Out of 34 manufacturers visited, 32 said that their production is usually slow in the months of March – April and December – January due to changes in the seasons and reduced demand in Europe.

Capacity utilization of large companies is very high and they at times have to outsource part of their production or some processes (printing, embroidery and stitching) to other manufacturers. The reason behind this is that they have a couple or more renowned brands buying from them with large order size. The capacity utilization of majority of the small and medium manufacturers is approximately 40 – 60 %. Among 34 manufacturers visited, more than 70 % were not aware of their exact capacity utilization. The figure below shows the capacity utilization of the manufacturers visited.

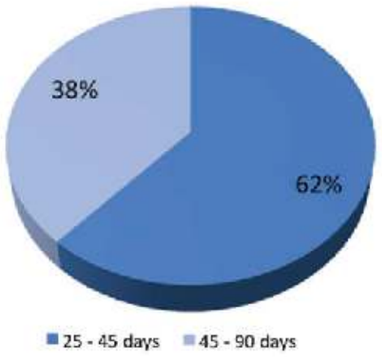


Figure 24: Production Lead Time

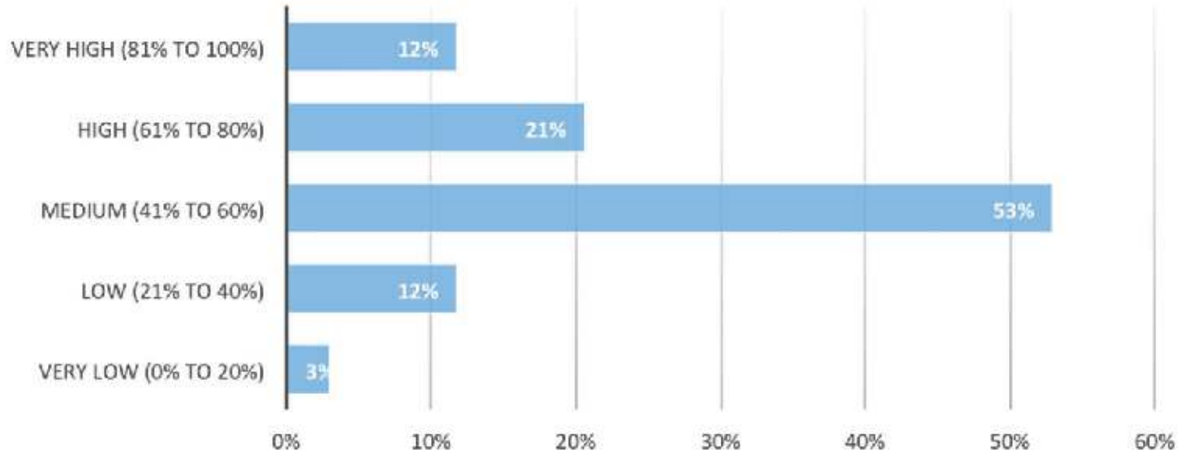


Figure 25: Capacity utilization of manufacturers

In readymade garments, the defect rates are the highest in stitching (woven and knitted) and washing (in case of woven garments only). As stitching is done on a machine, which is operated by an individual, the chances of defects are the highest. According to the manufacturers, most of the issues and defects in the stitching process can be resolved, but it is very difficult to overcome any problem or defect that has happened while cutting the fabric or during washing process in woven garments. In large and a few medium size firms, there is a proper mechanism that traces which operator has worked on the garment and where exactly the problem has occurred. Due to this, their efficiency is more, cost of doing business is less and workers also perform their tasks properly. The small and many medium size manufacturers have not adopted this mechanism. The figure below shows the defect rates of the manufacturers visited.

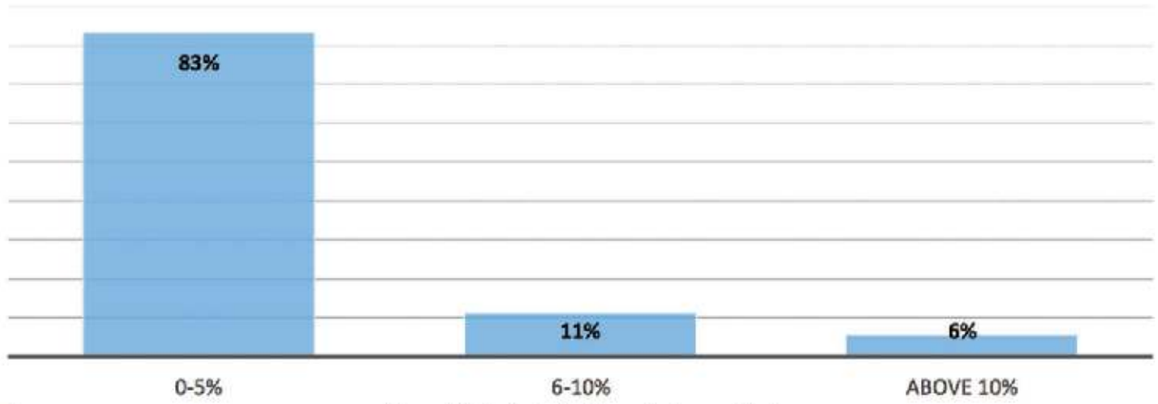
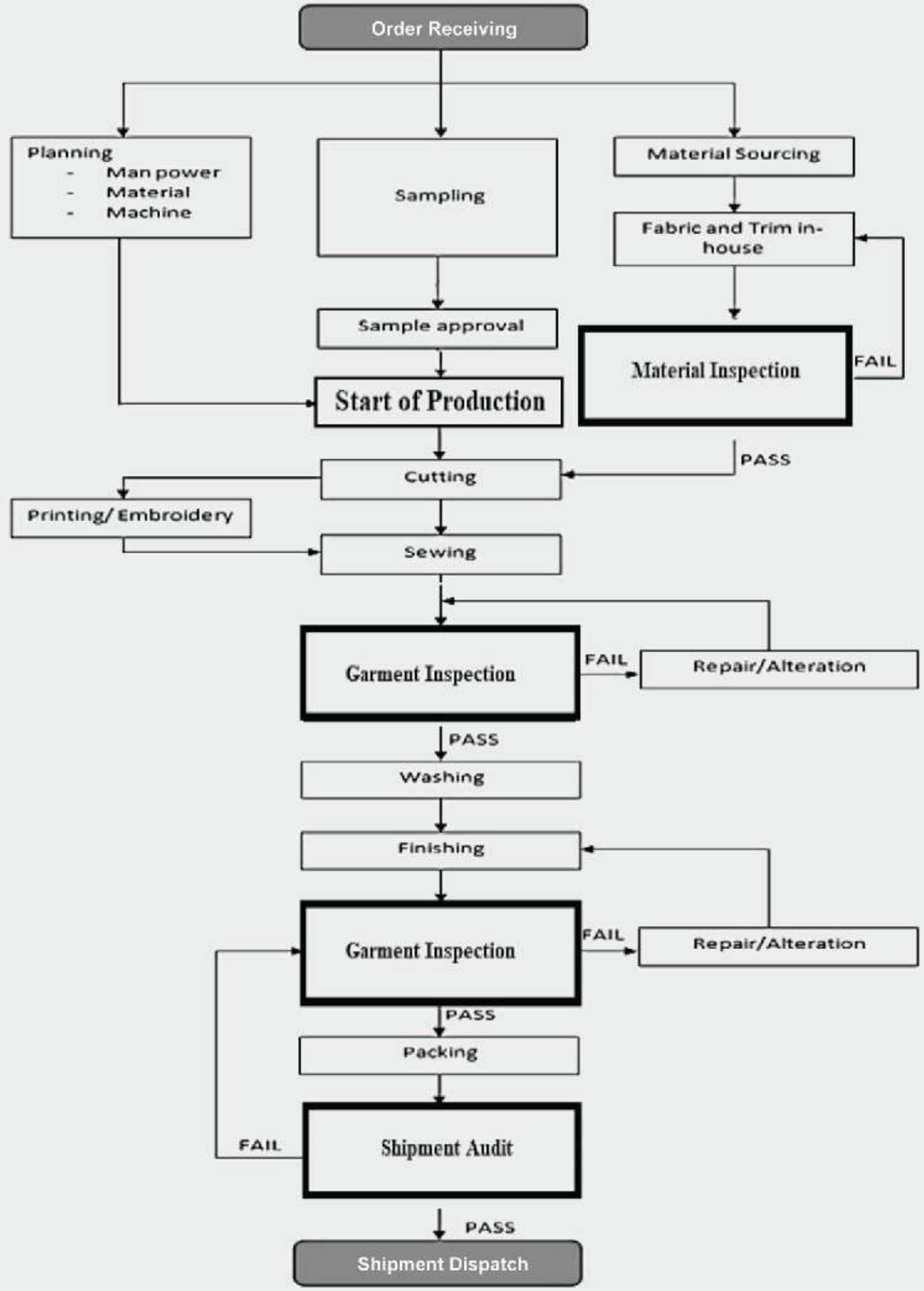


Figure 26: Defect rate of manufacturers visited

3.3.1 -PRODUCTION PROCESSES & FLOW CHART



PROCUREMENT:

The fabric and accessories once received from the supplier are inspected and inventoried.

Figure 27: Fabric inspection

Figure 28 Fabric designing / pattern making

DESIGNING / PATTERN MAKING:

Computer- aided design software takes the information on the size and shape of the fabric pieces needed and fits them into a pattern intended to minimize the amount of fabric wasted. In case the fabric is processed chemically or washed for special finishes it is very important for manufacturer to cut all the different pieces of a garment from the same roll of fabric.

CUTTING:

The design / pattern is then printed and laid over the spread fabric for cutting. Before the fabric is cut, it is spread on long tables, dozens of layers thick, so that stacks of pieces are cut simultaneously. As the fabric is spread, it is checked for defects. Cutting is done either manually or by an automated process. In manual cutting, workers use long mechanical saws to cut through the layers of fabric, using the pattern laid on top. Automated cutting involves a robotic arm cutting the fabric with a mechanical saw. Even though the fabric is the most costly portion of a garment (estimated cost of fabric 55 –70 %), most firms have paid little attention on increasing efficiency and accuracy.

Figure 29: Fabric cutting

Figure 30: Readymade garments stitching lines

SEWING:

Stitching is where most of the workers are employed in garment manufacturing. Garments are stitched on a line consisting of stitching machines and workers. Garments move along the assembly line in bundles of 20–30 garments. Each operation on the garment takes a different length of time to complete; some sewing operations can be done very quickly while others take longer. One or more sewers are assigned to an operation, depending on how long it takes in relation to other operations.

Operations completed quickly are assigned to one operator, whereas a complex operation taking longer to complete have two or three operators assigned to it. Experienced and less experianced operators are strategically placed in order to minimize downtime.

Figure 31. Embroidery / Embellishment

EMBROIDERY / EMBELLISHMENT:

All the manufacturers visited had no in house embroidery or embellishment facility. They outsource it to small specialized vendors.

WASHING - DRY AND WET PROCESSES (WOVEN ONLY):

Figure 32. Washing

Washing - dry and wet processes add a great deal of value to woven garments. These include the application of chemicals, sandpaper, rubbing, and stone washing, which intentionally damage the denim for the purpose of making the garment more fashionable. Cluster companies have been able to incorporate these techniques into their production process and the quality of these value-added finishes is internationally accepted

but still there is a huge scope for improvement as internationally washing process, techniques and chemicals used are changing very fast and staying up to date is very important for the companies in order to manufacture / produce garments according to latest designs and trends.

A number of differences have been observed among denim factories in how the same dry and wet processes were carried out. For the firms that were less technologically equipped, the dry processes were mostly done manually. Though they are well aware of modern washing techniques and technology, the main reason behind not applying those techniques and using latest technology is due to lack of financial resources and low price of the product. For example, a process known as 'scraping' was carried out using sandpaper. Manual scraping was done on plain wooden boards, with operators applying hand pressure to give the garment the desired 'worn' look. In the more technologically advanced firms, scraping was done while the garment was stretched over inflated balloons. Another process involved is adding the effect of whiskers to create lines at the hips and thighs similar to those made after the garment has been worn. This is done manually on jeans using wooden boards and the sharp edge of emery paper or with a machine that presses the lines into the jeans. Chemicals such as potassium permanganate and resin is also applied. In the less technical firms, jeans are simply hung out for the application while placing them on inflated balloons is used in the more mechanized firms. Large firms sometimes bring in specialized washing consultants from Italy or Turkey.

Figure 33: Repair and finishing

REPAIRING & FINISHING:

In case of woven garments, the garment is then dried and repairs are made as the dry and wet processes may damage the stitching. Accessories such as buttons, metals and rivets are then attached and the garment is then pressed and retail tags are added. The garment is then packed for shipment.

3.4 - TECHNOLOGY

In recent years, cluster companies have not made significant investments in modern machinery and technology. It is one of the factors due to which the cluster has been unable to improve its cost - effectiveness. There are different types of machines used in the readymade garments industry such as high speed single needle lock stitching machine with edge trimmers, automatic thread trimmers, high speed over lock/safety stitch machines and many other types of sophisticated machines. All the machinery used is imported (new and refurbished). Major import destinations are China, Japan and Turkey.

It has been observed that Juki Machines Corporation in Japan, a large manufacturer of sewing machines, largely dominate the garments industry. It has been informed by the manufacturers that at present, there is no substitute to Juki machines as far as quality and efficiency are concerned. Apart from Juki, machines made in China, Korea, Taiwan and Italy are also available in the market but manufacturers prefer Juki. In Pakistan, there is no local or international manufacturer who is capable of producing such sophisticated industrial machines. Machines used in washing process are imported from Turkey, Germany, Italy and China.

In stitching, different latest technologies are employed in the sewing section, in particular, the sewing machines themselves and the equipment used to move garments along the line. The figure below shows the type of machinery used by the manufacturers:

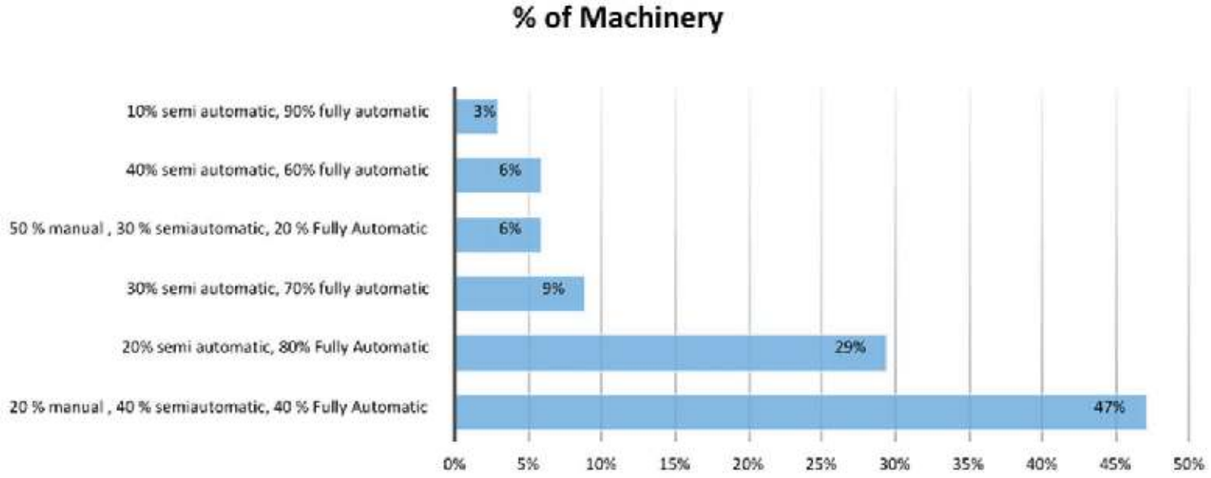


Figure 34: Type of Machinery

76 % of the manufacturers are least technologically advanced, garments are transported by hand, basic or standard sewing machines are used for all processes and cutting is largely done manually. During the survey, it was revealed that the SMEs felt the need to upgrade their machinery. For example, SMEs were using hand cutters instead of band knife cutting machines. SMEs are not investing in latest and new technology and machinery because they could not afford to do so. Pocket welding machines are available but SMEs cannot afford to purchase these machines. A few SMEs also highlighted the need to invest in machinery with process controls to reduce wastages and increase efficiencies for minimizing the process cost. These manufacturers mostly produce low cost final products but also work as subcontractors of large manufacturers if they have excess orders.

15 % are a bit more technologically advanced, using auto-trimming sewing machines which are set to make only a certain length of stitch after which the thread is automatically cut. They have specialized machines for stitching certain small parts such as belt loops and specialized machines for performing particular operations such as attaching pockets.

3 % of the firms have the most sophisticated level, they have fully automated solutions for transporting in and processing garments from one sewing operator to the next. Factories also employ an intermediate system where garments are clipped on and manually pulled along a track.

All the factories visited had in - house maintenance departments with either full time or part time staff. As the machinery is relatively old, breakdowns occur during the operations but they are looked after by the Maintenance department. Small manufacturers had 1 – 2 people who were responsible for looking after the maintenance in case of a breakdown or otherwise they work in some other department. The large and medium manufacturing units had 3 or more people employed in maintenance department.

Upon inquiring, it was informed by the manufacturers that their maintenance department is fully capable of dealing with breakdowns and they do not face any difficulty in this regard. Parts of the machines are also available locally through different vendors / authorized dealers, though their first preference is to get it repaired rather than procuring a new part. Manufacturers, both small and large, have reactive approach towards maintenance and there is an obvious need for a more proactive approach and to have periodic schedules for maintenance to avoid breakdowns.

Readymade garments industry in Pakistan has not been able to undertake requisite investment in machinery for the last 8 – 10 years, while competing countries especially Bangladesh, India and Vietnam have invested a lot to acquire machinery for the readymade garments sector. The main competitors of Pakistan, especially China and India, in readymade garments industry have the advantage of large engineering base. The only country in the region without strong engineering base is Pakistan and its dependence upon outside engineering industry keeps the cost of production on the higher end. In future, Chinese or other foreign companies may be approached to invest or have joint ventures with local or other international companies in order to establish assembly plants and later on complete production plants. It is necessary to encourage the production of readymade garments machinery in the country to reduce the price of basic machines.

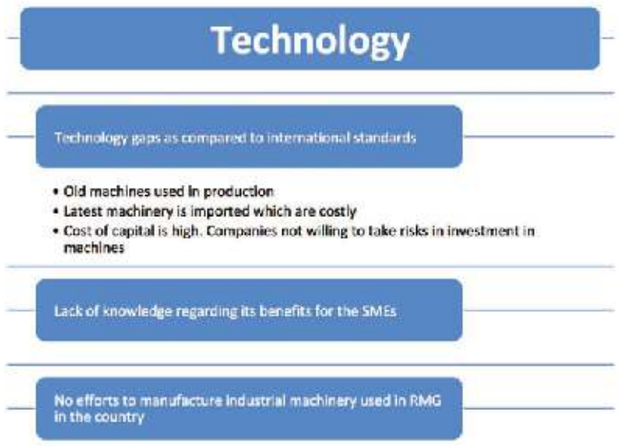


Figure 35: Overview of major issues in Technology and Machinery

3.5 - INNOVATION AND R & D

Large and a few medium sized manufacturers are involved in some research and development. They have full time or part time R & D departments. Many medium and small manufacturers have no designated R&D department. From the figure it can be seen that out of 34 manufacturers visited only 26 % have research and development departments working either full time or part time while 74 % of the manufacturers lacked any research and development facility.

At present, a majority of the designs are provided by the customers / buyers and the companies are manufacturing them on the basis of patterns and designs provided. No innovation is done and there is no R & D support that would drive design enhancement.

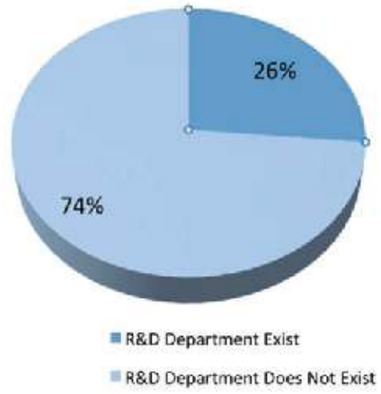


Figure 36: Companies with R & D departments

A few large manufacturers have a couple of in-house designers who also work as a support team for other departments. It was also observed that some buyers have their own design houses and they provide their own designs for manufacturing.

The large progressive manufacturers have either fulltime or part time in house research and development departments, which prepare their collections and samples as per the trends and requirements of their buyers and markets. The buyer at times selects the products from the collection provided or customizes them as per their requirement and places the order. In such firms, R & D department comprises of around 4 - 6 people. These people study the market trends, fashion needs of their buyers and identify the trend setters as well as the trend followers. In such companies, the Research and Development department is one of the major reasons for their success. Though they are engaged in R&D activities, it was observed during the meetings and visits that there is a huge gap between the R&D activities carried out by the local and international manufacturers. Local manufacturers also lack in-house product development capability.

Since the readymade garments cluster of Lahore is export oriented, research and development is of utmost importance. The dynamics of the industry are changing very quickly. Any design or product introduced today is outdated tomorrow. Market trends are changing on a daily basis.

The medium and small manufacturers are well aware of the importance and need for research and development but they do not have enough resources to invest. There is no common research and development infrastructure or facility available in the cluster. Developing own designs is a big limitation in export oriented garments cluster and the level of innovation is very limited.

Another major issue of the cluster is the lack of product diversification. Manufacturers are making only a small range of products limited to basic garments such as t-shirts, trousers, jerseys, etc. There is a lack of high end products. The readymade garments industry is moving towards high end fashion products and sportswear. Buyers demand customized and personalized products. Firms are aware of these changes in the industry but they are not so competitive globally in terms of price due to imported artificial fibers, high cost of labor and expensive utilities. This factor restricts the firms to upgrade their products to exploit such segments of the markets.

3.6 - MARKETING & MARKET ANALYSIS

The readymade garments cluster of Lahore is mainly export oriented. Marketing and marketing strategies play a pivotal role for the growth of business as it attracts more buyers and orders. Out of 34 principal firms visited, 65 % of the manufacturers were exporting 100 % of their production, 19 % were mainly exporting their production but had a minor share in local sales, 8 % had equal share in exports and local sales whereas 8 % were mainly selling to local market but had some exports as well.

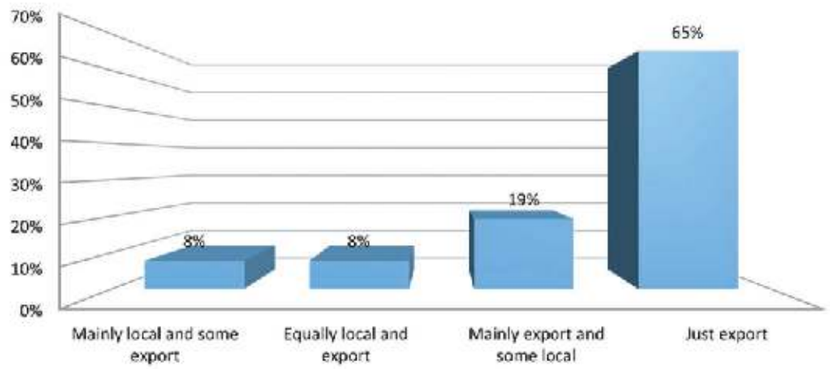


Figure 37: Proportion of export and local sale of Lahore Cluster Companies Surveyed

Figure 38. Major channels of sales

In the readymade garments cluster, growing and large manufacturers have direct sales, orders and linkages with the buyers. This is also one of the major reasons behind their growth and success. Having direct orders and sales means there is no role of the middle man or buying house and this increases their profit margins. A majority of the large firms are working with one or more renowned international clients or brands and have stable and consistent orders from them. This implies huge risk for these firms as they are highly dependent on just a couple of international buyers for their orders and any strategic change in their business plan regarding production preferences or country of production will have a direct impact on the manufacturers, thus leaving them in trouble due to sudden decrease in orders. In the past 8 – 10 years, some large manufacturers have faced these sorts of problems due to which they have been forced to shut down their operations.

In the readymade garments cluster, middle men / buying houses play a very important role as it is the main source of connection between the buyer and the manufacturer. The composition in the figure below shows that around 80 % of the companies visited were associated with buying houses, though the share of sales through buying houses vary. The figure below shows the proportion of principal firms that sells directly to the buyer or through buying houses that are mostly located in Lahore and Karachi.

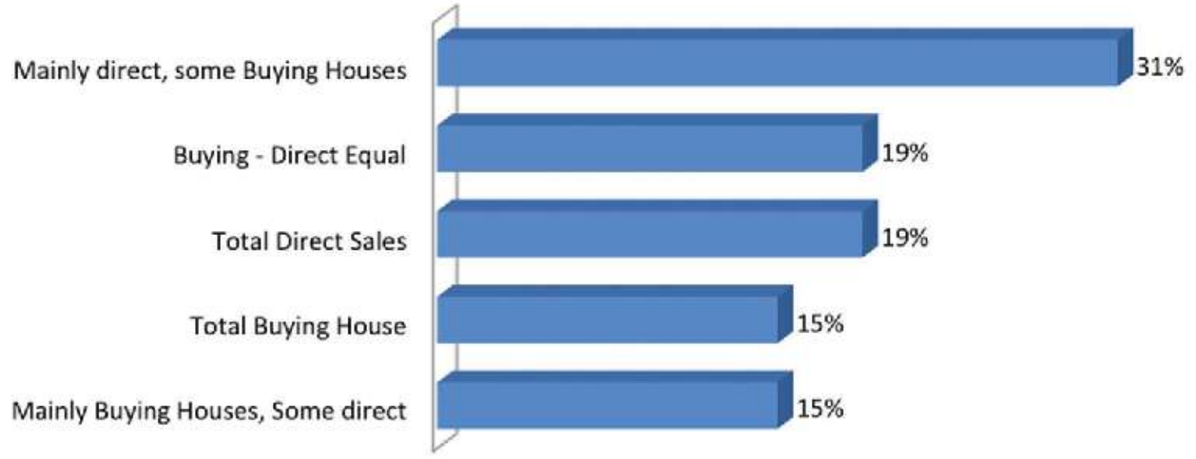


Figure 39. Ratio of sales - direct or buying house

Buying houses usually provide designs and procurement instructions while the garment producers carry out the manufacturing. Sometimes, they also provide samples to the local manufacturers for replication. Hence, manufacturers depend on buying houses for sampling, product development, and market information. Buying houses also keep track on production, quality control and timely delivery etc. Only 19 % of the firms sold their products directly to the buyers and buying houses had no involvement. These manufacturers were mostly large in size and had full time and active marketing departments. It was also observed during the visits that some firms had adopted the strategy of selling directly as well as through buying houses in order to attract maximum buyers to overcome the uncertainty associated with the orders. By having a design function, SMEs can be capable of offering better products to their buyers, brands and can also establish their own local brand.

It was observed that SMEs having marketing constraints were dependent on buying houses. During the visits, small and medium firms seemed highly interested in reducing the share of their sales through buying houses and preferred direct sales but they lacked in human resources, financial resources, design capacity and marketing capabilities. One of the major hurdles in direct sales for the SMEs is that they do not have enough resources for marketing. Their owners and the marketing staff (if any) do not travel that often since it is a costly operation. This is one of the reasons why the SMEs highlighted the need of having an international warehouse abroad, which would help them to directly get in contact with the international buyers. Direct sales will significantly increase their profit margins, which are currently taken by buying houses or the middle man.

Out of 34 manufacturers visited, only 25 % of them had their own brand registered in local or foreign markets. Out of these 25 %, majority of the firms had registered their brand at some point in time and are inactive now. Firms seemed interested in branding but as it requires huge investment, they are not willing to take the risk in the present scenario. Firms were of the opinion that the size of the local market is very small and the buying power of people is also low. Pakistan's readymade garments industry struggles with upgrading itself from a Full Package Supplier (FPS) to Own Design Manufacturer (ODM). While local market shows a strong growth in number of OBMs, the export market is still dominated by FPSs.

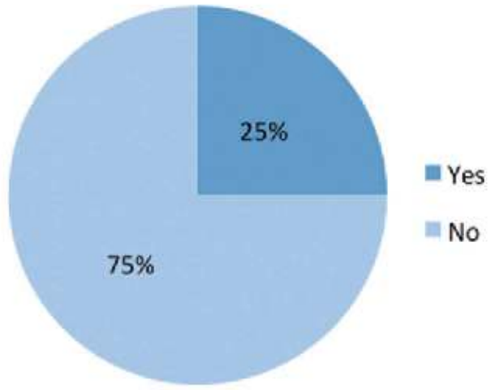


Figure 40: Proportion of companies having their brand (active or inactive)

During the visits, it was observed that 68 % of the manufacturers have a weak or very little export marketing strategy. Another common and very critical issue for the cluster is that buyers are not willing to travel to Pakistan due to security reasons. 16 % of the manufacturers lacked the financial resources associated with marketing while 15 % said that there is no or insufficient support from the Government for marketing.

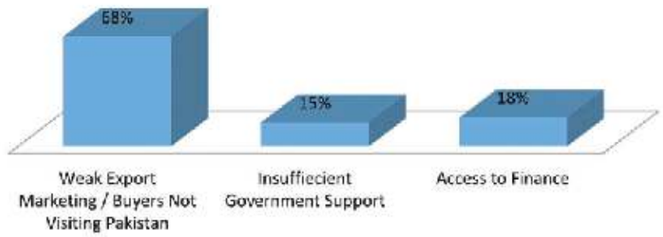


Figure 41: Major issues in marketing

It was further revealed by the respondents that the international buyers tend to place their orders to the countries where they can visit easily and frequently and fully supervise their production. One of the major reasons for slow growth of the readymade garments industry is that the buyers do not visit Pakistan due to security concerns. They are comfortable travelling to Bangladesh, Sri Lanka and Vietnam instead.

The firms also pointed out that from the last 12 – 15 years, American buyers have stopped buying from Pakistani manufacturers. The industry is not sure about the reason behind this, but majority of the people were of the opinion that it could be an American policy to not give ready made garments business to Pakistan. America was a huge market for Pakistan's readymade garments manufacturers but unfortunately the size of the market has reduced drastically, especially for knitwears, forcing several employers as well as buying houses to wind up their operations.

Large manufacturers frequently travel abroad to attend trade fairs and exhibitions in Europe, Middle East and other countries. As the buyers are not willing to visit Pakistan, it has resulted in an additional marketing cost for the manufacturers. The owners themselves visit their international buyers in order to discuss orders and other details. SMEs are not able to frequently visit other countries to attend trade fairs and exhibitions or to meet with buyers due to financial constraints. In small manufacturing units, it is usually the owner himself who is involved in marketing his products via emails and social media. He is also looking after other operations of his unit so the opportunity cost of leaving behind his operations in order to meet his international buyers abroad is very high.

The survey findings pointed out that there is scope and potential in existing export markets. It was also revealed that there are several untapped markets, especially Eastern Europe, Australia, Russia and some parts of Africa where there is potential for exports. Removal of sanctions from Iran has provided an opportunity to the readymade garments sector (especially for woven products) to explore the Iranian market, provided a proper banking channel is established. Firms are interested to explore markets with financial stability and potential for future partnerships. Majority of the companies are exporting to Europe especially to Germany, Spain, France and United Kingdom.

All the manufacturers showed great interest towards marketing and marketing related activities as it will connect them with new buyers and help them in attracting more orders. A well planned marketing strategy will not only build up sales for the sector but would also encourage the entrepreneurs to further invest in the industry. In order to remain competitive, it is important for the readymade garments cluster to explore and develop new marketing techniques to survive and strive in the global arena.

3.7 - BUSINESS RESOURCES

Most of the surveyed entities were managed by sole entrepreneurs and were family owned, while a few of them were partnership firms. Approximately 30 – 40 percent of the entrepreneurs have either worked as production executives in the past in some other readymade garments factory or have worked in buying houses or were involved in some other related process such as printing etc. Moreover, 15 - 25 percent of the entrepreneurs had moved to this industry through other businesses and family connections. Among the entrepreneurs, approximately 80 percent had completed their higher education, while 20 percent had completed 14 years of education or less.

In small and medium companies, usually the owner is the manager, purchaser, marketer, negotiator, quality controller and finance controller. Hardly any qualified, professional personnel were recruited in small and some medium companies as they are not willing to offer attractive packages. These companies also shy away from taking bank finance or loans and rely on credit from suppliers, advances from buyers, and self-finance. SMEs get credit from their suppliers in terms of material and advance payments / deposits are made by the buyers, which helps them in managing their cash flows. Collaterals are required for bank finance or loans which is an issue for SMEs.

Some large and a few medium companies have recruited a team of technically and professionally qualified employees. They have structured organograms and departments, though the functions of the departments often overlap or are vague. They effectively utilize the export credit facilities as well.

Small and medium garments manufacturers are facing strong competition from large manufacturers. They do not have easy access to finance and require financial support. The units are facing problems due to higher cost of production, as it is difficult for them to achieve economies of scale. They are also reluctant to borrow from banks, as the large interest payments will further add to their cost of production, making their products more expensive and less competitive.

Firms are also of the opinion that the buying power of people has decreased, and consumers are now spending more on cellphones, technology and gadgets even with their limited disposable incomes, and this has reduced their spending on garments and clothes.

Figure 42: Traditional Business Strategies

In readymade garments cluster of Lahore, majority of the firms are family owned business where one person is actively involved in decision making and is responsible for all the activities. Due to this, high risk is involved as no consultative mechanism is present. There is very strong rivalry among the firms which makes it very difficult for the firms to take joint actions and network due to which, there is lack of knowledge sharing among the firms. This also results in low productivity of the cluster.

3.8 - HUMAN RESOURCE

Based on the number of employees working in each firm, the respondents were grouped into three categories; small, medium and large. Out of 34 respondents, 24 % had employees ranging between 11 to 50, 41 % had employees between 51 to 250 and 35 % of them had more than 251 employees, either permanent or contractual. It was observed that the ratio of contractual employees is 70 % more than that of permanent employees. The figure below reflects the three categories of firms visited, based on the number of employees working in each firm.

In the cluster, the workforce is predominantly male, although many firms claimed that they would prefer to hire more women, who are perceived as being more reliable and attentive to quality. In small and medium firms, the proportion of female employees was only 2 – 3 % whereas in large firms, the proportion was approximately 5 – 7 %. SMEs were not providing any incentives to the females to encourage their employment. However, few large firms were offering benefits such as day care centers, female common rooms, transportation facility and special training courses only for females.

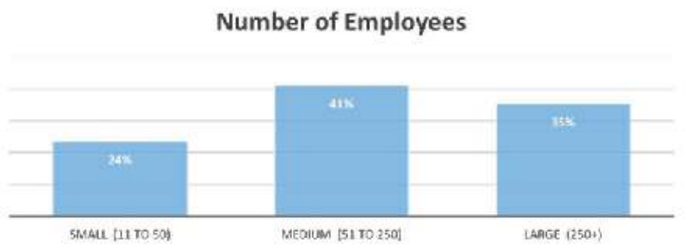


Figure 43: Manufacturers visited according to number of employees

According to 20 % of the manufacturers, no new labor is coming in the sector. Graduates don't want to come into this industry because they don't see the growth and their salary expectations are high. One of the firms pointed out that no fresh blood has joined its factory for almost 8- 9 years. Employees working in this industry are mostly over 35-40 years of age.

Literacy level is very low in the readymade garments industry. The survey revealed that the workers were mostly poorly prepared for the job due to low level of literacy and numeracy skills and majority of them had only completed 8 – 9 years of education. Most of the workers have learnt the skills on the job and are not qualified enough to operate modern management systems.

High cost of labor is one of the major factors affecting the competitiveness of readymade garments industry. The minimum wage of labor has increased drastically by almost 40%, from Rs.8000 (USD 76) to Rs.14000 (USD 132) per month in the last 4 years. Payments for overtime hours as well as for fringe benefits and incentives such as EOBI, social security, transportation, etc. further adds to the overhead cost of the employers.

Availability of trained and skilled labor is a major issue of the cluster. There is a huge gap in demand and supply of skilled labor. The survey respondents revealed that there is a lack of technical skills in stitching (for woven and knit both) and washing (in case of woven). Although thousands of people are trained by the training service providers each year, the industry still raises the issue of lack of skilled labor. There is also a demand for trained quality supervisors and inspectors. In stitching, uneven stitches and slip stitches are the two areas where the employers mostly face problems. "Ustaad Shagird" mechanism is the major form of skills transfer under which the workers are trained on the job by their mentors. This system of skills transfer results in low product quality and high defect rates, thus further adding to the cost of doing business.

From the figure, it can be seen that 37 % of the firms claimed that the training of top, middle and supervisory level staff is required and is most essential. They were of the view that supervisors are the ones who give instructions to the operators and set the pace of production flow, therefore, in order to have better management and productivity, it is essential to train the supervisors. 37 % of the respondents said that their highest defect rate is in stitching and washing, therefore, there is a huge demand of trained labor in stitching and washing. Another problem identified was the mindset of the workers. Manufacturers highlighted that the mindset of the workers needs to brte changed.

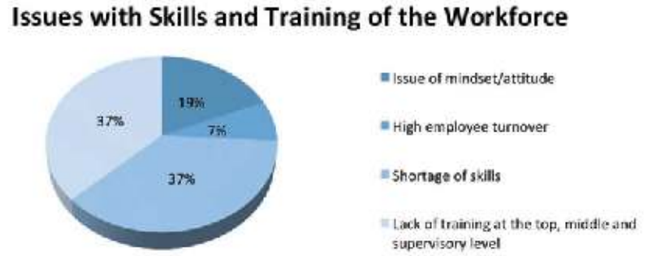


Figure 44: Issues in human resource

There is a need to educate the workers on basic work ethics, behavior and to make them aware of their role and responsibility. In order to move from basic products to high end fashion products, there is a need to strengthen the skills development programs in more focused way for the specific needs and requirements of the industry.

In readymade garments, majority of the firms are paying salaries on piece rate basis. The employers further revealed that without the piece rate incentives, workers do not have the motivation to meet their daily targets. This negatively impacts their productivity and the employers are not able to ensure timely delivery of their orders. Some employers were also of the opinion that payment on piece rate basis serves as a substitute for not having the managerial capacity to supervise workers who are working on fixed wage rate basis.

The figure below shows that out of 34 firms visited, 35 % of them had taken support in skills development from other institutions and bodies whereas 65 % of them provided on job training or hired workerswhich were already trained. Interviews with human resources personnel in the factories revealed that piece rates are usually set in line with the rate prevalent for each operation in the market, because if one factory is unable to offer a similar rate, the highly trained workers will move to higher-paying factories.

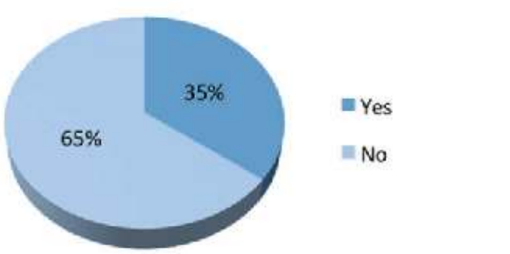


Figure 45: Proportion of companies which have received support in skills from other organizations

As seen from the figure below, 47 % of the entities have received support in skills upgradation / development from PRGTTI while 24 % of them received support from PKTI. 18 % of the firms have received support from PSDF while 12 % from SATGI. A few large manufacturers also have in house training schools, which provide training to existing workers for upgrading their skills and also train the new entrants. Respondents were of the view that on the job training is the most helpful and convenient way of training the workforce for both the management as well as the worker. The employer doesn't incur any additional cost of training on the worker and the worker also does not have any incentive to leave the organization as he is not trained. Before hiring, some of the employers also visit the training institutes and interview the candidates and shortlist them as per their own needs.

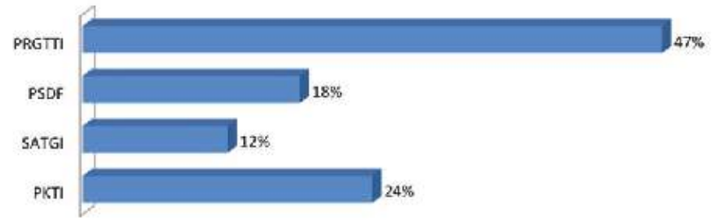


Figure 46: Organizations from which support in upgrading skills was received

3.9 - INFRASTRUCTURE & SUPERSTRUCTURE

In Lahore, most of the readymade garments manufacturers are located around Ferozepur Road (especially at Rohi Nala), Kot Lakhpat, Raiwind, Manga and Multan Road. At present, there is no industrial zone specialized for textile or readymade garments but the government is working on establishing an apparel park near Lahore. Therefore, manufacturers are spread in and around the city. The condition of roads is good and transportation is not a big problem. However, some of these factories are located around residential and commercial areas and transportation of heavy cargo, such as raw material supplies or machinery, is permitted only for limited hours during the night. Therefore, the manufacturers have to plan their delivery of supplies accordingly.

Out of 34 manufacturers visited, 71 % of the manufacturers had their own land and premises whereas 29 % were manufacturing in rented premises. On the other hand, 94 % of the manufacturers had formal premises in the industrial area, having all the required NOCs and permits for manufacturing of readymade garments. 6 % of them had informal premises and were manufacturing in residential or commercial premises.

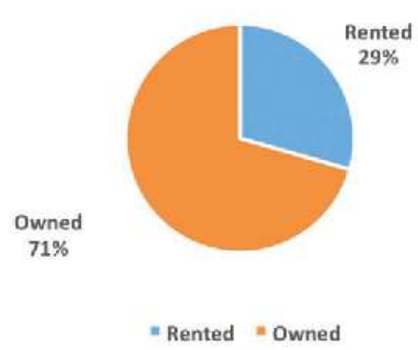


Figure 47 Rented or owned premises

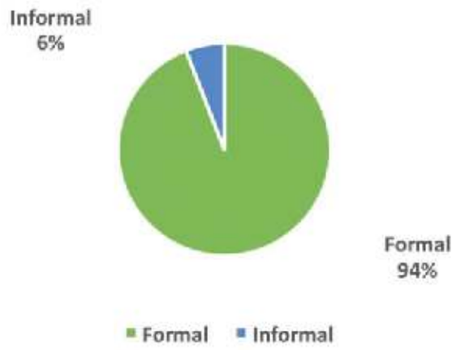


Figure 48: Formal or informal premises

3.10 - QUALITY CONTROL & CORPORATE SOCIAL RESPONSIBILITY

Since the readymade garments cluster of Lahore is mainly export oriented, there are several compliance and corporate social responsibility factors associated with it. As discussed earlier, at present the EU, US and the UK are the biggest export markets. From time to time, exporters of readymade garments are facing compliance related problems. Demands of international buyers and consumers with regards to compliance and corporate social responsibility are increasing day by day.

Manufacturers are mostly compliant with ISO 9001, ISO 14001, OEKO-TEX, SA 8000, SEDEX, BSCI and WRAP as these certifications are highly demanded by the buyers in Europe, UK and USA. The most commonly applied standards in the cluster are ISO 9001, ISO 14001, BSCI and WRAP. Only the large manufacturers had acquired corporate social responsibility certifications.

Some of the big buyers have their own code of conduct, which requires additional cost to comply. In readymade garments, compliance activities start with the selection of raw material (fabric & accessories) to the manufacturing process and covers environmental issues as well. Garment manufacturers are also facing increasing demands of compliance with corporate social responsibility guidelines, especially safe and healthy working conditions and protection of worker's rights.

At present, according to the large firms, quality management certifications are sufficient to overcome any compliance related gaps and they are not facing any problem in this regard. In case of SMEs, investment on compliance is not their priority. They are not willing to incur any additional cost to comply. Buying houses also allow small manufacturers to use certifications of other manufacturers to overcome any compliance related gaps. These firms borrow certifications from their fellow manufacturers, when need be. Small companies are also not aware of the consultants working in the sector with regards to compliance.

As per the findings of the visits and discussions with the readymade garments entities, the cluster is not facing any issues and difficulties in compliance to quality standards or corporate social responsibility. In general, environmental issues are not looked at in depth by the companies. Issues related to resource efficiency, waste management or treatment of chemicals, etc. remain as critical factors for compliance today and in the future. In terms of environmental issues, a need for a common effluent treatment plant was highlighted by the principal firms.

3.11 - COMPETITORS & COMPETITION

Remaining competitive, both locally and globally, is something that the cluster struggles with. The high cost of doing business is one the most important factors and a major hurdle for the growth of the cluster.

During the visits it was found out that the prices of readymade garments products are not the same even within the country. Readymade garments manufacturers in Lahore find it very difficult to compete with those in Karachi or nearby, because the dyes, accessories and other finishing material are first transported to Lahore from Karachi port and the finished garments are again transported back to Karachi port for export purposes. Ultimately, double transportation cost is incurred which then increases the price competition between Karachi and Lahore.

Furthermore, the price of basic utilities such as gas is also less in Karachi. The following graph shows the difference in prices of gas between Punjab & Sindh.

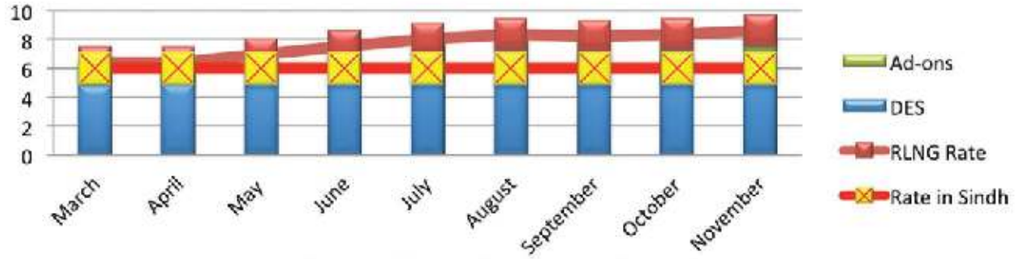


Figure 49: Gar Tariff Comparison (USD / MMBTU)

Electricity shortage is also a major issue. Though the price of electricity is the same in Lahore and Karachi, there are extended hours of load shedding in Lahore. Firms also have to face unannounced interruption in electricity and gas supply. Price offered to the buyers by the readymade garments manufacturers and buying houses in Karachi is almost 50 cents less as compared to the price offered in Lahore.

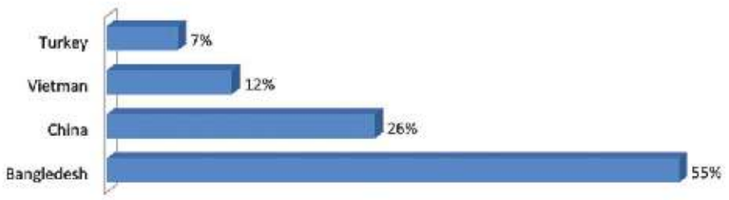


Figure 50: Global competitors of Pakistan

In the global scenario, 55 % of the firms stated that Bangladesh is their biggest competitor, as can be seen from the figure. According to the principal firms interviewed, it is very difficult to match the prices offered by Bangladesh. Government of Bangladesh is offering huge incentives to readymade manufacturers and exporters. When Pakistan obtained GSP+ status, the Government of Bangladesh announced a 15% rebate on invoice value to the exporters and manufacturers of readymade garments to remain competitive. This rebate has caused huge loss to the industry and consequently, Pakistan was not fully able to realize the benefit of GSP+ status.

Bangladesh also has advantage in low cost of doing business and cheap labor. Minimum wages in Bangladesh is almost half as compared to that of in Pakistan. State of the art export processing zones have also been developed by the Government of Bangladesh, which attract a lot of local and foreign investments. Bangladesh is also a beneficiary of the LDC (least developed countries) having special entrance to European Union Markets. Moreover, the textile goods from Bangladesh have duty free access to European Union Markets under the EBA (Everything but Arms) Scheme.

Stitching workers in factories in major competing countries, such as Bangladesh, Sri Lanka and Vietnam are overwhelmingly female (Makino, 2012). In Pakistan there are almost no females in stitching. Reason behind this could be the cultural attitudes and mindset that is restricting women from entering the readymade garments (or any) industry.

According to a policy brief developed by Punjab Economic Research Institute (PERI) in 2017, Pakistan's electricity tariff for industry is the highest in the region due to imposition of high sales tax and various surcharges. Some industrialists generate their own electricity. Generating electricity from gas costs 9 cents/kw compared to 4 cents/kw in Bangladesh. Various surcharges are the major reason behind this.

The brief further discussed that with the increase in minimum wage of labor in Pakistan to Rs. 14000 per month, the direct labor cost has risen to $ 135 in Pakistan compared with $ 68 in Bangladesh. Adding overtime, bonus, EOB, Social Security and other allowances, the total unit labor cost has risen to $ 222 in Pakistan relative to $ 97 in Bangladesh, placing Pakistan's readymade garments exports at a disadvantage.

The brief further highlighted that indirect taxes such as Export Development Surcharge, Worker's Welfare Fund, Turnover Tax and Advanced Tax further raise the cost of production in the readymade garments sector. As a result of higher labor, energy and other taxes/surcharges, the garment cost in Pakistan is twice the level in Bangladesh. A typical garment other than raw material costs $ 2.7 in Pakistan and $ 1.5 in Bangladesh. The higher and rising costs have made Pakistan's readymade garments exports uncompetitive.

3.12 - CLUSTER CONNECTION, RELATIONSHIP & SUPPLY CHAIN

Principal firms that were visited included members of different key associations as well as manufacturers that were not part of any association or trade body. Out of 34 entities visited, 56 % of them were members of PRGMEA, 21 % were from PHMA, 15 % were not associated with any association and 9 % were members of other associations.

According to the respondents, the associations provide support to them in various ways; they organize workshops and seminars, trade fairs and exhibitions and offer technical training via their technical training institutes such as PRGTTI & PKTI. 80 % of the firms were not satisfied with the role of the association and were of the opinion that it should play an active role in helping them engage in policy dialogue with the government and presenting their case for providing incentives and relief to the sector.

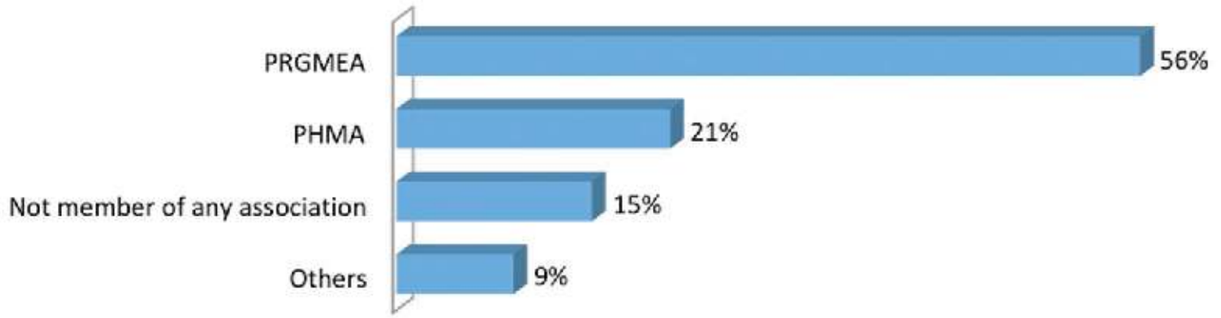


Figure 51: Categorization of manufacturers according to associations

A cooperation matrix showing linkages between different actors can be seen on page – 74

3.13 - POTENTIAL FOR COLLABORATIVE ACTIONS

During the visits and discussions, firms were asked about their willingness towards potential collaborative actions that they may carry out along with other firms and manufacturers. The response towards collaborative actions was very positive and more than 75 % of the firms wanted to share knowledge or take joint actions. Most of the people said that the readymade garments cluster of Lahore is facing a lot of difficulties and firms are struggling for survival.

Collaborative actions can play a very important role for sustainability and growth of the cluster. Out of 34 firms visited, 28 % of them said that they are willing to undertake joint marketing actions, 23 % of the firms mentioned that they are willing to work with other firms for improving and increasing productivity and 21 % of the firms were willing to collaborate in research and development especially a common research and development facility. 8 % of the firms highlighted that there is need for joint actions in skills development / upgrading and access to finance. Access to finance is a major common problem of all the SMEs. The figure below shows the percentage of firms willing to collaborate with each with respect to different areas:

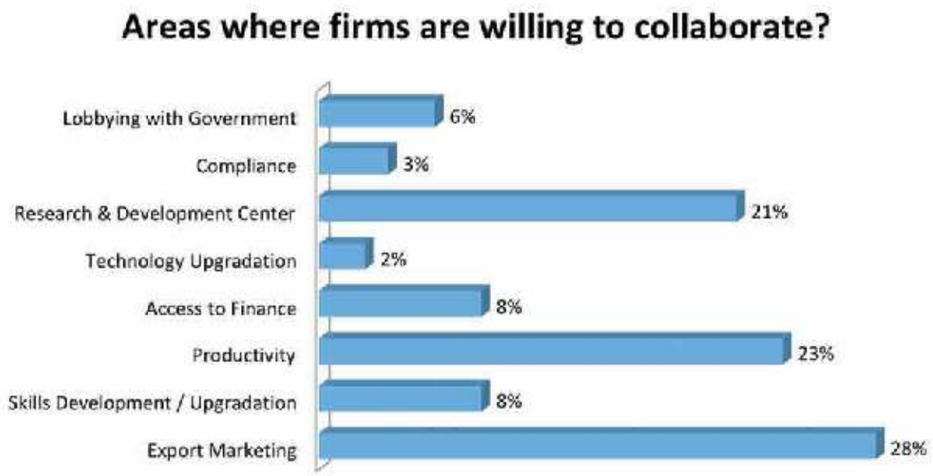


Figure 52: Potential areas for collaborative actions

Joint efforts at the cluster level will not only assist the cluster firms to create synergy but will also help them enjoy the common value added through collaborative actions. There is a high potential in the garments cluster for cooperation as the cluster actorsare willing to collaborate on a common ground for marketing, in order to get as much direct orders as possible. There is potential with regards to cooperation on increasing productivity. Cluster actors are also very motivated to join hands to fully realize the benefits of their innovation capacity.

04 CLUSTER ANALYSIS

4.1 PESTLE

In order to comprehend the macro environment factors, Political, Economic, Social, Technological, Environmental and Legal, PESTLE analysis is a helpful tool. The analysis carried out using the PESTLE tool can be used by organizations to understand the existing external marketing / business environment vis-à-vis to formulate development strategies. In addition, PESTLE analysis provides key inputs to perform a SWOT analysis.

In order to analyse the external factors affecting the performance and growth of the cluster and also to see which factors may change in the future and have an impact on the cluster, the following key factors are analysed:

- Political
- Economic
- Social
- Technological
- Environmental
- Legal Ethical

PESTLE analysis has been carried out at two different levels i.e. at National and Cluster levels.

4.1.1 - PESTLE – National Level

Following table shows some critical macroeconomic indicators for Pakistan:

Indicator	Figure	Ranking
GDP	USD 283,659.9807 million (2016)	26th
PPP	USD 1,014,180.70 million (2016)	25th
Population	193,203,476(2016)	6th
GDP per capita	USD1468.19 (2016)	176th
Industrial growth rate	5% (2017)	
GDP contribution by industry	20% (2017)	
Labor participation rate	53% (2014)	
Human development index	0.55 (2015)	147th
Expected years of schooling	8.1 years (2015)	
Primary school dropout rate	20.4% (2015)	
Employment rate	51% (2015)	179th
Gender inequality index	0.54 (2015)	130th
Environmental performance index	34.58 (2014)	148th
Ease of Doing Business	147 out of 190 (2017)	147th
Global Competitiveness Index	115 out of 137 (2017)	115th

Table13: Macro - Economic Indicators

1. Political

Since its founding in 1947, Pakistan has been one of the few countries in the developing world that have experienced an average annual growth rate of nearly 5 per cent over the past 60 years. According to World Bank data in 2015, Pakistan's economic growth rate was 5.5%; GDP was 269.97 billion US dollars, ranking 39th in the world; per capita GDP was 1429 US dollars, ranking 153th in the world, still belonging to the group of low-income countries. Although there are still gaps compared to other developing countries, the large economic aggregates and fast economic growth rate of Pakistan show promising development prospects.

Pakistan is a heavily populated country in which internal political instability, phases of military dictatorship and inefficient and ineffective governmental rule have taken a toll as much as the costly confrontation with neighboring India ever since partition in 1947.The economy is dominated by services, but agriculture still plays an important role. Pakistan's most important industry is textiles, which alone represents about 60 percent of the country's exports. Since the late 1980s, Pakistan has pursued a program of market-oriented economic adjustment, reform, and development. With the support of international financial institutions--mainly the International Monetary Fund (IMF) and bilateral donors----this program has aimed at enhancing macroeconomic stability, promoting the private sector and export-led industrial development, and reversing past neglect of key social sectors such as health, education, and population planning. Specifically, the government has sought to reduce monetary and external imbalances, reduce trade barriers, modernize the financial sector, privatize state-owned industries, and offer specific incentives to attract foreign investment.

Key Tax Incentives Provided in FY17

Several tax incentives were provided to support exporting industries and the agriculture sector. The government also incentivized investment and employment generation by allowing firms tax credits. The important incentives are summarized below:

Exporting industries

- Five major export-oriented sectors (textiles, leather, sports goods, surgical goods and carpets) exempted from sales tax (zero-rating) on purchase of raw material;

- Off peak electricity tariff rates were reduced to Rs 5.35 per unit from Rs 8.85 per unit;

Industrial raw material

- Customs tariff slabs for import of industrial raw material were reduced from 5 to 4, by merging 2.0 and 5.0 percent slab to a new 3.0 percent slab, 10.0 and 15.0 percent slabs were substituted with 11.0 percent and 16.0 percent slabs and the 20.0 percent slab was kept unchanged.

Investment and employment generation

- The facility of 1.0 percent tax credit for every industrial undertaking employing 50 persons was increased to 2.0 percent, and the setting up period was extended till June 30, 2019;

- Tax credit facility for investment in Balancing Modernization and Replacement was revised upward to 20.0 percent from the existing 10.0 percent and the period to avail this facility was extended till June 30, 2019;

- The condition of 100.0 percent of fresh equity raised through shares to avail 100.0 percent tax credit was relaxed up to 70 percent fresh equity raised with proportionate tax credit facility and the time period for this measure was extended till June 30, 2019;

- The exemption period for investment in green-field industrial undertakings was extended up to June 30, 2019.

2. Economic factors

An economic transformation from agriculture to higher-productivity industry and services has not occurred[4] . Between 1990 and 2014, the share of both agriculture and industry in output declined by about 5 percentage points each, with a corresponding increase in services[5] . In fiscal year (FY) 2014, agriculture accounted for 21.2% of gross domestic product (GDP) and 44% of employment[6]; livestock accounts for over half of agricultural production. In FY2014, manufacturing accounted for 13.4% of GDP and 14% of employment, comprising mainly textiles, as well as agro-processing, cement, and chemicals. The services sector accounts for 58.4% of GDP, led by wholesale and retail trade, transport, storage and communications. The informal economy is large[7].

Exports are concentrated in textiles (accounting for 54% of export receipts in FY2014) and primary agricultural products (17%)[8]. The country is a major exporter of rice and cotton. It has significant potential to produce and export other agricultural products (such as fruit, vegetables, and livestock); minerals (including copper, gold, lead, zinc, coal, industrial stones and quality gemstones); manufactured goods (including agro-processing, higher-value textiles, sporting goods, and surgical instruments); and services (such as information technology). The country is heavily dependent on hydrocarbon imports—oil accounts for over one third of total imports—exposing the country to periodic oil price spikes. Workers' remittances rose to $15.8 billion (6.5% of GDP) in FY2014, double the level in FY2009, and are a key source of foreign exchange earnings.

Monetary conditions indicators are used to obtain information on how and when SBP may need to adjust the policy stance (to get closer to the ultimate goal of price stability without being prejudice to economic growth). These indicators include various measures of inflation, (some proxy of) output gap balance of payments, exchange rate etc; or some combination of any of these (like monetary/financial conditions index). The intermediate and operational targets of past (i.e., broad money and the reserve money) are also used as indicators in addition to their disaggregated levels like NDA and NFA and even further levels of disaggregation (e.g., credit to private and government sectors/subsectors).

The fiscal deficit was recorded at 5.8 percent of GDP in FY17, against the target of 3.8 percent and 4.6 percent recorded in FY16. The primary deficit, which excludes interest payments, increased to 1.6 percent of GDP from 0.3 percent in FY16. The revenue deficit, which excludes development expenditure, was 0.8 percent of GDP in FY17, the same as in FY16.

The consolidated development expenditures maintained the momentum observed during the last three years. Within these, provincial development expenditures increased sharply, likely reflecting efforts by provinces to complete various social and infrastructure uplift projects before the upcoming elections. The capital spending by the federal government was already high because of ongoing work on a number of infrastructure projects under CPEC.

[4] ADB. 2013. Key Indicators: Asia's Economic Transformation: Where to, How, and How Fast? Manila, and R. Amjad. 2013. Economic Management under Musharraf and Coalition Rule: Key Lessons for Sustainable Growth, in R. Amjad and S. Burki, eds. 2013. Pakistan: Moving the Economy Forward. Lahore: Lahore School of Economics.

[5] In FY2014, the composition of industry was manufacturing (13.4% of GDP), mining (2.9%), electricity and gas (1.7%), and construction (2.4%).

[6] Ministry of Finance. 2014. Pakistan Economic Survey 2013-14. Islamabad.

[7] Estimates of the size of the informal economy in Pakistan range from 35% to 90% of the formal economy in the 2000s.M. Arby, M. Malik, and M. Hanif. 2010. The Size of the Informal Economy in Pakistan. Karachi: State Bank of Pakistan Working Paper; and M. Kemal and A. Qasim. Undated. Precise Estimates of the Informal Economy. Islamabad: Pakistan Institute of Development Economics.

[8] The country's share of world exports fell from 0.16% in 1990 to 0.13% in 2014; in comparison, during the same period, India's share more than tripled and Bangladesh's quadrupled. World Trade Organization database.http://stat.wto.org/CountryProfile/WSDBCountryPFHome.aspx (accessed 21 April 2015); H. Ahmed et al. 2013. Exports: Lessons from the Past and the Way Forward in R. Amjad and S. Burki, eds. (footnote 2, above); and Planning Commission. 2011. Pakistan: Framework for Economic Growth. Islamabad.

The relatively contained interest payment during the last three years, in the prevailing low interest rate environment, created additional fiscal space to increase its development spending. However, maintaining these trends in development spending, and supporting general economic activity going forward, would require revenue generation at a much faster pace than what was observed during FY17.

3. Social factors

According to the report of Asian Development Bank, Pakistan's overall poverty declined by 12.1 percentage points during FY2001– FY2006. Interim estimates indicate a decline of another 9.9 percentage points during FY2006– FY2011. Poverty estimates in 2005 purchasing power parity prices also indicate that the proportion of population living below $1.25 per day declined from 17.2% in 2008 to 12.7% in 2011. 3 Cross-country comparison of poverty data during this period indicates that Pakistan performed better than India, Bangladesh, and Indonesia in overall poverty reduction, but falls short of the success achieved by other regional economies (including the People's Republic of China), for which the pace of poverty reduction was faster during the initial years of reduction in poverty levels. The proportion of the population living on less than $2/day (at 2005 purchasing power parity) declined from 88.2% in 1991 to 50.7% in 2011[9]. This suggests that a large number of people are clustered around the poverty line and are vulnerable to negative economic shocks[10].

The failure to engage Pakistan's youth and community as a whole has resulted in unintended consequences. The poor quality of education in public schools has created parallel education systems, disconnected and producing two different types of individuals: the highly trained, skilled and westernized elites and the conservative masses. Moreover, the failed experiences with democracy over the past 70 years and the episodes of external and internal threats have resulted in alienation among youth[11].

Pakistan ranks 146th out of 187 countries on the gender inequality index, as a result of slow progress in improving literacy levels and access to economic opportunities, a high maternal mortality rate, and weak enforcement of laws and policies to protect women[12]. Gender disparities between regional, urban and rural areas are pronounced.

The overall labor force participation rate for women is only 24%, much lower than that for men (81%)[13]. In Pakistan, around 75% of women are engaged in the agriculture sector, and just 33% of men[14]. These are largely unskilled or semiskilled family workers, who are unpaid or underpaid, with long working hours. This implies that women's share of the informal economy is increasing. Women's share of nonagricultural wage employment is 10.6%, below the MDG target of 14%[15].

4. Technological Factors

The lack of structural transformation in Pakistan is indicative of the manufacturing sector's unsatisfactory growth performance. The manufacturing sector grew by an average of 10.61% during the period 1998-2007.The growth rate in the manufacturing sector deteriorated from 14.0% in 2004 to 8.2% in 2007 and further to 5.4% in 2008 [Asian Development Bank (2008)]. This decline in growth can be attributed to the fact that this sector continues to be heavily concentrated in low value added consumer products such as food, beverages and textile. The industrial sector in Pakistan has failed to move into more sophisticated products such as capital goods and continues to be dominated by resource based and low technology activities. The lack of production of capital goods and an absence of upstream ancillary industries such as chemicals and engineering limits the growth potential of the industry.

The competitiveness of an economy is closely associated with the productivity of its industry, particularly at the firm level. Strong growth in productivity is essential for maintaining export share in an increasingly competitive world market. Pakistan, however, faces difficulty competing with its competitors owing to either lower factor productivity or higher worker wages. Pakistan has about the same factor productivity as Bangladesh, but its wages are almost 50% higher. On the other hand, wages in Pakistan are less than China and similar to India, but productivity is much lower. For instance, Pakistan's labor productivity is only 1.21, as compared to China's 3.21 and India's 2. The labor productivity growth rate in Pakistan is also not very promising, averaging 1.25% for the period 2009 to 2013 as compared to China's 8.11% and India's 6% for the same period (APO, 2014).

[9] World Bank. 2014. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators (accessed 24 December 2014).
[10] https://www.adb.org/sites/default/files/linked-documents/cps-pak-2015-2019-pa.pdf
[11] British Council, Pakistan: The Next Generation. Islamabad, 2009
[12] United Nations Development Programme. 2014. Human Development Report, Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. New York.
[13] Pakistan Bureau of Statistics. Pakistan Employment Trends 2013. http://www.pbs.gov.pk/content/pakistanemployment-trends-2013.
[14] Aga Khan University, Pakistan Medical Research Council, Pakistan Ministry of Health. 2011. National Nutrition Survey Report 2011.Karachi.
[15] United Nations Development Programme. 2012. Pakistan MDG Status. http://www.pk.undp.org/content/pakistan/en/home/library/mdg/infographic---pakistan-mdgs-status-2012.html.

Over the past two decades, the share of low technology manufactured products increased from 54% to 76% of total exports whereas that of medium technology products increased from 7.8% to 8.4%. However, high technology products remained an insignificant 0.6% of total exports. This shows that the technological sophistication in manufacturing in Pakistan continues to be low resulting in the country's exports being dominated by low technology manufactures.

5. Legal Factors

The legal system in Pakistan is based on the English common law system. The main government agencies involved in the regulation of companies in Pakistan are: a. the Securities and Exchange Commission of Pakistan (SECP) which was set up following 1997 Securities and Exchange Commission of Pakistan Act and has responsibility for the incorporation and registration of companies; and b. the Board Of Investment (BOI), which promotes investment opportunities in all sectors of the economy and provides investment facilitation services to local and foreign investors. The Pakistan Standards and Quality Control Authority has responsibility for standards and quality requirements[16].

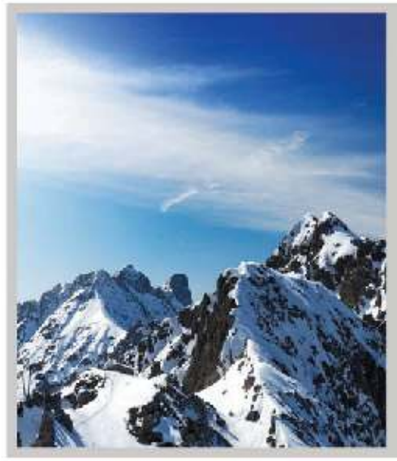
Investments in Pakistan are governed by the Investment Policy of 2013, Foreign Private Investment Act of 1976, and the Economic Reforms Act of 1992. Under the Investment Policy of 2013, Pakistan has one of the most liberal investment policy regimes and public-private partnership frameworks in the entire South Asian region. The law also provides incentives including tax exemptions, reduced customs tariffs, and investor facilitation services. All sectors, except those prohibited by the Government of Pakistan, due to national security concerns including arms and ammunition, high explosives, radioactive substances, currency minting operations, and alcoholic beverages are open to foreign investors. In reality, the arbitrary implementation of regulations governing investment laws makes it difficult for many foreign investors to become established in Pakistan.

6. Environmental Factors

Pakistan has one of the six great ecosystems in the world, which includes permanent snow bound mountains, glaciers, and forests in the north, tropical and subtropical swamps and dry steppe land elsewhere. The Arabian Sea has been receiving biological waste brought down by the Indus river system for millennia. The whole ecosystem and it diversity is under threat from human activity.

There are major threats to Pakistan's fresh water. World-wide nearly 70 percent of all available freshwater is used for agriculture, as against 90 percent in Pakistan. This is mostly responsible for the deteriorating quality of freshwater through agrochemicals (fertilizer and pesticides). Industrial pollution, too, is unchecked and will get worse as economic activity accelerates further.

Another sign of deteriorating habitat is air pollution, which is endemic because of massive surge in automobiles and insufficient emission standards. This is further exacerbated in winter by heavy smog rolling in from India's coal-fired power plants.



Sustaining Pakistan's ecological environment and biodiversity is now an important agenda of Pakistani society. Inability to do so now will result in extremely high costs in future.Cleaning up water sources, retrieving land, and planting forests are three critical elements of the strategy. This will be achieved, first, by greater awareness, especially among children and women in rural areas. Secondly, it will come about through massive pressure exerted by civil society at large to ensure that laws in place already are enforced through legal and industrial punitive actions[17].

Pakistan is among the World's Top 10 in terms of vulnerability to the impacts of climate change[18]. The cost for Pakistan to adapt to climate change has been estimated at $10.7 billion per year for the next 40-50 years. This investment is needed in natural resource management and planning, implementation of incentive-based regulatory policy regimes and support for voluntary environmental protection initiatives by industries.

[16] Guidance - Doing business in Pakistan: Pakistan trade and export guide, Department for International Trade of the government of UK, https://www.gov.uk/government/publications/exporting-to-pakistan/doing-business-in-pakistan-pakistan-trade-and-export-guide
[17] Pakistan in the 21st Century Vision 2030
[18] Climate Change Vulnerability Index (2010). http://maplecroft.com/about/news/ccvi.html).

4.1.2 PESTLE – Cluster Level

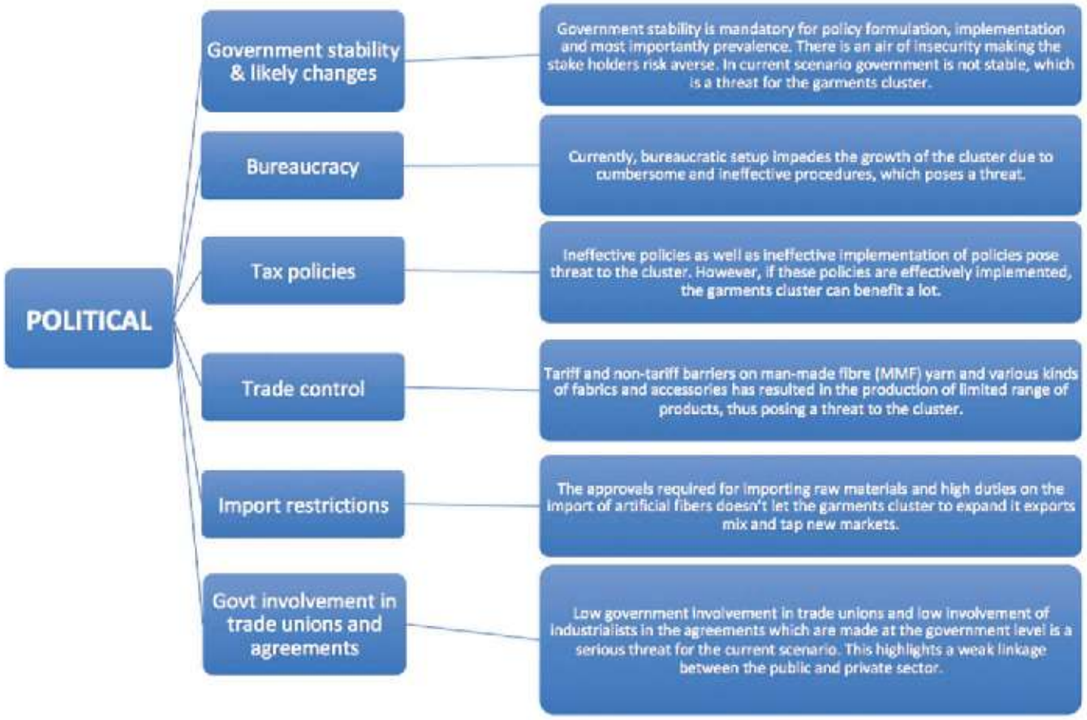


Figure 53: Political Factors

Political

■ Government stability & likely changes:

Pakistan is a heavily populated country on which internal political instability has taken a toll. All the elections that have been held in Pakistan since 1970 to 2013 could not change the fate of the people. The upcoming elections of 2018 may bring a change of policies with the changing government, which may affect the garments industry as well as the macro-economic performance of the country. Government stability is mandatory for policy formulation, implementation and most importantly prevalence. There is an air of insecurity which is making the stakeholders risk averse.

■ Bureaucracy:

Pakistan inherited strong bureaucratic elite from the British government system after independence. Although seventy years have passed, the bureaucracy still retains the stature of ruling class. The bureaucratic setup has affected the political environment as well as the effective implementation of policies and alignment of goals, thus impeding the growth of the cluster due to cumbersome and ineffective procedures.

■ Tax policies:

The Government has introduced several tax policies in the form of incentives and rebates, which serve as an opportunity for the cluster. However, their implementation is very poor which poses a threat to the cluster and new entrants consequently. For example, the garment manufacturers paying taxes on local raw materials are entitled to a refund, which is about 10 percent of the value they claim.Unfortunately, there are significant delays in tax refunds which consequently add to the cost of doing business. Similarly, the government also announced a new incentive in 2017 for the exporters which offered a duty-back of 7% for the garments exporters. However, in order to become eligible for this incentive, the garment producers were required to increase their exports by 5%, which was not possible for the SMEs as their lead time for delivering the order varies between 4 to 5 months. Therefore, ineffective policies as well as ineffective implementation of policies pose a threat to the cluster. However, if these policies are effectively implemented, the garments cluster can benefit a lot.

■ Trade Control:

Tariff and non-tariff barriers on man-made fibre (MMF) yarn and various kinds of fabrics and accessories have resulted in the production of a limited range of products. As a result, garment producers are just dependent on local raw materials and this does not add much value to their exports, thus posing a threat to the cluster.

■ Import restrictions:

The approvals required for importing raw materials result in delays and increase the lead time of the garments producers. Moreover, high duties on the import of artificial fibers doesn't let the garments cluster to expand it's exports mix and tap new markets.

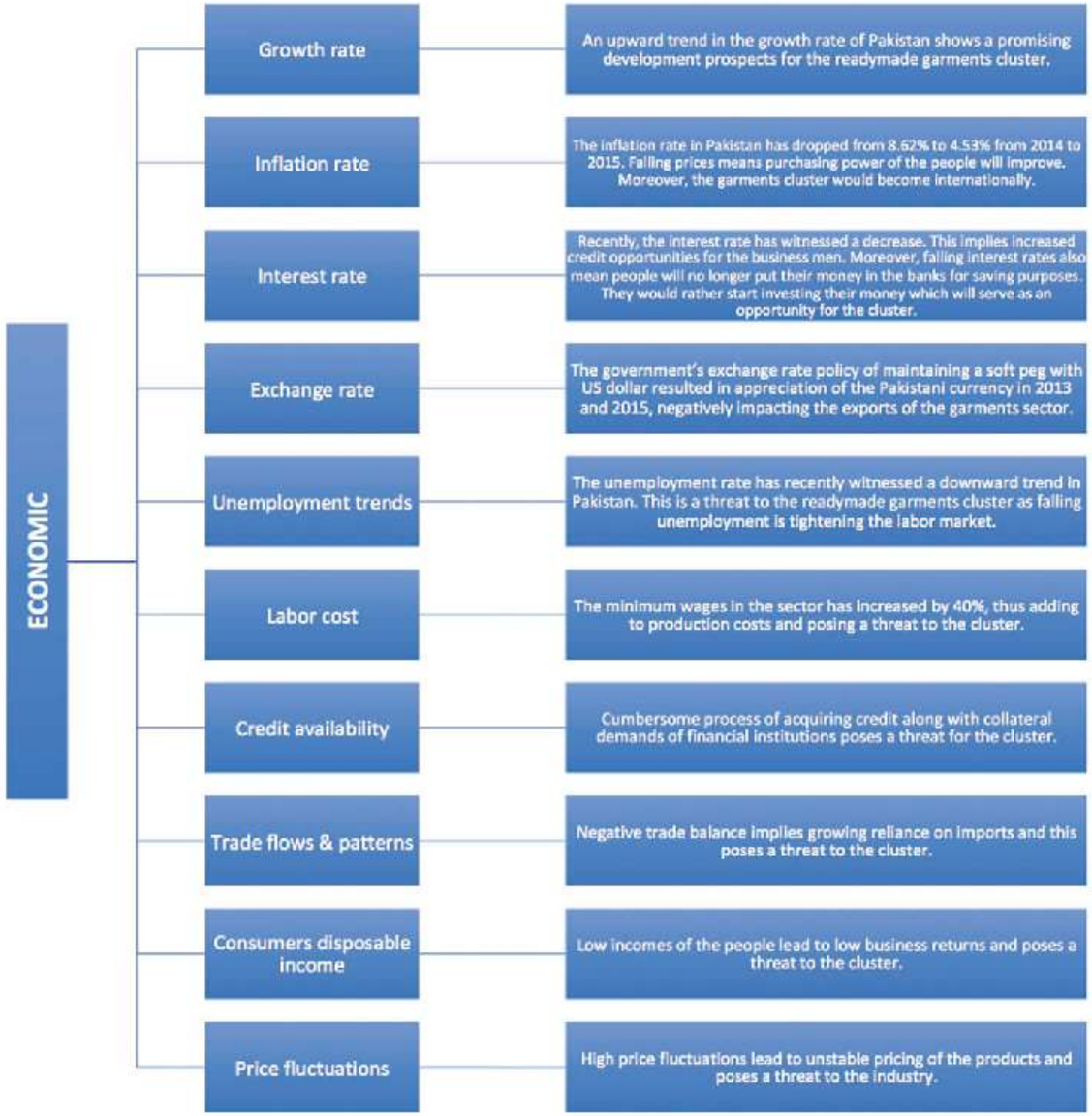


Figure 54: Economic Factors

Economic Factors:

Growth rate:
The growth rate in Pakistan has experienced a smooth upward trend since 2013. It reached 5.28% in 2016, which was the highest in 10 years (Economic Survey of Pakistan, 2016). Although it may be lower compared to the growth rates in other developing countries, the upward trend in the growth rate of Pakistan shows a promising development prospects for the readymade garments cluster.

Inflation rate:
The inflation rate in Pakistan has dropped from 8.62% to 4.53% from 2014 to 2015. In 2016, government was successful in bringing it down to 2.79%, which is the lowest in ten years (Economic Survey of Pakistan, 2016). Falling prices means purchasing power of the people will improve. Moreover, the garments cluster would become international.

Interest rate:
The interest rate in Pakistan has been falling since past few years and it has dropped to 5.75% in 2016, which is the lowest in last 45 years (Economic Survey of Pakistan, 2016). This is an opportunity for the cluster firms as it has opened up credit opportunities and reduced the cost of borrowing. Moreover, falling interest rates also mean people will no longer put their money in the banks for saving purposes. They would rather start investing their money which may serve as an opportunity for the cluster.

Exchange rate:
The government's exchange rate policy of maintaining a soft peg with the US dollar resulted in appreciation of the Pakistani currency in 2013 and 2015. The currency was appreciated by over 20% in these respective years (International Growth Centers). This has not only negatively impacted the exports of the garments sector but also has dampened further expansion of exports.

Unemployment trends:
The unemployment rate has witnessed a downward trend in Pakistan. It fell from 6.7% to 5.9% from 2014 to 2015. In 2016, it was constant at 5.9% (Economic Survey of Pakistan, 2016). This is a threat to the readymade garments cluster as falling unemployment is tightening the labor market. This implies that labor would not be available in abundance and garment producers will face an upward pressure on wages, which will ultimately add to the cost of doing business.

Labor cost:
The minimum wages in the sector has increased by 40% in the last four years, from Rs. 8000 to Rs. 14000 per month, thus adding to production costs and posing a threat to the cluster.

Credit availability:
The cumbersome process of acquiring credit along with collateral demands of financial institutions poses a threat to the cluster. In the garments sector, credit flow is mostly biased towards the large firms. This is one of the reasons why many garment units are facing financial constraints. According to a report by the Asian Development Bank, the banks in Pakistan mainly cater to 6% of the credit requirements of the SMEs. Thus, unavailability of credit is a huge threat to the SMEs.

Trade flows & patterns:
The trade balance in Pakistan has been negative since quite a few years. In 2016, the negative trade balance amounted to US $-17,841million (Economic Survey of Pakistan, 2016). This implies growing reliance on imports and this poses a threat to the cluster.

Consumer's disposable income:
Consumer's disposable incomes are falling due to rising income taxes. This will negatively impact the consumer's spending and purchasing power, thus posing a threat to the cluster.

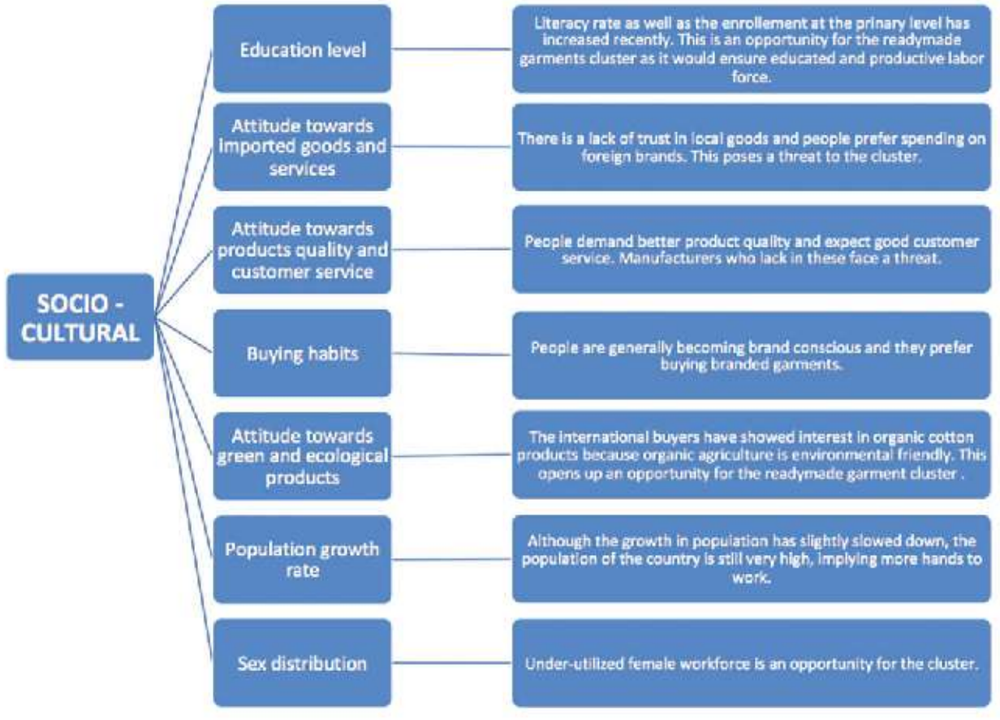


Figure 55. Socio - Cultural Factors

Socio cultural:

Educational level:
The literacy rate in Pakistan was 59% in 2015-16 as well as in 2014-2015. Enrollment at the primary level registered a significant increase of 8.6% from 2014-15 to 2015-16. A significant increase of 5.2 % was also witnessed in middle class enrolment for the same time period, whereas secondary school enrolment experienced an increase of 4.3 % from 2014-15 to 2015-16 (Economic Survey of Pakistan, 2016). An increase in the level of education in the country is an opportunity for the readymade garments cluster as it would ensure educated and productive labor force.

Attitude towards imported goods and services:
Due to globalization, people are generally more attracted to readymade garments produced by foreign brands. Foreign brands are perceived as more trusted brands as compared to the local ones. This growing interest towards foreign brands is posing a threat to the local brands in the garments cluster.

Attitude towards product quality and customer service:
Customers in the readymade garments sector generally do emphasize on the product quality in terms of its material, design and style. This is opportunity for the readymade garments cluster as this gives them an incentive to strive in order to produce the best quality products to ensure that the customer is satisfied with their service.

Buying habits:
People in Pakistani society, especially the youngsters, are conscious about the garment brands they wear. They prefer buying branded garments because they think it will make them look smart and stylish. This factor can serve as an opportunity to the cluster as it would encourage the local garment manufactures to explore the option of local branding.

Attitude towards green and ecological products:
Consumers and buyers are becoming more and more aware and conscious about what they wear, how it is produced and how much environment friendly it is. The international buyers have showed interest in organic cotton products because organic agriculture is environmental friendly. This opens up an opportunity for the readymade garment cluster to explore the possibility of producing organic cotton apparel.

Population growth rate:
The population growth rate declined from 1.92% in 2015 to 1.86% in 2017. Although the growth in population has slightly slowed down, the population of the country is still very high and totaled to 199.1 million in 2017, as compared to 191.7 million in 2015. 61% of the population falls in the age group between 15 to 59 (Economic Survey of Pakistan, 2016). High population growth would provide abundance of labor to the cluster and more hands to work, thus serving as an opportunity.

Sex distribution:
Pakistan ranks 146th out of 187 countries on the gender inequality index, as a result of slow progress in improving literacy levels and access to economic opportunities, a high maternal mortality rate, and weak enforcement of laws and policies to protect women[19]. Gender disparities between regional, urban and rural areas are pronounced. The overall labor force participation rate for women is only 24%, much lower than that for men (81%)[20]. Even in the readymade garments industry, the workforce is predominantly male. The proportion of women working in garments factories is very low. One of the biggest weaknesses of the cluster is that it doesn't employ the female workers as much as they should. However, the underutilized female workforce is an opportunity for the cluster.

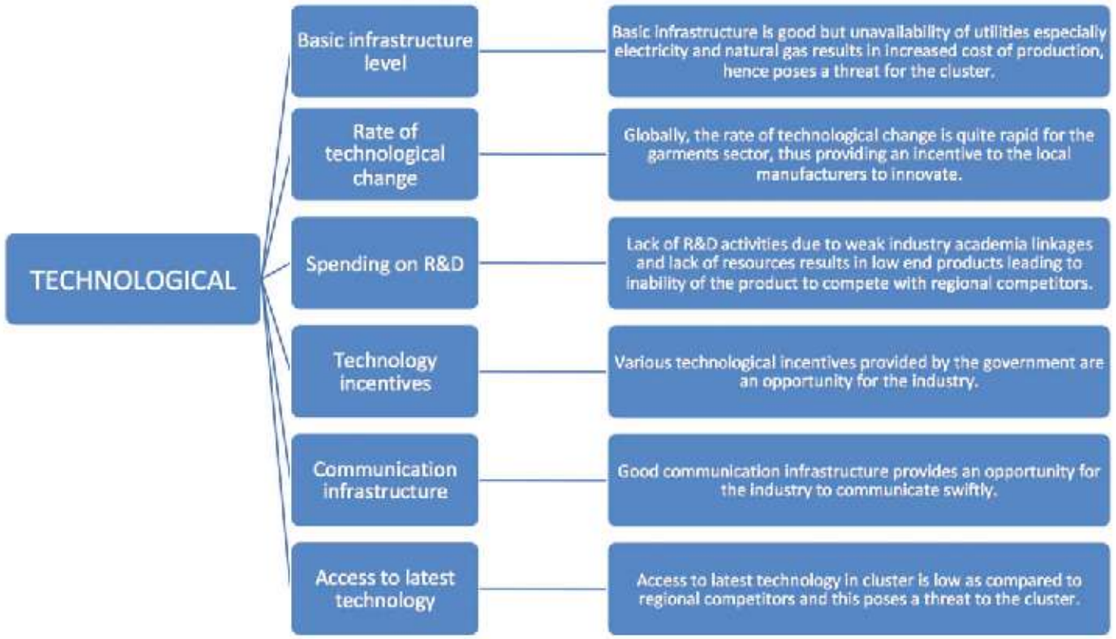


Figure 56: Technological Factors

Technological:

Basic Infrastructure level:
The level of basic road infrastructure is good and provides better connectivity and access to markets. The establishment of Quaid e Azam Apparel Park in the near future will be a huge opportunity for the cluster as it will lead to the provision of state of the art infrastructure facilities including roads, electricity network, water supply system, drainage system, combined effluent plant, etc. However, currently, the issue of energy shortage and its impact on the cost of doing business for the garment manufacturers is posing a threat to the cluster.

Rate of technological change:
The rapid rate of technological and digital advancements globally is an opportunity for the garments cluster. Internationally, the business in this sector is becoming more competitive as countries now depend on efficient information systems and technology. The readymade garments cluster will strive hard to keep up with the rapid rate of technological advancement. They will have an incentive to position themselves in such a way that they are able to benefit from the rapidly advancing technology.

[19] *United Nations Development Programme. 2014. Human Development Report, Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. New York.*
[20] *Pakistan Bureau of Statistics. Pakistan Employment Trends 2013. http://www.pbs.gov.pk/content/pakistanemployment-trends-2013.*

Spending on R&D:
Spending on R&D is very low in the sector. Most of the SMEs rely on the international buyers for designs. Very few (mostly the large ones) have R&D departments that work on product development and research. The industry academia linkage is also very weak. Lack of research and development activities result in inability of the local garment products to compete in new markets.

Technology incentives:
Various technological incentives provided by the government are an opportunity for the industry. As per the provision of textile policy 2014-19, technology upgradation fund scheme was launched in 2014-15 to facilitate the sector in enhancing exports.

Communication infrastructure:
Good information and communication infrastructure as well as telecommunication services is an opportunity for the cluster firms as it provides them better connectivity and market access, thus reducing the lead time for delivering the final product and speeding up the value chain.

Access to latest technology:
The cluster has limited access to technology due to affordability. It may pose a threat to the cluster when the garment producers plan to enhance their production capacity in the future.

Environmental, Legal & Ethical:

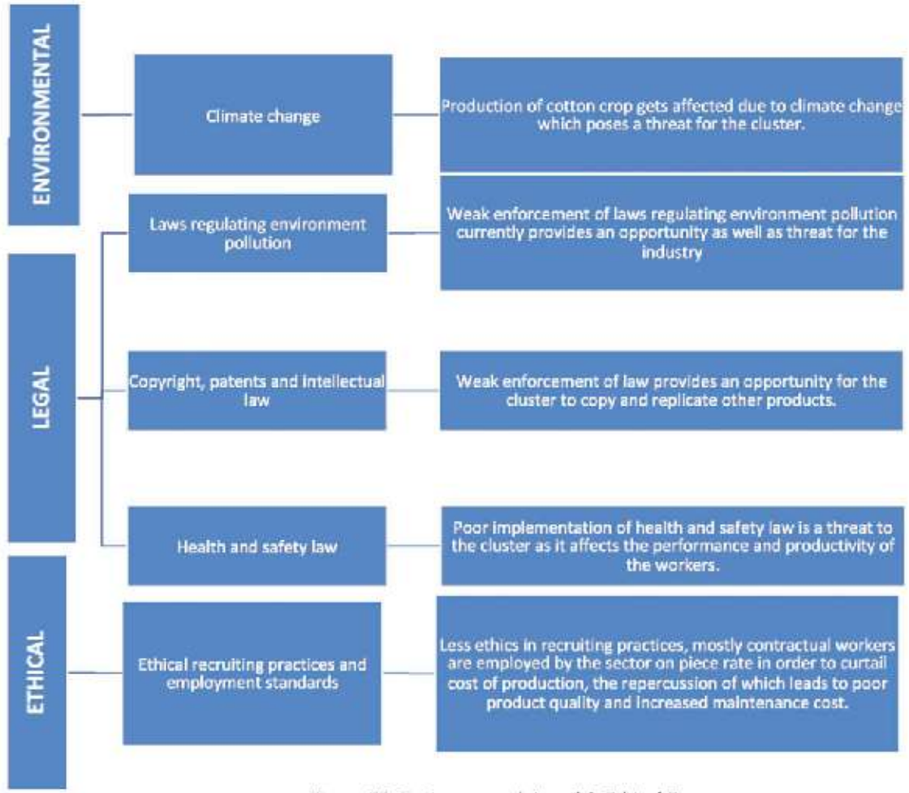


Figure 57: Environmental, Legal & Ethical Factors

Climate Change:
The climate in Pakistan is changing overtime. The excessive and untimely rainfall not only negatively impacts the production of cotton crop but also washes away the fertilizers and pesticides applied on the crop. Whereas moist season and moderate temperatures inflict damage on the crop by attracting white fly and boll worms. These factors affect the production of cotton crop, thus posing a threat to the cluster.

Laws regulating environment pollution:
Environmental standards and regulations are imposed by the government on the textile sector but the weak implementation of the law is a threat as well as an opportunity for the cluster. It's an opportunity, because it results in low cost of doing business and a threat, because international buyers will not give business to Pakistani garment manufacturers if they are not compliant to social and environmental standards.

■ Copyright, patents and intellectual law:
Weak enforcement of law provides an opportunity for the cluster to copy and replicate other designs. Moreover, the internet has made design plagiarism much easier.

■ Health and safety law:
According to a survey carried out by the International Growth Centre in 2016, in terms of risk level, on a scale on 1 to 10 (1 being the lowest and 10 being the highest), Pakistan has been ranked 8.82 for social compliance (which includes labor and safety laws as well as human rights). Poor implementation of health and safety law is a threat to the cluster as it affects the performance and productivity of the workers.

■ Ethical recruiting practices and employment standards:
The sector mostly employs contractual workers on piece rate basis in order to curtail their cost of production. The employers mostly layoff the workers when they do not have sufficient orders and when the production is overall low due to seasonality. Such recruiting practices does not guarantee a workforce equipped with the appropriate skills and thus have an impact on productivity as well as quality of the products.

4.2 - Value Chain Analysis

Given below is the value chain analysis of woven and knitted readymade garments based on several discussions with the manufacturers and taking various factors into consideration.

4.2.1 - Woven Garments

In value chain analysis of woven readymade garments, a standard basic denim jeans is taken into consideration. Typical production cycle and value chain analysis by cost breakdown in terms of percentages is given below:

4.2.1.1 - Typical Production Cycle

A typical production cycle based on discussions with the manufacturers has been calculated considering the following key points for production of basic denim jeans.

- Existing buyer and order
- Medium size manufacturer
- Pre – approved design and sample
- Order size : 1,000 – 5 pocket standard denim jeans
- Production capacity is available
- Fabric is available
- Accessories are available in stock

The mentioned time line and production cycle is based on different assumptions and vary from situation to situation and manufacturer to manufacturer.

Working Days	Process
1 – 5	Fabric Procurement
6 – 7	Fabric Inspection
8 – 11	Fabric Cutting
12 – 24	Stitching
25 – 30	Washing – Wet & Dry Process
31 – 35	Accessories fitting, Ironing, Quality Checking, Labeling and Packing
36 – 38	Local Transportation
39 – 40	Clearance
40 – 42	Shipped to Foreign Destination

Table 14: Typical Production Cycle

4.2.1.2 - Value Chain Analysis by Cost Breakdown

The cost breakdown is done in terms of percentages. It is based on several discussions with the manufacturers while taking into consideration various assumptions such as size of the order, buyer, market to be exported to, type and quality of the garment, market situation and the type of manufacturer i.e. small, medium or large etc.

Component	Cost in Percentage
Raw Material (Fabric + Accessories)	60 - 70 %
Operations & Labor	15 - 25 %
Utilities	8 - 12 %
Transportation	3 - 5 %
Bank & Insurance Charges	3 - 5 %
Others (Tax, EOBI etc.)	6 - 7 %

Table 15: Cost Breakdown (Woven Garments)

4.2.2 - Knitted Garments

Given is the value chain analysis of knitted readymade garments taking into consideration that the size of manufacturer is small or medium. A standard and basic t – shirt made of 100 % cotton with weightage of 150 grams is taken into consideration. Value chain analysis by cost breakdown in terms of percentages is given below:

Shown below is the waterfall diagram of a 100 % cotton knitted basic t – shirt of 150 grams. The cost breakdown analysis as shown in Table 16 and the graph below in figure – 58 is a rough estimation based on several discussions with the manufacturers while taking into consideration various assumptions such as size of the order, buyer, market to be exported to, type and quality of the garment, market situation and the type of manufacturer i.e. small, medium or large etc.

From the graph below, it can be seen that the raw material that is fabric and accessories (if any) has the major share in the overall price of the garment. In processing, the major contribution is of stitching, knitting and cuttting respectively. Embroidery and utilities also have a significant contribution towards the cost of the garment.

Component	Cost in Percentage
Raw Material& Accessories	55 – 65
Inbound Transportation	0.5
Inventory	0.3
Marketing	1
Knitting & Dyeing	6
Cutting	5
Stitching	8
Thread Trimming	1.5
Embroidery	3
Testing / Quality Control	0.75
Labeling	0.4
Packaging	0.7
Outbound Transportation	1
Utilities	5
Others (Taxies etc.)	3
Producer Margin	8 – 10

Table 16: Cost Breakdown (Knitted Garments)

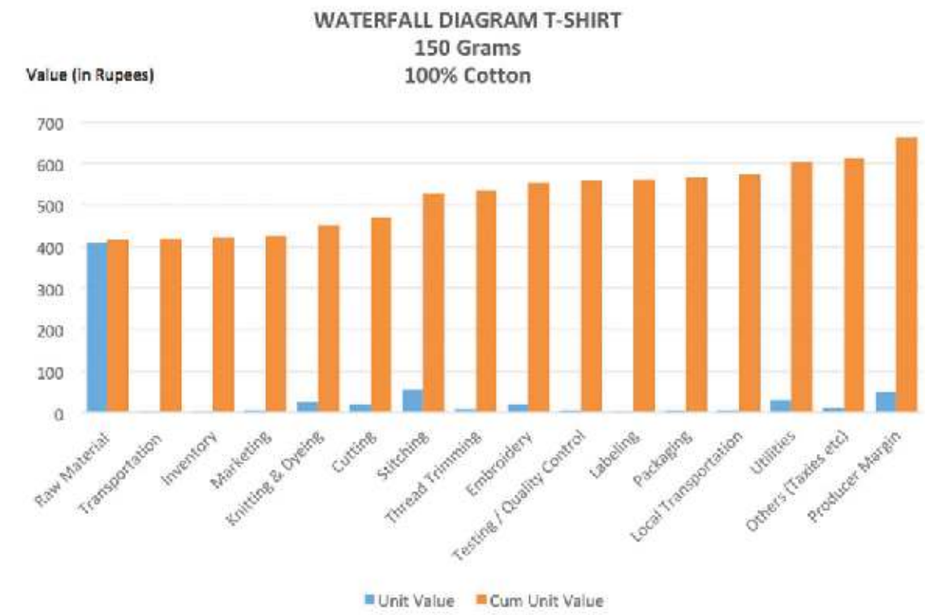


Figure 58: Waterfall Diagram

4.3 - Swot Analysis (Strength, Weakness, Opportunity & Threat)

An internal analysis of the cluster's strengths and weaknesses with the external analysis of opportunities and threats has been carried out for the readymade garments cluster in the form of SWOT framework based on the findings of the surveys, discussions with various stakeholders and secondary research.

4.3.1 - Strengths

Markets

- Strong presence in export markets
- Fast growing domestic market
- GSP + status

Technology

- Availability of imported machinery and equipment in the cluster
- Spare parts and technicians are available

Raw Material

- Quality fabric is available locally
- 4th largest producer of cotton

Human Resource

- Low cost of labor as compared to China & Turkey
- Abundance of semiskilled workforce
- Availability of training institutes for basic skills
- Experienced entrepreneurs with high level of awareness and exposure
- High female employment in design

Business Resource

- Availability of land
- Good road network and related infrastructure

Figure 59: Strengths

One of the strengths behind the readymade garments cluster of Lahore is its strong presence in export markets. International buyers prefer moving their business to developing countries like Pakistan because of availability of low cost of labor as compared to other countries like China and Turkey.

The cluster possesses a large pool of semi-skilled workers and the local availability of quality fabric adds value to the cluster. Pakistan also has a fast growing domestic market owing to its growing population. The country is endowed with fertile lands and extensive irrigation networks. Therefore, it is the 4th largest producer of cotton. Moreover, the GSP plus status granted to Pakistan by the EU is one of the major strengths of the cluster, which allows duty free access to the garment exporters to European markets.

4.3.2 - Weaknesses

Markets

- Decrease in international market share
- Price competitiveness (locally and globally)
- Very less direct selling for SMEs
- Lack of trained marketing professionals
- Buying houses / middlemen take most of the profit for large firms
- Lack of branding
- Poor perception of Pakistan - Buyers not visiting

Technology

- Old production techniques
- High defect and rejection rate
- Low productivity
- Quality issues especially in stitching and washing
- Lack of local machinery production
- Lack of latest technology
- Ineffective cost and production management

Raw Material

- Non - availability of man made fibers locally
- Poor support industry of zippers, buttons and other accessories
- Cumbersome importing mechanism of accessories and artifical fibers especially due to customs
- Export of quality fabric without value addition

Human Resource

- Shortage of skilled workforce
- Owners, managers and supervisors lack technical training
- Weak linkages between technical training institutes
- Lack of skills in design and marketing

Business Resource

- High cost of doing business in relation to competing countries
- Energy crisis
- Expensive utilities
- Inefficient implementation of Government policies
- No new investments
- No or little networking among stakeholders
- Cut throat competition

Innovation and R&Dz

- No common R&D facility
- Companies not investing in R&D due to lack of resources
- Lack of creativity and capacity to match international designs
- Lack of product diversification
- Weak Industry academia linkage

Figure 60: Weaknesses

The industry is facing serious price competition. Competing countries like Bangladesh offer low retail prices to their buyers due to their low cost of doing business.

Not only that, the cluster has numerous garment manufacturers and there is serious cut throat competition amongst them. The cost of doing business in terms of expensive utilities and rising wages of the workers is a serious concern for the cluster. Due to poor security, political uncertainty and law and order situation of the country, the international buyers have a high country risk perception of the country and they do not tend to visit Pakistan. Additionally, lack of implementation of modern production techniques result in high defect rates.The productivity of the workers is much lower than that of competing countries like Bangladesh, Sri Lanka, China, etc. The cluster lacks specialized skilled workforce and the SMEs have limited capacity in research and development. The industry is also dependent on import of accessories due to poor support industry. Moreover, the government has introduced several tax policies in the form of incentives and rebates but their poor and ineffective implementation is a major constraint of the cluster.

4.3.3 - Opportunities

Markets

- Globalization can provide market potential for competitive firms
- Opportunites for higher value addition through quality
- SMEs to take joint initiatives in branding and marketing
- Direct sales for large firms
- Opportunities for developing more brands
- Fast growing domestic market
- Increased global demand
- Untapped international markets in Europe, Russia & Africa

Technology

- Establishment of machine manufacturing units in QAAP
- Automation in the industry

Raw Material

- Allowing import of raw material with rebate or duty free
- Development of support industry
- Potential to produce man made fibers and other varities of cotton locally

Human Resource

- Change in mindset of labour such as their behaviour, sense of responsibility etc.
- Awareness to encourage female employment by friendly work environment and policies

Business Resource

- Changing business environment and incentives can provide opportunity for new investments such as subsidies and decrease in interest rate
- Social compliance

Innovation and R&D

- Shift in buyers and consumers markets towards green and ecological products and preference for brands

Figure 61: Opportunities

By improving the quality of the products and by expanding the product base, the cluster has an opportunity for higher value addition. As the SMEs in the cluster are facing marketing constraints, they are willing to take joint initiatives to overcome these problems. Therefore, there is an opportunity to overcome constraints related to marketing and branding via joint initiatives.

Opportunities exist for large firms to increase their profit margins by bypassing the role of buying houses and increasing their direct sales. The cluster also has the potential to attract more business by exploring the untapped European, Russian and African markets and because of the fast growing domestic market. Moreover, the international buyers have showed interest in organic cotton products because organic agriculture is environmental friendly and this has opened an opportunity for the readymade garment cluster to explore the possibility of producing organic cotton apparel. Additionally, there is also an opportunity to increase the diversity and value addition of garment exports by producing man-made fibers and other varieties of cotton locally.

4.3.4 - Threats

Markets

- Cut throat price competition within the country
- Poor perception of Pakistan
- Prefrerences of buyers are changing away from Pakistan
- Lack of market intelligence.
- Strong global competition - Survival of the fittest
- Different international standards

Technology

- Failure to adopt to new and latest technology and production techniques

Raw Material

- Dependance on import of raw material due to lack of manmade fibers available locally
- Poor support industry of zippers, buttons and other accessories
- Declining quality of cotton crop due to climate change and low quality of cotton seed

Human Resource

- Workers not able to adopt to new technology and production techniques due to limited education and skill base

Business Resource

- High cost of doing business
- Expensive utilities and energy shortages
- Global warming
- Buying preferences of people
- Lack of financial resources

Innovation and R&D

- Shift towards green and ecological products
- Inability to innovate and lack of R&D
- Inability to produce personalized and high end products
- Latest designs and trends

Figure 62: Threats

Cut throat competition within the county and fierce competition from competing countries like Bangladesh, Sri Lanka, Vietnam and China is a huge threat to the cluster. Due to poor country perception, international buyers are moving their business to neighboring countries.

Moreover, the inability to understand market trends and transfer them to new products and processes pose major threat to the cluster. Similarly, the inability of the cluster to innovate and produce new products is a major threat. The cluster also might lose its comparative advantage in cotton production as the quality of cotton is deteriorating due to change in climate. There is a constant threat to lose business from international buyers due to high cost of doing business as well.

4.4 - Five Forces

Porter's five forces model has been used as a framework for industry analysis and business strategy development. Following is the analysis of Porter's five forces that determines the competitive intensity and attractiveness of the readymade garments industry.

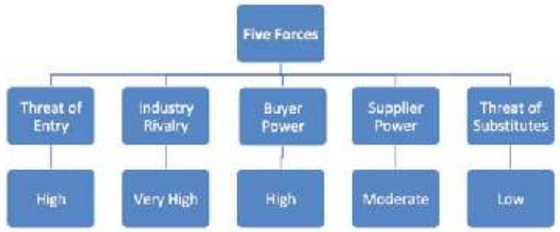
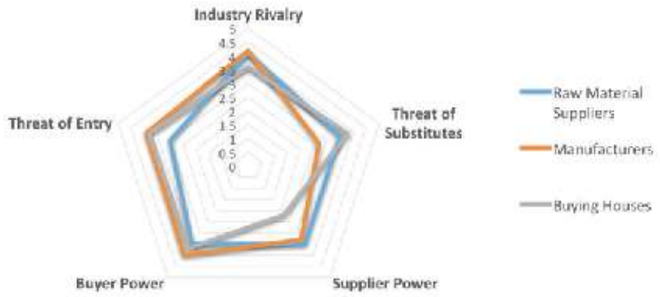


Figure 63: Strength of Factors



Scale: Very Low – 1, Low – 2, Medium – 3, High – 4 and Very High – 5

Figure 64: Porter's Five Forces

Threat of New Entry – High:

In readymade garments, the threat of new entry is very high as compared to other segments of the value chain. Establishing a readymade garments unit does not require a huge amount of capital as compared to fabric manufacturers. There are no special legal barriers or Government regulations that can cause hindrances. Retaliation by the existing companies is low as several manufacturers are already present in the cluster and there are plenty of suppliers and distributors available locally which can be accessed easily. Very limited range of diverse products and easy access to suppliers and distributors serves as an attraction. The two factors, which are customer loyalty and economies of scale pose some problems for new firms entering into business. Adoption of latest technology, which requires some investment can certainly provide impetus for the growth of the large firms. Moreover enough emphasis should be given on brand building. Technology and brands can serve as entry barriers. The industry has a great advantage of availability of cheap labor. Therefore, the threat of a new entrant into the readymade garments industry is high.

Industry Rivalry – Very High:

The readymade garments sector in Pakistan comprises numerous garments manufacturers, which vary in terms of size. These manufacturers produce a limited range of diverse products with little or no research and development or innovation. This results in cut throat price competition amongst them. When the demand slackens, all the garment manufacturers are pressured to lower their prices in order to stay competitive, thus reducing the profitability of the industry and increasing competition. One of the other major factors of very high industry rivalry is that fewer buyers, international buying houses or brands are doing business with Pakistan or visiting the country making the competition amongst the companies more intense due to a reduction in the number of orders. The industry is also facing strong competition internationally from countries like Bangladesh, China, Vietnam and Sri Lanka. Bangladesh has an advantage over Pakistan in terms of cheap labor and reduced cost of doing business. Therefore, the atmosphere offered by the international competitors is more investment friendly and attractive. Product differentiation can reduce rivalry among firms. In light of the aforementioned factors, it is concluded that the cluster is facing a strong industry rivalry locally, nationally and internationally.

Bargaining Power of Buyers - High:

The bargaining power of buyers is high in the readymade garments sector. This is because there are several opportunities available for buyers to switch their production. If the buyer is not satisfied with the price, quality or delivery time of the product, he can easily and quickly switch to any other manufacturer present locally, nationally and internationally. Due to this reason, the readymade garments manufacturers try to offer the best quality in the lowest possible production price and time so that they can present themselves as the best possible option to the buyers.

Bargaining Power of suppliers - Moderate:

A large number of suppliers of raw material and machinery are available in the garments industry. The cost of switching to alternative material is very low for the garment producers and due to low level of product differentiation, availability

of raw materials and other supplies is not an issue for the manufactures. As a result, the producers can contact a large number of suppliers and play suppliers against each other. The garment manufacturers can bargain for the best terms and prices with the suppliers. All these factors make the bargaining power of suppliers as moderate.

Threat of Substitute - Low:

In readymade garments, the threat of substitute is low because people do not have any other option to purchase a substitute product for clothing. However, there are variations in types of clothing and material used. Products within the fabric or material segment can act as substitutes but generally the threat is low.

4.5 - Diamond Model

Diamond analysis has also been carried out by analyzing four factors that a cluster needs for the creation of comparative advantage. Favorable and unfavorable conditions have been identified with respect to each of the four conditions, for the purpose of understanding the competitive position of the cluster.

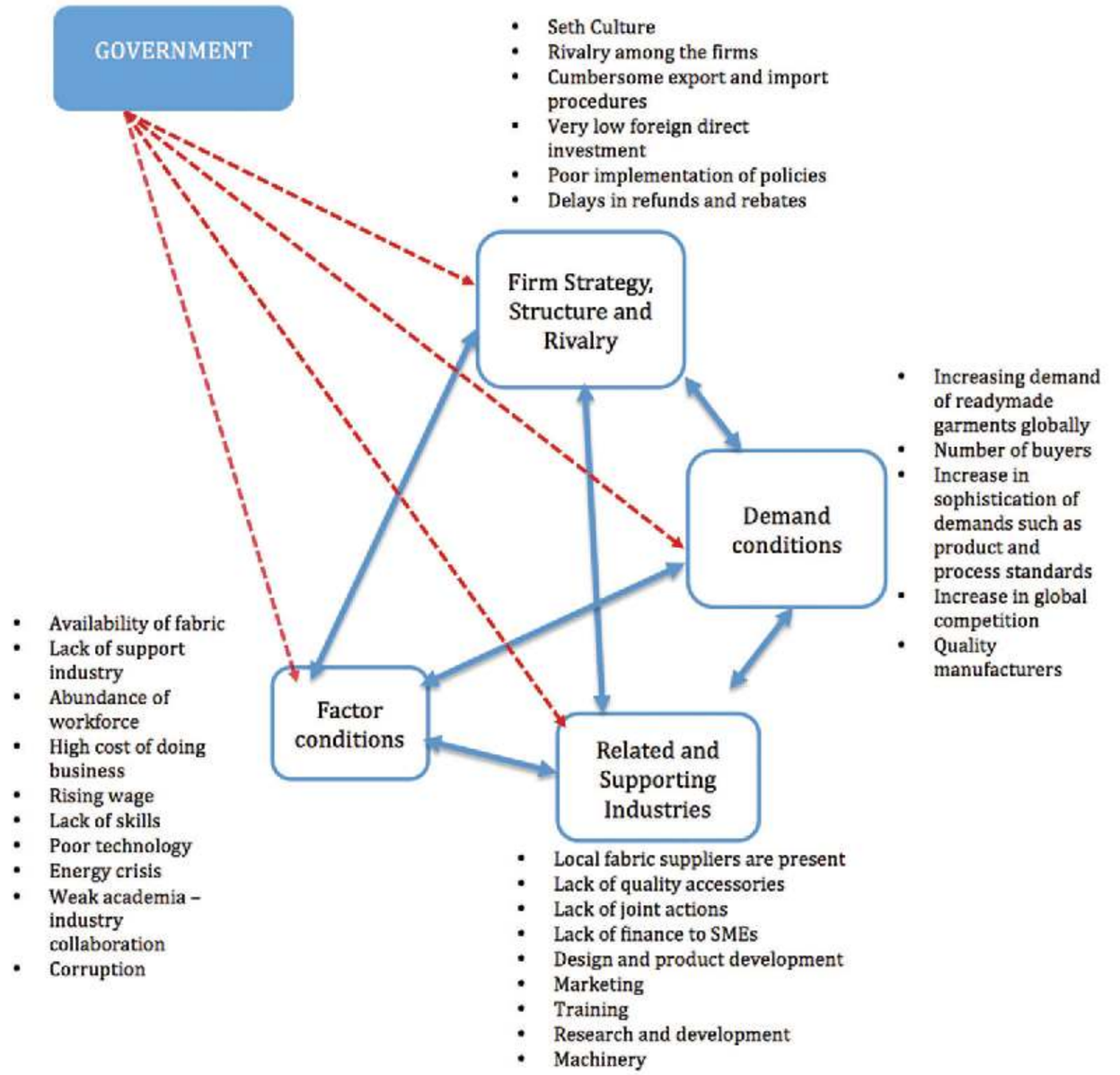


Figure 65: Diamond Model

Sr. No	Porter's Determinants	Score	Remarks and Status
	Factor Conditions		
1	Availability of fabric	4	Quality fabric is available to the manufacturers but the quality of cotton crop is decreasing which can pose threat to the cluster in future.
2	Support industry	2	Support industry of accessories such as buttons, rivets, zippers and other metal accessories is very poor. Manufacturers mostly import from China or Hong Kong.
3	Workforce	4	Workforce is available in and around the cluster.
4	Cost of doing business	1	Cost of basis utilities such as electricity and gas is increasing making the entire supply chain of readymade garments expensive and less competitive from competing countries.
5	Labor cost	1	In the last 4 years, minimum wage has increased from Rs. 8,000 to Rs. 14,000 making the cluster uncompetitive.
6	Skills	2	Abundant workforce is available but there is shortage of skilled workforce.
7	Technology	2	Manufacturers are not investing in technology due to limited resources. Local base of technology is very weak and they have to import.
8	Infrastructure	4	Good road and rail network. Modern communication system is also available.
9	Energy	2	Inconsistent supply of electricity and gas.
10	Academia - industry collaboration	2	Lack of knowledge sharing and discussions between academia and industry.
	Demand Conditions		
1	Global and local demand of readymade garments	5	Globally and locally the demand of readymade garments is increasing.
2	Number of buyers	3	Number of European buyers buying from the cluster are increasing but at a very slow pace.
3	Buyer demands such as product and process standards	2	Foreign buyers are introducing new compliances and best practices which can pose of threat to the cluster.
4	Global competition	2	It is getting very difficult for cluster companies to compete with the prices offered by Bangladesh, Vietnam, China and Sri Lanka.
5	Quality manufacturers	2	Only large manufacturers are making quality products and working with renowned foreign brands.

Sr. No	Porter's Determinants	Score	Remarks and Status
	Context of firm strategy and rivalry		
1	Number of firms	2	Number of companies is decreasing due to price competition and less orders.
2	Size and efficiency of the firms	2	Mostly small and medium manufacturers with limited resources, technology and multitasking.
3	Rivalry among the firms	4	Strong rivalry is present among the manufacturers with cut throat competition.
4	Seth Culture	2	Lack of entrepreneurs. Mostly family oriented business with one person taking all the decisions.
5	Export and import procedures	2	Delays are faced in import of accessories especially due to cumbersome customs procedures.
6	Implementation of policies	1	Policies announced for not completely implemented.
7	Refunds and rebates	1	Drawbacks and rebates offered to exporters are mostly delayed and the procedure is very lengthy and difficult.
	Related and support industries		
1	Local fabric suppliers	4	Fabric is available to the manufacturers locally.
2	Accessories	2	Only one quality zipper manufacturer. Lack of quality buttons and other metals in local market.
3	Design and product development	1	Limited design and product development. Only large companies have design and product development department.
4	Marketing	2	Only large companies have marketing departments and participate in trade fairs / exhibitions. SMEs do not afford to travel abroad frequently for meeting with buyers.
5	Training	4	Training institutes are established by the public and private sector but industry is not satisfied with the quality of training provided.
6	Research and development	1	Lack of research and development. Only basic garments are manufactured. No innovation in design and product development.
7	Machinery	2	Machinery is not manufactured locally. 100% imported machinery is used which is available through dealers and agents.
8	Joint actions	2	Lack of joint actions.
9	Access to finance	2	SMEs do not have easy access to finance.

Table 17: Diamond Framework for the Readymade Garments Cluster

Scale: 1 - Highly unfavourable, 2 – Unfavourable, 3 – Neutral, 4 – Favourable, 5 - Highly favourable

The above scoring is based on the findings of the survey, discussions and interaction with various stakeholders and secondary research.

Readymade garments have a large demand, both locally and internationally. However, in order to meet the rising demand, the cluster is largely dependent on factors such as existence of support industry, skilled labor force and energy. Increasing reliance on imports for accessories, energy shortages and skill gaps are some of the disadvantages that the cluster is facing due to which meeting the increasing local and global demand is a serious challenge. However, Pakistan is also the fourth largest producer of cotton and availability of local raw material can play a key role in meeting the increasing demand.

The SMEs do not have easy access to finance and process of acquiring credit along with collateral demands of financial institutions is cumbersome. Weak facilitation from supporting industries has resulted in limited access to advanced technology and research and development. Similarly, government announces various incentives and rebates but they are not effectively implemented. There are significant delays in tax refunds, which consequently adds to the cost of doing business. Additionally, majority of the SMEs have weak export marketing strategies. This problem is further aggravated because of poor security conditions of the country due to which the international buyers do not visit the country. This factor has had an impact on the firm's strategy and structure, as the number of firms in the sector are decreasing due to insufficient orders.

The presence of research and development facilities to support the readymade garments cluster is poor and majority of the firms rely on international buyers for design. Moreover, there is poor marketing management and limited marketing intelligence due to which there are missing linkages in the creative process of the cluster. However, at the same time the cluster is facing strong competition internationally because of which the firms are motivated to constantly innovate and overcome their shortcomings. This is one of the reasons why the cluster firms have identified the need for a design studio which can provide its services to the SMEs in the readymade garments cluster in Lahore.

4.6 - Analysis

4.6.1 - Raw Material

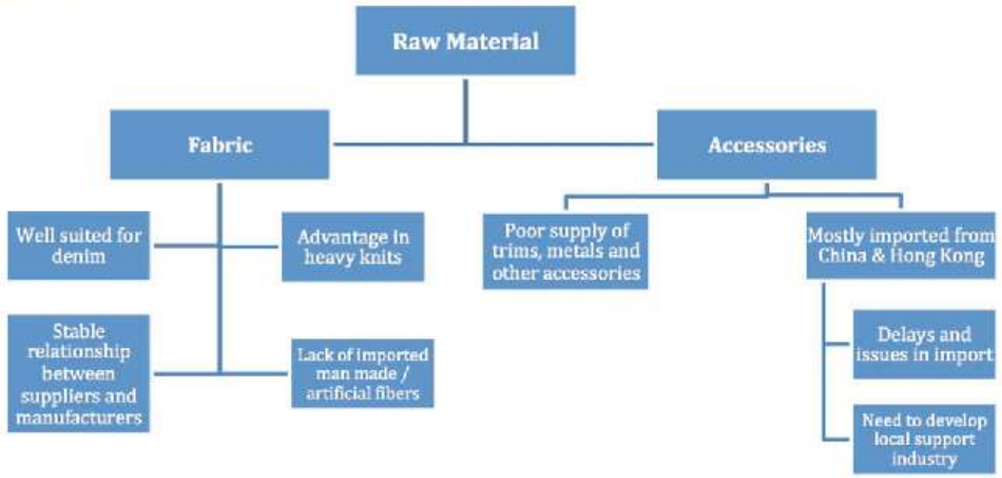


Figure 66: Raw Material Analysis

4.6.2 - Technology & Production

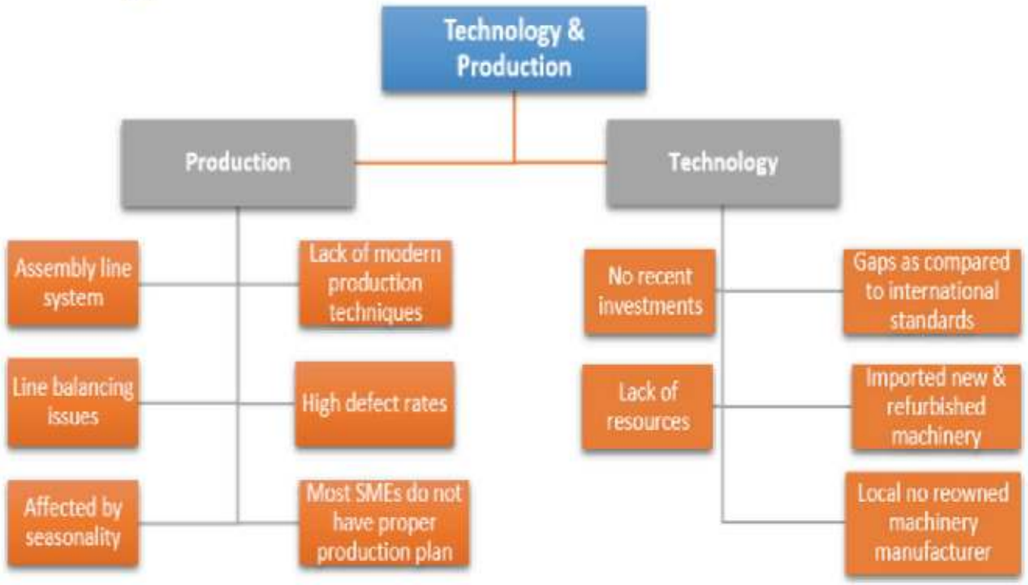


Figure 67: Technology & Production Analysis

4.6.3 - Innovation, R&D and Marketing

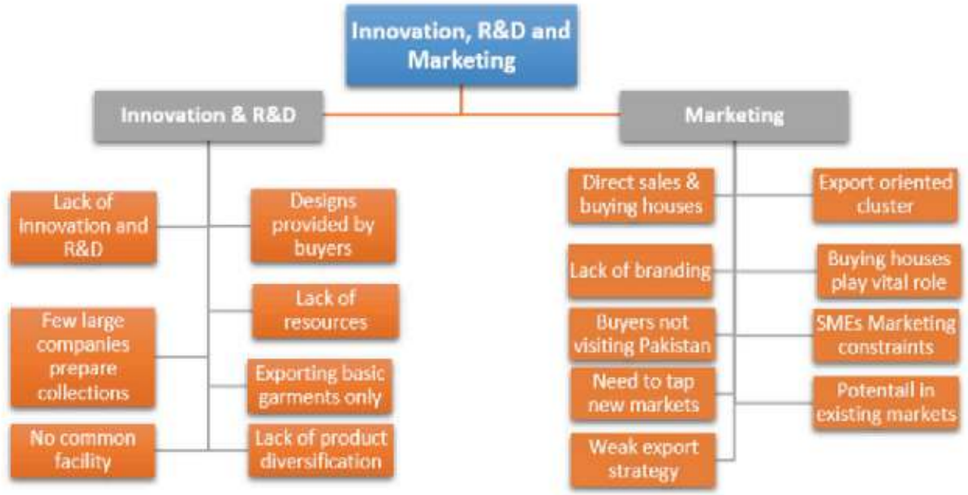


Figure 68: Innovation, R&D and Marketing Analysis

4.6.4 - Business & Human Resources

Figure 69: Business and Human Resource Analysis

4.6.5 - Critical Cluster Issues

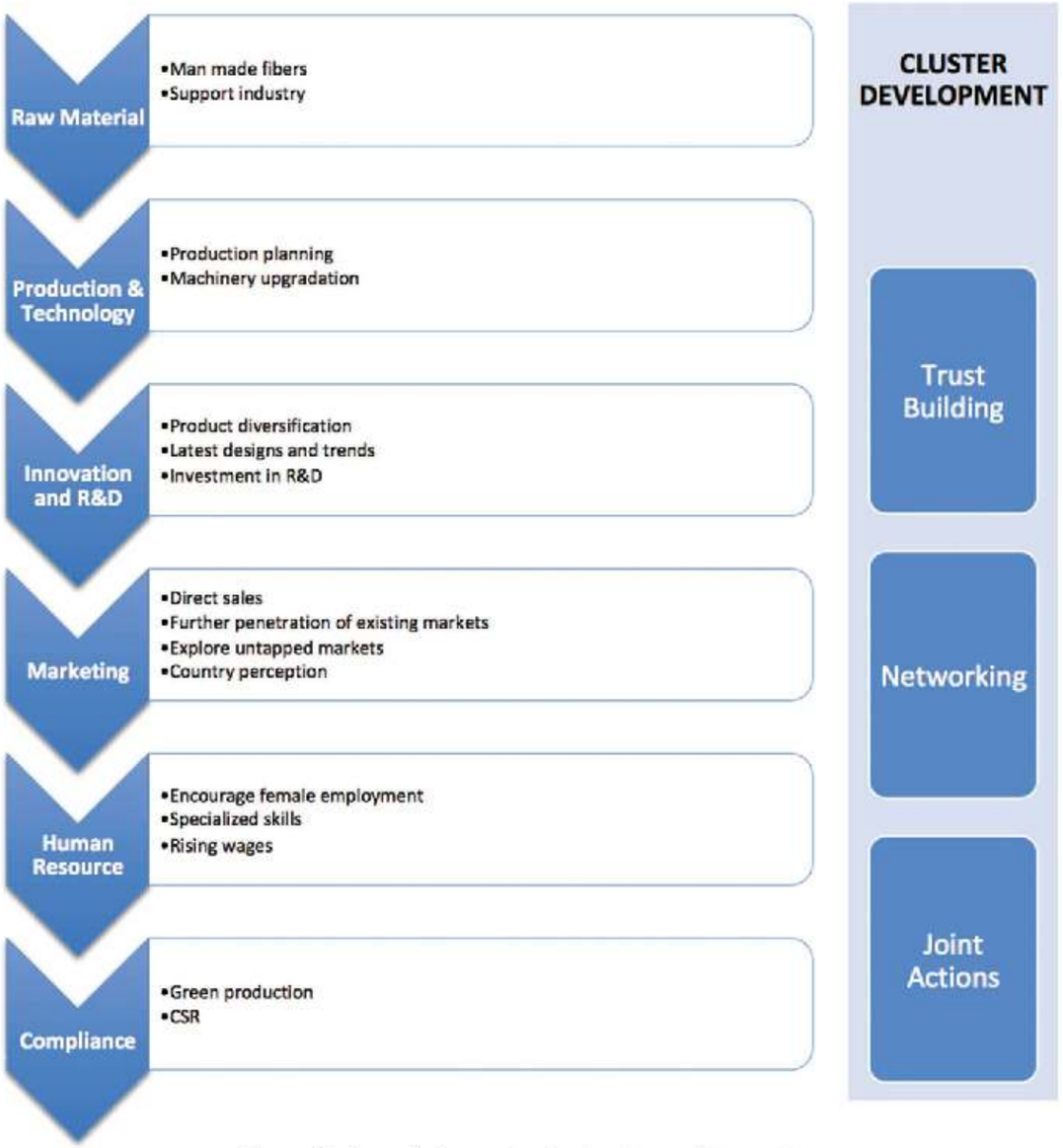


Figure 70: Steps for Increasing Productivity and Competitiveness

The figure above shows that for the readymade garments cluster of Lahore to become locally and globally competitive, the critical issues highlighted need to be addressed. For becoming locally and globally competitive, the fundamental points are to increase the overall productivity of the cluster, ensure quality and timely delivery of the order, compliance with international, national and buyer's social and environmental standards and effective marketing and branding.

Designing and product diversification, one of the critical functions of readymade garments industry is largely missing in the cluster. Lack of design and product diversification is one of the major constraints in the growth of the cluster.

Marketing and market analysis is also a basic component of the industry which is very closely associated with designing and product development. Designs depend on the target markets, its requirements, trends and consumer preferences. Cluster companies lack market analysis and mainly depend on buying houses.

Currently the cluster lacks in productivity due to various reasons as mentioned above such as production planning, line balancing, training of supervisors and managers, lack of latest technology, research and development, marketing and lack of specialized workforce.

Major issues in the quality and timely delivery of the orders are unavailability of man – made fibres in the cluster and poor support industry. Import of accessories which at times is a long cumbersome procedure results in delays in orders. Lack of specialized skilled workforce and old technology also contributes to the quality of the product. Lack of testing facilities and trained quality supervisors / inspectors is another reason behind the low quality of the products.

Consumers and buyers are becoming more and more aware and conscious about what they wear, how it is made and how environment friendly it is. New compliances are being introduced regularly and buyers are shifting towards green and clean production. It is important for cluster companies to be aware of such compliances and take in time actions.
A lot of aforementioned issues can be addressed by the readymade manufacturers of Lahore through joint actions, knowledge sharing, public private dialogue and strong academia industry linkage.

4.7 - Cooperation Matrix

Name of Organizations	MinTex	MOC	IC&ID	PRGMEA	PHMA	LCCI	SMEDA	TDAP	PSIC	PBIT	GOVT UNIs	PVT UNIs	TEVTA	PSDF	PIFD	PRGTTI	PKTI	PVTC	Private BDS	Banks & Financial	Material Suppliers	Certification Agencies	Donors / NGOs	NTU	Environment Dept.	Labor Dept.	NPO
MinTex	X	2	1	2	1	2	0	2	0	0	2	1	0	0	1	3	2	0	1	0	2	0	3	3	0	0	0
MOC	2	X	1	2	1	3	4	4	0	1	2	2	0	0	3	2	2	0	2	2	1	2	3	0	0	0	4
IC&ID	1	1	X	3	2	3	1	1	3	3	2	2	3	3	0	0	0	2	2	2	2	1	3	0	2	2	0
PRGMEA	2	2	3	X	2	1	1	2	2	0	1	1	2	3	1	5	0	0	2	1	2	2	4	2	1	1	1
PHMA	1	1	2	2	X	0	1	2	0	0	1	1	1	2	0	0	5	0	1	1	2	2	2	1	1	1	1
LCCI	2	3	3	1	0	X	3	3	1	1	1	2	2	1	0	0	0	0	2	2	1	0	3	0	2	2	2
SMEDA	0	4	1	1	1	3	X	3	1	1	2	2	1	0	1	0	0	0	2	3	2	3	4	0	0	0	1
TDAP	2	4	1	2	2	3	3	X	1	2	1	2	0	0	0	0	0	0	3	3	2	1	3	0	0	0	0
PSIC	0	0	3	2	0	1	1	1	X	3	1	2	2	0	0	0	0	0	2	2	0	0	2	0	1	1	0
PBIT	0	1	3	0	0	1	1	2	3	X	0	2	1	0	0	0	0	0	1	0	0	0	2	0	1	1	0
GOVT UNI	2	2	2	1	1	1	2	1	1	0	X	2	2	2	1	0	0	0	1	0	1	1	0	1	1	1	1
PVT UNI	1	2	2	1	1	2	2	2	2	2	2	X	2	3	1	0	0	0	1	1	1	2	3	1	2	0	1
TEVTA	0	0	3	2	1	2	1	0	2	1	2	2	X	2	0	2	2	1	1	1	0	0	3	1	1	1	0
PSDF	0	0	3	3	2	1	0	0	0	0	2	3	2	X	0	3	3	0	0	1	2	0	3	0	1	1	0
PIFD	1	3	0	1	0	0	1	0	0	0	1	1	0	0	X	0	0	0	0	0	0	0	3	1	0	0	0
PRGTTI	3	2	0	5	0	0	0	0	0	0	0	0	2	3	0	X	0	1	3	0	0	3	4	1	0	0	1
PKTI	2	2	0	0	5	0	0	0	0	0	0	0	2	3	0	0	X	1	2	0	0	2	2	0	0	0	0
PVTC	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	X	0	1	0	0	1	1	0	0	0
Private BDS	1	2	2	2	1	2	2	3	2	1	1	1	1	0	0	3	2	0	X	2	2	3	2	1	1	1	1
Banks & Financial Institutions	0	2	2	1	1	2	3	3	2	0	0	1	1	1	0	0	0	1	2	X	2	0	0	0	0	0	0
Raw Material Suppliers	2	1	2	2	2	1	2	2	0	0	1	1	0	2	0	0	0	0	2	2	X	3	3	2	1	1	2
Certification Agencies	0	2	1	2	2	0	3	1	0	0	1	2	0	0	0	3	2	0	3	0	3	X	0	1	1	1	0
Foreign Donors / NGOs	3	3	3	4	2	3	4	3	2	2	0	3	3	3	3	4	2	1	2	0	3	0	X	1	2	2	3
NTU	3	0	0	2	1	0	0	0	0	0	1	1	1	0	1	1	0	1	1	0	2	1	1	X	1	1	1
Environment Dept.	0	0	2	1	1	2	0	0	1	1	1	0	1	1	0	0	0	0	1	0	1	1	2	1	X	2	0
Labor Dept.	0	0	2	1	1	2	0	0	1	1	1	0	1	1	0	0	0	0	1	0	1	1	2	1	2	X	0
NPO	0	4	0	1	1	2	1	0	0	0	1	1	0	0	0	1	0	0	1	0	2	0	3	1	0	0	X
Total Score	28	43	44	44	31	37	36	33	24	19	27	35	31	30	12	25	21	8	39	24	34	28	61	20	21	19	19

Figure 71: Cooperation Matrix

Scale: 0 – No, 1 – Poor, 2 – Fair, 3 – Good, 4 – Very Good, 5 –Excellent

The previous figure shows the level of cooperation between various stakeholders of the readymade garments cluster of Lahore. The scoring is based on the findings of the survey, discussions with the manufacturers and other stakeholders and the information gathered from secondary sources.

The figure shows that donors and NGOs are playing a very active role in the cluster. Various programs have been initiated especially by international donor agencies such as JICA, GIZ & UNIDO in collaboration with the industry and other stakeholders.

Government agencies especially related with trade promotion and investment have a very important role to play, but their linkage with the industry and other stakeholders is moderate. The role of such organizations is very critical for the cluster as they are associated in policy making, trade promotion, investment promotion, incentives and among other key functions.

The cooperation between academia and other stakeholders is also found out to be on the weaker side. This collaboration is very important for innovation and research and development in the cluster.

Federal Ministries of Textile Industry and Commerce and Provincial Ministries of Industries, Commerce and Investment are responsible for policy making and development of the cluster. Strong collaboration between the ministries, industry and other stakeholders is very important for the growth and competitiveness of the cluster.

Training institutes such as PRGTTI, PKTI, PSDF, TEVTA and PVTC are helping the cluster with skills improvement and providing support to the industry with skilled labour. The linkage exists between these institutes and the industry, but there is a need to introduce more focus and specialized courses in order to enhance the product portfolio of the cluster from basic garments to high end fashion products.

Financial institutions are not offering any specialized loans or credit to the manufacturers or exporters of the readymade garments. By collaborating with the industry and other stakeholders and offering easy finance especially to SMEs can lead to their growth and hence enhance the exports of the cluster.

4.8 - Cluster Map

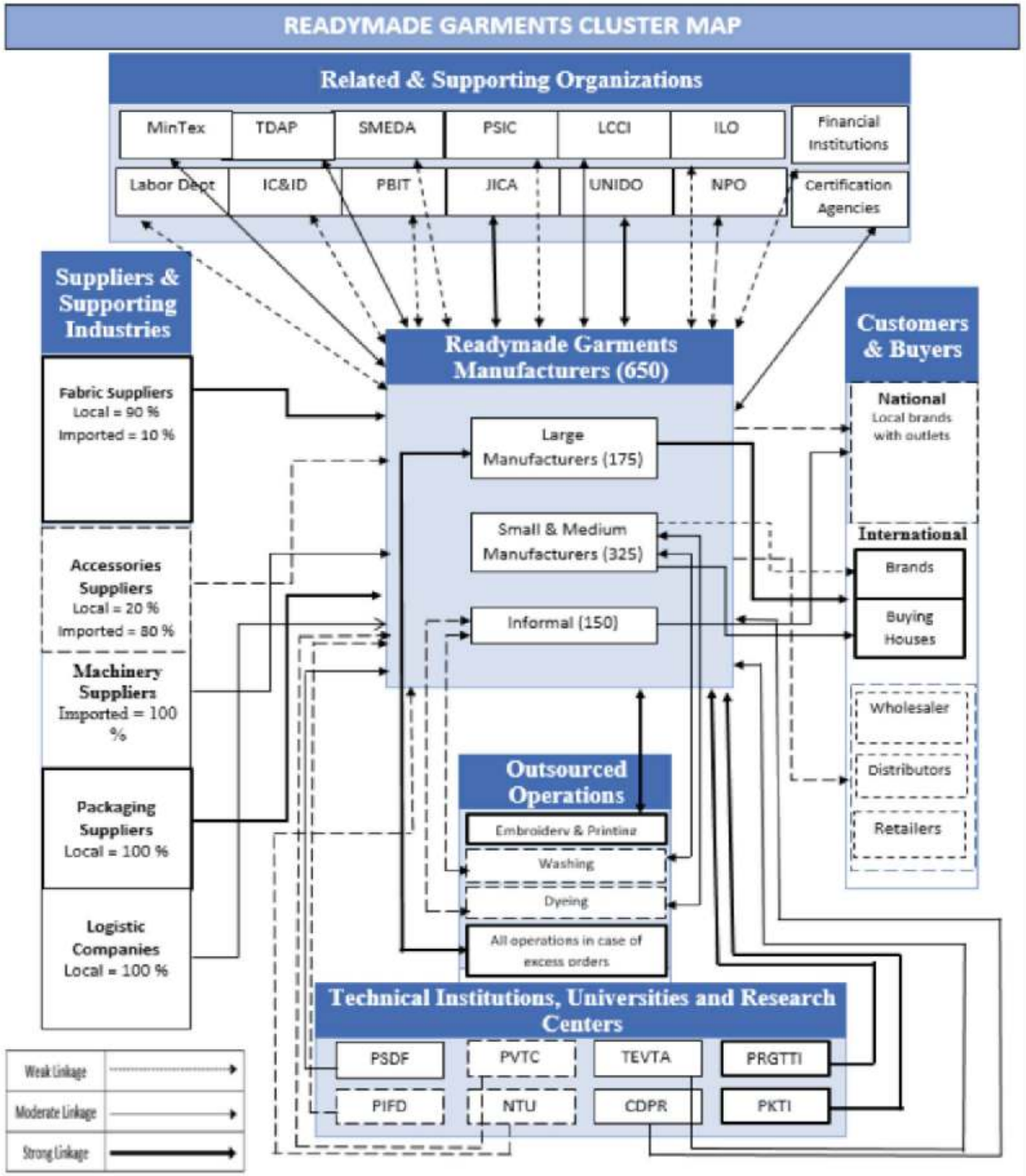


Figure 72: Cluster Map

05 RECOMMENDATIONS

This chapter endeavors to conclude the discussion and find a way forward by chalking out the functional and policy recommendations for the readymade garments cluster of Lahore. These recommendations are drawn on the basis of the survey, discussions, secondary research and the study, which is explained in the previous chapters. It is to be mentioned here that these recommendations are not exhaustive.

Innovation, Research & Development

Common design and market intelligence center
Prepare affordable collections and provide market intelligence
Product diversification
Workshops / trainings for designers
Promote branding
Local & International collaboration

Production & Productivity

Production planning
Functional and product upgradation
Product diversification
Line balancing
Lean manufacturing
Quality improvement

Markets & Marketing

Target market research
Marketing strategy
Target market penetration
Branding
Participation in fairs, exhibitions and trade delegations
Country image

Specialized Skills & Workers Welfare

Specialized skill development in high end fashion products
On the job training
Enhancing work environment
Permanent employment
Encourage female employment

Governance, Policies, Rules & Regulations

Strong public and private sector collaboration
Energy price competitiveness
Implementation of Govt policies and incentives
Streamlining of customs and tax procedures
Common Infrastructure for production

A summary of the key constraints, explanation and possible intervention areas are listed below:

KEY CONSTRAINT 1

WEAK INNOVATION, RESEARCH AND DEVELOPMENT

EXPLANATION

- Manufacturers mainly produce low to medium value readymade garments.
- Increasing local and global demand
- Frequently changing fashion and trends
- Product lines are unable to keep up with the latest trends and compete
- Facing strong competition in terms of price, design and quality from the competitors and is at the risk of more competition and competitors in the near future especially from the new developing countries (like Ethiopia).
- Hindrance to acquire more profit, and sustainability.
- Absence of design and market intelligence related services.
- Limited capacity of SMEs in research and development.
- Limited range of products
- Currently, designs are provided by the buyers and the research and development support to drive design innovation is not available or is very limited.
- Lack of skills related to fashion, and new trends.

RECOMMENDATIONS

- It will be strategically beneficial to expand to a wide range of product mix in order to become resilient for any kind of situation.
- Need to target products that fall towards medium – to - upper end of the garments market.
- Keeping in mind the absence of design and market intelligence related services and limited capacity of SMEs to develop such capacity in-house individually, there is a need for establishment of a common design and market intelligence facility in the cluster.
- A common design facility may be established to provide affordable collections and market intelligence with regards to new trends in the target export markets.
- The design and market intelligence facility may also work and assist the manufacturers in development of fabric especially regarding the mix of both natural and manmade fibers.
- The design facility can also provide trainings and workshops for the design graduates.
- The service portfolio of the design center may also aim at promoting the concept of branding in local and foreign markets.
- Design facility may also collaborate with similar well performing design facilities in other countries.
- Strong academia and industry collaboration will be of utmost importance for its success.

KEY CONSTRAINT 2

PRODUCTION, PRODUCTIVITY AND COMPLIANCE

EXPLANATION

- Line balancing is a key challenge faced by manufacturers.
- Low efficiency and productivity.
- Lack of implementation of modern production techniques due to which the quality of the products are low and production time is more.
- Limited implementation of quality management systems resulting in high defect rates.
- Long production times needs to be reduced.
- Buyers demand for high quality products at the cheapest rate.
- Dependence on the import of accessories such as trims, metals, zips, buttons etc.
- International buyers and consumers are becoming more and more aware regarding social and environmental compliance.
- Buyers and consumers want to know where and how their products are made.
- Buyers and consumers are demanding strong implementation of compliance and environmental standards.

RECOMMENDATIONS

- Assisting the companies in preparation of their production plans.
- Diversification of products into higher value added products.
- Enhancement of productivity and quality through line balancing, lean manufacturing and system automation.
- Improvement in quality of products.
- Capacity building of supervisors, managers and quality control staff.
- In order to reduce production cost and to ensure timely delivery of the products, it is important to set up a support industry for accessories used in the readymade garments.
- Raising awareness regarding upcoming compliances and environmental standard and how to implement them.
- Timely actions are required for fast changing and stringent compliance and environmental standards.
- Need for common effluent treatment plant.

KEY CONSTRAINT 3

MARKETS AND MARKETING

EXPLANATION

- Negotiations for duty free entrance to non - traditional markets, is the key to success for exploring new markets.
- International buyers demand for shorter lead times, which is an impediment for Pakistani readymade garments producers against other competing countries.
- Majority of the firms have weak or little export marketing strategy, lack of marketing department.
- Mostly the owner / decision maker is involved in marketing especially for SMEs.
- Companies not exploring potential new markets and existing markets in depth.
- Potential in existing export markets and untapped markets such as Eastern Europe, Central Asia, Australia, Russia and some parts of Africa.
- Only the owners of the SMEs are themselves involved in marketing.
- Extra cost for marketing, as buyers are not willing to visit Pakistan.
- Less directs sales for SMEs.

RECOMMENDATIONS

- Identification of non - traditional markets to enhance exports
- Target market research in new and existing markets.
- Market entry strategies for new and unexplored markets.
- Creation and promotion of local brands in local and foreign markets.
- Training of owners and marketing staff to develop their capacity on marketing their products, e-commerce and e-retailing.
- To sustain and accelerate the growth, actions are required to break into new markets through better exploitation of trading opportunities and reduced delivery time in order to become more competitive in the global market.
- Facilitation by public sector organizations and departments for SMEs to participate in trade fairs, exhibitions and B2B meetings.
- Single country exhibitions and sector specific trade delegations.
- Export consortia may be established.
- Improve country perception and image.
- Pakistan's commercial counsellors abroad, along with international and local agencies may arrange dedicated B2B meetings with new customers in existing markets and potential markets.

KEY CONSTRAINT 4

SPECIALIZED SKILLS AND WORKERS WELFARE

EXPLANATION

- Lack of specialized skills in high end fashion products such as men's suiting etc.
- Shortage of quality human resource in washing, stitching and quality control.
- Manufacturers not willing to send their workers to training institutes for training and prefer on the job training.
- Difficult to hire and retain skilled labor.
- Most of labor is hired on piece rate/ contractual basis.
- Line and floor supervisors lack competence and technical knowledge.
- Fresh workers are continuously hired and trained to fill the gap.
- Very low female participation.
- International buyers prefer gender diversity.
- Work places are not equipped with separate washrooms & transportation for female workers.

RECOMMENDATIONS

- Need to invest in specialized skills development in order to increase product portfolio and performance in terms of quality and procuctivity.
- Focused on the job training required.
- Skills development for the SMEs in washing, stitching and quality control.
- Internalize the training programs in the factories &offices to cater to firm specific skills needs.
- Need to introduce courses on soft skills that can help change the mindset of the workers and make them aware of their role in the factory and sense of responsibility.
- Upgradation of training curriculum as per industry needs.
- Short term courses focused on practical training.
- Courses for supervisory staff to develop technical competence in critical operations.
- Introduce better working conditions, benefits, women friendly environment, anti-harassment policies, health and safety measures etc.
- Strong linkage with various stakeholders involved in training and capacity building related services needs to be developed and textile graduates shall be engaged with the industry.
- Social compliance requires gender diversity, accordingly more females may be trained in all core production and managerial areas.
- Special incentives may be offered to promote and increase the employment of females by offering part time jobs, day care, transportation facility, separate working space etc.

KEY CONSTRAINT 5

GOVERNANCE, POLICIES, RULES AND REGULATIONS

EXPLANATION

- Instable political and law and order situation leads to insecurity amongst the manufacturers but more importantly among the international buyers.
- Customer orders are delayed due to various factors caused by political instability affecting the relationship between manufacturer and buyer.
- Infrastructure including utility services and their price competitiveness needs to be flawless and the responsibility lies with government for its provision.
- Little information sharing due to weak linkage between government bodies and manufacturers.
- Lack of interaction between manufacturers and government agencies in policy making and trade agreements resulting in formulation of policies and agreements that are not in the interest of the industry.
- Weak implementation of government incentives and subsidies
- Cumbersome customs procedure both for import and export.
- Exchange rate policy of maintaining a soft peg with dollar.
- Energy shortages and high electricity and gas tariffs.
- Undocumented economy and presence of informal sector.
- Lack of access to finance.
- Non-payment of duty and tax remission for exports (DTRE).
- Weak taxes and duty drawback structure.

RECOMMENDATIONS

- Strong private and public sector collaboration / linkage required.
- Electricity and gas supply to be made available to the industry during production hours at competitive price.
- Active implementation of government policies, incentives and subsidies.
- Government may have a liberal import policy in the short run so that garment manufacturers can import fabric especially manmade fibers.
- Image building of the country through print, electronic and social media.
- Streamlining of customs and tax procedures.
- Removing bottlenecks to improve access to finance for SMEs.
- Production facility or common infrastructure in accordance with international compliance and standards to promote new entrepreneurs and SMEs which can also encourage informal companies to become part of formal sector and benefit.

PUBLIC SECTOR RECOMMENDATIONS	PRIVATE SECTOR RECOMMENDATIONS
Providing an investment friendly environment for both foreign and local investors.	Functional upgrading of the manufacturers to adopt Original Design Manufacturing (ODM) or Original Brand Manufacturing (OBM) operations. In order to be able to participate in international exhibitions and capture higher value for the exports, there is a need to export products under a brand name. Concept of branding can be developed by enhancing the capacity of the R & D departments.
FTAs & PTAs with the countries of current and potential markets.	Readymade garment manufacturers should upgrade their products range for diversification by targeting niche markets (markets that are small but fetch high prices).
Overcoming energy shortages and price competitiveness.	The readymade garment manufacturers should improve their linkages within the value chain in order to reduce their lead time to 30 to 45 days from 60 to 90 days. Thus, linkages within the value chain of readymade garments can be improved by a) Improving the cotton production processes. This can be done by using high quality seeds and fertilizers b) Engaging labor force that is equipped with specialized skills.
Minimize bureaucratic bottle necks.	The readymade garments manufacturers need to widen their product base. Currently, they are producing a limited range of products. There is a need to expand the capacity of the cluster firms to produce products that are diverse in nature.
Promote coordination and collaboration between all stakeholders.	
Improve country perception and image.	
Effluent treatment plant.	
Facilitate exporters to participate in trade shows, exhibitions and B2B meetings / delegations.	Conduct targeted market research in readymade garments.
Arrange single country and sector specific exhibitions in current and potential markets.	The training providers should launch training programs that are specialized and cater to firm specific skills. These programs should be introduced via public private collaborations.
Financial support for SMEs.	The industry needs to gear up for the stringent requirements of international buyers. They need to ensure common compliance standards in order to be competitive in international market.

PUBLIC SECTOR RECOMMENDATIONS	PRIVATE SECTOR RECOMMENDATIONS
Streamlining for export and import procedures	Joint ventures with foreign readymade garments companies will help the producers in accessing new markets and greater resources, helping the manufacturers to position themselves in the higher value added segment of the value chain.
Timely refunds to exports and manufacturers	The readymade garment producers should resort to alternate energy sources to make sure their supply of power is not disturbed.
Pakistani rupee to be evaluated as per market value against US Dollar	There is a need to build international buyers' confidence for the country as well as the products offered by the sector.

TABLE OF ABBREVIATIONS

MinTex	Ministry of Textile Industry, Government of Pakistan
MOC	Ministry of Commerce, Government of Pakistan
MOIP	Ministry of Industries & Production, Government of Pakistan
MOF	Ministry of Finance, Government of Pakistan
MOST	Ministry of Science & Technology, Government of Pakistan
Labour	Labour Department, Government of Punjab
Environment	Environment Department, Government of Punjab
Industries	Industries, Commerce & Investment Department, Government of Punjab
NTU	National Textile University
PCCC	Pakistan Central Cotton Committee
TCO	Textile Commissioner's Organization
TDAP	Trade Development Authority of Pakistan
PIFD	Pakistan Institute of Fashion Design
SMEDA	Small & Medium Enterprises Development Authority
NPO	National Productivity Organization
EDB	Engineering Development Board
SBP	State Bank of Pakistan
FBR	Federal Board of Revenue
PCSIR	Pakistan Council of Scientific & Industrial Research
PSQCA	Pakistan Standards & Quality Control Authority
PNAC	Pakistan National Accreditation Council
PESSI	Punjab Employees Social Security Institution
PWWB	Punjab Workers Welfare Board
TEVTA	Technical Education & Vocational Training Authority
GIET	Government Institute of Emerging Technologies
PSDF	Punjab Skill Development Fund
PVTC	Punjab Vocational Training Council
PBIT	Punjab Board of Investment & Trade
PSIC	Punjab Small Industries Corporation
PBTE	Punjab Board of Technical Education
PRGMEA	Pakistan Readymade Garments Manufacturers & Exporters Association
PHMA	Pakistan Hosiery Manufacturers & Exporters Association
LCCI	Lahore Chamber of Commerce & Industry
FPCCI	Federation of Pakistan Chambers of Commerce & Industry
LUMS	Lahore University of Management Sciences
LSE	Lahore School of Economics
NCA	National College of Arts
IGC	International Growth Centre
CDPR	Consortium for Development Policy Research
IDEAS	Institute of Development & Economic Research
CERP	Centre for Economic Research in Pakistan
JICA	Japan International Cooperation Agency
GIZ	DEUTSCHE GESELLSCHAFT FUR INTERNATIONALE ZUSAMMENARBEIT (GIZ) GMBH
ILO	International Labour Organization
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
DFID	Department for International Development, UK
PRGTTI	Pakistan Readymade Garments Technical Training Institute
PKTI	Pakistan Knitwear Training Institute

BIBLIOGRAPHY

(PSDF), P. S. (2014). Sector Skills Study Garments Sector. PSDF.

Bhatti, S. H., & Fayyaz, A. (2006). Garments Cluster Lahore. UNIDO.

Hamid, D. N., Nabi, D. I., & Zafar, R. (2013). The Textile and Garments Sector: Moving up the value chain. Consortium for Development Policy Reseacrh .

Hamid, N., & Nabi, I. (2017). Implementing policies for competitive garments manufacturing.

Iqbal, M. S., Shaikh, F. M., Mahmood, D. B., & Shafiq, K. (2010). Development of Textile Industrial Clusters in Pakistan. Asian Social Science.

Johri, P., & Qazi, A. (n.d.). Textile Cluster in Pakistan. 2007.

Memon, D. N. (2016). Pakistan Apparel Industry: Competing global market. Pakistan Textile Journal.

Nordas, H. K. (2004). Global Textile and Clothing Industry post the agreement on Textile and Clothing. World Trade Organization.

Salman, Z. (2017). Has GSP plus status improved Pakistan's garments exports. IGC.

(n.d.). Trade Development Authority of Pakistan (TDAP).

Wadho, W., & Chaudhary, A. (2016). Innovation in the Textile Sector: A Firm level Analysis of Technological and Non-Technological Innovation. The Lahore Journal of Economics, 129-166.

Yulin, Z., & Qazi, A. Q. (n.d.). Clustering in Textile Industry: Comparitive Analysis between China and Pakistan. 7th International Conference on Innovation & Management.

(UNIDO), Diagnostic Study (2006). Garments Cluster Lahore - Pakistan.

(NPO), 2015 Assessment and Analysis of Certification Requirements in Selected Export Sectors of Pakistan (TRTA II)

Theresa Thompson Chaudhry & Mahvish Faran (2016) Same Jeans, Same Stitch? A Comparison on Denim Production Across Three Factories in Punjab, Pakistan (The Lahore Journal of Economics September 2016 PP. 211-236)

Walayat Shah, Usman Ali & Kazi Kabeer (2012) Challenges Faced by Textile Industry of Pakistan: Suggested Solutions

PERI Policy Brief (March 2017) Agriculture & Textile Sector: Challenges & Way Forward

Textile Commissioner's Organization, Ministry of Textile Industry - Annual Report 2015 - 16. Performance of Textile Industry

Nabi, I & Hamid,N. (2013). Garments as a driver of economic growth: Insights from Pakistan case studies. Lahore: International Growth Center, Pakistan.

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