The Rural Enterprise Study

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Report R1601 | Firms | December 2016

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International Growth Centre

About the project

Funded by: IGC

Key Counterpart: Punjab Small Industries Corporation (PSIC)

Impact

The recommendations of this project, which were discussed with PSIC have now been taken forward to implementation in the form of a Credit Guarantee Scheme. Furthermore, in November 2017, the State Bank announced that it was setting up an electronic register of movable assets, another recommendation from this project. Outputs from this project have also influenced the implementation of an industrial policy by the Punjab government. In addition, the planning and development department is developing the Punjab Economic Report and this report is informing the write up and suggestive recommendations for the chapter on industries.

This report was prepared by Dr. Turab Hussain (LUMS), Dr. Syed Hassan (LUMS), and M. Usman Khan (LUMS). The senior advisor on this project was Dr. Ijaz Nabi (IGC and CDPR).

In brief

- The Rural Enterprise Study (RES) was an attempt to facilitate Punjab Small Industries Corporation (PSIC) to redefine its role as a business incubator/ coordinator that helps small firms in rural areas to improve their productivity and grow in size and scale.
- Traditionally the tilt of public policy, aimed at removal of constraints on growth through provision of infrastructure and institutional support, has been towards the large capital intensive industry which is often located in the urban centers of the country. Targeted programs for small scale industrial development particularly those linked with agricultural sector and located in rural areas have had a low priority.
- The economic activity triggered by small scale industry holds significant importance in the growth and development of a region. The associated benefits lie in the capacity to absorb workers, generate agglomeration economies from either localization or urbanization externalities, and to successfully carve a niche in selected export markets.

Table of Contents

Introduction

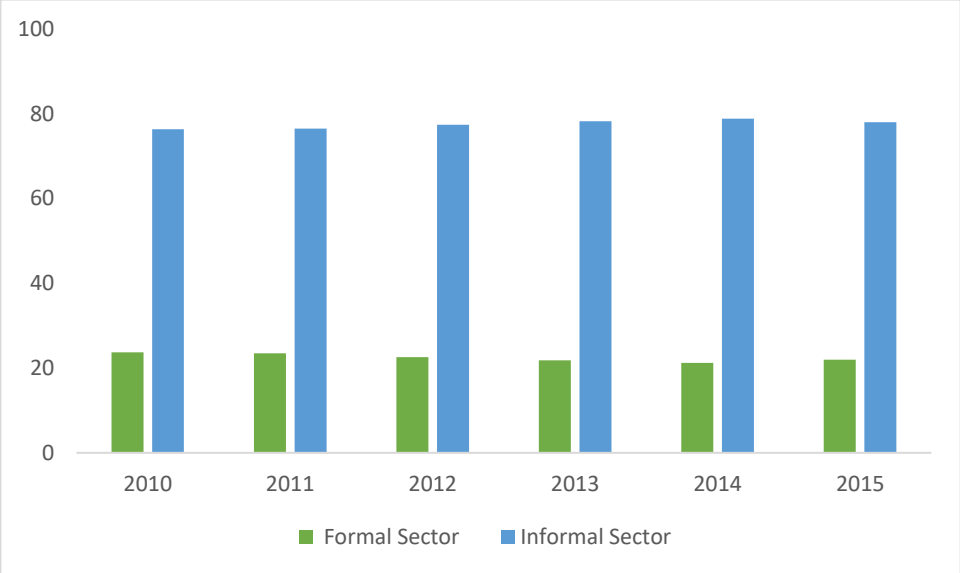
This report is based on the research conducted by International Growth Centre on an agenda jointly developed with Punjab Small Industries Corporation (PSIC). The broad objective of the research is to perform a diagnostic study of select sectors of small manufacturing. The regional focus is on the Southern districts of Punjab province which have generally low intensity of industrial activity and high poverty rates. As the economic activity in the region largely revolves around agriculture, only sectors related to this have been selected for the study. The methodology of the research is to focus on industrial sectors that have demonstrated their growth potential and to identify the constraints faced by them. Policy recommendations are aimed at helping these sectors overcome existing systemic limitations so that regional economic growth could be revived.

The economic activity triggered by small scale industry holds significant importance in the growth and development of a region. The associated benefits lie in the capacity to absorb workers, generate agglomeration economies from either localization or urbanization externalities, efficiently produce a variety of goods typically for the domestic market with an efficient use of capital and to successfully carve a niche in selected export markets. Usually classified under the informal sector, small scale manufacturing have two major advantages that not only make them financially feasible but also help them survive in a competitive environment; low intensity of capital investment and ability to absorb family and part time work force. The employment terms of the family worker are much more flexible and accordingly their contribution and reward is adjustable depending upon enterprise idiosyncratic productivity and level of demand in the output market. Traditionally the tilt of public policy, aimed at removal of constraints on growth through provision of infrastructure and institutional support, has been towards the large capital intensive industry which is often located in the urban centers of the country. Targeted programs for small scale industrial development particularly those linked with agricultural sector and located in rural areas have had a low priority. However, a number of developments have shifted the focus towards small industries. The most important among these is the high population growth rate, the inability of agriculture sector to provide jobs and hence rising number of unemployed workforce. This along with the low average wages in rural areas explains the rapid pace of urbanization. As this pattern of urbanization increases the proportion of poor people in urban areas and hence the vulnerability of cities it is important to check this trend. Besides, the rising urban

population has several negative externalities such as greater congestion and higher pollution which ultimately lowers the average productivity of city worker. All of this necessitates greater focus on creating employment opportunities in economic activities linked with rural areas.

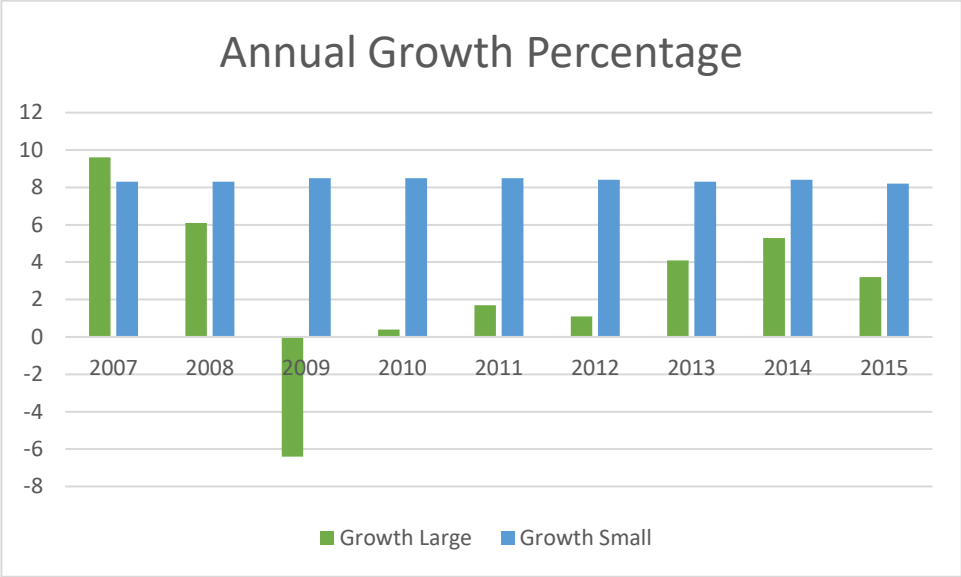
The small-scale industries that are classified under the non-agrarian informal sector for the purpose of labor force survey have been generating the major share in employment opportunities especially in the rural areas. The figure below shows that over the last several years the employment in the informal sector has been four times that of formal sector in the rural areas of Pakistan.

Figure 1: Employment in Rural Areas (%)



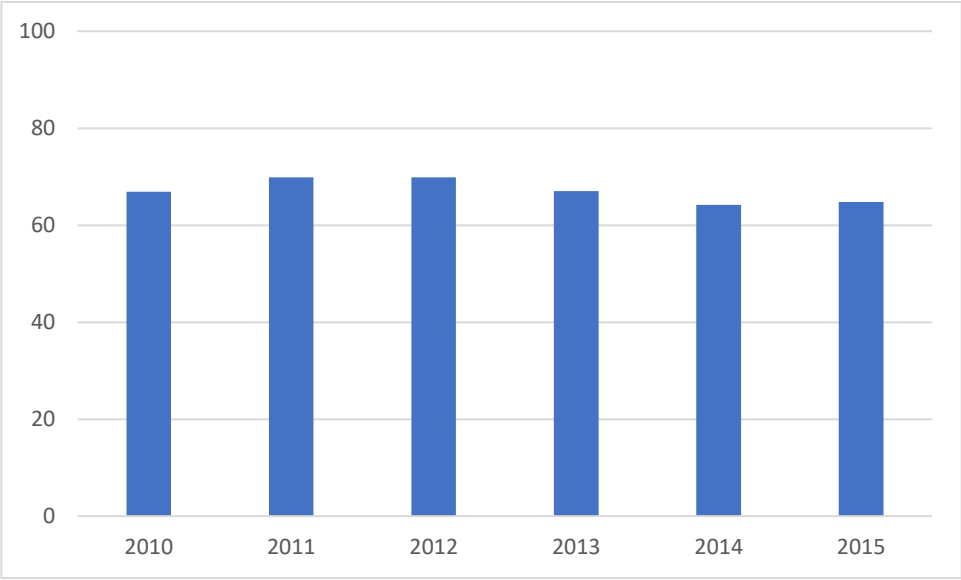
In terms of survival and growth in the market, small scale industry benefits from its unique features such low sunk and operating costs. The flexible nature of labor hiring which often relies on family workers and part time or piece rate work force helps the industry maintain its resilience against recessions. The figure below shows that whereas the large scale manufacturing faced negative growth following the financial crisis of 2008, the small scale manufacturing maintained its rate of growth persistently.

Figure 2: Industrial Sector Growth (%)



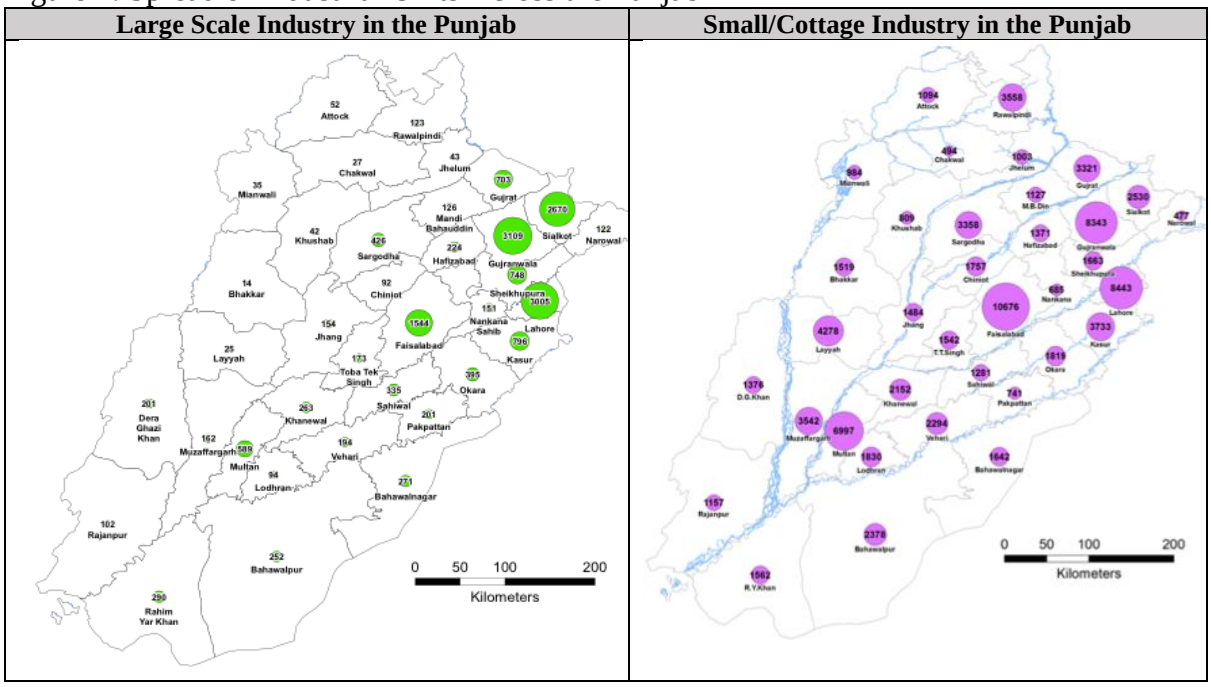
Apart from the national level statistics discussed so far, Small Scale Industry is a labor-intensive sector of the economy which plays a pivotal role in absorbing the unemployed workforce of the province. In case of Punjab, the significance of this sector can be gauged from the fact that it absorbs more than 60% employment of the entire manufacturing sector as shown below in the graph based on labor force survey statistics for several years.

Figure 3: Labour Force Share of Small Scale Industry (%)



Finally, another unique of feature of small scale manufacturing in comparison to large scale is their spatial spread. Whereas the large-scale industry due to its high capital requirement is limited in numbers, it is often restricted to specific regions. In contrast, small manufacturing is spread across the province as shown in the figure below. As such the benefits of any policy incentive for small manufacturing will also result in greater social welfare across regions.

Figure 4: Spread of Industrial Units Across the Punjab

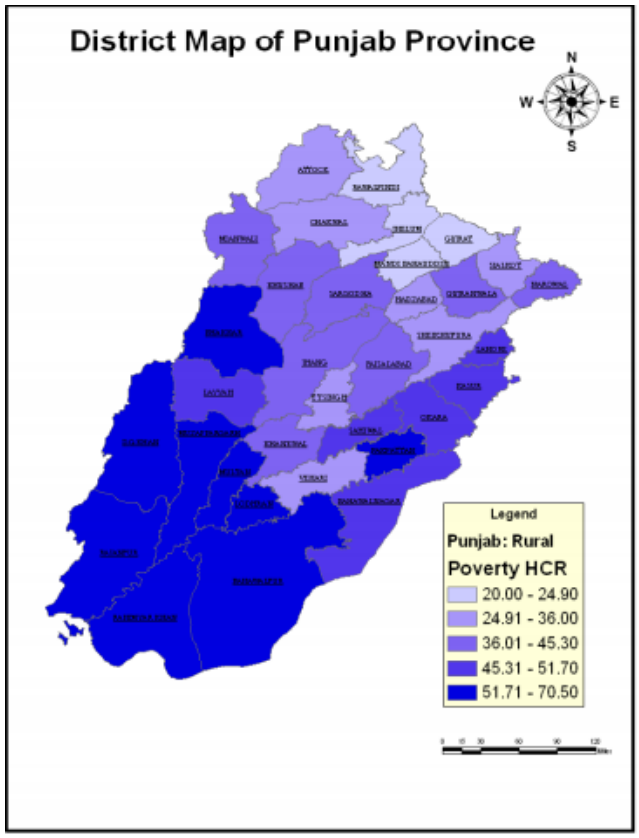


Source: Industries, Commerce & Investment Department, Government of the Punjab

Having highlighted the significance of small scale industry in employment generation, it is reasonable to focus on the role of small scale manufacturing in the rural areas of Punjab particularly for the purpose of economic wellbeing and poverty alleviation. Although employment is a sufficient but not a necessary condition to alleviate poverty, a recent study by Kiani (2013) has found that almost all poor households in Pakistan are strictly working poor. It is thus productive employment that helps a household to escape poverty. Further the same study highlights that the incidence of poverty is relatively higher in households headed by a person not working or not-active in labor market.

Following Cheema et al (2008) it can be seen from the poverty map of rural Punjab that highest incidence of poverty occurs in the South and South west districts of the province. To further diagnose this spatial feature of poverty, we analyze the unemployment figures

reported in the MICS 2014. The unemployment rate reported for workforce members aged 15 and above has once again a high incidence in the same districts.



In view of the above reported facts, the case for the development of small-scale industries is particularly strong in under-developed areas of the province on the following grounds.

Firstly, small-scale industries are labor-intensive, i.e., labor-capital investment ratio in their case is quite high. A given amount of capital invested in small-scale industrial undertakings is likely to provide more employment, at least in the short run, than the same amount of capital invested in large-scale undertakings.

This feature is very important in case of South and South Western Punjab districts namely DG Khan, Rajanpur, RY Khan, Lodhran, Bahawalpur and Bahawalnagar where number of households seeking jobs is considerably higher (MICS, 2014). Also as these areas are devoid of sources of employment other than agriculture, the growth of small-scale industry would serve to offset seasonal unemployment due to the agricultural cycle and thus help utilize available labor

Secondly, small-scale industries encourage entrepreneurship as they are not capital intensive, i.e., they need relatively smaller amount of capital investment than that required by large-scale industries. The lower capital requirement makes them attractive investment ventures as the associated risk is also low.

Thirdly, besides making possible efficiencies in the use of the existing stock of capital, small-scale industry may help external economies of scale in a region. These agglomeration economies are caused by labor pool sharing, knowledge spillovers and common infrastructure utilization which result in generating higher profits for the firms clustered in the region. The cumulative growth process and the related expectation of higher profits subsequently helps in capital creation or capital in migration, hence greater economic opportunities in the region.

Fourthly, the peculiar attraction of small-scale industries lies in their being skill-light. A large-scale industry calls for a great deal of management and supervising skill—foremen, engineers, accountants, and so on. As human capital equipped with these skills is limited and often unwilling to move to rural areas, there is a huge constraint on industrial development in rural areas of the country. Small-scale industry often managed by sole proprietors or partnerships require less tiers of management. Besides, they also provide industrial experience and serve as a training ground for a large number of managers who can contribute in the next level of industrialization in the region.

Finally, small-scale industries are less dependent on imported inputs, i.e., they use a relatively low proportion of imported equipment and materials as compared with the total amount used in them. A low-import intensity in the capital structure of the small-scale industries reduces the need for foreign capital or foreign exchange, and thus obviates the balance of payments difficulties later, and currently retains within the country a large part of whatever induced effects that may materialize.

Briefly the report is structured as follows. The next section provides details of data and research methodology. Following that we describe summary statistics of the selected sectors and diagnostics performed on them. The last section lists the policy recommendations and concluding thoughts.

Data and Methodology

The baseline data used in the study to identify growing sectors was from a recent census carried out on the initiative of the Punjab Small Industries Corporation (PSIC). The census was conducted between January 2012 to June 2013. The census data comprises of total 164,860 enterprises; 71,913 cottage enterprises and 92,947 small enterprises. Out of these 132,224 units of cottage and small industries were interviewed using detailed questionnaires. The census was carried out across the 36 districts of the region covering both rural and urban areas.

The dataset contains industrial information at 3-digit, 4-digit and 6-digit Pakistan Industrial Classification which is consistent with the International Standard Industrial Classification Rev 3.1. The small manufacturing sector was divided into two categories (i) cottage industries, and (ii) small-scaled industries, where cottage industries are mostly run by the artisans in their own cottages along with their own family members and the capital does not exceed more than one hundred thousand rupees. On the other hand, small-scaled industries are located in urban and semi-urban areas with the capital less than rupees 10 million (PSIC, 2013).

If we try to think about spatial location of industrial clusters in Punjab it is very likely that we may limit these to North and Central areas of the province and seldom remember any significant industrial activity in the South. The southern part of the province is often categorized as having an agri-dominated economy and mainly associated with cotton cultivation. However, small and cottage industry employment figures identify certain sectors in which the southern districts excel. As specializations or concentrations of related industries are a widely recognized economic phenomenon which indicate growth potential of a region, they hold special significance for policy design and implementation. One such index often used in literature is Location quotients (LQ).

More specifically, Location quotients compare an area's (district etc.) business composition to that of a larger area (i.e., country or province). An LQ can be calculated for any industry where comparable industry level employment data exist for both areas. Location quotients identify export industries in an area (those industries producing more of a good or service than is needed to meet area demand) and import industries (those producing less than enough to meet area demand).

Following accepted economic theory, an LQ greater than 1.0 indicates that an area has proportionately more workers than the larger comparison area employed in a specific industry sector. This implies that an area is producing more of a product or service than is consumed by area residents. The excess is available for export outside the area. Usually an LQ of at least 1.0 or 1.25 is required to consider classifying an area industry as an exporter. Identifying geographical clustering of export industries (LQ > 1.25) is useful, as it provides a measure of the degree of industry specialization within an area. A high location quotient in a specific industry may translate into a competitive advantage in that industry for the local economy. Economic development opportunities may exist for additional growth of the exporting or related industries because of the presence of an existing skilled labor pool or other resources such as suppliers, facilities or transportation hubs in the region. Alternatively, an LQ significantly less than 1.0 may indicate an opportunity to develop businesses in the local area to meet area demand.

It is quite possible that the location quotient reinforces what we already know about regional economy; yet it uncovers specific quantum of things which either we did not know or, even may change your perceptions. The real strength of the tool is that it is a simple, yet effective research resource.

Calculating a location quotient is a straightforward process, and, in practice, most often uses industry level disaggregated employment data. The industry classification depending upon data availability may be at 3 or 4 digit. In our case the employment figures used are for industry classified at 4-digit ISIC Rev 3.1. As the objective of the current study is to identify industrial clusters with potential of growth in Southern Punjab, the methodology used is to determine location quotient of various industries located in southern districts.

The formula for calculating the location quotient used in this study is given as follows:

$$\text{Location Quotient} = \frac{(\text{Regional Cluster Employment}/\text{Total Regional Employment})}{(\text{National Cluster Employment}/\text{Total National Employment})}$$

As this study focuses on Punjab province so we calculate the location quotients at the provincial level. Thus the national level statistics in calculating the location quotient were replaced by the ones from Punjab and the regional clusters were replaced by districts in Punjab. So the modified formula for the location quotient used here is as follows

$$\text{Location Quotient} = \frac{(\text{District Cluster Employment}/\text{Total District Employment})}{(\text{Provincial Cluster Employment}/\text{Total Provincial Employment})}$$

In terms of interpreting the figures so obtained, not only the location quotient of an industry signifies if an industry is performing well and is producing more than what is required at the regional level but it can be used for an inter-regional industrial comparison; how a particular industry is doing in a particular district compared to the other districts. Employment growth together with location quotient can be very useful when deciding which sectors are important for the policy focus and reform. Industries with low location quotients and low employment growth indicate very little growth potential. Industries which have a location quotient more than one but a subpar employment growth means that these industries could be the stars of tomorrow but not the stars of today. Further research on these industries could be done to make them more profitable in the future. If some industries fall under the category of low employment growth and a location quotient of more than one then these industries are targets of policy reform. They can be targeted by the government for policy action to strengthen important components of the local economy. If the industry falls in the category of high employment growth and a location quotient of more than one then the industry is doing well. This would mean that the key industry is growing at a fast pace and should be focus of government action to facilitate the growth.

This study was carried out on the data which was collected by PSIC on Punjab. As explained earlier in section one the main focus of the research was on southern Punjab. Thus the location quotient of industries in Punjab was calculated and it was found that in southern Punjab there were five top industries with location quotient more than 1 which could be focused on. The data on the relevant industries is given below.

Table 1: Location Quotient of the Top 5 industries in Punjab

District	**Industry**	**Total Employment District**	**Total Employment Punjab**	**Total Employment Industry & Punjab**	**Total Employment Industry & District**	**LQ**
Bahawalnagar	Manufacture of Leather Footwear	12,,495	456,826	5733	494	3.15

D.G.Khan	Manufacture of Leather Footwear	8598	456,826	5733	196	1.82
Multan	Manufacture of Leather Footwear	2903	456,826	5733	494	1.36
Multan	Manufacture of Inedible Oil and Vegetable Oil	28,903	456,826	50	36	11.38
Multan	Preparation of Grain Milled Products	28,903	456,826	110	22	3.16
D.G.Khan	Spinning, Weaving and finishing of narrow fabric, Elastic webbing, Braids, Pressed Belts, Non Elastic Woven and Braided Narrow Fabrics	8598	456,826	1040	84	4.29
Multan	Spinning, Weaving and finishing of narrow fabric, Elastic webbing, Braids, Pressed Belts, Non Elastic Woven and Braided Narrow Fabrics	28,903	456,826	1040	6	0.09

Source: Authors compilation of data from PSIC

The table above shows that the location quotient of Manufacture of leather is more than one in three districts; Bahawalnagar, DG Khan and Multan. This signifies that the leather footwear made in these districts could be exported to either other districts or to other countries. Manufacture of Oil has a very high location quotient of 11.38. The lowest location quotient here is of the spinning and weaving of narrow fabric in Multan. However, the Location quotient of the same industry in DG Khan is very high (4.29) which is why it is worth studying this sector.

Summary Statistics of the Selected Sectors

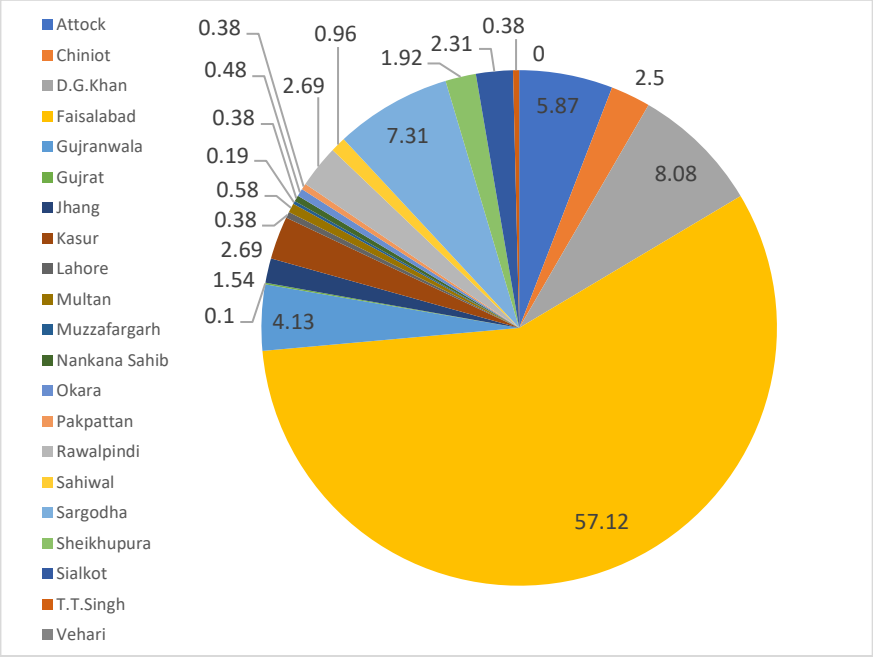
This section given a brief statistical overview of the top five sectors in Southern Punjab selected for analysis on the basis of their location quotient. The summary statistics presented below are from the PSIC data described in the section above.

Weaving Industry: Narrow Fabric

This cluster of industry includes items such as elastic webbing, braids, pressed belts, non-elastic and woven fabric like laces and ribbons, tapes and bindings.

At present the sector employs over 1,000 workers across the province. The highest number of employees at any one enterprise is 35 while the average number of labor employed in firms was 3 people. Majority of the small firms for this industry are located in Faisalabad with a total of around 590 people working in the district. In Southern Punjab, the area of focus for this study, district D.G. Khan has relatively highest employment share of almost 8.1 per cent which is reflected in a high location quotient of 4.29. The table below shows the percentage of total labor in various districts.

Figure 5: District Wise Employment of the Sector (%)



Source: PSIC Census Data

When the year of establishment was looked into it was found that the oldest firm was established in 1966 and the newest was established in 2013. A high number of firms were

established in 1990 (17), 2000 (42) and 2008 (30). Around 287 of the businesses were set up by the owners themselves whereas only 13 were passed on by the family. The data on the sector shows that over 50% of the owners were greater than 35 years of age. In terms of ownership and product variety, 87% of the firms were sole proprietors and 71% of them sold only one product. It was also found that 264 firms (80 per cent) only sold to the local market. The literacy levels in the sector are generally low - majority of the owners (almost 60 per cent) have an education level less than matriculation (Grade 9). In terms of technical training around 143 firms out of a total of 330 had technical training on the spinning and weaving of narrow fabric.

Table 2: Level of education of Entrepreneurs in the Sector

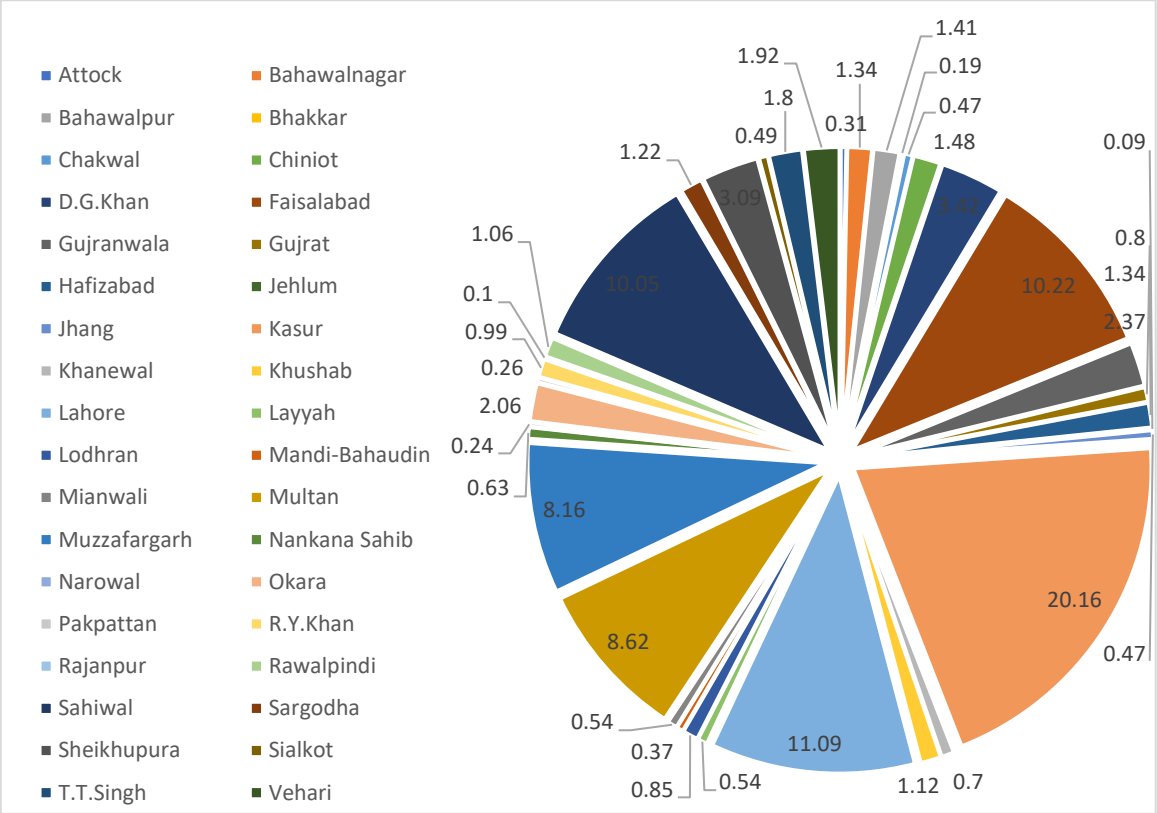
Education Level	**Percentage of Entrepreneurs**
Primary Education	37.08
Till Grade 6	1.52
Middle School	21.28
Matriculation	16.72
Intermediate	9.42
Degree of Higher Education	7.29

Table below indicates the constraints faced by firms in the sector. From the statistics reported, expensive raw materials, expensive and inadequate availability of utilities and access to credit are the key constraints faced by the sector that are impeding its growth.

Leather/Leather Footwear

This industry includes leather footwear, leather gaiters, leggings and leather cut stock. In Punjab the total labor employed in this sector is around 5,733. Majority of the small firms for this industry are located in Sahiwal, Muzafargarh, Shiekhupura, Lahore and Kasur.

Figure 6: District Wise Employment of the Sector (%)



Source: PSIC Census Data

The industry has a long mercantile history with the oldest establishment aged more than 100 years and established in 1914 while the newest firm was established in 2013. A high number of firms were established in 1980 (65), 1990 (90), 2000 (104) and 2010 (104). Around 1,296 of the businesses were set up by the owners themselves, whereas, only 255 where passed on by the family and 9 were purchased as a running business. In terms of ownership structure, 72% of the firms were sole proprietors and 66% of them sold only one product. It was also found that 1,444 firms only sold to the local market.

The literacy of owners in the sector is quite low. Over 90% of the owners have an education level less than grade 9. In terms of technical training around 1,242 firms out of a total of 2,074 had technical training in manufacturing of leather footwear, this is around 59% of the entire industry owners.

Table 3: Level of education of Entrepreneurs in the Sector

Education Level	Percentage of Entrepreneurs
Primary Education	32.28
Till Grade 6	20.51
Middle School	22.87
Matriculation	13.83
Intermediate	6.85
Degree of Higher Education	1.77

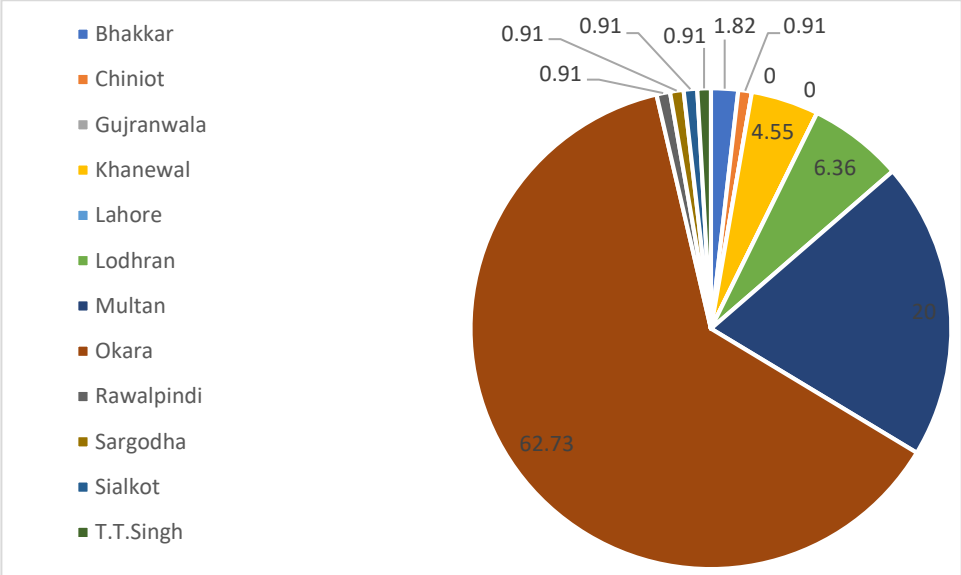
Regarding the constraints faced by the firms, the data reports expensive raw materials, expensive utilities and lack of access to credit as the key factors hampering growth in the sector.

Grain Milled Products

This industry includes the products of milled grain for example corn flakes, rolled oats, puffed rice, wheat flakes, barley flakes, maida and suji. This is a small cottage sector that sells in local markets and local food chains. However, due to an underdeveloped supply chain the sector has not been able to generate any form of scale and has stayed at the same level of production for years.

In Punjab, the total labor employed in this sector is 1,110 people across all districts based on PSIC data. The highest number of employees is 42 in a firm located in Okara. Majority of the small firms for this industry are located in Multan, Okara, and Khanewal and employ less than 2 workers each. The table below shows the percentage of total labor in various districts.

Figure 7: District Wise Employment of the Sector (%)



Source: PSIC Census Data

The age structure of owners is similar to other sectors, with majority of the owners above the age of 35. The oldest firm in the industry was established in 1970 and the newest was established in 2012. Majority of the businesses in the industry are sole-proprietorships with the current owners being the one who have started the business. As it is a one person cottage industry the manufacturer is also the seller. This creates a limitation for the owners as they have to spend a considerable time visiting markets to sell their produce costing them production time.

The literacy levels in the sector are fairly low with 66 % of the people not responding when asked about their level of education. In terms of technical training it was found that around 20 firms out of a total of 123 responding firms had technical training on the preparation of grain milled products.

Although the survey response was low when firms were asked to identify the constraints face by them. Still the available data shows that shortage of utilities especially electricity is the key constraint for this home based industry.

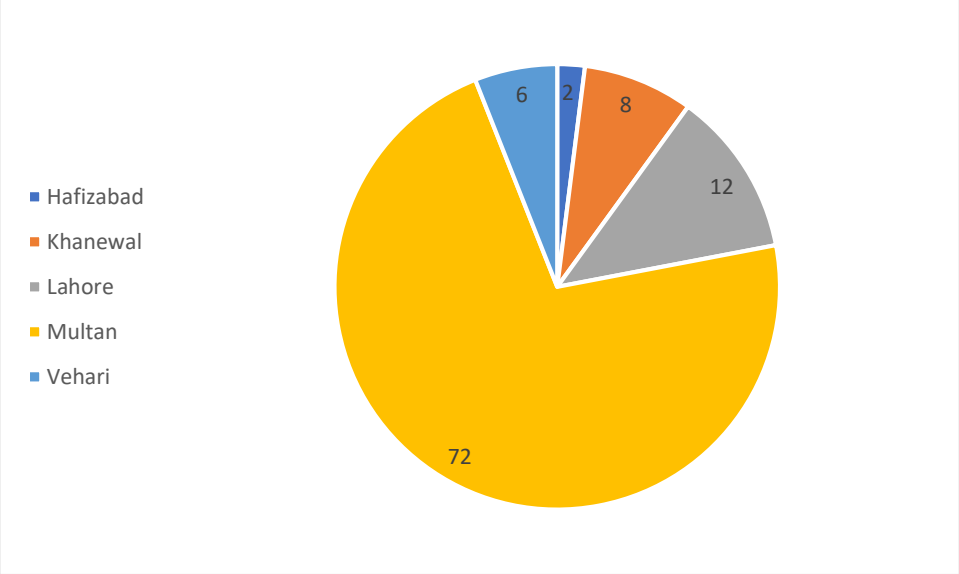
Inedible Oil and Vegetable Oil

This industry includes the Inedible Oil and the various vegetable oils produced in the province. This also includes manufacturing of olive oil, soya-bean oil, palm oil, sunflower-

seed oil, cotton-seed oil, rape, colza or mustard oil, linseed oil, oilseeds and oil nuts or oil kernels. Majority of the small firms in this industry are located in Multan, Vehari, and Khanewal. The largest cluster in the country is in Multan with 72% of the workforce. The highest number of employees is 35 in a firm while the average number of labor employed in firms was 5 people.

The sector is fairly new with the oldest firm being established in 1980. Around 63% of the businesses were set up by the owners themselves whereas only 18% were passed on by the family and 18% were purchased as a running business. Around 90% of the firms were sole proprietors and 36% of them sold only one product, while 45% sold two products. It was also found that all firms in the industry sold to the local market.

Figure 8: District Wise Employment of the Sector (%)



Source: PSIC Census Data

The literacy levels in the sector are generally low and in terms of technical training it was found that around 50% of the responding firms had technical training in the manufacture of inedible and vegetable oil. Majority of the responding firms reported that utilities especially electricity, access to credit and lack of working capital are the key constraints affecting the sector.

Constraints Reported by Firms

During the census small manufacturing firms were asked to identify the problems faced by them. They were given to pick issues form a set of choices that included corruption, expensive raw materials, expensive utilities, lack of infrastructure, lack of working capital, no loan facility and shortage of utilities. Firms had the choice to pick more than one if they faced issues related thereto. In case of sectors under focus in the current study, a comprehensive table indicating constraints faced by firms is shown below:

Table 4: Reported Constraints by Firms (Sectoral Firm Percentage)

Type of Problem	**Weaving Industry**	**Leather/Leather Footwear**	**Grain Milled Products**	**Inedible Oil and Vegetable Oil**
Corruption	0.61	1.5	0	0
Expensive Raw Material	34.04	24.8	4.06	2.7
Expensive utilities	40.73	21.6	3.2	5.5
Lack of Infrastructure	9.12	2.02	0	0
Lack of Working Capital	20.06	20.1	1.6	8.3
No loan Facility	26.75	28.6	7.3	2.7
Shortage of Utilities	30.09	19.5	10.5	16.6

Source: Authors calculation from PSIC data

The interesting finding here is the cross-cutting nature of constraints; expensive raw materials, expensive utilities and lack of access to credit. This result can be usefully utilized in devising incentive for the small scale manufacturing sector firms.

Improvement Strategies Suggested by Firms

The data also reports the areas where improvement can result in improved performance by the firms as suggested by the entrepreneurs. The table below shows responses of the owners on which is the most important aspect of improvement according to their specific industry. The following table provides the details.

Table 5: Percentage of firms indicating the improvement strategies

	Utilities	Working Capital	Availability of Soft Loan	Low taxes	Direct Market Access
Inedible Oil	0.8%	0.28%	0.21%	0.00%	0.00%
Grain Milled Products	1.1%	0.57%	1.26%	2.23%	0.71%

Weaving of Narrow Fabric	17.3%	15.5%	16.74%	8.28%	6.43%
Leather Footwear	80%	83.5%	81.80%	89.49%	92.86%
Total	100%	100%	100%	100%	100%

Source: Authors calculation from PSIC data

Energy Sources

As Pakistan is largely suffering from energy shortages, a review of currently employed sources of energy is important. The table below shows that most of the firms depend on electricity followed by oils to meet their energy requirements. Inadequate availability of energy therefore can hamper smooth operations of the firms.

Table 6: Percentage of Source of energy used by both the sectors

	Wood	Generator	Oil	Electricity	Coal	Gas	Total
Leather Footwear	0.47	0.66	1.42	93.19	0.00	4.25	100
Inedible Oil	0.00	23.08	15.38	61.54	0.00	0.00	100
Grain Milled Products	12.90	0.00	22.58	48.39	0.00	16.13	100
Weaving of Narrow Fabric	0.00	0.64	2.56	87.82	0.64	8.33	100
Total	0.72	0.87	2.23	91.10	0.08	5.01	100

Source: Authors calculation from PSIC data

Use of Financial Assistance

From the constraints faced by firms we have observed that lack of access to credit was a major one. On the flip side it is important to find out how most firms use the financial assistance. The table below shows that most firms need financial assistance to meet their working capital needs followed by expansion and BMR.

Table 7: Percentage breakdown of the financial assistance gained

	BMR	Working Capital	Expansion	Not required
Leather Footwear	9.46	43.25	17.72	29.57
Inedible Oil	0.00	18.18	9.09	72.73
Grain Milled Products	3.45	17.24	24.14	55.17
Weaving of Narrow Fabric	7.12	38.08	17.96	36.84
Total	8.97	41.97	17.80	31.26

Source: Authors calculation from PSIC data

Technical Assistance

Finally, the survey questionnaire asks if the firms require any technical assistance and if so what is the area in which they need help. despite the low numbers of responses received, the table below shows that most firms in the sectors under focus need assistance to improve design process or for testing and quality control purposes.

Table 8: Percentage breakdown of Types of Technical Assistance

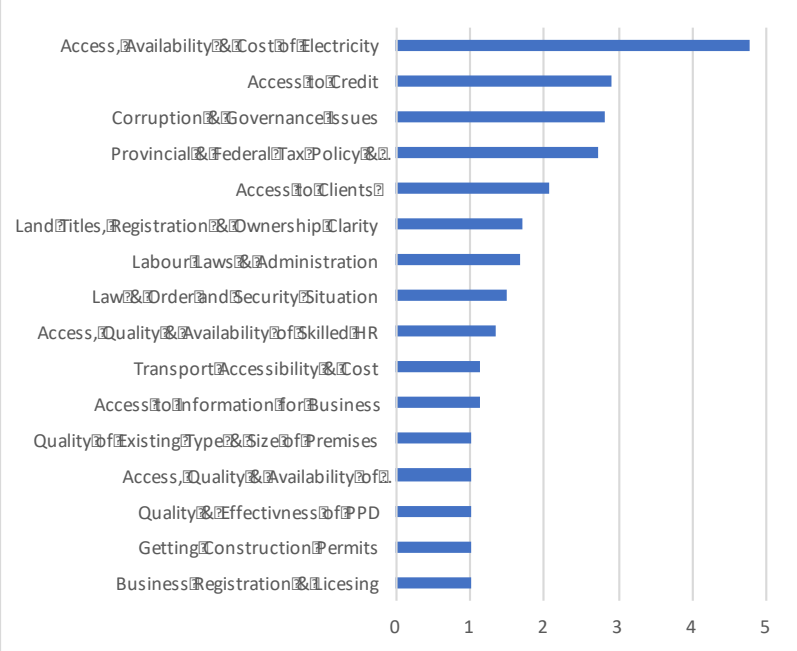
	Testing	Quality control	Standardization	Training	Common Facilities	Design and development	Dies
Leather Footwear	2.68	11.99	11.09	13.95	26.48	25.58	8.23
Inedible Oil	0.00	0.00	100.00	0.00	0.00	0.00	0.00
Grain Milled Products	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Weaving of Narrow Fabric	3.52	13.38	17.61	20.42	17.61	26.06	1.41
Total	2.84	12.23	12.52	15.22	24.61	25.60	6.97

Source: Authors calculation from PSIC data

Stakeholder Diagnostic & Recommendations

In this section the findings of the primary research conducted for this study are reported. This research essentially aims to drill down to the sector and firm level in order to identify the major constraints hampering the growth of the selected five small and cottage industry in Southern Punjab. The field work done by the research team involved two methods of obtaining information on firms and industry level issues and constraints. The first one was a structured questionnaire that asked the respondents to rank 16 listed constraints on a scale ranging from least severe to most severe. The matrix used for collecting this information and details of the 21 respondents is provided in Annex 1. In addition to the structured questionnaire the team also conducted a day long focus group with key members of the identified sectors. A set of predetermined questions were used for the focal group discussion to give it structure and to extract relevant information from the respondents. The set of questions used and the list of participants of the focus group is provided at Annex 2. The approach of using the matrix was useful to identify some of the horizontal issues (relevant across sectors), while more specific discussions in the focus group helped identify some of the vertical or sectoral issues of interest to the study. Using 0 to represent the least severe constraints and 5 to mark the most severe constraints, the responses from the representative business sector were averaged out to rank the mean score for each of the constraints. The rankings are provided in Figure 9 below:

Figure 9: Ranking of Constraints (0 being least severe 5 being most severe)



Source: Field Survey

Horizontal Issues

Access, Availability & Cost of Electricity

The stakeholders from the selected five rural business/industry sectors ranked access, availability and cost of electricity as a major bottleneck hampering their growth and productivity. When this issue was further probed with the stakeholders, it was found that getting an electricity connection for industry was a major hurdle and it took several months before one could operationalize a new connection. It has to be borne in mind that the typical industry group is small and mostly located out of houses or backyards, implying that they face the same electricity shortage that residential customers face currently. Given that southern Punjab gets relatively more load shedding and power outages as compared to central and northern Punjab, these small firms located in rural areas are more severely affected by the outages.

Moreover, as most of these small firms operate on very low margins, the use of alternative/self power generation is not a financially viable or feasible option. Finally, weaving and oil milling are process oriented and require a continuous flow of electricity. Unannounced outages and long durations of load shedding results is processes being disrupted resulting in higher costs of production both due to wastage of inputs and labour hours.

While it is certainly the case that the general situation of electricity/power outages has improved for medium and large industry, the small and cottage industry based in rural areas is still experiencing long hours of outages. Although, there are no quick fixes to this issue it is recommended that:

PSIC should advocate at provincial level to improve load management in the Punjab. The areas of Southern Punjab that get disproportionately higher amount of load shedding should get relief by balancing the frequency and duration of outages across the province.
PSIC should consider planning small industrial zones for small and cottage industries in a more organized manner and connect them to industrial status feeders to ensure consistent and reliable electricity management.

Access to credit

A second key constraint identified by rural small and cottage industry is access and availability of formal credit. In the absence of which most firms operate through self-financing or retained earnings. This finding is not different from the results of earlier studies; for example sample surveys for the Asian Development Bank suggest that in Pakistan only about 6 percent of fixed investment finance for SMEs comes from development finance institutions and commercial banks. [1] The interviews conducted suggest that the start-up investment is usually self-financed, while continuing operations are largely funded through retained earnings. This is in sharp contrast to large firms, which can rely quite heavily on commercial banks both for working capital and for fixed investment finance.

Information asymmetries and the resultant possibility of adverse selection, are important causes restricting commercial bank lending to small and cottage sectors.
The information that these small firms can provide to banks (in the form of financial accounts, business plans, feasibility studies, etc.) often lacks detail and rigor. This problem is aggravated by the low level of education of firm owners.

The banks, therefore, have to spend a considerable amount of resources to get an accurate picture of the business's finances and prospects. Indeed, sometimes, because of the semiformal to informal nature of the borrower's business, the bank might not be able to obtain privileged information at all. Most of the times information does not exist even for the owners of the businesses themselves.

This leads to two problems. First, banks may not be able to differentiate adequately between businesses that are genuine and second, in cases where the banks have provided the funds, they are not able to assess whether the enterprise is utilizing the funds in an appropriate way or is applying them for some other purpose, i.e., personal use. A further disincentive is that most loans sought by small firms are relatively small. Hence, the costs of ascertaining the state of the borrower’s business and of monitoring the use of the loan can be large relative to the size of the loan and thus severely reduce, or even eliminate, the bank's potential profit on the loan.

[1]Bari, Faisal, Ali Cheema and Ehsan-ul-Haque. *SME Development in Pakistan: Analysing the Constraints to Growth. Working Paper*. Manila: Asian Development Bank, 2005

To mitigate its own risks banks require more than 100% in collateral to sign off on loans to these small firms. This, however, raises other problems as SMEs normally do not have many assets that can be collateralized. These issues severely restrict the flow of formal credit in the sector. To address the credit constraints faced by the small and cottage sector it is recommended that:

PSIC may initiate a program to expand the pool of entrepreneurs and to assist existing entrepreneurs to function more effectively, particularly in matters of finance. The programme should work with sector level associations or business groups and through respective Chambers of Commerce & Industry of the key rural clusters in the Punjab and help build capacity to report better and complete information required for financial applications.

PSIC may work with the banks and cluster value chains to facilitate the provision of credible information and adequate collateral protection for banks. One way this can be done is to identify major downstream players in the sector to whom the cottage industry usually supplies its product or produce. A program may then be developed where the banks provide credit to small players which would enable them to increase their sales to the larger players in the value chain. The banks' payments could be insured by the larger players in the value chain who could deduct the amount from the payments due to these small and cottage suppliers.

To address the issue of insufficient collateral offered by small and cottage industry, PSIC may advocate with the government and State Bank to allow using movable assets as collateral. In general, this will involve the setting up of a national register for recording ownership of major movable assets, such as vans, trucks, cars, motorcycles etc. The prospective lender is then able to check the ownership of such assets and to place some kind of lien that would prevent their sale without permission. Such mechanisms have been tried in Romania, Vietnam and some other countries.[2]

Corruption & Governance Issues

Formal businesses in the Punjab report that on average they deal with twenty-six types of different public sector departments, inspectorates and officials. In contrast to this, the small,

[2] *"Bringing Finance to Pakistan's Poor" (p. 69 and Annex 4.2), World Bank*

cottage and informal sector covered under the study are able to avoid several of them, but are often visited by the labour office, dengue teams and local government authorities and police. The firms report that dengue team visits are frequent and their discretionary powers allow them to lodge an FIR against non-compliant business owners. The arbitrary use of such power, according to the firm owners, is a major hindrance to their business and operations. Similarly, even industries that do not fall under labour compliance rules often find themselves pleading cases to inspectors. The businesses feel that there is no mechanism or access points where they can report issues, especially those of corruption and harassment by officials. Thus businesses face both significant financial and nuisance costs in their interaction with rent seeking government officials and departments. To improve the situation, it is recommended:

PSIC may consider setting up a facilitation center or a one window type setup in its regional office where small and cottage businesses can report legitimate issues that constrain their business and operations. PSIC can then take up the matter on behalf of the businesses with relevant provincial departments in order to address their specific or more general problems.

Provincial & Federal Tax Policies and Administration

Though most of the businesses are informal in these small and cottage sectors, those who have tried to move into the formal sectors face difficulty in registering. The key bottleneck is getting a sales tax number that can sometime takes months to obtain. Moreover, the registration process and tax administration and filing is so complex that a tax lawyer is usually required to address such matters. As this substantially increases the cost of complying for small businesses they chose not to register in the first place. Similarly, businesses complain about informal payments that are required to be paid to tax officials in order to resolve bogus claims and notices issued by the tax office.

PSIC's mandate to address this issue is fairly limited. However, it is recommended that PSIC should support the small and cottage industry in registering their businesses with appropriate tax authorities to save them the cost of tax lawyers.

Access to Clients/Markets

The businesses feel that there is a general lack of information about markets, opportunities and sales networks. In many instances, businesses are in a monopsonistic relationship and are

thus hostage to a few key buyers in the area and are not able to move or progress beyond them. With general low levels of literacy and still a weak use of technology, small and cottage firm owners struggle to find information on how to supply more in local supply chains. This severely restricts the growth of businesses.

It is therefore recommended that PSIC should set up information centers at its rural centers where the local businesses can come and gather useful information about markets, opportunities and business expansion plans. A small and cottage version of a facility such as SMEDA is required.

Other Horizontal Constraints

The other constraints were ranked very low for them to be considered as serious bottlenecks. The only interesting finding was that in the questionnaire businesses reported that effective Public Private Dialogue was not a constraint at all and yet most of them complained in focus groups that the government hardly listened to the problems of the small and cottage sector. A reason for this perhaps is that most of the firms in this category have never experienced any form of PPD or have never been involved in a policy forum or debate.
It is recommended that PSIC should be the voice of these small and cottage businesses at the provincial level and make sure the interests of these are represented in relevant policy forums.

Moreover, the focus group also highlighted lack of adequate skills availability in Southern Punjab. Most of the small and cottage industry require special skills which are becoming increasingly rare.
PSIC may advocate with PSDF to initiate special skills programs tailored specifically for small and cottage sector.

Vertical Issues

As stated above the focus groups helped in identifying some key vertical issues in the sectors that were selected for analysis in the current study.

Oil Milling Sector

There are around 300 oil milling units in Southern Punjab and all fall under small and cottage industry. The current technology being used by the millers works only for cotton seed oiling

and does not work on imported seeds. The cotton seeds are only available for 3-4 months a year and beyond that the oil milling units stay idle. This results in large losses to the firms as productive resources are not being used to full capacity.

The sector is of the opinion that this issue can be resolved by allowing the import of oil milling units/machines from India as they are significantly cheaper than those available in China. This will allow millers to use imported seeds of various products to produce oil and material for animal feed throughout the year. However, at the moment there is a ban on importing this equipment from India. Importing it via Dubai or directly from China is too expensive and hence not a feasible option. Therefore, it is recommended:

PSIC should develop the technical details of the equipment and technology required and assess if it can be imported from any other country than India. If not then PSIC should advocate for a special time bound dispensation under which the import of these machines is allowed from India.

The oil millers produce inputs that go into making animal feed especially for cows. The firms support the idea of business diversification and agreed that they can set up small dairy farms using the same space they have for oil milling. This would also keep the workers employed and the place in use throughout the year. As the firms produce the raw material they can easily produce feed required for cows. However, no firm till date had invested in dairy business as they lacked information, skill and knowledge required to manage small dairy farms. However for this type of diversification to take place small firms should also have access to credit which would finance investment in small dairy farms.

PSIC should develop a feasibility plan for oil millers which could help these small firms diversify into dairy and milk business. The feasibility should include information on skill set required, formulation of feed and also on animal management and sale of products at appropriate prices.

Leather Footwear

The small and cottage footwear industry located in Southern Punjab are the largest exporter of ‘Arbi Chappal’ to Saudi Arabia and the Middle East. These are traditional shoes that are worn by Arabs. The ‘chappal’ itself is a low value product but has huge demand in Saudi

Arabia. The critical problem faced by the suppliers include a complete lack of connectivity with the market. The current export orders are being either sourced from relatives residing or located in Saudi Arabia or through large Indian buyers who have access to warehouses established by the Indian Government. The Indians are buying shoes at very low prices from these rural enterprises in Pakistan and selling at a premium price and also branding it as 'made in India.'

PSIC should conduct a detailed study on the Arbi Chappal and its export potential. Based on the study it should make a case to TDAP to support these small and cottage manufacturers to acquire either a warehouse or some strong commercial agent. This would help manufacturers in Pakistan get most of the value of the sale.

Another important issue highlighted by the industry was lack of product development and design capacity. The small and cottage industry continues to make shoes by hand, using traditional designs and work patterns. The industry has no access to any design institute or a facility that could facilitate in up-grading their designs, stitching and use of materials.

PSIC can explore setting up a design facility in Public Private Partnership mode. They could leverage the private sector especially the anticipated Chinese investment in this sector. The advantage of attracting Chinese investment would be that they can help the industry increase its scale significantly.

Leather, Dairy & Meat

The key issues faced by the sector involve poor practices and lack of laws and regulations in the management and slaughtering of animals. There are very few slaughter houses in the country, consequently significant amounts of valuable leather is wasted due to the widely prevalent traditional methods of slaughtering animals. Similarly, animals are not managed well nor are they fed properly, resultantly their production of milk and meat is usually sub optimal compared to international standards.

There is a need to enforce laws that makes it mandatory to slaughter animals in approved slaughter houses. There should be regulation and enforcements on animal management and quality of milk and meat. PSIC can play the role of an advocate to address these issues.

Agro Food

The key issue constraining the industry is lack of quality standards and their enforcements. This lack of standards enforcement results in products of varying quality which is branded and sold as the same product in the market. The low quality producer usually sells at a much lower price hence pushing out the good quality producer from the market – a case of market for lemons. In absence of any regulation, the price variations are so large that good businesses are unable to compete and most of the times end up in bankruptcy. Moreover, the sector needs to graduate out of traditional practices and hence need some common facility center to display use of modern methods and newer technology for producing better quality products.

Regulations on minimum standards and their strict enforcements with heavy penalties to the non-complying businesses may be introduced to reduce this issue. Also, PSIC can establish a common facility center to display use of modern methods and newer technology for producing better quality products.

Weaving/Home Textiles

The major issues in the small and cottage industry in this sector is lack of availability of skilled human resource, lack of knowhow on newer technologies and an absence of proper business plans. The small and cottage manufacturers are still working on old designs and techniques and lack any link with markets and market trends. There is a strong need to *support the sector to upgrade by linking them up with a design school such as PSDF. The sector also requires assistance in developing short business plans which would enhance sales and profitability. PSIC can support the sector in linking it up with larger urban markets where their products will fetch higher prices. A large number of marginalized and female producers work in the sector and hence any improvement can have strong social and gender impact in addition to economic gains.*

Conclusion

This section of the report consolidates the policy recommendations derived essentially from the stakeholder analysis conducted in the previous section of the report. The first set of recommendations are horizontal in nature - relevant for all the five sectors covered in the analysis. The second set of recommendations are sector specific and hence vertical.

Horizontal constraints – Policy recommendations

Energy

PSIC should advocate at provincial level to improve load management in the Punjab. The areas of Southern Punjab that get disproportionately higher amount of load shedding should get relief by balancing the frequency and duration of outages across the province.

PSIC should consider planning small industrial zones for small and cottage industries in a more organized manner and connect them to industrial status feeders to ensure consistent and reliable electricity management.

Credit

PSIC may initiate a program to expand the pool of entrepreneurs and to assist existing entrepreneurs to function more effectively, particularly in matters of finance. The programme should work with sector level associations or business groups and through respective Chambers of Commerce & Industry of the key rural clusters in the Punjab and help build capacity to report better and complete information required for financial applications.

PSIC may work with the banks and cluster value chains to facilitate the provision of credible information and adequate collateral protection for banks. One way this can be done is to identify major downstream players in the sector to whom the cottage industry usually supplies its product or produce. A program may then be developed where the banks provide credit to small players which would enable them to increase their sales to the larger players in the value chain. The banks' payments could be insured by the larger players in the value chain who could deduct the amount from the payments due to these small and cottage suppliers.

To address the issue of insufficient collateral offered by small and cottage industry, PSIC may advocate with the government and State Bank to allow using movable assets as collateral. In general, this will involve the setting up of a national register for recording ownership of major movable assets, such as vans, trucks, cars, motorcycles etc. The prospective lender is then able to check the ownership of such assets and to place some kind of lien that would prevent their sale without permission.

Governance

PSIC may consider setting up a facilitation center or a one window type setup in its regional office where small and cottage businesses can report legitimate issues that constrain their business and operations. PSIC can then take up the matter on behalf of the businesses with relevant provincial departments in order to address their specific or more general problems. It is recommended that PSIC should be the voice of these small and cottage businesses at the provincial level and make sure the interests of these are represented in relevant department and policy forums.

Taxation

PSIC's mandate to address this issue is fairly limited. However, it is recommended that PSIC should support the small and cottage industry in registering their businesses with appropriate tax authorities to save them the cost of tax lawyers.

Market Access

It is recommended that PSIC should set up information centers at its rural centers where the local businesses can come and gather useful information about markets, opportunities and business expansion plans. A small and cottage version of a facility such as SMEDA is required.

Skills Development

PSIC may advocate with PSDF to initiate special skills programs tailored specifically for small and cottage sector.

Vertical constraints/Sector Specific issues – Policy recommendations

Oil Milling

Technology up-gradation – import of requisite machines:

PSIC should develop the technical details of the equipment and technology required and assess if it can be imported from any other country than India. If not then PSIC should advocate for a special time bound dispensation under which the import of these machines is allowed from India.

Business diversification:

PSIC should develop a feasibility plan for oil millers which could help these small firms diversify into dairy and milk business. The feasibility should include information on skill set required, formulation of feed and also on animal management and sale of products at appropriate prices.

Leather Footwear

Facilitating exports:

PSIC should conduct a detailed study on the Arbi Chappal and its export potential. Based on the study it should make a case to TDAP to support these small and cottage manufacturers to acquire either a warehouse or some strong commercial agent. This would help manufacturers in Pakistan get most of the value of the sale.

Investment and technology upgradation:

PSIC can explore setting up a design facility in Public Private Partnership mode. They could leverage the private sector especially the anticipated Chinese investment in this sector. The advantage of attracting Chinese investment would be that they can help the industry increase its scale significantly.

Leather, Dairy & Meat

Regulation on slaughtering methods and animal management:

There is a need to enforce laws that makes it mandatory to slaughter animals in approved slaughter houses. There should be regulation and enforcements on animal management and quality of milk and meat. PSIC can play the role of an advocate to address these issues.

Agro Food

Regulation and enforcement of quality standards and Investment in common facility:

Regulations on minimum standards and their strict enforcements with heavy penalties to the non-complying businesses may be introduced to reduce this issue. Also, PSIC can establish a common facility center to display use of modern methods and newer technology for producing better quality products.

Weaving/Home Textiles

Design improvements and urban market access:

Support sector linkage with a design school such as PSDF. The sector also requires assistance in developing short business plans which would enhance sales and profitability. PSIC can support the sector in linking it up with larger urban markets where their products will fetch higher prices. A large number of marginalized and female producers work in the sector and hence any improvement can have strong social and gender impact in addition to economic gains.

Annex 1: Structured Survey Tool

Name of Business: _____

Contact & Name of Person Filling: -_____

Rate the constraints in order of their severity

Area	Most Severe	Severe	Somewhere in Middle	Not Severe	Least Severe
Business registration and licensing					
Provincial and federal tax policy and administration					
Access to credit					
Access, availability and cost of electricity					
Corruption and governance issues					
Land titles, registration and ownership clarity					
Labour laws and administration					
Access, quality and availability of skills/HR					
Getting construction permits and dealing with departments					
Quality and effectiveness of public-private dialogue					
Access to information for business					
Law and order and security situation					
Access quality and availability of infrastructure					
Quality of existing type and size of premises					
Transport accessibility and cost					
Access to clients					

*Industry:*_____

No. of Employees: _____

Detail of Respondents

Name	Industry	No. of Employees
Boota Brothers	Weaving	20
Arif Textile	Weaving	30
Tariq Textile	Weaving	12
Maryam Mills	Agro Food	30
Ibrahim Cotton Ginners	Agro	20
Aslam Silk Factory	Weaving	20
Zahoor Cold Storage	Agro Food	30
Ali Ahmad Engineering	Agro Engineering	6
Itefaq Rice Mills	Food	35
Mian Chanu Mills	Food	10
Liaqat Cotton Factory	Agro	30
Sahara Cotton	Agro	30
Rashid Oil Mills	Oil	35
Alamgir Factory	Agro	25
Murshad Cotton	Ginning	25
Murshad Flour Mills	Food	30
Muhammad Aslam Factory	Food	10
Al Karam Cotton	Ginning	20
Al-Asar Mills	Food	20
UPGRO Seed	Oil	15
Iqbal Mills	Oil	20

Annex 2: Focus Group Guide Questions

1. Of the key constraints identified – what do you think are the major issues within them? Give some examples of issues? What can be done?
2. Do you see investment and growth potential in your sector, if yes what areas and what 3 things will make that happen?
3. How do you manage your energy needs? What is the cost of energy to you? How do see resolving this or making it better over next 5 years? Would you consider more renewable / mixed energy sources?
4. Can you describe your workforce (e.g. age / gender/status)? Are there opportunities to upskill your workforce? Increase diversity?
5. Are there female CEOs in your sector, are they successful at par, at less than par or greater than par as compared to male CEOs? What are some of issues faced by female CEOs that are usually not impacting male CEOs?
6. How many government department regulators knock on your doors? How easy it is to deal with them? What is the cost and time lag? What 3 things can improve this?
7. Is land (type, size) / infrastructure (transport) available for you to do business and invest? What are 3 typical issues and what 3 things can resolve this?
8. How involved are you with the public sector in discussing policies, are there any formal mechanisms?
9. Do you think environment is conducive to attract foreign equity investors in key sectors; if not then what 3 things are required to do this?
10. How would you rate the government's policies and initiatives to improve investment/business environment? Rate on a scale of 1-5. What are 3 key things that can improve this?

Detail of Focus Group Participants

Name	Sector
Shah Sons Pakistan	Leather
Multan Spinning Mills	Spinning & Weaving
APOMA	Multi-business
SSB Rice	Food
Colony Textiles	Spinning & Weaving
Ch. Brothers	Seed Oil
Khawaja Tanneries	Leather
Yousaf Textile	Spinning & weaving
Tariq Khan	Fresh Food
Mughal Brothers	Electronics

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